# Automotive Qualification Results Summary of MSOP Package at UTAC Thailand (UT3)

	ALIFICATION RESULTS		
TEST	SPECIFICATION	SAMPLE SIZE	RESULTS
Solder Heat Resistance (SHR)*	JEDEC/IPC <i>J-STD-020</i>	30*11	Pass
Autoclave (AC)*	JEDEC JESD22-A102	16*77	Pass
Unbiased Highly Accelerated Stress Test (UHAST)	JEDEC JESD22-A118	16*77	Pass
Highly Accelerated Stress Test (HAST)	JEDEC JESD22-A110	27*77	Pass
Temperature Cycle (TC)*	JEDEC JESD22-A104	33*77	Pass
Wire Bond Shear	AEC <i>Q100-001</i>	2*5	Pass
Post Temperature Cycle Wire Bond Pull	MIL-STD883  Method 2011	5*5	Pass
High Temperature Storage Life (HTSL)	JEDEC JESD22-A103	17*45	Pass
High Temperature Operating Life (HTOL)	JEDEC JESD22-A108	10*77	Pass
Early Life Failure Rate (ELFR)	AEC <i>Q100-008</i>	9*800	Pass

<sup>\*</sup> These samples were subjected to preconditioning (per J-STD-020 Level 1) prior to the start of the stress test. Level 1 preconditioning consists of the following: 1. Bake – 24 hours at 125°C; 2. Soak – unbiased soak for 168 hours at 85°C, 85%RH; 3. Reflow – three passes through a reflow oven with a peak temperature of 260°C. TC samples were subjected to wire-pull test after 500 cycles with results within specification limits.

## **DeltaQualificationMatrix**

#### General

Short product and technology cycles as well as new environmental regulations frequently result in process and material changes of components, printed circuit boards, assembly techniques and circuit layout which have to be evaluated. The ZVEI "Guideline for Customer Notifications of Product and /or Process Changes (PCN) of Electronic Components specified for Automotive Applications" describes an appropriate methodology for dealing with changed electronic components. The qualification matrices in this guideline are recommendations for how to assess typical changes of electronic components. These recommendations promote an open risk-based discussion between supplier and customer regarding qualifications.

The DeltaQualificationMatrices were developed by the Industry Task Force Team "PCN DeltaQualificationMatrix" together with component experts from the ZVEI Working Group "PCN-Methodology". Actual content represents state-of-the-art technology and does not claim to be comprehensive. Deviation from proposed guideline should be mutually agreed as customer specific requirements have to be considered.

#### DeltaQualificationMatrix Application (completion by component manufacturer)

- a) This table has to be used for changes only. The matrices are not applicable for new product, special qualifications (for instance for encapsulation of module) or Information Notes.
- b) If a change is not listed in this table, the qualification plan has to be defined and agreed between customer and supplier.
- c) The matrix for Active Components requires the user to choose between integrated circuits (AEC-Q100 Rev. H) and discrete semiconductors (AEC-Q101 Rev. D1) (cell D4). For Passive Components AEC-Q200 is used. For LED'S the AEC-Q102 is used. For Multi-Chip-Modules the AEC-Q104 is used.
- d) All changes as listed in the PCN have to be marked by a cross (x) in column B and will appear colored. The relevant reliability tests are then shown in "Tests, which should be considered for the appropriate process change".
- e) In "Tests, which should be considered for the appropriate process change after selection of condition table" is for modification of the found relevant tests under consideration of the weight of change.
  - Related table "Conditions" has to be assessed per proposed letters with an (x).
- f) In "Suppliers performed tests" the component manufacturer documents the planned and performed tests.
- g) In case of deviations from tests, which should be considered this should be notified and commented by the component manufacturer in the area "Reason for exception of tests". Test results in form of generic data (G) are allowed when notified and justified.

#### Evaluation Levels are categorized as follows

- **"C: Component level":** The evaluation of a change at component has to be done by the component manufacturer at the component only. Generic data from other relevant evaluations can be used.
- **"B: Board level":** The intended change described in the PCN may influence handling/processability/manufacturability of the component at the customer. Therefore, additional evaluation by the customer may be necessary.
- **"A: Application level":** The intended change described in the PCN may influence the properties of the application (e.g. ECU). In addition to the evaluation under C or B the influence of the change in the application is evaluated by suitable investigations by the customer. It has to be considered whether the application / assembly requirements are already sufficiently safeguarded by other qualifications (application-specific risk assessment).
- \* \*: Not relevant for qualification matrix\*: Changes which fulfill neither A,B nor C definitions

#### **Infomation Notes**

Changes indicated as "I" shall not be marked in the DeQuMa. For those changes the Information Note sheet shall be used. As the DeQuMa is desired for PCN only, a marking of "I"-changes would automatically influence evaluation level and test effort.

#### **Important Notes**

- To use the matrices in the right form the ZVEI working group provides a Tutorial on its homepage (ZVEI-Tutorial)
- ID number: is a unique identification number for each indicated change defined in the ZVEI PCN DeltaQualificationMatrices. The same ID number is used in the PCN Form sheet to identify the change.
- Tests identified by the matrix have **to be considered** and checked if they are necessary to assess the specific change. Test modifications or generic data have to be justified in detail.
- "Further applicable conditions", comments and notes need attention, as they provide important hints and limitations.
- In order to use all functions in EXCEL, macros have to be allowed.

Form provided by ZVEI - Revision 5.0 - Dezember 2021

### **History of DeQuMa**

Version	Remarks
2.0	Revised by ZVEI PCN Methodology Workgroup in March 2015
2.1	Released March 2015
2.1.1	Active Components - delete write protection in comments
2.2	Solved problems with some ActiveX configurations
2.2.2	Solved Problems in Active Components
2.2.3	Solved Problems ActiveX, Active Components SEM-DE-02 (Design changes in routing) error fixed
2.2.4	Minor fixes
3.0	General Revision by ZVEI PCN Methodology Workgroup in June 2016
	Changes are indicated by underlining in the read only version named Changes_DeQuMa_rev3_vs_rev2.xlsx
3.0.4	Expert Release
3.0.5	Fixing of macro bugs
3.1	Final Release (orthographic and punctuation corrections)
4.0	General Revision by ZVEI PCN Methodology Workgroup in July 2019.
	Muliti Chip Modules newly added to DeQuMa
	LED Components now based on the AEC Q102
	Further Changes see separate PDF's Excel-File, where changes are indicated by underlining
4.1	LED worksheet: Content of columns had been swapped due to rearrangement and omission of columns.
5.0	General Revision by ZVEI PCN Methodology Workgroup in October 2021.
	Add MEMS pressure sensor

Worked on: (Name, Function)	Carl Iwashita																							
Signature:																								
Date:	11/04/2022																							
PCN number:	22_0050													evalua										
For integrated circuits or discrete semiconductors select below:	AEC-Q100 Revision H						inclu	udes integ	rated circu	MATER its (e.g. AS	IAL PERFO	RMANCE T troller, men	EST RESI nories, vo	JLTS (on t Itage regu	the basis of lators, sm	f AEC-Q10 art power	0 Revision devices, lo	H) gic device	es, analog	devices,	)		ional to -Q10x	
		Form provided by ZVES - Resident 5.8 - Dates	riber 2021	Evaluation level A / B / C		check)		is orbined HAST		ans and the	anto, and			3 Breas ld own	o frestability			alty	tion			(10001)	changed device Sembulion	
Mark changa with an "x"	Assessment of impact regarding following aspects - contractual agreements - sed-riscal interface of handing processability/imanufacturability of outcomer - form, 18, function, quality performance, reliability	Potential Experts experts	Examples to explain	level level the qualification matrix	Further applicable conditions	ed by data or auditionsite	O Revision H	Temperature Humidity Bio Autoclave or Unbinsed Hi	Temperature Cycling Pose i Temperature Cycli	High Temperatura Operat High Temperatura Operat Early Life Fallure Rate	NYM Enteriors, Data Re Operation at Life Wire Bond Shear	Wire Bond Pul Soldenskilly Physical Dimensions	Sofder Ball Shear Lead Hegyly	Elsi dromligra lion Timo Depen droj Di electri	Hot Cambritrijeckon No gative Bas Temperatu	Stress Maya ton Electronic Discharge Human Body Model	Charged Device Model Latch up Electrical Derbudon	Characterisation Electromagnotic Compati	Short Circuit Characterities Soft Error Rists	Hermetic Package Test. Package Drop	Lid Torque Die Shear	Internal Water Vapor Whitever test (IDC extrem-12-to, JEDEC)	Parameter-Antiyata: Comparison of career with characterization, electrical for Cu Wee Products: Careader ACC COM	Remarks
В	Type of change	No Yes		A: Application I B: Boardevel C: Component ": Not relevant		Une evaluation (can be evaluat	A EC-Q10	748 00	710	ITO.	IDR VBS	100	88 -	W 000	io em	W ew	WG D	SH/R SHC	20 BE	AECH NOP		w		
x SEM-PA-10	Move all or parts of production to a different assembly site.	P Assembly transfer or relocation. Includes transfer as well as additional also.	e.g. dual source / fab strategy	c	Aor B: Impact on other type of changes described under PROCESS ASSEMBLY and SEM-EQ-41.  Check if any other type of process change is applicable due to the transfer.				• м		•		т •				-   -   <b>-</b>			н -	. н	н •		Whisker lests have to be done on monitoring basis!  ADC-CH00: "For broad changes that involve multiple attributes (e.g., site, materials, processes), refer to section AT 3 of this appendix and section 2.3 of 0100, which allows for the selection of source-sale sets withouts bover at the possible permutations."
			•																					
ļ	Tests, which should be considered for the appropriate process change.			С		•	•	• •	• M	• • •	•		т •						1	. н -	- н	н •		
[	Tests, which should be considered for the appropriate process change after select	tion of condition table.				•	•		•															
ĺ	Suppliers performed tests (mark with an "X" for done or "G" for generic)							G G	G		G	G G G					0					G	G	
	Reason for exception of tests and/or usage of generic data:									1 1 1			2											3
ļ	1 - HTCL and ELFR are tests of the fab process and IC design. These tests are not dependent on assembly 2 - Lead triaggly is a test for this hole packages. The package type (IMCDP) is a surface mount device and 3 - None of these devices uses copper when, so this teen does not apply.	ly. d is not applicable.																						

Not required.
 Information Note required.
 P PCN required.

Audier of "Virtualists that performance of that alreads tend ahout the considered for the appropriate process change, and a successional softwards by ty-Teil 

A is successional control of the control

(Name, Function) Max Mustermann Signature:											Paulas australi											
PCN number:								м	ATERIAL PERI	ORMANCEE TES	IT RESULTS (on	the basis of AE	-Q102 Revision	A - April 6, 21	(20)							
		Newson A Co.																				
	Date and del D. C. Control C. C. Consider 2011	3-4		1 mg			ā											an death				
Assessment of impact regarding following aspects		190	Mary Mary	1	en Cycleg		O) and jo	the season of		i .			100	,					ACC COM		l li	Remarks
contractual agreements     scholar interface of that dilegiprocessability/manufacturability of curromer     form, fix, function, quality performance, reliability	Understanding or sensconductors expents. Examples to exprain	I Is	02 Rev	de la company	The part	C a span	and and and	Temporal Maryana	A 45	Prof Dr.	1	See Committee	9	rat Pers	4	age Saja	Maretina	Ownchi	Chanch C	10 m	from the	70 10 10 10 10 10 10 10 10 10 10 10 10 10
10 Tree of shares	Potential impact?	the state of the s	8 1	3 2	2 1	į.	5	2 3 B B	2		98	1 1	- 1	- 1	2	The state of the s	1 1	8	9 8	and the	1 25	
LUCHT SHITTING DOOR (LED)				4 1 3				a i a	-		_								<u> </u>			
	Simunded to be used if no other type of change i     periodicals but the change affects agreed technical     representation increases.	Contracting at a shale					-		-		-				-		4	<del>L</del>			44	-
DATA SHEET	P P day processibility on house times!  P inchical state face means component terminals.	Processibility should be assessed.					•		-	-   -   -	1 -	1 - 1 -			-		¥	H		<u> </u>	¥	•
CRICLED GB-on Change of data sheet parameters/Medical specification (min. Inax./typ. values) and/or Patas/CC specification	Change et application retexant information (e.g. e.g. change of die substrate material.  P P context of the con		E.	. es ·	es -	E, 85	Е		E		-		s	E	-			Ε	E -		- 1	•
CBICLED-08-00 Correction of data sheet or issue of entata	Ne Michigal Bhange of product, process or test. New disciplinar of enables were disciplinar of beninarial michigal and implementation of an implementation of the product o								-		-			-	-						1 - 1	-
		•													++		—	₩		_	++	
CRC-CRD-09-09 Specification of additional parameters	P P Them is a risk on supply chain where at least one additional other PCN-relevant change category will be a given by the properties of the properties	*	• •						-		-			-	-							Formation since this is not a product chan information. C
CRICLED GR 01 Design changes in epitasy.	Any device inference changes in design 1 liquium of  epiticalist liquids:  P Mail includeds: Changes within design substant dissign  epiticalism valuum affecting liquidities functions,  epiticalism valuum affecting liquidities for  extra functions and  extra functions are  extra functions and  extra functions are  extra functions are  extra functions are  extra functions.	C Question with ~ 0804ED0801					. [				Ι.	Ι.Ι.,	Π.		Τ.Τ		17	Τ.Τ			П	
	specification without affecting specified functions, secretarias and substitute of a functions, secretarias and substitute Any change in city depth / layout, Provide information it														H						H	
CBC-LED-GR-GD Design changes in rousing layout.	Terremente est electricité.     Any change in signification project. Provide informations     Any change in signification de description.  P Net scholable Change aim forties principle notes and comple     Any change in the change in the significant service	A sharge in layout of current spreader - OECLED-08-01 productor patient sharges)  A sharge in Agressor - OECLED-08-01 (Papt, dedictor patient sharges)		•	•	•	٠		•	- в в	D,M	- 1				. м	м •				1 - 1	TK might be considered for complex de box
CRCUED-09-09 Day girink	Not included, spring streethed busbe line	A Present check if change is process inchning (OEC-LED-PM-08) is also inchning.		•	•		•		•												٠.	
CRICLED-DR-OIL LED package (except leadhame)	P P any change in housing michaness e.g. change of dimensions e.g. change of directions of the package e.g. change in seafmane in administration e.g. change in seafmane in administration expension is	Dess FOECLEDGE 41 is affected which leaks to a change of the electropist parameters or distributions.			•		٠			• B B		- 1			-			-		5 5		•
CRC-LED-OR-OR Design of leadhame	P P P any study in Natural graduates	Check if OSC-LED-CS-01 is affected which hack is a change of the abouting parameters or distillutions.  & In case tooping of wardward is affected.		•	•		٠		-	• в в	D			•	т	2 -	•		. 5	5 5	4 .	•
PROCESS - WATER PRODUCTION  DECLED-PRIVED New change of water advance or carrier material	P P Newwarke substrate resental. 4-9, otherent water nuterial to currently released state of charge from Sapphire to Sistory	C Clerk if CBC-LED-CB-81 is attricted which leads to a change of the ethiclaries parameters or destinations.		р .		. р	- 1				<del>.</del>		Τ.	<del>-</del>	H	. р	р р	Р	р.		Ħ	
ORCASO-PW-CZ Water dameer	p      dange of water dameer resulting is equipment and      #.g. 4" ts 4"	State states a conseque or of deliberations.     Typically this type at change about other others when a change in equipment process.     Individuality - they need to be talentified in											<u> </u>		Н		+	P			111	
CECURD-PW-SI New Soul water trickness	P P Change in final value trickness e.g. change in final chipide trickness	C should be a character or control of the character or character		р .						- в в									_		H.	
DECEMPANE Change of electrically active disping/implantation element	P    Disage in transacter socrees	electrospis parameters or distributions.		c .	с .		•							-					_		1	
	P P change in layer sequence or disciness.  ### ### ### #######################	A clashomer application needs to be obschool due to potential system vallage offerences					•						-					1				
DECLED-FW-66 New change of metalization (specifically drip fromtide)	P P Change in necalization of bondpads, material, layer e.g. change in bond pad metalization thickness.	A in case of change to Atumorium metalization					•		•		-	- 1		-	-	- м		мв			T .	
DECLED-PW-EF New / change of metallization (specifically drip-backside)	P P suddensication; Change in process, naterial, or e.g. change from Au to Auriba dimensions receivery.	e	• M	•			•	-	٠		•	- D,		D,M	-	- D,M	D,M D,M	I D,M	D,M -			•
DECLED-FW-ds Change in process technique (e.g. significant process changes like lithography, etch, paide deposition, die hank surface preparation/backgrind,)	Change from wet is dry extring, Change from horizontal      P which even for audition, change from contact this      atts assign from these cating (saving) to place      atts assign from.	Stange from CIO dep to spuller dep for backvise formade mediculation.     States of new epigement photos of sect. If ORCAED PAPER is also allowed.									-				-			1.			1 - 1	Qualification within depends on type of change
ORCARD-FW-98 Process bragility: Tuning within specification		c					-		-		-		-	-	-						-	
DEC-LED-FW-10 Change of restorial supplier with no impaction agreed specifications  DEC-LED-FW-11 Change of specified-water process sequence (seletion and/or additional process step)	p through of whate supplier. Change of expites for p 4, e.g. change of water supplier.  P 4, e.g. change which is not covered by another type of the change, files in to be maximum.  By dange which is not covered by another type of the change, files in to be maximum.  By dadicinal cleaning process in water production.	C Change of soller supplier phase shock if OEC-4ED-PW-01 is affected.					-		-		-						4	₩		<del>-   -</del>	##	Qualification effort depends on type of change     Qualification effort depends on type of change     Third has to be undeed.
DECLED-FW-12 Change in the casting or possitions.	P Dougle for interest or process years and process for a popular for popular popular for popular	e	· · ·		р.		•		-	. p p	-		-	-	1-1	. р	P P. @	• P	р .		<b>t</b> -t	
CBC-LED-to-13 Newwater production location or transfer of water production to a different not previously released location/liberal-contractor	p Newwater production isolation or transfer of water production with possible additional changes.	A or B Impact on other type of changes described under PROCESS - WAYER PRODUCTION and EQUIPMENT observations of this PROCESS.					•								-						- 7	
BARE DE DELIVERES (Water process sharpes and covered in this section shall be har DECLED-BOOK Takes change of front side metallization.	P P Change in conducts, "State Productor"    P P Change in conducts, reservici ped plots, surface e.g. change flore. Au to Au alby e.g. change in over oad nanoloosion		w								1 .	T-1 -	1 .	<u> </u>	1.1			M, B	м, в -		Ħ	. Rescurable package type for relativity test supplier and outstance:
CRC-LED-RD-02 New/ change of backside metallipsion	P P backmancarrier). Change in process, nameral, or e.g. change from Au to Au alby transcrious.	A. Is case of object-stand inchnology     Chesh PCBC-EPCB-01 is allowed     should be a binary of the	M				•		•						-		. e.				1.	Cushaner application needs to be shecked outlings differences.  Seasonable package type for relativity tests supplier and cushaner.
CRCLED-80-03 Change of water setup or number of dies on water.	Needed information for pick & place machine.  I P E-vity additional number of chips e.g. information change for pick & place machine.	As in case of stop-on-board inchnology					-		-		-		-	-	-			1				- Manuschile package type for reliability tests suppler and customer
ORD-LED-RID-04 New final water trickness	P Change in facility between stock and service under  P P Care and activity between stock and service under  P P Care and usually contained with a national change  bit and usually contained with a	B Aboles A Strong of the contract of the contr	P	р .			•		•	• в в					-		- @P	Р	р .		1.	Resourcible package type for relability tests suppler and outstance:
CRCLED-8006 Chance in de coating or passivation	P Change in naterial, thickness, and process for coating e.g. change from SICC to SINC	Death FOEC-LED-CE-41 is also affected.     It case of object-based inchestings.	e P		Р .		•			. р р	-	- 1		-	-	. Р	P @P	P	Р .			Measurable package type for relativity tests suppler and outsides.
PROCESS - ASSESSELY  CECUSD PACE Change of least amelicating unit base manerial	P P Newlead/same/submount material (new in composition) e.g. change from copper aloy to bare copper	Oreck / OSC-LED-OS-01 is affected     which heads to a change of the     electrospic parameters or distributions.					Р					3 /	Τ.	P,1		P A @+	A 60 ·					@ is required for commuter lends FCSSPMS. updated accordingly at read revalues. Existencials should be provided in some PCSS
	P Continue to the continue to the continue of the continu	Security parameters or distributions.					P							_			A @• 8P			#	++	Explanation should be provided in case HCS:  Regarding applicable molecules please self- (By in required for commune treats HCS:MAC, splained accordingly at tend reduces.  Explanation should be provided in case HCS:
CRICLED PA-60 Chance of lead and heat this obtains materials before independing	Personal count and by presented an element is make ago change from Ago sport for Ago sport Change in related and process technique for final pri termination (e.g., par ss) (relate) participation processability and related by on-board techniques processability and related by on-board techniques autified by generic class. Calestations depends on on agricultural process and complete and agricultural pricessability agricultural processability and related techniques agricultural processability agricultura		. м				Р						-	_		K A@•					H	(2 is required for conscious leads 1023/FMS.
CRICKED-PA-GD Change of lead and heat slug plating manufalplating thickness (secental)  CRICKED-PA-GD Stury bitsected / Metalt System (internal)	Change in material and process to-droupe as from pre- permission (e.g. par sin). Internit placings,  P P processability and stillability on-board bevices the eight of by permit data. Challentation deplends on a place of process data. Challentation deplends on all process data challentation  P P Board and or data standardate  e.g. change to Physics estatefall  e.g. change to Physics estatefall	A .										- v		P,1			w •			خالك		Epideration should be provided in since YCS. Regarding applicable materials please effer i
ORDERDYNOR De attach vaterial	P D'Ange of die attach manerial (e.g. soft-soider, epicey.  e.g. change of Ag glue to Au-glue;	B A is case till is shanging						- 1				- 1					0 .		- N	N N		-
CRC-LED-PA-OR Change of wire bonding	P			P,D -												. P,D	P,D -		- D, 8P	D, 8P D, 8F		Bite audit for material change with impact or Au to Culy recommended.
CEICLED PAOF Change in national for auth-components (subuding LED do). A LED package related being with impact or agreed specifications.	P P Inchrospyrimenias englishment englishment englishment #50-diade in technology and insterial than previously	A Check if OEC-LED-CO-41 is also absoluted.					-		-													Qualification effort depends on type of change
OEC-LED-PA-08 Die Overcool / Underfüll	Supporting layers for complex packages like this role.  P - No change is product likelight; P change are influence the religibly of final product. Change of most complex, anospasiation, or easing	B about FORC-LED-CO OF its about	. • P P	e• ·							U			U	-	. р	Р .	-	. р	р р		-
CRICLED-PA-09 Change of sold compoundencepsulation/leading received	Change of most compound, encapsulation, or exating restricted right the affected optical function in case of particular and the state of the state of particular and part	A Clark FORCURDOR OF it also allected.							Р	о		3 1		Р	т	. р	Р.		- D, 8P	D, 8P D, 8F	P 4	-
CRICLED PA-13 Change of conversion reperial	P P Change of material class. e.g. change from cranges to mindes	© Check FOSC-LED-08-01 is affected for optically-formering pages days.				. Y			P			- 1	٠.	Y	1-1	. p	Р .	1.1		YY		
CRCLIDPA-11 Change of dread supplies for convenier material CRCLIDPA-13 Change of convenier pocess technology	P New applier with some material specification tens individually the converse production.      P to distribution and any administration of product      Exit case of leaster on employ individual conversion, a g. change Size standard proving      Manage or administration of product      Exit case of leaster on employ individual      Exit case of leaster on employers of leaster      Exit case of leaster on employers of leaster on employers      Exit case of leaster on employers of leaster on employers      Exit case of	e		•	•	. P	٠		P Z							. р	p p	-	. Р	p p		
CRCADPA-12 Change of conventor poccess technology  CRCARDPA-13 Change of conduct marking	P Is no influence on and performance of product     P in case of instant on modest insensity     Bracing on service.     Bracing on service.     I design in oppositions readability out affected     P change if content or change of oppositions of data.     A content of content or change of oppositions of data.	C characteristics results in change of data sheel OECLEDOS-01			•	· Y	•		Z				т.	_	-	- Z	z z	##	. Y	YY		
													1		H		نب			خلا		
CBC4EDPA-14 Change in process technique (e.g., die attach, molding, pating, stim and form,)	P P Any change in assembly process technique e.g. change die attached from gluing to soldering:	A to B. Finance check I SQUFMENT and other type of changes of related (CDC_LEDF#-0-0000000000000) are abused. The process change is consent to expected change IV only this is					-		-						-		1					Qualification what depends on type of shange
CRCLED-PA-15 Process bregisty: Tuning within specification	P Variation within process specification     e.g. process control     Process of confirms a 4 for lead frames wise secondary     Process of confirms a 5 for lead frames wise.	e					-						-		Н							-
CRCLED PA-16 Change of direct material supplier with no impact on specification	P Visitation states placease quantitations:     p Discovery designates quantitations designates and the state of the	<ul> <li>Assumption that shange material specification renains weathinged.</li> <li>Otherwise see shange of material.</li> </ul>		-					-				-		$\vdash$		4	1	-		4	Bee shange of makenal.
CBCLED-PA-17 Change of specified-assembly process sequence (additional ancior deletion of praces angle	process sequence with promotably significant impact on the product performance to in influence on product integrity Bulleance on product integrity seasoned	C Single case assessment necessary to sandly possible intensitions or dox.	• •		-				-						-		7					Qualification ethal depends on Type of ultrary
CECLED PA-18 New assambly location or transfer of assembly to a different not previously released location/site/subcontractor	P P Assembly transfer or relocation.  e.g. dual source / tab strategy includes transfer as well as additional site.	C A or B Impact on other type of changes absorbed under PROCESS ASSEMBLY and EQUIPMENT OR CLED-ED-81	• • •		-   -		-		-													Qualification within depends on type of change
PACKINGS-REPPAS  CRC-LED-PS-01 Outer Packing/shipping specification change	P dimension changes indirect product packing     I set of danges in direction or oppositation     P, could danges in direction or oppositation     P, couldn't of sets in the planting are dishaping						. 1										Ħ.	T.T			T	
CRCLED-PS-CD Day pack requirement change	P. Fundate of remain the publishing are changing    P. Postubation of day pack requirements   \$9,500. 2 × MIR. 1   P. P. Tuglanning of day pack requirements   \$99 MIR. 1 × MIR. 1   P. Tuglanning of day pack requirements   \$99 MIR. 1 × MIR. 2	Desk FOEC-LEDGE III is also allocated.															+					-
	P	4							-		_									-	+	

шо	OSCULDFISOS	Change of labelling		Change of labeling also on reel.  P additional information no change of previous entirested.  Pr change in content of previous information.	(0 + g additional billionnation (NaPCI stamp) (P) + g, shange of customer specific billionalism		Check F OSC-LED-OS-01 is also affected.			-			-	-		-		-			-	-	-   -		-	-				-	
LIID .	OECUEDEGO!	Production from a new equipment/tool which uses a different basic technology	,	P Change in process technique which is not already covered above.  Note: Major changes affecting the product not covered	e.g change from single water to batch process e.g. over pail metidication. e.g. dismits culting limits and its later cultimati		Check if LED-08-01 is also allevied. Corroson stability should be assessed.				-	-						-				I . I			Τ.Ι	-		1.1		- Qualitative what day	pends on type of change.
LIED	geouper-m	Production from a new equipment/bod which uses the same basic technology (replacement equipment or extension of easting equipment pool) without change of	H	by the table require also a PCN.  PCN required for dedicated equipment for sensitive component production.  P = 1 change does not influence the ingenity of the first	e.g. change from single site to multi-site hander. (+) e.g. extension of existing equipment pool, already	c																				#				- Combine To	
шо		рессия.	H		(P) m.g. extension of dedicated equipment in case baco: technology still need to be prosen.				_	1		-	-	-		-			-						H	4	-	+-		0.000	ent in the in south
LIED LIED	ORCUID-EG-03	Change in final test equipment type that uses a different technology TREE FLOW		Py 1 impact on product intergity is anticipated. Change of teams patients (s.g., major set program changes, new teams interface,). It product specification is not affected. Pt product specification is affected.	e.g. change is test method from oil to tunes	c	B. In case of have the delivery	• •		1 -	-	-	-	- 1		-			•				т -		-		•	1:1	-   -	Coope RER/ delacase	elator.
LIID	0804897941	Move of all or part of electrical wider two and/or final text to a different location/sharku/contractor O-BATE				c	E in case of bare de delivery		•	-	В	- [	•	В		В	- в	В	В		•		т .	-   -		$\cdot$	•	-	-   -	Diage RER / dela cor E should be consider	etator, additional specification check ed for titudes testing
	ORCUID GOOT	Change of the test coverage testing process flow used by the supplier to ensure-data sheet complaints (e.g. elements/raddition of electrical measurementhes flow block;	-	e.g. test fluwblock, reduction from three temperature these seminates to two temperature measurements, change in turn in / run in process.  (*-) If change does not influence the integrity of the fru product.	(-) e.g. led implemented without customer implement (F) e.g. reduction from three temperature measurements	c							_																		
LAGER DIDDE		Intraction with ancested of monitoring procedure of samplings  LABBE GRODE (LD)	Ш	product. (P): If impact on product integrity is articipated.	e.g. change in burn in / nun in process.											_										Ш		Ш	Ш		
LAGER DIODE	OEC LAG-AN-01	Any change with impact on agreed upon technical contractual agreements.	P	intended to be used if no other type of change if P applicable but the change affects agreed technical contractual acreements.		-				-	-	-	- 1	- 1		1 -		T - T	-		-	T - T			T-1	7	T.	T-T		-	
LAGER DIODE		Any change with impact on sechnical interface or processability/manufacturability of pusturiner, which is not obvered in the matrix below.	p	p See processability on board level exhaust interface means component terminals.		٠	Check if <b>GEC-LAS-DS-01</b> is affected Processability should be assessed.			-	-	-	т	-		-		-	-		S,T	-			-	-		-		-	
LAGER DIODE	060 LAS-09-01	DATA EMBET  Change of datathest parameters/electrical specification (nin Anauthy), values) and/or Pulse OC specification.	P	P Change of application relevant infurnation (e.g. maximum-pulse current) due to a technical product or	e.g. change of the substrate material. e.g. shange of resonator cardy length.				£.6	ıs ·	es	- 1	E, @S	E	. Е	E		İΤ	- 1		s	E			Ť.	E	е -	1.1		E	
LAGER DIODE		Correction of data wheet or issue of entata		P maximum putte currently due to a technical product or process craneas.  No technical change of product, process or test. New description of behavior which was not specified before which is definent from instangenication.  I Please indicate clearly, that indicate contains this type or crossed.	e.g. Elista Di e.g. change al'hyp. values due to new information about component behavior								_																		
			Ĥ	Assessment in application required	improved statistics.																			4		4	_				
LAGER DIODE		Specification of additional parameters		Entirotion of an additional parameter which was not specified before     P. Ethers is a risk on supply chain where at least one additional other PCSN-relevant change category-will addit.	E e.g.: adding new teded parameter E e.g.: additional temperature coefficient parameter			•		-	-	-	-	-		-		-	-		-				-	-		-		Formation since this information Classification: C	is not a product change, only additional
LAGER DIODE		Design changes in spitaly.	Ī.Ī	Any device relevant changes in design,1 layout of epitaxis layers.  P Not included: Changes within design rules and design specification without affecting specified functions.	#.g shange af barrier thickness.  e.g shange of waveguide layers.	c	Activ case of LIDAR application is affected				Ι. Ι	T				Τ.				. н						T	. [	ΤĪ			
			H							+		-				+								H		4	H	+			
LAGER DIODE	060 LAS-06-02	Design changes in routing/layout.	*	Any change in chip design / Tayout. Provide information design/layout change is optical or electrical. P Not included: Change is optical or electrical. P provided the change within design sales and design specification visitous affecting specified functions, parameters and reliability.	Eng. change in layout of current spreader; thickness of current spreader eng. reduction of bond paid size e.g. coll sals of found paid town laver face! e.g. change of feut spreader dimension and positioning of layor die.	c	ALTH case of LEDAR application is affected	•			•	-	•	٠		•	- в	в	D,M	. м	•			м м	•			-		Tik night be conside	and for complex die bond technologies
LAGER DIODE	06C-LAS-06-03	Die divinis.	,	P Strick of active area. Not included: straing street/set/scribe ine	Typud shirk of da.		Please check if change in process technology (CEC-LAS-PW-CE) is also affected.			-	٠	-	•	•		•	- в	В	•		•	•			-	٠	•	-		•	
LAGER DIODE	OECLAS-DE-DI	Laser package (except leadhane)		P any change in housing thickness. any change in form or dimensions	e.g. change of dimensions e.g. change of x, y, or z dimension of the package		Check if <b>GEC-LAS-DS-01</b> is affected shich leads to a change of the electrooptic parameters or distributions.										• в	в	D	. ь		L	т .	D D			. 5	5	5 4		
			H				At its case of LIDAR application is affected.					4														4	+	Н			
LAGER DIODE	OEC LAS DE OS	Design of leadflame		P any change of leadhame / submount dimensions any change of outer dimensions	e.g. change in leadhame / carrier dimensions in x.y. or 2 direction. e.g. change in wineband boping e.g. change inner design of the leadleane not affecting the eto performance & reliability of the direction.		Check if OSC-LAS-03-91 is affected which leads to a change of the electrospic parameters or distributions.			-		-			. @ 5		• в	в	D				т 2		•		. 5	5	5 4		
LAGER DIODE		PROCESS - WANTER PRODUCTION	H		Cenica		A in case looping of wirebond is affected.		_	<u> </u>	Щ	_		_	-	<u> </u>	<u> </u>	<u> </u>	_			$\perp \perp$	$\perp$	$\downarrow$	Щ	4	$\downarrow$	<u> </u>	$\perp$	_	
LAGER DIODE	DECLAS-PIN-01	New/ change of water substrate or carrier material		P Newworld substitute material.	e.g. different water material to currently minimal material (change from Sapphine to Silicon) e.g. different unlentation of epitacial substitute		Check if <b>GEC-LAS-DS-01</b> is affected which leads to a change of the electrooptic parameters or classifications.		. Р				Р							. р				p p	Р	Р	р.				
			Н				A: In case of LIDAR application is affected.  Typically this type of change affects									-										4					
LAGER DIODE	GEO LAS-PIN-02	Whiter diameter	++	p change of water diameter resulting in equipment and process changes	ngcur	c	officials.  Typically this type of change affects other changes i.e equipment/process technology - they need to be identified in addition.	• •	٠ .		-	-	-	٠		•		-			•	•	-		-	Р	р .	-		•	
LAGER DIODE		New final water thickness	*		e.g. change in lead chigh the thickness.		Check if OSC-LAS-09-01 is attended which leads to a change of the electrooptic parameters of distributions.	•	. Р		٠	-	٠	•	- 85		- в	в		-	-	•			٠	Р	р .	-		•	
LAGER DIODE				P Change in electrically active doping / implantation electronization in a new technology.	e.g. change from the to C as dopant	c		•			С	-	-	•		•		-	-		-	•			-		•	-		•	
LAGER DIODE	OECLAS-PINOS	Change of stacking	*	P change in layer sequence or thickness	e.g. change of solution layer thickness between in and presidental		For LDAR: Typical change of electrical or optical parameters within specification needs to be evaluated on application level.	•		-	•	-	*	•	- 86			-	-		-	-			-	•	•	-		٠	
LAGER DIODE	GECLAS-PINOS	New change of mentication (specifically drip framoids) New change of mentication (specifically drip-backside)	,	Drange in metallization of bondpack, resterial, layer excellent     Change of bottom layer of die (besseen die and exaftrame/carrier). Change in process, material, or	e.g. shange in band pad metallization thickness. e.g. shange box Au to Au/De	c		•	м .		÷		:	÷				•		- M		D,M		M M	D,M	м,в	м,в -			•	
							BE shange from CVD day to spuller day.		•			-	•	•		+ •				- D,M		D)M		D,M D,M	и Бум	D,M	Бум -	-			
LASER DIODE	GEC LAS-PIN-OR	Change in process technique (e.g. significant process changes like lithography, etch, calde deposition, die back surface preparation/backgrind,		Change from set to dry exching, change from horizontal to sertical oven for caldation, change from contact little into adequate files,	e.g. change from later sulling (sharing) to plasma culting (sharing) e.g. change from contact liths to simpler little	c	St. change from CVD day to spuller day for basis order transcolor metallization. In case of new equipment please shock if CEC-LAS-PA-1T is also allected.	•			-	-	-			-		-	-		-				-			-		- Qualification effort of	epends on type of change.
LAGER DIODE	GEOLAS-Pre-de	Process braginy: Tuning within specification  Change of resterial supplier with no impact on agreed specifications	-	P Variation within process specification     Change of water supplier. Change of supplier for characters needed for water production.	e.g process control  P. e.g. shange of within cupyline.	c		•		-	-	-	-	-		-		-	-		-	-			-			-			depends on type of change.
LAGER DIODE		Change of specified water process sequence (deletion and/or additional process step)	-	P chemicals needed for water production.  P Any change which is not covered by another type of change. Risk is to be assessed.	e.g. additional channes process in water production		Change of water supplier please check if QEC-LAS-PW-91 is affected.				-	-	-						-						Ė	à					depends on type of change.
LAGER DIODE		New change of facer possivation	-	P Change of nameral, thickness, process and stacking for ARNR minor coating	e.g. reduction of EX reflectively by reducing no of stands e.g. change from SCE to SNE	c	Check if QEC-LAS-QS-Q1 is affected which lead to a charge of the electrospic parameters or distributions.		. v	-		-						-		- ν		-		P,V P,V				-		-	
LASER DIODE	GEO LAS-PIR-13	Change in die stading or possivation	,	p Change in material, thickness, and process for coating and passivation.	m.g. change Nov. 2023 to 2003	c					Р		•	•		-	. р	Р	-	. р	-	-		p p	. 0 -	Р	р.	-			
LASER DIODE		New water production location or transfer of water production to a different not previously released location/liberus/contractor	*	P Newwater propduction location or transfer of water production with possible additional changes.			Air & Impact on other type of changes described under PPOCEES - VANTEX PRODUCTION and EQUIPMENT categories of this DeQuiMa															3			-					•	
LAGER DIODE	OEC LAS-RO-01	BANE DE COLTURNES (Mother process shanges not covered in this section shall be have here! change of front side necalization.	p P	p Change in bordpook, retental, pad pitch, surface dranges, layer trickness.	e g shange from Jurio Au Alby		At it case of chip-on-board technology		w .							Ť.							.   .		1.1	M, B	м, в -			. Responsible packag	ge type for reliability testing to be aligned nd customer
LAGER DIODE		New change of backside metallization		Change of bottom layer of die (between die and P sudhamelcarrier). Change in process, material, or direncors.	e.g. shange in over pad metalization.  e.g. shange from factor du alloy		Check if OEC-LAS-03-01 is affected which leads to a change of the electrocopic parameters or claributions.  As it case of chip-on-board																			D. M	D. M -			Customer accelerate	or country to be observed than to constrain
			Ĺ				Inchrotogy					4			Ľ	L												Ш			mences pe type for reliability testing to be aligned and customer
LAGER DIODE		Change of water setup or number of clies on water.	1	P E-only additional number of chips P change in spacing between chips and furn-of water Change in final Chip height (including carrier); very	e.g. information change for pick & place machine.		At it case of chip-on-board technology Check if OSC-LAS-09-01 is also		p p	-		-		p.	-		 P B			-						4					ge type for reliability testing to be aligned no customer
LASER DIODE		New final water trickness		Changes in final Chip height (including carrier); very sare and usually contined with a nametal change (change of carrier nameral)			Check if OSC-LAS-OS-91 is also affected. All class of chip-on-board technology  Check if OSC-LAS-OS-91 is also		_	+	Р		-		•	_	Р В	В	Р			Р			Р	Р	р .	1			ge type for reliability testing to be aligned of customer
LAGER DICCOE		Change in die casting or passivation  PROCESS - ASSENSE, Y	*	p Change in naterial, thickness, and process for coating and passivation.	e.g. sharge from SCE to SNS	•	Check if OEC-LAS-09-21 is also affected. At it case of chip-on-board softwology		P .		P		٠	٠	•	1	. Р	P	•	. Р	•			P P	Р	P	Р .				ge type for reliability testing to be aligned and customer
LAGER DIODE		PROCESS - ABSENSEY  Change of leadfarre-leabneurit base naturial	,		e.g. change from copper alloy to bare copper e.u. change from SiC to AP		Check if QEC-LAS-QS-91 is affected which leads to a change of the electrosptic parameters or							Р						3 A		P,1	• P	A A			-   -			Explanation should applicable Reportion and	be provided in case HZS test is not in materials please refer to the Whister
LAGER DIODE				Change of surface resonals of de attach pad and second tond area (e.g. influence in adhesion to recit compound, wedge tond relativity)			distributions.							Р						. А		P,1			ap						considered for auromotive extensor
			Ĥ	compound, wedge bond reliability:  Change in material and process technique for final pin termination in a rough Will Mexico reacher.					-				-			H.		H		+				^	-	4	H	H		applicable Explanation should	te provided in case HZS test is not
LAGER DIODE	OEC-LAS-PA-es		*	Change in material and process technique for final pin termination (e.g. pour tot). Herein package, processability and reliability on board level can be verified by generic data. Classification depends on impact of change.	e.g. change in heat skip stack e.g. change from Sn into NSPAIRs e.g. change of loper trickness	•					-		٠	Р	-		1 .	-		- А	•	P,1	• к	A A	-			-		standard.	de muzerials please refer to the Whisker
LAGER DICCE	OEC-LAS-PA-OS			P Stack de or de to substrate  P Change of de stands natural (e.g. soft solder, epoly, etc.). Thereig consequent must be secretarily	e.g. Augise to Audin soldering	A B	Acti case Rth is changing						:						•	- W				w w					 N -		
LASER DIODE		Change of wire bonding		p. Midmid, diameter, change in bonding diagram and /or change in processorabiling in a new technology.	e.g. change from Au to Cu material e.g. change from Suguin to 23jun disaneter e.g. change from single to double bond e.g. change from sich bond to slich on ball bond.				• Р,	_														P,D P,D				P D, 8P D		Site audit for numeri from Au to Cu) nece	at change with impact on bondprocess (x.g.
LAGER DIDDE	OEC LAS-PR-07	Change in nativital for sub-components (sucluding Laser drip & Laser package related sent) whost on agreed specifications			e.g. change from sich hand to sich on ball bond.  e.g. change from sich hand to sich on ball bond.  e.g. using a different ESD- or photodode in technology and mannel than previously	A	Check if OEC-LAS-09-91 is also affected.			-				-												#				- Qualification what o	depends on type of change.
LAGER DIDDE		Service with impact on agreed operations.  Die Overcook / Underfüll	-	Note: June start test at Olifsk might be necessary Supporting tayers for complex packages like tip-chip.  — No change in product integrity P. change can influence the integrity of first Annexes.	Priesp Change of underfill with change of thermal resistance		Check if <b>OEC-LAS-09-01</b> is also affected.		P Pig			-						-	U			U		р р		-	. р	Р	р .	-	
LAGER DIODE	OEC-LAS-PA-OR	Change of mold compound encapsulation leading national	,	P Change of the component supplex using different behaviorally entered to the control of the con	e.g. PPA rold compound		Check if <b>OEC-LAS-09-01</b> is also affected.									Р	р.			3 P		р	т.	p p			- D, 6	P D, GP D	8P 4		
LAGER DIODE		Change of conversion material		assembly and board coating has to be assessed, MSL eight be changed.  P Change of resterial class.	e.g. change have gravats to estables.		Check if <b>GEC-LAS-QS-91</b> is alleged for optically becomes to parameters						Y							. р		Y		p 0		7		v	Υ .		
LAGER DIODE				P Newsuppler with same material specification		A														. Р	-	P		P P	P		. p	P	р .	•	

LAGER DIDDE	060 LAS-PN-12	Change of converser process technology	П.Т.	new technology for converter production t no influence on etc performance of product	e.g. change tion valume convention to layer convention; e.g. change tion stamping to pricting d'ayer e.g. change conventre all'activitations		Check if any change in stechn- optical characteristics results in change of data sheet OSO-LNS-DS-							Or.							v						П.	
	060 LAS-PR-13		- '	E no inhueron on era perturbance of product Pt in case of impact on product integrity Change in assentity process for internal components		c	change of data sheet OSO-LIG-OS- 01 Check if any change in stectio- optics characteristics results in change of data sheet OSO-LIG-OS-		Ť			+	+ ·		-			-	-	•				H	+		H	
LASER DIDDE		Change of assembly of additional internal components (e.g. tenses)	- P	P. in case of impact on product integrity  Chance of supplier using different technology/materials	e.g. change from soldering to gluing process.			• •	•	-	-   -		-		-		-		•	•				-				Qualification effort depends on type of change.
LAGER DIODE	OECLAS-PR-14	Change of material and / or supplier of additional internal components	- P	P: in case of ingact on product integrity	e.g. change of lens material, optic properties e.g. change of submount material	c	Check if any change in electro- optical characteristics results in change of data sheet OSO-LIG-DS- 01		•	-			-		-			-	-									Qualification effort depends on type of change.
LAGER DIDDE	OEC LAS-PR-15	Generation of hermedicity		new technology for hermedicity	e.g. change of welding process for metal cans. e.g. change of gluing of transmissive window	c	Check if any change is reachts option change of data sheet OEC-LIG-DS- 01  It is case processability is affected to a state or optional option.				4	- 4	4							4		- 4	4 -	-	4	4 4	4 -	
LAGER DIDDE	GEO LAG-PR-16	Change of product marking	1 1	Mbriting on device. E-change in appearance; readability not affected. P-change of content or change of appearance of data reatile code.	e.g. making of cathodis					-		. 0	-		-				-	т	. т							
LASER DIODE	0EO LAS-PR-17	Change in process technique (e.g., die attach, moleting, paring, tim and firm,)		Any change in assembly process technique	e.g. change de attached fore glong to acclering		Air R: Phone check if EQUIPMENT and other type of shanges of maintain (OSC-LAS-PA-OATSEN/BENDEN) are abouted if the present-shange is converted in a repensive change is converted in a repensive change is converted in a			-										-								Qualification effort depends on type of change.
LAGER DIDDE		Process Integrity: Tuning within specification		Variation within process specification	Hig process control	c																						
LASER DIDDE	OEC-LAS-PA-19	Change of direct material supplier with no impact on specification		Change of suppliers e.g. for lead frames, wire material, die attach, electronical components		c	Assumption that change material specification remains unchanged. Otherwise see change of material.			-			-		-			-	-						-			See change of manerial.
LASER DIDDE	OEC LAS-PA-23	Change of specifie-bassentity process sequence (additional and/or deletion of process sequence)		Addion or debtion of a process telp in assentily process sequence with potentially significant impact on the product performance. I so influence on product integrity. P. influence on product integrity expected.	e.g. additional or deletion places cleaning process.	c	Single case assessment necessary to identify possible interactions or risk.			-	-   -		-		-			-										Qualification effort depends on type of change.
LAGER DIDDE	060 LAS-PR-21	New assembly location or transfer of assembly to a different not previously released location-time-subconstructor.		Assembly transfer or relocation.  Holders transfer as well as additional site.	e.g dad source / file statings	c	A.cr & Impact on other type of changes described under PROCESS ASSEMBLY and EQUIPMENT OEC- LAS-5Q-40 A. In case LEAR application is			-								-		-								Qualification effort depends on type of change.
LAGER DIODE		NO.NO.E4FWS	H	dimension changes indirect product packing		-	afecad				$\pm$	+	+			+		+	<u> </u>						+		$\pm$	<u>+</u>
LAGER DIDDE		Ourse Packing/Inlipping specification change  Dry gack requirement change	1 P	disension changes indirect product packing E small changes in dimension or appearance & number of rasks in the number or of section El. briassion of dis seal resourcers.	*9 paratos (B_ML1 + ML1 (PJ.ML1 + ML1	-	Check if OSC-LAS-09-01 is also		•	-			+ -		-			+	-						-			
LASER DIDDE		Dry pack requirement change  Einer Packing/shipping specification change	P P	(E): To function of dry pack requirements.  (P): Tightening of dry pack requirements.  dimension change of direct product packing	(P) Mil. 1 → Mil. 2 e.g. 2007 pooled in tage changes e.g. change of take/brig/lopasi	÷												+			. T			P 1	+		+ + + +	
LAGER DIDDE		Change of labeling	1 9		e.g. shange of luke/lesy/lepast  (E.e.g. additional information 904/C stamp)  (F)e.g. shange of outbanner specific information		Check if <b>GEO-LAS-09-01</b> is also affected.			-																		
LAGER DIDDE		BOUPMENT										+						+						H	+	H		1
LAGER DIDDE	060-LAS-6Q-01	Production from a new equipmentstock which was a different basic technology	PP	Change in process technique which is not already covered above.  Note: this or changes affecting the product not covered by the stoke require also a PCN.  Of the stoke require also a PCN.		٠	Check if OSC-LAS-03-91 is also affected. Consoline stability should be assessed. At it case LIDAR application is affected.			-	-		-		-			-		-				-	-			Qualification effort depends on type of change.
LAGER DICCOE	060 LAS-60-02	Production from a new equipment/bot which uses the same basic rectnology (septoceners equipment or extension of existing equipment pool) without change of process.		PCN required for dedicated equipment for sensitive component production. (-) If sharp desired influence the injectify of the final product.	e.g. change him single site is multi-site hander. (-) a.g. extension of existing equipment pack, stready qualifies. (P) e.g. extension of declinated equipment in case basis	c				-			-		-			-	-					-				Qualification effort depends on type of change.
LAGER DIODE		Change in final test equipment type that uses a different technology	1 P	Shiftment or evolute interests is entitleded. Change of texture platform (e.g., major text program. changes, rear textur literitate,). Eproduct specification is not affected. P. conduct seedification is a diffected. P. conduct seedification is a diffected.	e.g. change in sea method from od to lumen e.g. change in sea method from od to lumen e.g. change of restricted measurement (LDAR)					-					-				-	-	. т							Gage RBR / delta correlation
LASER DIDDE		TEST FLOW				c							В			- в	B B											Gage RBR / deta correlation; additional specification /he/le
LAGER DIDDE		Boardon-New Luccontractor G-BATE							Ť	- 1	-	+	-					÷										It should be considered for Water secting
LAGER DIODE		Change of the text coverage hading process flow used by the supplier is ensure data when complaine is by eliminator hadinor of the rectain measurement than those interestable the rectain of the coverage production or sumpling.  PHOTO DOCK / PHOTO TANABISTOR (PD).	- Р	e.g. test flowblock, reduction from three temperature reasonments to two temperature measurements, change in turn in /eani py process. It is change does not influence the integrity of the fina product.  Py If impact on product integrity is anticipated.	(-) 4.2, best implemented without durationer requirement (7) 4.5, reduction from three temperature reasturements to two temperature measurements. 4.5, change in burs is / run in-process.	c	A: It case LIDAR application is affected		1	-	-   -	-	-		-			-	-	-					-			
PD BD		Any change with impact on agreed upon technical committees agreements.	T	Intended to be used if no other type of change if applicable but the change affects agreed technical		-				. T	П.		Τ.	1.1.			1.1 .	Τ.				T . T .	I . I .	T . T	Τ.	I . I .	T.T.	
PD		Any change with impact on sechnical interface or processability/manufacturability of dustance, which is not overed in the matrix below		contractual someomers.  See processability on board level scholosi interface means component terminals.			Check if GEO PO-09-01 kalleded					. т								S,T								
PD		DATA SHEET			a c change of the substrate manufal		Printed in your or reserve.		_		$\pm$	+	+			+		+				+	$\vdash$		+			
PD	OEC-PD-05-01	Change of databaset parameters/electrical specification (nin Anauthyp, valued) and/or Pulse CC specification		transmissing comments of the tall a technical product or process change.  No technical change of product, process or test. New	e.g. PD: sharpe of disping level (sensitivity) e.g. sharpe of MS: e.g. Sirata				ε	-			E		E			-	-	s	Е -			E 1			- E	
PD	060-P0-05-02	Correction of data wheet or issue of entata		Tomoras company of products, process or feet. New solicitud change of products, process or feet. New solicitud change of products, process or feet seek solicitis, eliterate them indicate questionates, and observed on the seek solicitis of products or command the type of changes and changes. Description of the seek solicitists or solicitists consisted on the seek solicitists of products of the seek solicitists o	of e.g. change of typ, valued due to new information about component behavior e.g. improved statistics, e.g. industria of max, allowed forward voltage due to incroved statistics.	٨				-		-	-		-			-		-					-			
PD	060 PD-0543	Specification of additional parameters	1 1	specified before P. Ethere is a risk on supply chain where at least one additional other PCN-relevant change category will apply.	E e.g.: adding new tested parameter E e.g.: additional temperature coefficient parameter	^		• • •		-	-   -		-		-		-	-	-					-			· ·	Formalism since this is not a product change, only additional information. Classification: C
PD PD	060/40/06/01	Design changes in spitale.	P P	Any device minerant changes in design.) Separa of epitability res. Anti-section of the control of the control of epitability of the control of the control of epitability of the control of epitability. Any change is this period project procede information designation of epitability. Any change is only designating of effectives. Any change is only designating opening of the control of epitability. Section of the control of epitability.	e.g. change of barrier thickness. I e.g. shange of daying profile / layer thickness.	c	A. In case of Avalanche Photodode (APD) and Single-Photon Avalanche Dode (SPAD)			٠			-	•	-			-	н									
PD	060 PD 06-02	Design changes in souting/byout.	p p	Any change in drip design respect Provide information design layout change is optical or electrical. Not included? Changes within design rules and design specification without affecting specified functions.	e.g. reduction of bond pad size e.g. shange in pixel size and EE Easter	e	A: Change of optical characteristics.					.   .		•	-	- в	в р,м		м			. м	м •					TR right be considered for complex die bond technologies
PD	060 PD 06-03	De dirink		parameters and reliability. Shrink of active area. Not included: studing street/ker/fucibe line	Typical shrink of die.		Please check if change in process technology (GEC-PD-PM-BI) is also affected.								-	- в	в .	1	-			-   -		1.			١.	
PO	OEC-PD-DE-DE	PD package (scopt leadhane)		any change in housing thickness, any change in form or dissensions	e.g. change of dimensions e.g. change of x, y, or 2 dimension of the package		Check if QEC-PO-09-01 is affected which leads to a change of the electrocytic parameters or distributions.									. в	в р		ь		L T	. D	ь.		5	5 5	4 .	
PD	060 PD 06-08	Design of leadings		any change of leadhame / submount dimensions any change of outer dimensions	e.g. change in leadhsme / carrier dimensions in xy, or 2 dilection e.g. change inner design of the leadhsame not affecting the and performance & reliability of the		Acts case of LIDAR appliaction is affected.									• B	8 D	+			• т	2 .					4 .	
PO		PROCESS - WAPER PRODUCTION		any unangeral outer differences	affecting the elo performance & reliability of the desires		USI ROLOTE.																	Ш	Ľ			
PO	GEC PD PW or	New/ change of water substitute or carrier resteries	P P	Newwater substrate material.	e.g. Offenent water material to currently released material (change from Sapphine to Silacon)	c	At its case of LIDAR application is			Р		. Р		•				-	Р	•		. р	p p	Р 1				
PO	GEC-PD-PW-02	Walter diameter		change of water diameter resulting in equipment and process changes	e 6 4 to 4.	c	infection  Typically this type of change affects other changes i.e. equipment/process technology. They need to be swinted an addition.  Check of OSC-PD-COd-1 is affected which lead to be change of the electrologic parameters or				-   -			•				1	-	•	•	-		P				
PD	GEC-PD-PW-03	New final water trickness.	РР	Change in final water thickness	e.g. change in final chip/de thickness	c	Check if <b>QSC-PD-CS-Q1</b> is affected which leads to a change of the electrocopic parameters or			Р					-	- в	в .	-						P				
PD	DECPD-PW-04	Change of electrically active doping/implantation element		Change in electrically active doping / implantation element resulting in a new technology.	e.g. change from the to C as dopart	c				с	- 0			•	-	ı.				-							L.	
PO		Change of stacking	p p	change in layer sequence or thickness	e.g. shange of indiction layer thickness between $v$ and $p$ material				-	•		r		•				-	r									
PD	GEO PO PW GE	New I change of metallization (specifically dhip-homolob) New I change of metallization (specifically dhip-backside)	P P	Change in metallization of bondpads, insterial, layer blobbels.  Change of bottom layer of die (between-die and handhamelication). Change in process, naterial, or dimensions necessary.		c	Artir case of change to Aluminium meralization							•	-				M D,M	•	 DM -		M DA					
PO		New change of metallization (specifically drup backside)  Change in process technique (e.g., significant process changes like lithography, esch, oxide deposition, die back surface preparation/backgrind,)	- P	leadframe(carrier). Change is process, insterial, or dimensions necessary. Change from well to dry exching, change from horizontal to vertical over-for calculation, change from contact little and stepper little,	e.g. change from set eith to dry etch e.g. change from lines cutting (casing) to plasma cutting (casing) e.g. change from contact litho to stepper lithu	c	B: change from CVD dep to sputter			-																		Qualification effort depends on type of change.
PD	GEC PD PW on	Process tragisty: Tuning within specification		Variation within process specification. Change of water supplier. Change of supplier for chantesias needed for water production.	e.g. process coross	c	affected.	•		-	-				-				-			- -			1			
PD	GEOPD-PW-10	Change of reserval supplier with na impact on agreed specifications.  Change of specified water process sequence (seletion and/or additional process seep)	- P	Any change which is not covered by another type of change. Risk is to be assessed.	P. e.g. change of water supplier. e.g. additional cleaning process in water production.	c	check if OEC-PD-PW-01 is affected.	 					+ :		-			-		-							1 1	Qualification effort depends on type of change.  Qualification effort depends on type of change.  PPAP has to be updated.
PD	QEC#0-PW-12	Change in die coating or passivation	РР	Change in resterial, thickness, and process for costing and passivation	e.g. change from SiGO to SiAD e.g. change of anti-reflective society e.g. change of this collection of the ball to the	c	Rt In case-optical characteristics of anti-reflection coating (ARC) are changed					, .				. р	р .		Р			. р	р р	PI				
PO		New water production location or transfer of water production to a different not previously released to catch visit incommunity.		and passivation  Newwalter projection location or transfer of water projection was possible additional changes.	- u., c., c., and go are more a even upon (doction for Photosolishis (MPC)).  I laughe Photosocheidanche Disabe (IPED))	c	A or B. Impact on other type of changes described under PROCESS - WAPEK PRODUCTION and EQUIPMENT satinguists of this DROMAN														J .							
PD		BANK DR DELIVERIES (Note: process changes not covered in this section shall be has	national according	to section "Process - Malor Production" )			& in case of LEDAR application is affected.				4							L				Щ	Щ	Щ	L		Щ	
PD	OEC-PD-90-en	New I change of front side metallization	PP	Change in bondpads, reserval, pad pitch, surface changes, layer flickness	e.g. change in over pad messication	•	A: It case of chip-on-board technology	· · ·		•				•	-		•	-	•		•	•	•	M, B M	в -			Reasonable package type for reliability testing to be aligned between supplier and customer

PD	060704043	New! change of backside metallization	p	P Change of bottom layer of die (betweer-die and leadhame(carrier). Change in process, material, or dimensions.	e.g. change from Au to Au alloy		Check if OSC-PO-06-01 is affected which leads to a change of the electrocytic parameters or distributions.  At it case of chip-on-board technology.			•		•	•			-				•		•	•			•	D, M	D, M -			Cus sys: Rea ber	somer application needs to be checked due to potential tern voltage differences sociative package type for reliability sesting to be aligned when supplier and outdomer
PD	060 PD 80 63	Change of water setup or number of dies on water.	ı	P to any additional number of chips. P change in spacing between chips and form of water.	e.g. information change for pick & place machine.	*	At its case of chip-on-board technology		-		-			-		-	-		-	-	-	-	-				-   -		-		. Raz- Ses	secretile package type for reliability sesting to be aligned when supplier and customer
PD	OECFDBDOI	New Snat water trickness	P	Changes in final Chip height (including carrier); very tare and usually contained with a national change (change of carrier national)			Check if QEC-PO-00-01 is affected which leads to a change of the electropid parameters or clarifactions.  At it case of chip-on-board technology			Р	-					-	•	вв	٠	-					-	- 1	P	р .			• Raa bes	ssonable package type for reliability sessing to be aligned ween supplier and customer
PO	OEC-PD-80-es	Change in die coating or passivation	p	P Change in recental, thickness, and process for coating and passivation.	e.g. change how 202 to 200 e.g. change ann-inductive coating e.g. change of micro tent tayer (APID, SPAD)		Check if OSC-PO-00-01 is affected which leads to a change of the electrocopic parameters or claributions. At its case of chip-on-board	P	-		-	p				-	-	р р	-	-	Р		-		Р	P	Р	р .	-		• Real best	socnable package type for reliability setting to be aligned ween supplier and customer
PD		PROCESS - ASSESSE Y					soroog												_													
PD	060 PD PA-01	Change of leadflame/submount base naterial	P	P Newleadframe/submount naterial (new in composition)	e.g. change from copper alloy to bare copper		Check if <b>GEC-PO-CS-01</b> is affected which leads to a change of the electrocytic parameters or distributions.			٠	-	-	٠		Р .	-	-		•	3	A	•	P,1	• 1	Α.	Α .	•   •				- Appl Reg	tanation should be provided in case HTS test is not ricable parting applicable materials please refer to the Whisker reland.  I was should be considered for automative extension.
PD	060 PD PA-02	Change of leadthame/submount frishing resterial (internal)	P	Change of surface material of de attach pad and second tond area (e.g. influence in adhesion to mold compound, sedge bond reliability)					-	٠	-	-	•		Р .	-	-		•	-	A	•	P,1	•	A	Α .	@P -		1 - 1	-   -	- mps mps	rications. Ideation should be provided in case HISS test is not ricable
PD	GEC-PD-PA-03	Change of lead and heat slug plating material-plating trickness (external)		Change in material and process technique for final pin semination (e.g. pure 16). Nerein package. P processably and reliability brothout few for and the welfed by greater dark. Classification depends on second of Change.	e.g. change in heat slug stack e.g. change from an into NPAIAu e.g. change of layer trickness.			м		к		-	•		Р .		1		-	-	*	•	P,1		. A	A			-		Expl app Req ea	danation should be provided in case HTE test is not sicable garding applicable materials please refer to the Whisker Island.
PD	OEC-PD-PA-04	Bursp Misselal / Metal System (Internal)		P Stack die or die to substrate	e.g. change to Pt-free material	Α.				•	-	•	•		•		-		•	-	w	•			w	w			1 - 1		-	
PD	OEC-PD-PA-05	De attach resterial		es). Thermal management must be respected.	e.g. change of Ag glue to Au glue;				-	•		•	•		•	-	-		•	1 - 1	N	•	•		q	Q .		- N	N	N -		
PD	OEC-PD-PA-08	Change of vire bonding	P	P Storrial, diameter, change in bonding diagram and / or change in process resulting in a new technology.	e.g. change from Au to Cu material e.g. change from 21 jun 10 21 jun dameter e.g. change from sign to double bond e.g. change from sign bond to stich or ball bond.				-	P,D	-	•	•	-	•	-	-		-	-		•	-		P,D	P,D		- D, 8	IP D, GP	D, 8P -	* ton	audit for numerial change with impact on bondprocess (s. n.Au ts Cu) recommended.
PD	GEO-PO-PA-07	Change in material for autocomponents (excluding photodode/transistor chip & package returnd bensi) with impact on agreed	P	P Change of sub-component supplier using different sectioning/insteriols	e.g. using different NTC dode in technology and material than previously		Check if GEC-PO-09-01 is also affected.		-		-	-		-			-			-			-		-	- 1	-   -		/ - /		- Qu	allication effort depends on type of change.
PD	GEO PO PAGE	Die Overcost / Underfüll	-	Supporting layers for complex packages like flip-chip.  P -: No change in product integrity P: change can influence the integrity of final product.	P. e.g. change of underfill with change of thermal resistance	٠	Check if <b>GEC-PO-09-01</b> is also affected.	. · P	-	р.	-	•	•	-	•	-	-		U	-		•	U		Р	р .		. р	Р	Р .		
PO	OEC-PD-PA-09	Change of most compound encapsulation leading material	,	Change of mild compound, encapsulation, or easing restend might be affected optical function in case of package resteed effect (e.g. scoundag). Component assembly and based costing has to be assessed. Mill. eligit be chanced.	e.g. PPA mold-compound	*	Check if GSC-PO-09-01 is also affected.			٠	-	•	-		•		D		-	3	p	٠	Р	т .	Р	Р		- D, 8	IP D, GP	D, 8P 4	-	
PD	060 PD PA-10	Change of product making		positive and control control of the state and anomals, see, see the channel.  Serving on device.  E change in appearance, readability not affected. Pr. change of content or change of appearance of data pasts code.	e.g. marking of cathode;	٠			-	-	-	-	0	-		-	-		-	-	-	т	-	т -	-	-			1.			
PO	060/90/9411	Owige in princess leshrope (e.g., de alliah, milding plating, tim and hem,)		P Any change in assembly process technique	e.g. change die attached from gluing to soldwing		A or B. Please check if ECUSPMENT and other type of changes of maserial (DEC PO FA describings) as affected. If the process change is covered in a separate change ID only this is applicable.			-	-	-	-			-			-	-	-	-			-				-		- Qua	alfication effort depends on type of change.
PD	060 PD PA-12	Process Integrity: Turing within specification		P Musician within process specification	e.g process control	c				-	-	-	-	-			-			-	-	-	-		-				4			
PD	060 PD PA-13	Change of direct material supplier with no impact on specification.	-	P Change of suppliers e.g. for lead frames, wire material, de attach, electronical components	Change of suppliers e.g. for lead frames, wire material, SSD-diode	c	Assumption that change material specification remains unchanged. Otherwise see shange of material.		-		-	-				-	-		-	-	-	-			-	-	-   -		-		- See	e change of manerial.
PD	OEC-PD-PA-14	Change of specified assembly process sequence (published and or definition of process step)	1	Addition or deletion of a process step in assembly process sequence with pursetally significant impact on the product performance.  I no influence on product integrity.  Profluence on product integrity especial.	e.g. additional or deletion plasma cleaning process		Eingle case assessment necessary to shelify possible interactions or not.  Acr B: Impact on other type of			•	-	-	-	•			-		-	-	•	•	*		-	-			-		- 04	sillication effort depends on type of change.
PD	OEC-PD-PA-15	New assembly function or transfer of assembly to a different not previously released localitor-label subcontraction.	P	P Assembly transfer or relocation. Includes transfer as well as additional sits.	e.g. dual source / bis strategy	c	Acr & Impact on other type of changes described under PROCESS ASSEMBLY and SQUIPMENT OSC- PO-60-61 A In case LIDAR application is absociad.				-					-	-		-	-			-		-		-   -				- Qua	allication effort depends on type of change.
PD	_	PACKING SHIPPING					,				_					_								_	_		_		=		_	
PD	060 PD P9-01	Outer Factorighttopping specification shange		P & snat changes in direct product packing P & snat changes in dimension or appearance	e-p posselem				-			-		-		-	-			-			-				-   -				1 - 1	
PD	060-P0-P9-02	Dry pack requirement change		P (Schedule of cash in the nation was channing P) Schedule of dry pack requirements (P). Tylening of dry pack requirements	(B) MSL 3 & MSL 1 (P) MSL 1 & MSL 3	٠	Check if OEC PD-08-01 is also affected.		-		-	-	-			-	-			-	-				-	-	-   -		ŀ			
PD	060 PD P9-03	bree Pastingshoping specification change		P dimension change of direct product packing	e.g. SMT pocket in tape changes											-	1			1	- 1			т -	+ -		. р	р .	44		-	
PD PD	060707944	Change of billeting SCOPMENT		Change of tabeling also on reef.  a additional information no change of previous information  A change in content of anexious information	El e.g. additional internation (NoACL stamp)  (P) e.g. change of outbanes specific internation	•	Check if OBC PD OB-et is also affected.	. • •		-		-	-	-		<u> </u>			-		-	•	-	-   -	Ŀ	-		-   -	<u> </u>	-   -	4	
PO	060/40-60-61	Production him a new equipment/load which uses a different basic technology	9	P Drange in-process technique which is not already covered above. Name Major changes attenting the product not covered by It follows require about POL	e.g. change him single water to batch process     e.g. done pad metablishin.     e.g. dambar culting (metherical to learn culting)     e.g. change him single site to multi-site hander.	٠	Check if OEC-PO-09-01 is also affected. Consision stability should be assessed.		-	-	-	-				-	-		-	-	-	-	-		1 -	-			1		- 0.0	silfication effort depends on type of change.
PO	060/90-60-63	Probabilist time a new equipment/fact which uses the name basic incliniting (replacement equipment or extension of existing equipment pool) without shange of process.	-	PCN expand for dedicated equipment for sensitive companied production.  p. (-) If sharpe does not influence the ingeletity of the final product.  P) If impact on product intergrity is articipated.	(-) e.g. extension of existing equipment pool, direaty qualified. (9) e.g. extension of dedicated equipment in case basis technology still need to be prison.	u			-								-		-	-	-		-		-	-			-		- 000	allication effort depends on type of change.
PD	060-P0-60-03	Change is first inal equipment type that uses a different leadwistings		Diange of Instan Stations (e.g. major lent program changes eres finder intelline). E-product specification is not attended P-product specification is attended	e.g. change liturination methods / spectrum	٠			-	-	-	-	-	-		-	- [		-	ĿĪ	-			т -	Ŀ	-	$\lfloor \cdot \rfloor$	•   -	-		• Gar	e RBR / delta correlation
PD	OEC-PD-TF-01	Man of all or part of electrical water test and/or final test to a different booker with habitoricalistic	-	P Yester transfer or relocation.	e.g. Dual source stategy	c	it in case of bars die delivery			•		В		-	в -	T -	T - T	в в	В	T - T	-		I - I	т .	Τ.	- 1			T-1		. Qu	ge RBR / delta correbrion; additional specification check hould be considered for Water tecting
PD		OGATS .		1	11.5																										- 120	and or compared or mark Milling
PO	05CP0-QS-01	Days of the test connects in still price and by the neglect is stone did a their ampliant to go discounts redding of excitorial measurement from the titles, established accounted in evoluting price-later or sampling.	-	e.g. set flowblock, reduction from these temperature necessariements to the temperature necessariements, change in the in in / num in process.  [4] If change does not officerical the imaging of the final product.  [7] I impact on product imaging is anticipated.	to 6 a.g. test implemented without outcomer requirement.  (P) a.g. reduction troutdress serpestatus featurements to tao temperature measurements a.g. change in trust in / run in-process.	c	A. In case LENR application is affected		-	-	-		-	-		-	-			-	-	-	-	-   -		-			-			
											_																		_			
	rests, which sh	hould be considered for the appropriate process change.																		1 .						-	-   -				حلت	
	Tests, which sh	hould be considered for the appropriate process change after so	lection	of condition table.													-														-	
	Suppliers perfo	ormed texts (mark with an 'X' for done or 'G' for generic)																														
									_		_					_																
	Reason for exc	ception of tests and/or usage of generic data:																													ط	

-	Not required.
_	Information Note required.
	PCN required.

	New for Air risks of desires applicable (An insended to full for this seet)	
F		
	Non-Enror Contact Contract code	
M		
	Chair II marking technology changes	
	Central Circuit dis in selection	
T	Only if Stoard Reliability is affected	
v		
	Period and committee in increasion	
Z		
	Only if outsit dissensions are citized	

Signature: Date:		ł														Devi	ce evalu	uation										_				
PCN number:		-					_						MATERIAL	L PERFO	RMANCE TEST RI					sion -Sep	ptember 1	4, 2017				_	_	_	ac	Iditional to		
		1			atuation level A/B/C		14, 2017		or binased HAST		yding rage Life working Life		non, and													Topics Control of the			Δ1	FC O10x		
<u> </u>	Assessment of impact regarding following aspects  -continuous agreements  -including interests  -including int	Potentia impacti	Understanding of semiconductors experts	Examples to explain	a forei	Further applicable conditions	yduacy audibry ste cheby evision September		Temperature Humidity Blas	Autoclave or Unbis sed HMS Temperature Oyding	Poser Temperature Cydrig High Temperature Storage I High Temperature Operatin	Early Life Fulliane Rates	W/MEraturance, Data Rese Operational Life Wire Bond Shear	Winterday	Physical Dimensions Solder Ball Shear Last dirtogity	X-ray / CSAM Electronic Discharge	Human Body Model Bletronic Discharge Charged Device Model	dh quan	Faut Grading	Overchristen Overchristen	Soft Error Para	Hermitic Ruckage Test	Packaga Drop Lid Torque	Die Shear reserval Witter Vapor	Board Level Positioning	South and Temperature	Monte trap	X-ray	Accustic Meroscopy  White et less	(BC codes 7 sec. JEDE CJES) Pareneter And yals: Compation of current of high		Remarks
а	Type of change	No Ye			A Application level B Board evel C Component level		the evaluation The evaluated		2	9 9	PTC 4TSL 4TOL	LIFE	887	WBP	00 11	GRAY	WOO	2	2 2	SHWR	SER	нови	JRGP LT	80	BLR TSL	STEP	DIR	GRAY	100			
	ANY  Any-change with impact on agreed upon technical contractual agreements		Issended to be used if no other type of change is applicable but the change affects agreed technical				58 K	52	A2	A3 A4	AS AS B1	. B2	B3 C1	C2 C		CT E	2 63	E4	5 26	E7 E	5 59	G1-4	G5 G6	G7 GI	5 H1 H	2 H3 H		HS	HZ			_
	Any change with impact on processability/manufacturability at customer, which is not covered in the matrix below.		Any change which is not covered in the matrix below but risk assessment at customer is recommended.		В																					##	+		_			
-									_								<del></del>			_		_		_	-	#	#	#	#	4		
MCM-DS-01	Change of data sheet parameters/electrical specification (min./max./hgs. values) and/or ACDC specification	P P	Lipidate of data sheet because of technical change of the product.	e.g. recommendations for pull-up/pull-down or NC pine, MSL	A			-														•					4 -	4				
MCM-OS-02	Correction of data sheet / erratia		Update of data wheet because of schrical change of the product.  No schrical change of product, process or test.  Now description of behaviors which was not specified below or which is determined the production of the production	e.g. Errora	A									-												-						
MCM-OS-03	Specification of additional parameters		Ansassanar in anoticisation socialist Description of a new not producely covered parameter. No schrönich change of the product, (I): Delinicion of new parameter which was not documented before. (IP): Noticinenas single change. Cely in combination with other changes.	(fit e.g. adding new tested parameter.	A			1																		-			-			
	DESIGN					1				Ť												_				#	=	=	÷	÷		
MCM-DE-01	Firmware modification	1 0	Integrated authorse by design or memory as defined by supplier.  (B): Firmware modification or update without effect of functional performance at the customer (bug fis). (P): Firmware modification-regulate with effect of functional or reliability performance at the customer.	(it) e.g. addition of Firmware opportunities (IP); e.g. bug fix with impact on functional performance	A			٠										-		-   -		-					-					
MCM-DE-02	Change that adds or subtracts sub-components from the module BOM	P P		e.g. addition of passive elements in filter circuit	A			•	@•		e• e• •	•		-				٠			. м	@ •,D		@F -						•		
MCM-DE-03	Substants change affecting module schematic (Changes to the limiteral dimensions and for schematics)	P P	Design change and routing Change in substrate, leadinate dimensions which has impact to the specified electrical parameter acc dras sheet or specification (e.g., heat sink, pin dimensions, die poddle size) Not included: Variation within specification.		A	If the number of layer will be changed see also PA-09		٠	@•		@к . •	•	. @•	@•				•			м						. @•					
	PROCESS - ASSEMBLY - MATERIALS	П	Change from an AEC Qualified sub-component to a Non-AEC Qualified sub-component or		A					T				П		П	.   .	П		Т	Τ		П	@ F -	П	т		@ • @				_
MCM-PA-01	Replacement of any sub-component by a Non-AEC qualified sub-component	PP	Change from an AEC Qualified sub-component to a Non-AEC Qualified sub-component or Change from a Non-AEC Qualified sub-component to another Non-AEC Qualified sub-component		^			•	•			•	•					•	• •	٠.	· M	@•,D (	3.	gr .		41	8.	6.6	g• .	•		
MCM-PA-02	Replacement of any sub-component by an AEC qualified sub-component		Compage from mach Coullified out component to sorber ACC Qualified size. Component to sorber ACC Qualified size. Component to former ACC Qualified size. Component properties of the component size with impact on electrical rebustness (SSQ), sorber size with impact on electrical rebustness (SSQ), sorber size, with impact on electrical rebustness (SSQ), sorber size,		A	Requires additional evidence that new sub-component is ASC qualified							•							$\cdot   \cdot$	м	@•.D	3.	@ F -			@•	e• (	e•			
MCM-PA-03	Replacement of any sub-component by an AEC qualified sub-component Critical characteristics of sub-component are page affected	1 P	Critical characteristics are those which have the greatest effect on form, fit, function, yield, and/or reliability. Use of SPC coreols and 900% testing are		с	Requires additional evidence that new sub-component is AEC qualified					@		e• ·			. @		@• @	· ·		е м	@•,D	ş• ·	@ F -				@• @	e•	.   •		
			instability. Use of SPC combit and 900% testing are common.  Oritical characteristics are those which have the greatest effect on form, fit function, jelds and/or estability. Use of SPC combit and 900% testing are common.		A				-	+										-	+		+	@ F -	++	##	$\blacksquare$	+	#			
	Change within a sub-component that has been requalified Citical characteristics of sub-component are affected		reliability. Use of SPC controls and 100% testing are common.  Coloral characteristics are those which have the			component	•	•	-			+						-	-	-	+	-	-	_	1.	##	4	Ĥ	4	-		
	Change within a sub-component that has been requalified.  Cifficial characteristics of sub-component are set shaced.	1 P	Ortical characteristics are those which have the greatest effect on born, it furction, jelds and/or selected fleet on born, it furction, jelds and/or selecting the of SPC commits and 190% testing an common.  [-]: If the change in-process technology does not influence the imaging of the firell product.		c	Requires additional use of the appropriate ZVEI DeQuilds (e.g. active, passive component) for qualification of the changed sub-component	•	٠	•			+	@• ·			. 6				6.	@ M	@•,D		@ F ·		#		H	+	•		
MCM-PA-07	Change to the processes used in module assembly (e.g., pick & place, die abach, bonding, reflow, erczypulation, singulation, die overcost, underfill, die preparation, die clean)	- P	(P): If the change in process technology can influence the integrity of the final product.	(-): e.g. tuning within process specification	с		•		•	•	ек - е	Α -	•	•		•		. (	н -	0.		•				-	. 6.	Ė	-	•		
MCM-PA-08	Process Integrity suring within specification	- P	(P): If impact on product specification is anticipated.		c	Erouting is affected see also DE-GG			•									•				•				41						
MCM-PA-09	Change to materials used in module assembly (e.g., adhesive, underfit, encapsulate, solder epong, bump material, die attach-material; bond wire, die overcost, substrate, leudhame base material)	P P	Change of used material (e.g. bump material, cle attach material, soft scider, epoxy, etc.) Change of bond who material, diameter, change in bonding diagram	e. g. change to Ph-fine material e. g. change of copper pillars e. g. change from Sn into NiPoliva e. g. in number of bayers or thickness of the substate	c	Brousing is affected see also DE-CQ  2: Impact on thermomechanical stees caused by mismatch of moid compound, risescenceing schrology and carrier is anticipated  2: external lead finishing material is affected	•	٠	٠		ек е• е	E @ E	•	•		-			•	@• ·						11	. 6.			•		
MCM-PA-10	Change of direct material supplier	- Р	Change of suppliers for direct materials which are used in assembly process (BCM).  (-): If change does not influence the integrity of the final product.  (P): If impact on product integrity is anticipated.	(-): e.g. change of wire material supplier.  (P): e.g. change to new mold compound supplier e.g. additional leadtame supplier with specific leadtame manufacturing technology e.g. additional or new substrate supplier	с	Please check if material is changed								-		-															See change of material.	
MCM-PA-11	Change to assembly location (News all or pasts of production to a different assembly disk)			e.g. dual source / fab strategy	с	A or B: Impact on other type of changes described under PROCESS ASSEMBLY and SEM-BQ-01. Incase of Cu-wire product please consider AEC-Q006.			•		@к - •	•	•	•	• ®T •	-				e•		-					@•		. @		Whisker tests have to be done on the AEC-Q100: "For broad changes that processes), refer to section A1.3 of the selection of worst-case test vehicle.	unitoring basis! It involve multiple this appendix and cles to cover all th
MCM-PA-12	Change of product marking  PACKINGSHIPPING		Change of marking on device and / or change in process resulting in a new technology.  (B): If change does not influence the integrity of the final product.  (P): If impact on product integrity is anticipated.	(fir e.g. change of appearance (additional marking) (Pfr. e.g. change from inked marking to laser marking e.g. marking of pin 1	В			•				-										-	-   -			-[-]						
MCM-PS-01		P P	Packing/shipping specification change.																			•				41			-			
MCM-PS-02	Dry pack requirements change	1 P	Packing hipping specification change.  (B): Relaxation of dry pack requirements (P): Tightening of dry pack requirements	(I): MSL 3 → MSL 1 (P): MSL 1 → MSL 3		Please check if data sheet is affected (MCM-DS-01 or MCM-DS- 02).						-				-							-   -					4	4			
MCM-PS-04	Change of carier (my, ree)  Change of labeling	1 1	Change of carrier (ray, reel)  Change of labelling also on reel. (I): Change of masterial label without impact on barcode. (P): Changes of material label information which without rings accounting a treatment.	(i) e.g. additional information (Rol/G stamp) (P) e.g. change of defined romenclature for data processing	В																	-										
MCMEQ-01	EQUIPMENT  Production from a new equipment/bol which uses a different basic technology or which due to its unique tarm or function can be expected to influence the integrity of the final product.			Check which other type of change is applicable due	,	Check which other type of change is applicable due to this			. 1								1.			0.		7			1.1.							
w.w4001						equipment change.				H			H							9.			Ħ			H		+	#	ť		_
MCM-EQ-02	Production from a new equipment/loof which uses the same basic schnology (replacement equipment or extension of existing equipment pool) without change of process.	- Р	PCN required for dedicated equipment for sensitive component production.  (-): If change does not influence the integrity of the final product.  (P): If impact on product integrity is anticipated.	(+): e.g. exemulon of existing equipment pool (Pfc e.g. extension of dedicated equipment in case basic technology still need to be proven	с				-					-												41						
MCM-EQ-03	Change to testing platform (Change in final test equipment type leading to a different test concept)	P P	Change of tester platform with differences in HW or SW that makes a change in test concept necessary	e. a. change tester equipment from LTX to Tenadure	с															e ·						4 . 7					Gage R&R / delta correlation	

MCM-QG-01	Cong. of the six analogo prices (by a significant series discharged from the companion of the contract of the	The second control of
	Tests, which should be considered for the appropriate process change.	
	Tests, which should be considered for the appropriate process change after selection of condition table.	
	Suppliers performed tests (mark with an "X" for done or "O" for generic)	
	Reason for exception of tests and/or usage of generic data:	

Not required.
 Information Note required.
 PCN required.
 PCN required.

About or \*\* indicate the performance of that dress that should be considered for the appropriate process change.

A consideration of the consideration of the consideration of the consideration and 
P D Design for a final discontinuous bibline material for broad designed. Place of the final supports bibline discontinuous bibline material for broad designed. Place of the final supports bibline discontinuous bibline material for broad designed. Place of the final supports bibline discontinuous bibline material for broad designed. Place of the final supports bibline discontinuous bibline material for broad designed. Place of the final supports bibline discontinuous bibline material for broad designed. Place of the final supports bibline discontinuous bibline material for support bibline material for support bibline discontinuous bibline material for support b	
PCN contained   PCN containe	s of ACC-0200 Revision D)
Automatical pages   Company   Comp	g and the second
Policy   P	a a a a a a a a a a a a a a a a a a a
Name   Proceedings   Process   Pro	For the control of th
March   Marc	
Part	
A   State   Company   Co	
PACKET DO CO.    Comparison of the design of the product of the design of the product of the pro	
PASSESSES OF Comparison and authorized promises    P	
P   Druge of Author Computer - Notice contained Report delivery Computer - Notice contained Report Report Repor	
## P C APP AND ASSESSED   Company of referent impropriate   Part of the contract of the contra	• • - R @•
PASSES 40   Outgot device impropries   Production   Pro	• • · R · · · · · · · · · · · · · · · ·
PASSESS 0. Clarge of trained computers - Saletina mining   P   P   P   P   P   P   P   P   P	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
905-905-906-90 Danger of angelor of makes is a constraint of angelor of makes is a constraint of the c	R - N
905-905-906-90 Danger of angelor of makes is a constraint of angelor of makes is a constraint of the c	• • · · · · · · · · · · · · · · · · · ·
INTRODES & SESSIONS DESIGNA	R N @  Assumption material specification or entains unchanged. Character or material productions or or material.
NETHORNOL MEDICATION SECTION 1 Disappened beamininging, surface friends, shappen, color, appenence or dimension shappenence or discovered by the shappenence or dimension shappenence or discovered or discovered or discovered or discovered or discovered or discovered or di	• • · R · · · · · · · · · ·
PIG-55S CS CS Objects Associated by Proceedings of the construction - Proceedings of the construction - Procedings of the constructi	R N
PG-655 PG-01 Changes in process believing or manufacturing without in-16 Ps	@•
	R R - R @•
ENDINGS & ENDINGS   CONTROL OF CO	- · · · · · · · · · · · · · · · · · · ·
PAS-995-99-06 Channes in process independent or manufacturing methods - Marriage - P Channes of methods process so a channel from the Channel of method process so a channel from the Channel of method process of the Channel of the C	
PACKET READ STATES TO COMPANIE AND ADMINISTRATION OF THE PACKET READ STATES TO COMPANIE AND ADMINISTRATION O	• • · R · · · · · · · · · · · ·
MINISTRA SECURIS SECURITY AND ADMINISTRATION OF THE ADMINISTRATION	
Post-695-PN-U2    Dry pack requirement charges	
P P Compat district (Fig. 144)	
PROTESTIVIS Congregation of the Congregation o	
PRS-SES-PV-GD Durgo of product marking I p P Marking on darkox as g charge of content of marking as g charge	
PAS-SES-PV-GI Dange of packing/shipping questication P P or the control structure of the control	
NETHODISCA RESISTORS LOGISTICS / CAPACITY / TESTING - COLUMNICANT	That effor dispenses for final risk
PAGES GO 20 Production from a new exponential value due of deliver induction de se deliver induction and a deliver induction a	The defining equation for the of an assessment of the other production of the
Production for the composition of the composition o	the date deposits on that did assembly a second or the date of the date
POSITION COLUMN TO COLUMN	- Gap REA? deb consisten
ModeStating this treatment of speed of production gives be administration or received of speed of spee	• • · R · · N · · · · · · · · · · · · · · ·
TREASEST ACT   Contract or addition or addition of a manufacturing process exp.   P   Darge of manufacturing process expenses   Q   Darge of manufacturing process expenses   Q   Darge of manufacturing process expenses   Q   Darge of manufacturing process   Q   Dar	
PACRES GS IN SECURITY	The second of th
PG-SED-Wild Pay charge with impact as sprint upon to include a sprint u	
PACADANCE PACADANCE Any charge with impact or processability/manufacturality or cutomer, which is not covered in p p p such color interior means component winnish.  **SOCIONS*** **SOCIONS*** **SOCIONS*** **SOCIONS*** **SOCIONS*** **SOCIONS*** **SOCIONS** **S	
PIGARO GES 1 Deep of shared any promise visionist a gent class in the contract of purchased in the cont	
NACCOSE  TRA-FIG CGS Q  Conscilion of date when in base of small.  I I was included propose or the fine description of industrial containers of the small containers of the small containers or the small containers of the small containers of the small containers or the sm	

	1		1					_		_										 _				 			
			Description of a new not previously covered parameter. No incheical change of the product.  (8): no influence (9): Risk assessment depending on change 1 each application to provide evidence of additional parameters (stat.																								
PAS-IND-DS-	Specification of additional parameters	I P	(B): no influence (F): Risk assessment depending on change t	e.g. adding new (tested) parameter. for	A			-	-								-		-	 	-		-	 .   -	-	•	
			each application to provide evidence of additional parametes (stat. evaluation)																								
	MATERIAL	т г	Material without magnetic function ("Spalenkörper") hybically made by plastic	1																 _	П		1	 			
PAS-IND-MA			material			A: in case the thermal or mechanical stability of bobbin is negatively affected								• -			-		-	 	-		-	 	-	•	
PAS-IND-MA	2 Change of material composition - Core Material	P P	Change of core material, which is material wi magnetic function	e.g. change from NZn into MnZn	A			@•	•			•		• -	- •		В		-	 	-		-	 		@•	
PAS-IND-MA	Change of material correcution - Insulation Naterial	P P	Change of insulation material	e.g. wire insulation, insulation tapes, e.g. change from Polyurethane to Polyamide	с	Consider also if PAS-IND-DE-95 is affected										Α -	В		_	 	_			 .   .	_	_	
						A: in case of HV components (rated solage >= 100V) (final judgemend by tier 1. if used in HV spolication)																					
PAS-IND-MA-	4 Change of material composition - Lead Material	р р	Change of lead material	e.g. change from tin coverd to non-coverd lead material	В			-	-		- •	• -	• -	- •	• •	- •	-		-	 	-		-	 	@•	-	
PAS-IND-MA-	Change of material composition - Mold Compound	p p	Change of mold compound material	e.g. change to green mold	В												В		-	 	-		-	 		Electrical func mechanical str ACI, veve solo	ction affected if tress distribution changes idening and board coating assed. MSL might
				ng cange organismo																						has to be asse change.	ssed MSL might
PAS-IND-MA-	Change of material composition - Solder Material	P P	Change of solder material at internal connection.	e.g. change of SnAgCu composition	В			-	•			• -	• -		@•	- •	-		-	 	-		-	 .   -	@•	-	
PAS-IND-MA	7 Change of material composition - Wilne / Foll Material	РР	Wire for wound inductors. Foil for multilayer inductors (inner electrode).	e.g. change of Cu composition	В	A: in case of wire wound inductors, where the wire is not 100% fixed by mold or eposy within the inductor		@•	-					- @•			В			 	-			 		@•	
		Р Р				or epoxy within the inductor		_	<del>                                     </del>																		
PAS-IND-MA	Change of material composition - Glue	P P	Foil for multilayer inductors (inner electrode).	e.g. change from glue A into glue B	С			-	@•		@•	@• -		- @•	@• -	- @•	@B		-	 -	-		-	 	-		case of core-core glue
PAS-IND-MA-	P Change of supplier of material	. Р	Change to a new or additional material supplied component manufacturer.	er e.g. for 2nd source purpose	с			-		- •	@• -						В		-	 	-		-	 		Assumption management of the community o	raterial specification ranged. Otherwise see sterial.
PAS-IND-MA-	Dance of material composition - Potino Material	P P	Change of potting material	e.c. change from epocy resin to silicon	С	A: If influence on other connections on PCB or laquer expected.		-	@•		@• -	@• @•		- @•	@• -	- @•	@B		-	 	-		-	 		@•	
	DESIGN					PCB of liquir especies.						1010														_	
PAS-IND-DE-	Changes of termination, surface finish, shape, color, appearance or dimension shucture - Bobbin	n I P	Material without magnetic function ("Spulenkörper") typically made by plastic material	e.g. construction / dimension change of bobbin	В			-	•					• -	- •		В		-	 	-		-	 .   -		@•	
PAS-IND-DE-	Changes of termination, surface finish, sheps, color, appearance or dimension structure - Lasd Terminals	I P	Change of lead/terminals	e.g. Change of lead or terminal design (shape, dimension,)	A			-	-				•		• -		-		-	 	-		-	 	@•	Effect regards frequency only	ing EMC relevant for high ly.
PAS-IND-DE-		I P	Change of mold	e.g. new mold material with different color	В			-			@• -						В		-	 	-		-	 	-	Parameter Are components w	nalysis only for where mold material has
PAS-IND-DE-	Changes of inner construction - Core Construction		Change of core construction, which is materi	ial e.g. change fromdrum core & shield core into pot core & cover plate core	A												В									magnetic func	ion .
	,	H	Change of insulation system																							-	
PAS-IND-DE-	5 Changes of inner construction - Insulation System	. Р	An electrical insulation system (EIIS) is comprised of a unique combination of materia that have been sertlind for chemical compatibility when used at certain maximum temperatures, (see www.l.l.com)	e.g. wire insulation, insulation tapes, mold, potting,	С	A: in case of HV components (rated soltage >= 100V) (final judgement by Ser 1, if used in HV application)		@•	-							Α -	В		-	 	-			 	-	-	
			trus have been verified for chemical compatibility when used at certain maximum temperatures. (see www.U.com)			1, ir used in HV application)																					
PAS-IND-DE-	Changes of Inner construction - Wire / Foll Construction	. р	Change of wire / foil dimensions	e.g. change from round cross section to rectangular cross section e.g. from single wire to litz wine	В									- @•			В		-	 	-		-	 		@•	
PAS-IND-DE-				e.g. from single who to litz wine e.g. change of poling (filling) height		If data sheet is affected (PAS-IND-DS- 01)						@• @•			@• -		@B									@•	
	Material PROCESS			-,,,,		01)			6.			8. 8.			6.												
PAS-IND-PR-	Changes in process technology or manufacturing methods - Insulation Strip	. Р	(Mechanical) removal of insulation.	e.g. change from mechanical removal to laser removal	В			-	@•					- @•		- @•	-		-	 	-		-	 .   .	-	Mechanical da impact on sold stripping proce	Ismage of wire, idenability in case of sess is affecting soldering
PAS-IND-PR-	Changes in process technology or manufacturing methods - Lead Prep. / Plating		Change of lead prep. / plating	e.g. change from hot dip tinning to electroplating	В			-									-		-					 	@•		anding reliability of solder
PAS-IND-PR-		. Р		e.g. change from Manual winding to Semi-automic winding (winding of wire on terminal)	c				•		@• -				Α •										@•	joint.	
PAS-IND-PR-			connection of termination to core/bobbin.  Change of marking process	winding (winding of wire on terminal)  e.g. change from ink marking to baser marking	В				-								-		-				-			-	THE CONTRACTOR
PAS-IND-PR-	Changes in process technology or manufacturing methods - Molding	. Р	Change of molding process	e.g. change from one component molding to two component molding (other technology needed)	В												В		-	 	-		-	 	-		
PAS-IND-PR-			Change of soldering internal connection	e.g. change from hot tip tinning to resistance welding	С	B: In case solder connection is used as solder connection to PCB.	• •						• -						-	 	-		-	 	-	-	
PAS-IND-PR-		. Р	Change of winding - insulation	e.g. change from manual to automatic process	В		• •									Α -			-	 	-		-	 	-	-	
PAS-IND-PR-		. Р	Change of winding - wire	e.g. change from semi-automatic winding to full automatic winding	С							• •					В		-	 	-		-	 		@•	
PAS-IND-PR-		. Р	Variation within process specification.  Change of potting process.	e.g. process control e.g. change from manual polling process to automatic polling process	c			-	@•			@• @•					-		-	 	-		-	 -	-	-	
	PACKING / SHIPPING - NEW MATERIAL, CRITICAL DIMENSIONS			automatic poling process					@•		@• ·	@•   @•														-	
PAS-IND-PN-	Packing / shipping specification change (lossening of tolerances)	р р	Change of packing specification.	e.g. number of pieces on reel.	В			-	-								-		-	 -	-		-	 	-	-	
PAS-IND-PN-	2 Dry pack requirements change	I P	Change of dry pack requirements. (R: Relaxation of dry pack requirements. (P): Tightening of dry pack requirements	e.g. change in dry pack assurance (HC, MEE) (§: MSL 3 -> MSL 1 (P): MSL 1 -> MSL 3	В			-	-								-		-	 	-		-	 	-		
PAS-IND-PN	Change of carrier (tray, reel)		(P): Tightening of dry pack requirements  Change of carrier	(P): MSL 1 -> MSL 3 e.g. change by material e.g. change by geometry.	В				-	_																_	
	PACKING / SHIPPING - VISUAL INSPECTION				-															_		_		_			
PAS-IND-PV-			Change of labelling, also on reel.	(B) e.g. additional information (RoHS stamp) (P) e.g. change of customer specific information	В			-	-								-		-	 	-		-	 	-	-	
PAS-IND-PV-		I P	Marking on device.	e.g. change of content of marking e.g. change of method of marking e.g. change of appearance of marking	В			-	-								-		-	 	-		-	 	-	-	
PAS-IND-PV-	Change of packing/shipping specification	РР	Change in packing specification which does not described a change of dimensions or	e.g. change of documentation in packing specification				-	-								-		-	 	-		-	 	-	-	
	LOGISTICS / CAPACITY / TESTING - EQUIPMEMENT	-	name of the packing																								
PAS-IND-EQ		. p p	Change in process technique which is not already covered above.	e.g. introduction of potting process	С												@B		I . T	 			. T	 		Test effort dep assessment.	pends on final risk test according to affected age.
2000	som or function can be expected to influence the integrity of the final product				ŭ																					Performance to process change	ne according to affected ps.
PAS-IND-EQ	Production from a new equipment/bod which uses the same basic technology (replacement equipment or extension of existing equipment pool)	. Р		e.g. duplication of existing winding machine	с			-	-								-		-	 	-		-	 	- 1	Test effort dep     assessment. Performance to	pends on final risk test according to affected ge.
		++	Change of final test equipment which use	+																							
PAS-IND-EQ		P P	Change of final test equipment which use different technology. PCN regimed for dedicated equipment for sensitive parameters.	e.g. change of tester platform	С			-	-								@B		-	 -	-		-		-	@● Gage R&R / de	delta correlation
	LOGISTICS / CAPACITY / TESTING - PROCESS FLOW	$\overline{}$																									
PAS-IND-PT-	Manufacturing site transfer or movement of a part of production process to a different location/site	e P P	Change of manufacturing site. Includes transfer as well as additional site. Note: Reorganization inside one plantisite is and effected.	process step(s) to a different location/site.	В		•	٠	•		@• •	@• -	• -				В		-	 -	-		-	 -	@•	@•	
PAS-IND-PF-			Change of manufacturing process sequence.		С			-	-								-		-	 	-		-	 	-	② Characterisation production flow	ion depends on impact of se.
PAS-IND-PT-			Reduction of final testing. PCN required for dedicated final test reductions for sensitive parameters.	e. g. elimination of High-voltage measurement	С																						ion depends on impact of
-AS-NU-PF-	Elimination of final electrical measurement / test flow block  LOGISTICS / CAPACITY / TESTING - Q-GATE	1.1.	reductions for sensitive parameters.								ناللا	ناب	غلب	غلط	ناللا	خلط		تلني	لثب		لتعا					final test flow.	
PAS-IND-QG		. Р	Change of test coverage.	e.g. change from 100% to sample inspection e. g. test flow block, reduction from three to two temperature measurements e.g. change in burn in/hun in process.	с																					R (electr. func R (reliability) o	ct.): test coverage. only for change in burn in
PAS-IND-QG			Guinge or test coverage.	temperature measurements e.g. change in burn in/run in process.	c						نانا	نلنا	غلنا	نلنا	نانا	غلنا										K (reliability) o process.	ny sor change in burn in
	CERAMIC / TANTALUM ANY																										
PAS-CER-AN	H Any change with impact on agreed upon technical contractual agreements	P P	Intended to be used if no other type of chang is applicable but the change affects agreed technical contractual assessments		•			-	÷								-		-	 -	-	÷ -	-	 -   -	÷	-	
PAS-CER-AN	the matrix below.	P P		Technical interface means component terminals.	В			-	- T		I - I -		L-I-	-   -	-   -	L-I-	- 1		1-1	 -   -	-		-	 	@•	-	
PAS-CER-OS	DATASHEET					Disk supersymmetric demandration con wherever																	1				
PAS-CER-OS	Ohange of datasheel parameters/electrical specification (min./max./hyp. values) and / or ACIDC specification	PP	Not included: Editorial changes.	e.g. sighten of electrical parameter distribution	A	Risk assessment depending on change for each application.	1 1	1	-								-					1 1			-		
			No technical change of product, process or test. New description of behavior which was not specified before or which is different from initial specification. Please include clearly, that infoncts contains this type of change!																								
PAS-CER-OS	Connection of data sheet or issue of emsts	1 1	specified before or which is different from initial specification. Please indicate clearly, that infoncts contains	e.g. data sheet correction because of new information about component behavior	A			-	-								-		-		-	-	-		-	-	
			this type of change! Assessment in application required?	1																							

MALICINE

MALICI

CERAMIC / TANTALUM

CERAMIC / TANTALUM

				Description of a new not previously covered																								П	
	PAS-CER-DS-03	Specification of additional parameters	1 8	Disscription of a new not previously covered parameter. No technical change of the product.  (6): no inflamos  (6): Pilks assessment depending on change for each application to provide evidence of additional parameter (size, enablatory)	g new (tested) parameter.	A		-   -	-			-	-			-	-   -						-	-		-	-   -	-	-
CERAMIC / TANTALLIM CERAMIC / TANTALLIM		MATERIAL		additional parametes (stat. evaluation)																								ш	
CERAMIC / TANTALUM	PAS-CER-MA-01 PAS-CER-MA-02	Change of material composition - Ceramic Binder Change of material composition - Tantalum Binder	P F	Dinder material (ceramic) Dinder material (tental) Binder material (tental)	ge from wax 1 to wax 2	c			-	: :		1-1	- [				· •						1-1	- [		-	-   -		-
CERAMIC / TANTALLIM				Dielectric change (caranic only)											-										-				
CERAMC / TANTALIM	PAS-CER-MA-03	Change of material composition - Dielectric	P	we not de changes, only departed winds	ge from ceramic A into ceramic B	С	•		•	• •	- •	•	-	- •	•	•		• -	В -	с -	•		-	-		-		1 - 17	
CERAMIC / TANTALUM		Change of material composition - Electrode Attach	Р	Discrede abach (only tartal, glue, carbon, Ag) e.g., change Electrode Material (only ceramic, inner electrode) e.g., change	ge of Ag particle size in conductive	С	-	• •				•	-				c •			c •			-	-		-		- 1	-
CERAMC / TANTALUM	PAS-CER-MA-05	Change of material composition - Electrode Material	P F	Electrode Material (only ceramic, inner e.g. change elctrode)	ge from spehric to flake shape (N paste)	С	-		•	• •		•	-		• -	•		• -	В -				-	-		-		<del>  -  </del>	-
	PAS-CER-MA-06	Change of material composition - Encapsulation	P F	Encapsulation e.g. change	ge from epoxy1 into epoxy2	С	Consider effect on usage on coated PSA (printed board assembly)		-			-				-							-	-		-		1 - 1/	Check whether ACI at Tier 1 can be affected
CERAMIC / TANTALUM				an rhansa	se from So2h in ruse Sn		B: in case component is used in costed PBA (printed board assembly)																					4	
CERAMC / TANTALIM	PAS-CER-MA-07	Change of material composition - Lead material / Termination		Lead material / Termination e.g. change e.g. change e.g. change e.g. change e.g. change	ge from SnPb to pure Sn ge of soft termination material ge of any galaxnic layer	В	•					•	•			•			В -				-	-		-		- 1	-
CERAMIC / TANTALUM	PAS-CER-MA-08	Change of supplier of material	- 1	Change to a new or additional material supplier at component manufacturer. e.g. for 2nd		С	-	• •	•	• •		•	-	-		•		• •	В -		С -		-	-		-		- 1	Assumption material specification remains unchanged. Otherwise see change of material.
CERAMC / TANTALUM	PAS-CER-DE-01	DESIGN  Changes of termination, surface finish, shape, color, appearance or dimension structure - Lead Diameter		Ones d'autéroire	ge from 0.6mm into 0.6mm	A			-						_	· · ·									_			$\overline{}$	
CERAMIC / TANTALUM	PAS-CER-DE-DI	Changes of termination, surface trials, steps, color, appearance of dissensors success.  Changes of termination, surface finish shape order sonestence or dissensors starting.					•															-   -	-	-		-		₩.	
CERAMIC / TANTALLM CERAMIC / TANTALLM	PAS-CER-DE-03	Changes of termination, surface finish, shape, color, appearance or dimension structure - Termination Area Changes of termination, surface finish, shape, color, appearance or dimension structure - Textend Interface.			ge in width of termination from 0.1 -0.3mm 0.4 mm onal layer in termination	В	-	• •			•		•			•				• •			-	-		-		+	
CERAMC / TANTALUM CERAMC / TANTALUM	PAS-CER-DE-04	Tenetical Interfere Changes of Inner construction - Electrode Thickness		Electrode thickness (ceramic only) e.g. N layer	er change from 2.5µm into 3.5µm	С			•	•		•	-		- •	•		• -	В -	@• -			-	-		-		-	@•
CERAMC / TANTALUM	PAS-CER-DE-05	Changes of inner construction - Layer Thickness	- 8	Layer thickness (delectric thickness) e.g. Cetamic Sym.	nic layer thickness changes from 3µm into	С		• -	•				-					•			С -		-	-		-			-
CERAMIC / TANTALLIM		Changes of inner construction - Number of Layers	- 6	Number of layers (caramic only). Allways in combination with PAS-CER-DE-OS.	yer thickness	С	-	•   •	-	СС	- c	С	-	c -	- C	-	- с	С -	B,C -	@C -	С -		-	-		-		1 - 17	-
CERAMIC / TANTALLIM CERAMIC / TANTALLIM		PROCESS  Changes in process technology or manufacturing methods - Dicing		Change of dicing e.g. change	se from cutting to sawing	С		• -		•		1 - 1	•			1-1	-   -	-   -	В -		C   -	T - T -	-	- 1	-   -		- 1 -		
CERAMIC / TANTALIM	PAS-CER-PR-02	Changes in process technology or manufacturing methods - Electrode apply	- 8	Electrode apply (dielectric layer process) e.g. change	pe from well to dry process	С		• -	С		- C	-	-			- (	СС	C -	B,C -	C -		I - I -	-	-		-		-	
CERAMIC / TANTALUM	PAS-CER-PR-03	Changes in process technology or manufacturing methods - Firing	- 8	Change of firing profile e.g. separati	ation of decarbonization and firing profile.	С	•	• •	-	• •											c -		-	-		-			-
CERAMIC / TANTALLIM	PAS-CER-PR-04 PAS-CER-PR-05	Changes in process technology or manufacturing methods - Lemination  Changes in process technology or manufacturing methods - Particle Size	- 1	Change of lamination / press techinque e.g. stamp p	press to isostatic press se DSO from 0.5um into 0.4um	c			-				-		-			• .	B -	•	С -	1						+	
CERAMIC / TANTALLIM				combination with PAS-CER-MA-03.									-								С -						-		
CERAMIC / TANTALLIM	PAS-CER-PR-06 PAS-CER-PR-07	Changes in process technology or manufacturing methods - Screening/Printing  Changes in process technology or manufacturing methods - Termination			se from screen printing into offset printing se in plating technology (final termination)	В			•		• •				- c			- ·	B,C -		C -			-			-	+	
CERAMIC / TANTALLIM CERAMIC / TANTALLIM			- 1	Change for termination preparation like plating e.g. change or apply of termination base layer.  Variation within process specification.  e.g. process		С								-   •					В -		1				1 1				
CERAMC / TANTALIM CERAMC / TANTALIM		PACKING / SHIPPING - NEW MATERIAL, CRITICAL DIMENSIONS																											
CERAMIC / TANTALUM		Packing / shipping specification change (loosening of tolerances)	P F	O Change of packing specification.	er of pieces on reel.	В	•		-			-	-			-							-	-		-			-
CERAMIC / TANTALUM	PAS-CER-PN-02	Dry pack requirements change	1 8	Change of dry pack requirements.  (i): Relaxation of dry pack requirements  (ii): NSL3 -  (iii):	e in dry pack assurance (HC, MES)  -> MSL 1  -> MSL 3	В	-		-			-	-			-							-	-		-		- 1	-
CERAMIC / TANTALLIM			Р	Change of carrier e.g. change e.g. change	ge by material ge by geometry.	В			-			-	-			-							-	-		-		- /	-
CERAMIC / TANTALUM		PACKING / SHIPPING - VISUAL INSPECTION  Change of labeling		Change of labeling, also on reel. (R e.g. addit	ditional information (RoHS stamp) range of customer specific information	В						т т																$\overline{}$	
CERAMC / TANTALUM	PAS-CER-PV-02		1 8	Change of abosing, sacron rest. (P) e.g. change e.g. change	range of customer specific information se of content of marking	В	•		-			-	-+			-						+ + + -	+ -	-		-		₩	
CERAMIC / TANTALUM		Change of product marking		Marking on device.	ge of content of marking ge of method of marking se of accessance of marking		•		-				-			-								-		-		<del>ان</del> ا	
CERAMIC / TANTALUM	PAS-CER-PV-03		P F	Change in packing specification which does not described a change of dimensions or specification specification.	ge of documentation in packing on	•	•		-			-	-			-							-	-		-		- 1	-
CERAMIC / TANTALLIM		LOGISTICS / CAPACITY / TESTING - EQUIPMEMENT		2																		1 1						$\overline{}$	Test effort depends on final risk
	PAS-CER-EQ-01	Production from a new equipment tool which uses a different technology or which due to its unique form or function can be expected to influence the integrity of the final product	P	Change in process technique which is not a already covered above.  Note: Changes affecting the product not covered by the table require also a PCN.	se from wet to dry technology.	С		• -	-	• -		•	-	• A		•			В -		С -		-	-		-		1 - 1/	exactormance test according to affected process change.
CERAMIC / TANTALUM			_						-	_																		+-+	Test effort depends on final risk
CERAMIC / TANTALUM	PAS-CER-ED-02	Production from a new equipment/boll which uses the same basic technology (replacement equipment or extension of existing equipment pool)	- 1	amaziw component production.	ation of manual handling processes	С	•	•   •	-	• •	• •	•	-	• A		•		• •	в -		С -		-	-		-		1 - 17	<ul> <li>assessment.</li> <li>Performance test according to affected process change.</li> </ul>
	PAS-CER-ED-03	Change in final test equipment type that uses a different technology	0	Change of final test equipment which use different technology. PCN required for dedicated equipment for sensitive parameters.	ge of teater platform	С													@B -										②◆ Gage RER / delta correlation
CERAMIC / TANTALUM				PCN required for dedicated equipment for sensitive parameters.	arti man pantin														95										Ge van Jana Coreanor
CERAMIC / TANTALUM	PAS-CER-PF-01	LOGISTICS / CAPACITY / TESTING - PROCESS FLOW		Change of manufacturing site. Includes transfer as well as additional site. Note: Recognization inside one plantintle is	ment or transfer of manufacturing site or ap(x) to a different location/site.																		1 1	<del>- 1</del>				$\overline{}$	
CERAMC / TANTALIM	PAS-CER-PF-01	Manufacturing site transfer or movement of a part of production process to a different location/site	P F	Note: Reorganization inside one plantisite is not affected.	ap(s) to a different location law.	В	•	• -	•	• •		•	٠	• •	• •	•	•	• •	В -	• •	С -		-	-		-		@•	@•
CERAMC / TANTALIM	PAS-CER-PF-02	Elimination or addition of a manufacturing process step		Change of manufacturing process sequence. e.g. washing e.g. change	ng / cleaning process se of order of processes	С			-			-	-			-							-	-		-			Characterisation depends on impact of production flow.
CERAMIC / TANTALUM		LOGISTICS / CAPACITY / TESTING - Q-GATE	_																	_				_				=	
	PAS-CER-QG-01	Change of test coverage used by the supplier to ensure data sheet compliance (e.g., elimination/addition of electrical measurement/last flow block, relixoston/enhancement of monitoring procedure or sampling)		Change of test coverage.  Change of test coverage.	ge from 100% to sample inspection low block, reduction from three to two re measurements ge in burn in/run in process.	С			-			-	-			-							-	-		-			R (electr. funct.): test coverage. R (reliability) only for change in burn in process.
CERAMIC / TANTALUM Film capacitors		FILM CAPACITORS		e.g. change	e in burn in/run in process.																								
Film capacitors		ANY		Intended to be used if no other type of change is applicable but the change affects agreed. Not relevant									Ŧ											Ī			_		
Film capacitors	PAS-FLM-AN-01 PAS-FLM-AN-02	Any change with impact on agreed upon technical contractual agreements  Any change with impact on processability/manufacturability at customer, which is not cowned in	PF		nt for technical evaluation.	В.	•		-			- 1	-			-							-	-		-	-	@•	
Film capacitors Film capacitors		the matrix below. DATASHEET	- 1 -	Technical in	interface means component terminals.	8						لنط							لنطنا				ليط					@•	
	PAS-FLM-DS-01		P F	Change of application relevant information Not included: Editorial changes.	n of electrical parameter distribution	A	Risk assessment depending on change for each application.		- [			-	-			-							-	-		-		- 1	
Film capacitors			+	No technical change of product, process or																									
	PAS-FLM-DS-02	Correction of data sheet or issue of emits		test.  New description of behavior which was not specified before or which is different from initial specification.  Please indicate clearly, that infoncis contains this type of change!	heet correction because of new n about component behavior	A						_	_			_										_		1 . 1/	
				initial specification.  Please indicate clearly, that Infoncts contains this type of change!	n about component behavior																							1 17	
Film capacitors			_	Assessment in application required!					_																			+	
	PAS-FLM-DS-03	Specification of additional parameters	Π.	parameter.	g new (tested) parameter.	A																							
			1	eg: no innumos  (P): Risk assessment depending on change for each application to provide evidence of additional parametes (stat. evaluation)																									
Film capacitors Film capacitors		MATERIAL.	_																									-	
			T	Typicaly change within approved PU remine			A: in combination with PAS-FLM-DS-01 or if change of sealing compound with effect to mechanical properties.																						
	PAS-FLM-MA-OI	Change of material composition - Sealing Compound	P F	Typically change within spoay or FU sealing without effect to mechanical properties.  Note: Change from spoay sealing into FU sealing (both direction) will lead to generate a new product.	ge of epoxy or PU composition									. @.									-	-		-		1 - 1	- Consider vibration in application
				mese gloom arectory we seed to generate a new product.			A: in case of high voltage components (rated voltage >= 100V) (final judgement by for 1, if used in HV application)																						
Film capacitors	PAS-FLM-MA-02	Change of material composition - Package	Р .	Change material of package e.g. change	aterial of package, ge from PBT to PPS ge of glas fiber ratio	В									@• •				- @•										Consider ADI and processability
Film capacitors			- 1	Change of Lead Termination		-	A: in combination with PAS-FLM-DS-01		+				-		0													$\vdash$	
	PAS-FLM-MA-03	Change of material composition - Lead Termination	Р	Change of Lead Termination  Note: If change of lead forms material leads to a.g. change of data these IRS change, when change of data sheet e.g. change (PAS-TIM-DS-01) has to be respected.	ge of basis material from Cu to Fe ge of finishing from SnPb to Sn	В	-	• •	-		• -	-	-					- •	в -				-	-		-		@•	Change of base material: Consider ESR, high frequency parameter
Film capacitors			+				B: for naked SMD					+																+	
Film capacitors	PAS-FLM-MA-OI	Change of material composition - Metal Spray (Schoop)	P	Change of Metal Spray (Schoop): Use different material for metal spray process for bosed and e.g. from 2n raiked types		С	•	• •		2• -	@• -	@•	-	- @•	- @•	@•		- @•					-	-		-		-	Consider ESR.  Soldershilly Test for raised SMD components.
Film capacitors	PAS-FLM-MA-QS	Change of material composition - Film	P F	Change of film material for boxed and rolled e.g. change faces	ge of additives (<1%) of film composition materiali	С	B: for naked SMD		- 6			@•		@•			<u>.</u>		@• -				-	-		-			@•
Film capacitors	PAS-FLM-MA-06		PF	Change of metal foil for inner electrods e.g. change	ge from Al to Al-Zn alloy	С	Check if other PAS-FLM-MA is self-order		- 6		- @•		@•			+			@• -	-   -			-	-		-			@•
Film capacitors	PAS-FLM-MA-GF	Change of supplier of material	- 1	Change to a new or additional material supplier at component manufacturer which are described above.	d source purpose	С	-	• •	•	• -	• -	•	-	-	• -	•	•	- •	- •	-			-	-		-		- 1	Assumption resterial specification remains unchanged. Otherwise see change of material.
Film capacitors		DESIGN		<u>'</u>												•		•				•							

		L	L							- 1		1 1		1	1 - 1 -	1 1 -	1 . 1			1 1	1 - 1			1 1	1 1				1 1	
Film capacitors	PAS-FLM-DE-01				e.g. change lead diameter from 0.5 to 0.4 mm e.g. change of thickness of terminal	A			• •		@• -	-		. @•	@• @•	- @•	@•			@B -	@•				-					-
	PAS-FLM-DE-02	Changes of termination, surface finish, shape, color, appearance or dimension structure - Termination Area	P which are	as of termination area are changes are affecting the area for connection of word and DCB.	e.g. change of termination layer thickness e.g. change in termination dimensions / shape	В			• •	- (	@• -	-		-				-   -	- @•		@•	@• -			-				- @•	-
Film capacitors	PAS-FLM-DE-03	Changes of inner construction - Inner Connection -	P Change o	of inner connection	e.g. change from soldered connection to welded	С				- 6	@• -	-	- @	• @•	- @•	- @-	· @• @			@• -	@•	@• -			-					
Film capacitors			Change of	of appearance.	e.g. change or adding of color on component		Check if MATERIAL is affected.						Ĭ	Ŭ	Ĭ	Ĭ				Ŭ		Ŭ								
	PAS-FLM-DE-04	Changes of termination, surface finish, shape, color, appearance or dimension structure - Appearance	P (P): Char	tintegrity. lange in appaerance with impact on	e.g. change or adding of color on component	В				-		-									-				-					
			Note: Ma	t integrity. ibsrking on device is defined as																										
Film capacitors	PAS-FLM-DE-OS	Changes of inner construction - Film/Foil -	P Change o	of film or foil design	e.g. change to a different foil supplier.	С	A: in combination with PAS-FLM-05-01			-			@•							В -	- 1				-					@•
Film capacitors	DASKE MORAN	Changes of inner construction - Insulation System .	Channe	of inner insulation in registry whyfore	e.g. change of potting material	С				_										в -										@•
Film capacitors		Changes of inner construction - Insulation System -	P element a	tagainst housing.	e.g. change of number of inner insulation layers (depending of insulation material thickness)			٠, ٠				<u> </u>							•		-				-					@•
Film capacitors	PAS-FLM-DE-07	Changes of termination, surface finish, shape, color, appearance or dimension structure - Process PROCESS	p Change o	of packaging	e.g., change of potting material e.g., change of number of inner insulation layers (depending of insulation material thickness) e.g., change of dimension or shape e.g., change of surface	В			• -	- (	@• -	@•		@•	@• -	@• @•	@•	-   -		- @•	-				-					-
Film capacitors		PROCESS	T.		e.g. change in resin filling process (mixing, sequences, polling,) e.g. change in hardening process (temperature,							П			1 1		$\overline{}$				т т			т т	1 1					
Film capacitors	PAS-FLM-PR-01	Changes in process technology or manufacturing methods - Package -	P Change of	of resin filling or hardening process at for boxed types only)	sequences, poling,) e.g. change in hardening process (temperature,	С		•	• •	•	•	-	•	•		• •		-			-				-	-				•
	PAS-FLM-PR-02	Changes in process technology or manufacturing methods - Terminal Attach -	p Change ?	s Terminal Attach Process to winding it for bosed and nacked types	e.g. spraying and / or galvanic process,	С	B: for naked SMD			-										в -										Consider ESR. Solderability Test for naked SMD components.
Film capacitors	DUE EL MERO CO		- Change of	of winding, flattening or tempering	e.g. weiging/ solaring	c												+ +												
Film capacitors	PAS-FLM-PR-04			s on within process specification.		c				•									•	B -	1									-
Film capacitors		PACKING / SHIPPING - NEW MATERIAL, CRITICAL DIMENSIONS			,																									
Film capacitors	PAS-FLM-PN-01	Packing / shipping specification change (sossering of tolerances)	P Change o	s of packing specification.	e.g. number of pieces on reel.	В				-		-		-							-				-					•
	PAS-FLM-PN-02	Dry pack requirements change	P (8: Relac	of dry pack requirements. seation of dry pack requirements	e.g. change in dry pack assurance (HC, MEB) (8: MSL 3 -> MSL 1 (P): MSL 1 -> MSL 3	В				-		-									-				-					-
Film capacitors	PAS-FLM-PN-03	Change of carrier (tray, real)	p Change o	and corrier	e.g. change by material e.g. change by geometry.	В																								
Film capacitors		PACKING / SHIPPING - VISUAL INSPECTION	<i>p</i>		e.g. change by geometry.	В					-   -		-   -						-   -					1 - 1 -				-   -	-   -	•
riii Capacida																														
	PAS-FLM-PV-01	Change of labeling	P Change o	of labelling, also on rest.	(f) e.g. additional information (Rol/G stamp) (P) e.g. change of customer specific information	В				-	-	-	-   -				1				-	1 1			-					
Film capacitors	PAS-FLM-PV-02	+	_		e.g. change of content of marking							H									H									
Film capacitors	PAS-FLM-PV-02		P Marking o	g on device.	e.g. change of content of marking e.g. change of method of marking e.g. change of appearance of marking	В				-						1 1					-	1 1			-					
	PAS-FLM-PV-03	Change of packing/shipping specification P	P not descr	s in packing specification which does crited a change of dimensions or I of the packing.	e.g. change of documentation in packing specification					-		-						-   -			-				-					-
Film capacitors Film capacitors	_	LOGISTICS / CAPACITY / TESTING - EQUIPEMENENT								_																				
		Droduction from a new assistmentified which your a different technology or which the leaves	Change is	s in process technique which is not covered above. Changes affecting the product not d by the table require also a PCN.																										Test effort depends on final risk
	PAS-FLM-BO-01	Production from a new equipment/boll which uses a different technology or which due to its unique form or function can be expected to influence the integrity of the final product	Note: Ch covered b	Changes affecting the product not d by the table require also a PCN.	e.g. implementation of new machines	С		٠, ١	•	-	•	•	@•	@•	@• •			•	•	В -	-	•   •			-	- 1		-   -		<ul> <li>assessment.</li> <li>Performance test according to affected process change.</li> </ul>
Film capacitors	PAS-FLM-EO-02																			в -										Test effort depends on final risk
Film capacitors	PAS-FLM-EQ-02	Production from a new equipment/boll which uses the same basic technology (replacement equipment or extension of existing equipment pool) -		quired for dedicated equipment for e component production.	e.g. estension of existing machine capacity	С		•	•	-	•	•	@•	@•	@• •			•	•	В -	-	• -			-	- 1		-   -		Performance test according to affected process change.
	PAS-FLM-EQ-03		Change of	of final test equipment which use it technology, quired for dedicated equipment for a parameters.																QΒ -										
Din canacines	PAS-FEBRUSES	Change in final test equipment type that uses a different technology	P PCN requirements	quired for dedicated equipment for e parameters.	e.g. change of tester platform	С				-		-	-   -	.   -		1 1 1			-   -	@B -	-		-   -		-	- 1	-   -			Gage R&R / delta correlation
Film capacitors		LOGISTICS / CAPACITY / TESTING - PROCESS FLOW			a.n. mounted or bandar of manufacturion site or																									
	PAS-FLM-PF-01	Manufacturing site transfer or movement of a part of production process to a different location/site P	P Includes to Note: Re	o of manufacturing site. Is transfer as well as additional site. Reorganization inside one plantisite is order!	e.g. movement or transfer of manufacturing also or process step(s) to a different location/also.	В			• •	•	•	•		•						в •	•	• -			-				- @•	@•
Film capacitors	PAS-FLM-PF-02			of manufacturing process sequence.		с				_							T													Characterisation depends on impact of
Film capacitors		Entertation of accision of a manufacturing process step  - LOGISTICS / CAPACITY / TESTING - Q-GATE	P Change o	or manufacturing process sequence.	e.g. change of order of processes	·					1											لتات							1 1	production flow.
Film capacitors		Change of test coverage used by the supplier to ensure data sheet compliance (e.g.,	P Change o		e.g., change from 100% to sample inspection e.g. lest flow block, reduction from three to two temperature measurements e.g., change in burn infrun in process.							П		1							T 1				1 1					R felectr. funct it test coverage.
Film corporations	PAS-FLM-QG-01	Change of test coverage used by the supplier to ensure data sheet compliance (e.g., elimination) addition of electrical measurement less flow block, relevation/tenhancement of monitoring procedure or sampling)	P Change o	of test coverage.	e.g. test flow block, reduction from three to two temperature measurements	С				-		-									-				-					R (electr. funct.): test coverage. R (reliability) only for change in burn in process.
QUARTZ CRYSTAL / SAW		QUARTZ CRYSTAL / SAW		!	e.g. change in burn in/run in process.																									
QUARTZ CRYSTAL / SAW QUARTZ CRYSTAL / SAW	DISCULANCE	QUARTZ CRYSTAL / SAW	Intended 9																											_
QUARTZ ORYSTAL / SAW	PAS-QUA-AN-OI	QUARTZ CRYSTAL / SAW  NY  Any change with impact on agreed upon technical contractual agreements  P	P Intended is applicate technical	d to be used if no other type of change cable but the change affects agreed of continuous consuments	Not relevant for technical evaluation.				-   -	-		-	-   -				-				1-1				-					-
QUARTZ CRYSTAL / SAW		QUARTZ CRYSTAL / SAW  NY  Any change with impact on agreed upon technical contractual agreements  P	P Intended is applica technical p	d to be used if no other type of change cable but the change affects agreed of continuous consuments						-		-									-				-				@•	-
QUARTZ ORYSTAL / SAW	PAS-QUA-AN-02	BOUNT CRYSTAL / SAW Any Charge with Impact on agreed upon inchrisiod contextual agreements P Any Charge with Impact on agreed upon inchrisiod contextual agreements Any Charge with Impact on processability/immunicationship of customer, which is not covered in p  ANY Charge with Impact on processability/immunicationship of customer, which is not covered in p  ANY Charge with Impact on processability/immunicationship of customer, which is not covered in p	Р	id to be used if no other type of change cable but the change affects agreed of content of consequents	Not relevant for technical evaluation.  Technical interface means component terminals.	В	Risk assessment depending on change		-   -					: :											-				- @•	-
QUARTZ CRYSTAL / SAW		BOUNT CRYSTAL / SAW Any Charge with Impact on agreed upon inchrisiod contextual agreements P Any Charge with Impact on agreed upon inchrisiod contextual agreements Any Charge with Impact on processability/immunicationship of customer, which is not covered in p  ANY Charge with Impact on processability/immunicationship of customer, which is not covered in p  ANY Charge with Impact on processability/immunicationship of customer, which is not covered in p	p Charge o	d to be used if no other type of change cable but the change affects agreed if it restorated tensorance in a particular tensorance in a particular tensorance to other tensorance in the change of the	Not relevant for ischnical evaluation.  Technical interface means component terminals.  a.g. lighten of electrical parameter distribution	В	Risk assessment depending on change for each application.					-									-				-				- @•	-
QUARTZ CRYSTAL / SAW QUARTZ CRYSTAL / SAW QUARTZ CRYSTAL / SAW	PAS-QUA-AN-02	BOUNT CRYSTAL / SAW Any Charge with Impact on agreed upon inchrisiod contextual agreements P Any Charge with Impact on agreed upon inchrisiod contextual agreements Any Charge with Impact on processability/immunicationship of customer, which is not covered in p  ANY Charge with Impact on processability/immunicationship of customer, which is not covered in p  ANY Charge with Impact on processability/immunicationship of customer, which is not covered in p	p Charge o	d to be used if no other type of change cable but the change affects agreed if it restorated tensorance in a particular tensorance in a particular tensorance to other tensorance in the change of the	Not relevant for ischnical evaluation.  Technical interface means component terminals.  a.g. lighten of electrical parameter distribution	В	Risk assessment depending on change for each application.			-											-				-				- @•	-
QUARTZ CRYSTAL / SAW QUARTZ CRYSTAL / SAW QUARTZ CRYSTAL / SAW	PAS-QUA-AN-02	BOUNT CRYSTAL / SAW Any Charge with Impact on agreed upon inchrisiod contextual agreements P Any Charge with Impact on agreed upon inchrisiod contextual agreements Any Charge with Impact on processability/immunicationship of customer, which is not covered in p  ANY Charge with Impact on processability/immunicationship of customer, which is not covered in p  ANY Charge with Impact on processability/immunicationship of customer, which is not covered in p	p Charge o	d to be used if no other type of change cable but the change affects agreed if it restorated tensorance in a particular tensorance in a particular tensorance to other tensorance in the change of the	Not relevant for ischnical evaluation.  Technical interface means component terminals.  a.g. lighten of electrical parameter distribution	В	Risk assessment depending on change for each application.					-									-				-				- @•	
CLIARTZ CRYSTAL / SAW CLIARTZ CRYSTAL / SAW CLIARTZ CRYSTAL / SAW	PAS-QUA-AN-02 PAS-QUA-0S-01	OUNTEXTENSION  TO THE PROPERTY OF THE PROPERTY	p Charge o	d to be used if no other type of change cable but the change affects agreed if it restorated tensorance in a particular tensorance in a particular tensorance to other tensorance in the change of the	Not relevant for ischnical evaluation.  Technical interface means component terminals.  a.g. lighten of electrical parameter distribution	B A	Rule assumers depending on change for each application.			-		-									-				-				- @•	-
QUARTZ CRYSTAL / SAW QUARTZ CRYSTAL / SAW QUARTZ CRYSTAL / SAW	PAS-QUA-AN-02 PAS-QUA-0S-01	OWNET CONTRAL SAW  ANY  Any Charge And Program any and open factorise all registerants.  P  Any Charge Any Cha	P Change of Not include the section of the section text. New dear specified in the section of the sec	of to be used if no other type of changes color but the change selects agreed of common test seminates or of application relevant information behavior following changes, excluded the property of product, process or confident of behavior with a fellowing and to behavior or which is different from production or the color of the color of the decision.	Not relevant for technical evaluation.  Technical interface masse component terminals.  s.p. lightes of electrical proximate distribution  s.p. lightes of electrical proximate distribution  s.p. data sheet correction because of new reformation should component between	B A	Table interesting depending on change for each application.					-																		-
CLIARTZ CRYSTAL / SAW CLIARTZ CRYSTAL / SAW CLIARTZ CRYSTAL / SAW	PAS-QUA-05-01  PAS-QUA-05-02	OWNET CONTRAL SAW  ANY  Any Charge And Program any and open factorise all registerants.  P  Any Charge Any Cha	P Change of Not include the section of the section text. New dear specified in the section of the sec	of to be used if no other type of changes color but the change selects agreed of common test seminates or of application relevant information behavior following changes, excluded the property of product, process or confident of behavior with a fellowing and to behavior or which is different from production or the color of the color of the decision.	Not relevant for technical evaluation.  Technical interface masse component terminals.  s.p. lightes of electrical proximate distribution  s.p. lightes of electrical proximate distribution  s.p. data sheet correction because of new reformation should component between	A A	Rula sussement depending on charge for each application.	• • • • • • • • • • • • • • • • • • •		-		-																		-
CUMPTIZ CIPCETAL / SAVI	PAS-QUA-AN-02 PAS-QUA-0S-01	OWNET CONTRAL SAW  ANY  Any Charge And Program any and open factorise all registerants.  P  Any Charge Any Cha	P Change of Not include the section of the section text. New dear specified in the section of the sec	of to be used if no other type of changes color but the change selects agreed of common test seminates or of application relevant information behavior following changes, excluded the property of product, process or confident of behavior with a fellowing and to behavior or which is different from production or the color of the color of the decision.	Not relevant for technical evaluation.  Technical interface masse component terminals.  s.p. lightes of electrical proximate distribution  s.p. lightes of electrical proximate distribution  s.p. data sheet correction because of new reformation should component between	B A	Rob measured depending on charge for each application.	• • • • • • • • • • • • • • • • • • •				-													-				- @•	
CUMPTIZ CIPCETAL / SAVI	PAS-QUA-05-01  PAS-QUA-05-02	OWNET CONTRAL SAW  ANY  Any Charge And Program any and open factorise all registerants.  P  Any Charge Any Cha	P Change of Not include the section of the section text. New dear specified in the section of the sec	of the used if no other logs of changes could be the change affects agreed of conservation and conservation and of conservation and conservation and of applicables relieved information shaded. Other of changes of conservation and changes of conservation and changes of conservation of the change of product, process or consistent of behavior which was not consistent of the change of product process or control of the change of the change of the product process of the change of the c	Not relevant for technical evaluation.  Technical interface masse component terminals.  s.p. lightes of electrical proximate distribution  s.p. lightes of electrical proximate distribution  s.p. data sheet correction because of new reformation should component between	A A	That an exercise depending on change for each application.	*   1   1   1   1   1   1   1   1   1				-													-				@•	
CUMPTE CRYSTIL / SAW	PMS-QUA-05-01  PMS-QUA-05-01  PMS-QUA-05-02  PMS-QUA-05-03	### COUNTY ACT SHAW  ###  *******************************	P Change of Mol Including Mol Including Mol Including Mol Including Includin	of the use of in other type of change points to the change affects agreed of change affects agreed of change affects agreed of agriculture information to the change of the change of change of agriculture information where the change of product, process or contact change of product, process or contact of these and product, process or contact of the change of product, process or contact of the change of product, process or profusions,	Not relevant for technical evaluation.  Technical interface masse component terminals.  s.p. lightes of electrical proximate distribution  s.p. lightes of electrical proximate distribution  s.p. data sheet correction because of new reformation should component between	A A	The assessment depending on change for the law spirituals.																							
CUMPTIZ CIPCETAL / SAVI	PAS-CUA-AN-02  PAS-CUA-CS-02  PAS-CUA-CS-02  PAS-CUA-CS-03	### Country of the Page of the	P Change of Post Not included to the State of St	of the said of a color type of chapped the large and the l	Not all each for burshed, or decided to the control of the control	A A A	Make assessment depending or infraregular tracks application.					-																		
CHARTE CONSTAL / SAME	PMS-QUA-VIS-01  PMS-QUA-CIS-01  PMS-QUA-CIS-03  PMS-QUA-CIS-03  PMS-QUA-MIN-01  PMS-QUA-MIN-01	### Open Control of the Control of t	P Charge of the	this is used if no other type of cheeper and the large and	Not released to hardward selection.  The released to hardward selection.  14.5 Upon of selection promoted intervals.  15.5 Upon of selection promoted released of the bullon  15.5 Advantage of selection promoted released of the bullon  15.5 Advantage of the selection promoted released of the bullon  15.5 Advantage of the selection promoted released or the selection of the select	A A A A	The assessment depending on sharpy was the special and the spe			-		@•	•				• @	@•		- @-	•									- Carrier to distinct
CUMPTIC CIPCETAL, I SAMI	PAS-QUA-05-00  PAS-QUA-05-00  PAS-QUA-05-00  PAS-QUA-05-00  PAS-QUA-05-00  PAS-QUA-05-00  PAS-QUA-05-00  PAS-QUA-06-00	Page	P Change of P Change of P P Change of P Ch	this is would not other type of others, and is the property of the property of the type of	Not all and the hardward endudents  The desired conference are compared or include  1.5 Spline of described personnel and the facts  1.5 Spline of described personnel and the facts  1.5 Spline of described personnel and the facts  1.5 Spline of described personnel and the described	A A A A B	Red assessment depending on Chargo to seath application			-	• •	@•	•		• •	• •	• @			- @•	•									Orange in Ministrated  Tomps in Ministrated  Tomps and ministrated and ministrate may be a financial and min
CAMPIC CRYSTAL, FAMI	PAS-QUA-NS-Q2  PAS-QUA-CS-Q2  PAS-QUA-CS-Q2  PAS-QUA-CS-Q3  PAS-QUA-MS-Q1  PAS-QUA-MS-Q1  PAS-QUA-MS-Q2  PAS-QUA-MS-Q3  PAS-QUA-MS-Q3  PAS-QUA-MS-Q4	Page	P Change of Change of P Change of Ch	this is and if no other type of sheap of the popular to the special to display of the special to	Not released to behind of selection.  The released to behind of selections.  It is a selection distribution as an arrayment for stroub.  It is lighter of description from the following of the selection of the s	A A A B B	The examinate depending on charge which is said table.		· ·	-	• @•	@•		•	•		• @	@• • •		- @•	•	• •		- @•						Comp to Minared  Comp to Minared  Temperature appears confined in your product appears confined in
CLIMITE CRITETIA, I SANI   CL	PAS-QUA-05-01  PAS-QUA-05-02  PAS-QUA-05-02  PAS-QUA-05-03  PAS-QUA-05-03  PAS-QUA-05-03  PAS-QUA-05-03  PAS-QUA-05-03  PAS-QUA-05-03  PAS-QUA-06-03  PAS-QUA-06-03  PAS-QUA-06-03  PAS-QUA-06-03	Page	P Charge c No technical No tech	of the second of an other type of others and of the other type of the second of an other type of the second of the s	Not also and to the You'd will allow.  This final distribution are as compared to travals.  1-6 Spiller of distribution generated administration.  1-6 Spiller of distribution generated administration.  1-8 Spiller of distribution generated administration.  1-8 Spiller of distribution generated administration.  1-8 Spiller of distribution generated administration.  1-9 Spiller of the Spiller of Generated administration administration administration administration administration administration administration.  1-9 Spiller of	A A A B B A	This assessment depending on thereper texts suptimized.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	· ·	•	• @•	@• • @•	• •	• •	• •	• •	• 6	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	 	- @• B - B -	•	• •		- @•						Comp to thereod  Comp to thereod  Comp to separate orbits on the control of the c
CAMPIC CRYSTAL, FAMI	PIGGUA-MIG	Page	P Change of the first included in the first in the	of the second of an order type of otherwise and before the second of an order type of the second of the	Not all cont for two final of will allow.  The control of which was a compared principle.  In Spirit of descript permitted and final or a spirit of the control of the cont	A A A B B A C C	This assessment depending on charge for seath application		· · · · · · · · · · · · · · · · · · ·		• @•	@• • @• @Y	•				• 6	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	 	B - B - B - B - B -				- @•	• - • - • -					- Electrical function offerind in case of
SAME CHEEK, FAME CAMPE CHEEK,	PAS-QUA-05-01  PAS-QUA-05-02  PAS-QUA-05-02  PAS-QUA-05-03  PAS-QUA-05-03  PAS-QUA-05-03  PAS-QUA-05-03  PAS-QUA-05-03  PAS-QUA-05-03  PAS-QUA-06-03  PAS-QUA-06-03  PAS-QUA-06-03  PAS-QUA-06-03	Page	P Charge c No technical No tech	of the second of an order type of otherwise and before the second of an order type of the second of the	Not also and to the You'd will allow.  This final distribution are as compared to travals.  1-6 Spiller of distribution generated administration.  1-6 Spiller of distribution generated administration.  1-8 Spiller of distribution generated administration.  1-8 Spiller of distribution generated administration.  1-8 Spiller of distribution generated administration.  1-9 Spiller of the Spiller of Generated administration administration administration administration administration administration administration.  1-9 Spiller of	A A A B B A	The assessment depending on sharing in the large of the l		· · · · · · · · · · · · · · · · · · ·		• @•	@• • @• @Y	•			• •	• 6	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	 	- @• B - B -		• •		- @•	• - • - • -					- Electrical function offerind in case of
CLIMITE CHICETAL, I SANI   CLIMITE CHICETAL, I SANIII CLIMITE CHICETAL, I SANII CLIMITE CHICETAL, I SANIII CL	PIGGUA-MIG	Page	P Change of P Chan	the bit would find order the and otherwise and before the service of the service	Not all cont for two final of will allow.  The control of which was a compared principle.  In Spirit of descript permitted and final or a spirit of the control of the cont	A A A B B A C C	This assessment depending on charge to such application.			- - - @• @•	• @•	@• • @• @Y	• · · · · · · · · · · · · · · · · · · ·				• 6	@• @•	 	- @• B - B - @B - B - @B -				- @•	• - • - • -					Electrical function affected in case of
CAMPE CONTENT, FAMIL CAMPE CONTENT CA	PIGGUA-MIG	Page	P Change of P Chan	the bit would find order the and otherwise and before the service of the service	Not all cont for two final of will allow.  The control of which was a compared principle.  In Spirit of descript permitted and final or a spirit of the control of the cont	A A A B B A C C	The economic dipending or charge which is splitted.			- - 0.• 0.•	• @•	@• • @• @Y	• · · · · · · · · · · · · · · · · · · ·		• •		• 6	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	 	B - B - B - B - B -				- @•	• - • - • -					- Electrical function offerind in case of
SAME CHEEK, FAME CAMPE CHEEK,	PAS CUA-MISCO PAS CUA-CIS-COI PAS CUA-CIS-COI PAS CUA-CIS-COI PAS CUA-CIS-COI PAS CUA-CIS-COI PAS CUA-MISCO PAS CU	Page	P Change of the control of the contr	of the second of control region of checking and the second of control region of checking and the first of checking and the	Not also and to such seal of s	A A A B B B C C C	This assessment depending on therepore to the splitted on the splitted of the			- - @• @•	• @•	@•	• @ @ @ @ • @		• •		• 6	@• @•	 	B - B - B - B - B - B - B - B - B - B -				- @•	• - • - • -					Electrical function affected in case of mechanical stress distribution change.     ACI, wave soldering and bosed coating has to be assessed. MCI, might be channel.
CAMPE CONTENT, FAMIL CAMPE CONTENT CA	MG-QUA-MG-QI PNG-QUA-GG-QI PNG-QUA-GG-QI PNG-QUA-MG-QI	Page	P Change of P P Change of P Change of P P Change of P P Change of P P P Change of P P P P P P P P P P P P P P P P P P	the base and of an other layer of observed and before the served of the	Not all cont for to his half of will allow.  The control of the control of will allow.  In Spirit of description grows are compared between a spirit of the control of the	A A A B B B C C C C	The assessment depending on charge and the second of the the second			@• @•	· @•	@•			• • •	• • • • • • • • • • • • • • • • • • •		@•	 	- @• B - B - B - B - B - B - B - B - B - B -				- @•	• - • - • -					Electrical function affected in case of mechanical stress distribution change.     ACI, wave soldering and bosed coating has to be assessed. MCI, might be channel.
SAME CONTEX, I SHA	MG-QUA-MG-QI PNG-QUA-GG-QI PNG-QUA-GG-QI PNG-QUA-MG-QI	Page	P Change of P P Change of P Change of P P Change of P P Change of P P P Change of P P P P P P P P P P P P P P P P P P	the base and of an other layer of observed and before the served of the	Not also and to such seal of s	A A A B B B C C C	The assessment depending on sharing in the last state of the last			@• @•	• @• • @•	@•			• • •			@• @•	 	B - B - B - B - B - B - B - B - B - B -				- @•	• - • - • -					Electrical function affected in case of mechanical stress distribution change.     ACI, wave soldering and bosed coating has to be assessed. MCI, might be channel.
SAME CONTEX, I SAME SAME C	PIC CUA MIG III PIC CUA MIG II	Page	P Design of the second of the	the bit would not only the ord of the page and before page and before the page and bef	Not allowed to hardward enduring.  Not allowed to hardward enduring.  10 Spilling of destroyed prompted britishin.  10 Spilling of destroyed prompted for britishin.  10 Spilling of the spilling of t	A A A B B B C C C C	This assessment depending on charge for texts significant.			· · · · · · · · · · · · · · · · · · ·	· @•	@•			• • •	• • • • • • • • • • • • • • • • • • •			 	- @• B - B - B - B - B - B - B - B - B - B -				- @•	• - • - • -					Electrical function afficient in case of the control of the contro
SAME CONTEX, I SAME SAME C	PIC CUA MIG III PIC CUA MIG II	Page	P	this beautiful or other type of change in the two managements and the company of	Not allowed to sufficient endeduces To broad infection cases compared transport To broad infection cases compared transport to the sufficient of description of the sufficient of description to Spring of description of description to Spring of Spring of description of description to Spring of Spring of Spring of Spring to Spring on Spring of Spring to Spring on Spring of Spring to Spring of Spring of Spring to Spr	A A A B B A C C C C B B B	The assessment depending or charge which is suitable.			@• @•	• @• • @•	@•  @•  @Y  @Y  @Y	•		• • •		• @			B - 08B - 08	•	•		- @•	• - • - • -					Electrical function afficient in case of the control of the contro
CAME CHIEF, I SHE CAME CHIEF C	PM-GUA-M-GE PM-GUA-M-GE PM-GUA-GE-GE PM-GUA-GE-GE-GE-GE-GE-GE-GE-GE-GE-GE-GE-GE-GE-	Page	P	the bit would not only the ord of the page and before page and before the page and bef	Not allowed to sufficient endeduces To broad infection cases compared transport To broad infection cases compared transport to the sufficient of description of the sufficient of description to Spring of description of description to Spring of Spring of description of description to Spring of Spring of Spring of Spring to Spring on Spring of Spring to Spring on Spring of Spring to Spring of Spring of Spring to Spr	A A A A B B B A C C C C B B	The assessment depending on therepare to the second of the			@• @•	•	@•	•		• • •	@Y -	• 66 • 60 • 60 • 60 • 60 • 60 • 60 • 60			- @• B - B - B - B - B - B - B - B - B - B -	•			- @•	• - • - • -					Electrical function affected in case of manufacted enter data delicities change, the lab be assessed MCE, engly to for a common MCE, engly to impedence my be influenced.
SAME CHIEF, FAME  SAME CHIEF	PRIS CUA MIGO IN PRIS C	Page	P Company Comp	the beautiful or the property of the property	Not allowed to sufficient endeduces To broad infection cases compared transport To broad infection cases compared transport to the sufficient of description of the sufficient of description to Spring of description of description to Spring of Spring of description of description to Spring of Spring of Spring of Spring to Spring on Spring of Spring to Spring on Spring of Spring to Spring of Spring of Spring to Spr	A A A B B A C C C C B B B	This assument depending on through the second seco				• @• • @• • @• • @•	@•  @•  @•  @Y  @Y	e	@•	• • •					B - 08B - 08		•		- @•						Control factor effects or come of section for the common of section for the common of section for the common of th
SAME CONTEX, FAMI SAME CONTEX,	PROCURATION OF THE PROCURT OF THE	Page	P   Description   P   Descri	of the second of an order type of checking on the two for the part of the part	Not allowed for survivació estadeses.  The control of the control	A A A A B B B C C C B B B B C C	The assessment depending on sharing when the part of t			@• @•	• @•	@•  @•  @•  @Y  @Y	e							B - @ B - B - B - B - B - B - B - B - B		•		· @•						Control factor effects or come of section for the common of section for the common of section for the common of th
SAME CONTENT, TOWN SAMES C	PIC GUA MIGO PIC GUA PIC GUA MIGO PIC GUA PIC	Page	P Description  Research  R	with the second of an order type of otherwise and before the company allows registed and before the company allows registed and the company allows registed and the company allows registed and the company allows allowed the company allows allowed the company allowed	Not all control to the Notice of workshop.  Not all control to the Notice of workshop.  A plane of decision of promotion for transp.  A plane of decision of promotion.  A plane of decision of promotion.  A plane of decision of promotion.  A plane of decision of transp.  A plane of decision of transport of trans	A A A B B B C C C C B B B B B B B B B B	This assessment depending on therepe for this hydriden.			@• @•	•	@•  @•  @Y  @Y  @*  @*  @*  @*  @*  @*  @*  @*		@•		@• •				B - B - B - B - B - C - C - C - C - C -		•		. @•						Electrical function afficient in case of the control of the contro
SAME CONTEX, FAMI SAME CONTEX,	PIC GUA MIGO PIC GUA PIC GUA MIGO PIC GUA PIC	Page	P	the base and of an order type of cheeper and before paid to be the control of the	Not all cont for two hands of the control of control of the contro	A A A A B B B C C C B B B B C C	The assessment depending or charge which is suited as a second of the control of				• @• • @• • @• • @• • @• • @•	@•		@•		8Y				B		•		· @•						Control function of function in constitution of function in constitution of function in constitution in c
SAME CONTENT, TOWN SAMES C	PIC GUA MIGO PIC GUA PIC GUA MIGO PIC GUA PIC	Page	P	the base and of an order type of cheeper and before paid to be the control of the	Not all cont for two hands of the control of control of the contro	A A A B B B C C C C B B B B B B B B B B	The assessment depending on things we have specified in the specified on t				• @• • @• • @• • @• • @• • @•	@•		@•		@• •				B - B - B - B - B - C - C - C - C - C -		•		. @•						Control function of function in constitution of function in constitution of function in constitution in c
SAME CONTENT, TOWN SAMES C	PRIS CUA MINO III PRIS CUA MIN	Page of the state of companies - Court State   Page of the state of companies - Court State   Page of the state of companies - Court State of court State of companies - Court State of	P   Chapter	the bit would find order type of cheeping and before the contract the	Not all control to the Notice of workshop.  Not all control to the Notice of workshop.  A plane of decision of promotion for transp.  A plane of decision of promotion.  A plane of decision of promotion.  A plane of decision of promotion.  A plane of decision of transp.  A plane of decision of transport of trans	A A A A B B B B C C C C C B B B B A A B B B B	This assument depending on through the second secon					@• @• @Y	•			@• • • • • • • • • • • • • • • • • • •	• @ • @ • @ • @ • @ • @ • @ • @ • @ • @			B - B - B - B - B - B - B - B - B - B -		•		. 6.						Control factor effects or come of section for the common of section for the common of section for the common of th
SAME CONTEX, FORE SAME CONTEX,	PRIS CUA MINO III PRIS CUA MIN	Page   American   Page   Pag	P   Change   P	the bits and of an other type of cheeps and before the common of the com	Not allocate for burst-out of education.  Not consideration control of the contro	A A A B B B A C C C C B B B B B B B B B	The assessment depending on change the last state of the last stat					@• @• @Y	•			@Y				B		•		. 6.						Control function of function in constitution of function in constitution of function in constitution in c
CAMED CONTEXT, FAMIL	PRIS CUA MINO III PRIS CUA MIN	Page   American   Page   Pag	P   Change   P	the bits and of an other type of cheeps and before the common of the com	Not allocate for burst-out of education.  Not consideration control of the contro	A A A A B B B B C C C C C B B B B A A B B B B	The assessment depending on thereper to the spitched of the sp					@• @• @Y	•			@Y	• @ • @ • @ • @ • @ • @ • @ • @ • @ • @			B - B - B - B - B - B - B - B - B - B -		•		. 6.						Control function of function in constitution of function in constitution of function in constitution in c
SAME ORDER, FAME  SAME ORDER,	PRIS CUA MINO III PRIS CUA MIN	Page   A page of a page	P   Charge	the bits and of an other type of cheeps and before the common of the com	Not all cont for two hands of the control of control of the contro	A A A A A A A A A A A A A A A A A A A	The economic depending or charge which is labelled in the control of the control					@• @• @Y	•			@Y				B - B - B - B - B - B - B - B - B - B -		•		. 6.						Control function of function in constitution of function in constitution of function in constitution in c

RTZ CRYSTAL / SAW																													
TZ CRYSTAL / SAW	PAS-QUA-PR-01	PROCESS  Changes in process technology or manufacturing methods - Quartz Blank		P Change of Quartz Blank process	e.g. change of cutting or lapping technology	С		• •		•			1 - 1			- •	1-1	- B -			- [ - ]								
	PAS-QUA-PR-02	Changes in process technology or manufacturing methods - Blank Etching / Cleaning	-		e.g. change from liquid etching to plasma etching	С			-		-		-		- @•	- @•	-	- в -		-			- 7	- 7	/			-	
IZ CRYSTAL / SAW	PAS-QUA-PR-03	Changes in process technology or manufacturing methods - Electrode Formation	1 1	P Change of Electrode Formation process	e.g. change from evaporation to sputtering	С					1 1					- @•		- в -						_	_	_			
TZ CRYSTAL / SAW			÷	Change of Auto Tim reviews (Method of Smill	e.g. crange non-empiration to sponsing					•	+		-							-			+++	4	<del>ان</del> اك	-			
TZ CRYSTAL / SAW	PAS-QUA-PR-04	Changes in process technology or manufacturing methods - Trimming	-	P Change of Auto Trim process (Method of final frequency tuning)	e.g. change from evaporation to ion beam	с		• •	-		-		-		• •	- @•	-	- в -	• -	-			4	تبلت	خلت	4		-	
	PAS-QUA-PR-05	Changes in process technology or manufacturing methods - Bonding / Annealing		P Change of Blank bonding / zenealing process. Change of method how apply conductive material to base or blank		С				. @•	@Y	@Y •	-			-	-	- в -		-		- @Y	4 - 17	4- 17		/ - /			
TZ CRYSTAL / SAW			+	material to base or blank																			-	_	_	4	_		
TZ CRYSTAL / SAW		Changes in process technology or manufacturing methods - Can / Cap Attaching		P Change of CapiCan attaching process	e.g. change of the sealing process e.g. change from batch oven to reflow oven	С											-			-			4	ست	خلك	4		-	
ITZ CRYSTAL / SAW	PAS-QUA-PR-07	Changes in process technology or manufacturing methods - Molding	-	P Change of Overmolding process. Not relevant for typical SMD.	e.g. change of overmold process parameter	С		•	@•	• @•	•	@• @	• •	• @• -			-	- в •		-					خلت			-	
	PAS-QUA-PR-08	Changes in process technology or manufacturing methods - Marking	-	P Change of Marking process	e.g. change from inked marking to laser marking e.g. marking of pin 1 e.g. change of appearance (additional marking)	В			-		-		•				-			-		- @•		4- 17		/ - /		- ACI check necess	saary!
ITZ CRYSTAL / SAW	PAS-QUA-PR-09	Changes in process technology or manufacturing methods - Aging	+-+	_ Change of Aging process. Typically no aging	e.g. change of appearance (additional marking) If soing is done: e.g. change of times or	С					1					-	-	- в -						_	_	+			
ITZ CRYSTAL / SAW	PAS-QUA-PR-09 PAS-QUA-PR-10	Changes in process technology or manufacturing methods - Aging	+-+	Change of Aging process. Typically no aging done on quartz crystals.  P Variation within process specification.	temperatures	c		• •	@•		+		-		• •	•	+	- в -	•	-			+	۰	÷	+		-	
ITZ CRYSTAL / SAW	PROGRAMMO	PACKING / SHIPPING - NEW MATERIAL, CRITICAL DIMENSIONS			e promitorio					-   -																			
	PAS-QUA-PN-01	Packing / shipping specification change (loosening of tolerances)	P	P Change of packing specification.	e.g. number of pieces on real.	В			-		-		-				-			-				4- 17		/ - /		-	
ITZ CRYSTAL / SAW			1 1	Change of dry pack requirements.		В					1 1													_	_	_			
ITZ CRYSTAL / SAW		Dry pack requirements change	- 1	Change of dry pack requirements.  P (8: Relaxation of dry pack requirements  (P): Tightening of dry pack requirements	(I): MSL 3 → MSL 1 (IP): MSL 1 → MSL 3				-		-		-				-			-			-			4 -		-	
TZ CRYSTAL / SAW			P	P Change of carrier	e.g. change in dry pack assurance (HC, MES) (R: MSL 3 -> MSL 1 (P): MSL 1 -> MSL 3 e.g. change by realeral e.g. change by geometry.	В			-		-		-				-			-				/- I	/	/ - /		-	
TZ CRYSTAL / SAW		PACKING / SHIPPING - VISUAL INSPECTION	_																				=	_	_	_			
	PAS-QUA-PV-01	Change of labeling	1	P Change of labeling, also on reel.	(B) e.g. additional information (RoHS stamp) (P) e.g. change of customer specific information	В			-		-		-				-			-				/- I	/	/ - /		-	
LE CATSINE I SAII	PAS-QUA-PV-02	Change of product marking			e.g. change of content of marking e.g. change of method of marking	В																							
ITZ CRYSTAL / SAW	nacanyra.	Charge or product making			e.c. change of appearance of marking				-		-						-			-			علنا	سه	خلك	علنسك		-	
	PAS-QUA-PV-03	Change of packing/shipping specification	Р	Change in packing specification which does not described a change of dimensions or material of the packing.	e.g. change of documentation in packing specification				-		-		-				-			-				-		4 - 7		-	
ITZ CRYSTAL / SAW		LOGISTICS / CAPACITY / TESTING - EQUIPMEMENT		maximal of the packing.																				_	_	_			
			$\Box$	Change in process technique which is not																								Test effort depends	nds on final risk
	PAS-QUA-EQ-01	Production from a new equipment/tool which uses a different technology or which due to its unique form or function can be expected to influence the integrity of the final product	ue p	P Change in process technique which is not already covered above.  Note: Changes affecting the product not covered by the table require also a PCN.	e. g. new equipment supplier with different process concept	С			- 1		-		-				-	- @B -		-								Test effort depends assessment. Performance test a	d according to affected
TZ CRYSTAL / SAW		+																					+	-	-	+		process change. Test effort depends	nds on final risk
	PAS-QUA-EO-02	Production from a new equipment/boil which uses the same basic technology (replacement equipment or extension of existing equipment pool)	1 - 1	PCN required for dedicated equipment for sensitive component production.	e.g. additional equipment to increase production capacity e.g. replacement of same equipment	С			-		-		-				-	- @B -		-				-		4 - 7		Test effort depends assessment. Performance test a process change.	t according to affected
TZ CRYSTAL / SAW		<del> </del>		Channe of final test are insent which	e.g. replacement of same equipment																		+	-	-	-		process change.	
	PAS-QUA-EQ-03	Change in final test equipment type that uses a different technology	Р	Change of final test equipment which use different technology. PCN required for dedicated equipment for sensitive parameters.	e.g. change of tester platform	с			-		-		-				-	- @B -		-				-				@ Gage R&R / delta o	a correlation
RTZ CRYSTAL / SAW		LOGISTICS / CAPACITY / TESTING - PROCESS FLOW		sensitive parameters.							ш													_		ш			
RTZ CRYSTAL / SAW		LIDWINIUS / CAPACITY / TESTING - PROCESS FLOW			e.g. movement or transfer of manufacturing site or process step(s) to a different location/site.																					$\overline{}$			
	PAS-QUA-PF-01	Manufacturing site transfer or movement of a part of production process to a different location/site	to P	Change of manufacturing site. Includes transfer as well as additional site. Note: Receganization inside one plantisite is not affected.	process step(s) to a different location/site. e.g. dual source / fab strategy	В			•	•	•	• •	•		• •	• •	-	• B •	• •	-				-		4 - 1	- @•	@•	
www.rane.rami	PAS-QUA-PF-02	Elimination or addition of a manufacturing process step	1.1	P Change of manufacturing process sequence.		С			- 1		1						1 - 1			-								(Characterisation d	depends on impact of
RTZ ORYSTAL / SAW		LOGISTICS / CAPACITY / TESTING - Q-GATE	_								_	_					_						_	_	_	_		production flow.	
	PAS-QUA-QG-01	Change of test coverage used by the supplier to ensure data sheet compliance (e.g.,	$\Box$		e.g. change from 100% to sample inspection e.g. test flow block, reduction from three to two temperature measurements	с																						R (electr. funct.): 6 R (reliability) only f	: test coverage.
TZ CRYSTAL / SAW	MAS-QUA-QG-01	Change of test coverage used by the supplier to ensure data sheet compliance (e.g., elimination/addition of electrical measurement/less flow block, relaxation/enhancement of monitoring procedure or sampling)		P Change of test coverage.	e. g. sest tow book, reduction from times to two temperature measurements e.g. change in burn in/run in process.	С																						R (nellability) only f process.	y for change in burn in
P		ALUMIUM ELECTROLYTIC CAPACITORS																											
P		ANY	$\overline{}$	Intended to be used if no other type of change																				_		_			
p		Any change with impact on agreed upon technical contractual agreements	Р	P Intended to be used if no other type of change is applicable but the change affects agreed technical contractual agreements.	Not relevant for technical evaluation.	•			-		-		-				-			-			-		-			-	
	PAS-ALU-AN-02	Any change with impact on processability/manufacturability at customer, which is not cowned in	Р	P	Technical interface means component terminals. See processability on board level.	В			-		-		-				-			-				/-   /	A 1	/ - /	- @•	-	
P		DATASHEET	-																										
	PAS-ALU-DS-01	Change of datasheet parameters/electrical specification (min/max/typ. values) and / or ACIDC specification	P	P Change of application relevant information Not included: Editorial changes.	e.g. lighten of electrical parameter distribution	A	Risk assessment depending on change for each application.		-		-		-				-			-				4- 17		/ - /		-	
IP.			++	No technical change of product, process or text.  No technical change of product, process or text.  It was description of behavior which was not specified before or which is different from initial specification.  Please includes clearly, that infoncis contains this type of change!  Assessment is application previous!												_	+ +						+	_	_	_	-		
				New description of behavior which was not																			/ /			4			
	PAS-ALU-DS-02	Correction of data sheet or issue of errats	1	initial specification. Please indicate clearly, that Infoncts contains	e.g. data sheet correction because of new information about component behavior	A			-	-   -	- 1	-   -	-			-   -	- 1			- 1			1 1				-   -	-	
ip.				this type of change! Assessment in anolication required?																									
				Assessment in avoicitation remined?  Disscription of a new not previously cowned parameter.  Possible scheduled change of the product.  Possible sassessment depending on change for each application to provide editions of additional parameters.																			1 1	/ /		4			
	PAS-ALU-DS-03	Specification of additional parameters	1.1	No technical change of the product. P dit no influence	e.g. adding new (tested) parameter.	A			-				-				-			-			4	4. 17		/ . /		_	
				(P): Risk assessment depending on change for each application to provide evidence of																			/ /			4			
φ		MATERIAL		additional parametes (stat. evaluation)									$\perp$						-	$\sqcup \sqcup$				_					
۴		MILEOU.	ТТ				Consider effect on surface tension,				П		Т				Т							_	$\overline{}$	$\overline{}$			
	PAS-ALU-MA-01	Change of material composition - Housing	P	P Change of housing	e.g. change All alloy for housing	С	Consider effect on surface tension, mechanical robustness or thermal properties						-		• @•	-	-			-			4 - 17	4- 17		/ - /			
10							S: only if a cap holder holds the																/ /	/ /	/ /				
																										VIII IN			
	PAS-ALU-MA-02						casacitor body by pressing.  B: in case of external surface of sealing is channed.																	₩	#	+			
φ	PAS-ALU-MA-02	Change of material composition - Sealing	Р	P Change of sealing	e.g. change of rubber compound e.g. change of sealing disc material (solal, Snap in)	с	E: only if a cap holder holds the casecler body by pressing.  E: in case of edernal surface of sealing is changed.  (Consider gluing, laquering, coaling of		-						- @• (	@S •	-			-			-	-				-	
					e.g., change of rubber compound e.g., change of easiing disc material (axial, Snap-in)		casaction body by creating.  8: In case of external surface of sealing is charged.  (Consider gluing laquering, coating of PPCB, nano coating, washing,)  8: Only for clued case-view.													-			-	-				-	
φ		Change of material composition - Sealing  Change of material composition - Enternal Invalidation	Р	P Change of external insulation / steeving	e.g., change of rubber compound e.g., change of sealing disc material (solal, Snep-in) e.g., change from PVC into PET e.g. change of color	С	(Consider gluing, laquering, coating of PCB, nano coating, washing,)  B: Only for glued capacitors.	· · ·							- @• (					-			-	-		-		Bitssed Humidity is without applying or	y lissit can be done vollage.
φ	PAS-ALU-MA-CO		Р	P Change of external insulation / steeving	e.g. change from PVC into PET e.g. change of color		(Consider gluing, laquering, coating of PCB, nano coating, washing,)  B: Only for glued capacitors.		@•							@S •	-			-			-			-		Blassed Humidity is without applying vo	y test can be done voltege.
p p	PAS-ALU-MA-OI PAS-ALU-MA-OI	Change of material composition - Enternal Insulation	P	P Change of external insulation / steeling P Change of lead or outer termination.	e.g. change from PVC into PET e.g. change of color e.g. change of lead from into copper e.g. change of lead finish from invited into tin	СВ	(Consider glaing, larguring, coating of PCE), nano coating, washing,)  B: Chily for glued capacitors.  A: in case of change of lead material (consider vibration, valid only when the all caps are not additionally fised in the	· · ·	@•	• -		@• •	•		(	@S •	-	• B -	 	-			-	-		-		-	y lest can be done voltage.
0	PAS-ALU-MA-CO	Change of material composition - Enternal Insulation	P	P Change of external insulation / steeving	e.g. change from PVC into PET e.g. change of color	С	(Consider glaing, larguring, coating of PCE), nano coating, washing,)  B: Chily for glued capacitors.  A: in case of change of lead material (consider vibration, valid only when the all caps are not additionally fised in the		@•				•		(	@S •	-		 	-			-		 	-	· · · · · · · · · · · · · · · · · · ·	Bissed Hunidity In without applying vol	y feet can be done vollage.
P P	PAS-ALLI-MA-OI  PAS-ALLI-MA-OI  PAS-ALLI-MA-OS	Owego of related composition - Esternal housidation  Coverge of related composition - Least? Terrorisation  Coverge of related composition - Least? Terrorisation  Coverge of related composition - Terrorisations/Appear	P P	P Change of external insulation / steering P Change of lead or outer tensination. P Change of paper type / internal insulation	e.g. change from PVC Into PET e.g. change of cobr e.g. change of lead from into into copper e.g. change of lead from into linto copper e.g. change of lead from from for/lead into tin e.g. change of paper thickness 50 µm to 40µm	С	(Consider glains, largaring, casting of PCD, nanc conting of PCD, nanc conting, washing,)  B: Only for glasd capacitors.  At in case of change of lead material (consider shration, valid only when the all capa are not additionally flast in the acclusion).  At City II impedance increase (data characterization). Choic I distalhed is affected (PAS-ALU-SS-49).		@• -	• •	•	@• •	-		(	@S •	•	• B -	 	-			-	-		-	@•	. @•	y test can be done voltage.
, ,	PAS-ALLI-MA-CO  PAS-ALLI-MA-ON  PAS-ALLI-MA-OS  PAS-ALLI-MA-OS	Charge of makind composition - Sciental housides Charge of makind composition - Lead of Terroristics Charge of makind composition - Lead of Terroristics Charge of makind composition - Head of House Charge of makind composition - Scientific	P P	P Crange of external insulation / deceing P Crange of lead or outer institution.  P Crange of paper type / Internal insulation P Crange of electricities	eg, change horn PIVC listo PET eg, change of color eg, change of last from inon into copper eg, change of last from inon into copper eg, change of last from into tributal rists fin eg, change of paper Brichness 50 jm to 40jm eg, change in paper Brichness 50 jm to 40jm	С	(Consider glains, largaring, casting of PCD, nanc conting of PCD, nanc conting, washing,)  B: Only for glasd capacitors.  At in case of change of lead material (consider shration, valid only when the all capa are not additionally flast in the acclusion).  At City II impedance increase (data characterization). Choic I distalhed is affected (PAS-ALU-SS-49).		@• -		-	@• •	-		(	@S • •	-	• B -	· · · · · · · · · · · · · · · · · · ·	-			-			-	· · · · · · · · · · · · · · · · · · ·	-	y test can be done voltage.
;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	PAS-ALIMAN-OS  PAS-ALIMAN-OS  PAS-ALIMAN-OS  PAS-ALIMAN-OS  PAS-ALIMAN-OS	Charge of makind composition - Sciental housides Charge of makind composition - Lead of Terroristics Charge of makind composition - Lead of Terroristics Charge of makind composition - Head of House Charge of makind composition - Scientific	P P	P Crange of external insulation / deceing P Crange of lead or outer institution.  P Crange of paper type / Internal insulation P Crange of electricities	e.g. change from PVC into PET a.g. change of coter a.g. change of lead from into into copper e.g. change of lead frish from forlied into the e.g. change of lead frish from forlied into the e.g. change of paper findness 50 µm to 40µm e.g. change in formulation e.g. change of place or beats material	с в с	(Consider glaing, larguring, coating of PCE), nano coating, washing,)  B: Chily for glued capacitors.  A: in case of change of lead material (consider vibration, valid only when the all caps are not additionally fised in the		@• -		-	@• •	-		(	@S • •	•	• B -					-	-		-	· · · · · · · · · · · · · · · · · · ·	. @•	y last can be done vollage.
р Р Р Р	PAS-ALIMAN-OS  PAS-ALIMAN-OS  PAS-ALIMAN-OS  PAS-ALIMAN-OS  PAS-ALIMAN-OS	Charge of makind composition - Sciental housides Charge of makind composition - Lead of Terroristics Charge of makind composition - Lead of Terroristics Charge of makind composition - Head of House Charge of makind composition - Scientific	P P	Dange of element insulation / deeping     Owege of lead or cuter territorition.      Owege of lead or cuter territorition.      Owege of page type / internal insulation.      Owege of decirally te	eg, change horn PIVC listo PET eg, change of color eg, change of last from inon into copper eg, change of last from inon into copper eg, change of last from into tributal rists fin eg, change of paper Brichness 50 jm to 40jm eg, change in paper Brichness 50 jm to 40jm	С	(Consider glains, largaring, casting of PCD, nanc conting of PCD, nanc conting, washing,)  B: Only for glasd capacitors.  At in case of change of lead material (consider shration, valid only when the all capa are not additionally flast in the acclusion).  At City II impedance increase (data characterization). Choic I distalhed is affected (PAS-ALU-SS-49).		@• -		-	@• •	-		(	@S • •	•	• B -	• •	-		• • •	-			-	· · · · · · · · · · · · · · · · · · ·	② ◆ ② ◆ Tast effort departed.	nds on final risk
	PAS-ALL-MA-CO  PAS-ALL-MA-CO  PAS-ALL-MA-CO  PAS-ALL-MA-CO  PAS-ALL-MA-CO  PAS-ALL-MA-CO  PAS-ALL-MA-CO	Owage of material companion - Edered Invadion  Owage of material companion - Lead * Townstate  Owage of material companion - Lead * Townstate  Owage of material companion - Read Invadion > Titger  Owage of material companion - Read Invadion > Titger  Owage of material companion - Read Invadion > Titger  Owage of material companion - Read Interes	P P P P	Domp of decind insulation / desiring     Dowp of black or outer termination.      Dowp of black or outer termination.      Dowp of poper type / feemal insulation.      Dowp of decindpts	e p change from PPC too PET o p change of cale e p change of an off to minor his coppor o p change of law from him his his coppor o p change of law for fine him his hid do be in o proper fine of too him his hid do be in o proper fine of too him his hid do be in o proper fine of too him his hid do be in o proper fine of too him his hid do o proper fine or him his material o p change of over plack material	C C C B	(Consider glains, largaring, casting of PCD, nanc conting of PCD, nanc conting, washing,)  B: Only for glasd capacitors.  At in case of change of lead material (consider shration, valid only when the all capa are not additionally flead in the acclusion).  At City II impedance increase (delta characterization). Chack I databased in afficient (PAS-ALU-SS-49).	· · · · · · · · · · · · · · · · · · ·	@•	• -	-	- 0	-		()	@S • · · · · · · · · · · · · · · · · · ·	•	• B B				• •	-	-		-	· · · · · · · · · · · · · · · · · · ·	② ◆ ② ◆ Tast effort departed.	nds on final risk
	PAS-ALL-MA-CO  PAS-ALL-MA-CO  PAS-ALL-MA-CO  PAS-ALL-MA-CO  PAS-ALL-MA-CO  PAS-ALL-MA-CO  PAS-ALL-MA-CO	Charge of makind composition - Sciental housides Charge of makind composition - Lead of Terroristics Charge of makind composition - Lead of Terroristics Charge of makind composition - Head of House Charge of makind composition - Scientific	P P P P	P Crange of external insulation / deceing P Crange of lead or outer institution.  P Crange of paper type / Internal insulation P Crange of electricities	e p change from PPC too PET o p change of cale e p change of an off to minor his coppor o p change of law from him his his coppor o p change of law for fine him his hid do be in o proper fine of too him his hid do be in o proper fine of too him his hid do be in o proper fine of too him his hid do be in o proper fine of too him his hid do o proper fine or him his material o p change of over plack material	с в с	(Consider glains, largaring, casting of PCD, nanc conting of PCD, nanc conting, washing,)  B: Only for glasd capacitors.  At in case of change of lead material (consider shration, valid only when the all capa are not additionally flead in the acclusion).  At City II impedance increase (delta characterization). Chack I databased in afficient (PAS-ALU-SS-49).		@•		-	@• •	-		()	@S • •	•	• B -				• • •					· · · · · · · · · · · · · · · · · · ·	② ◆ ② ◆ Tast effort departed.	nds on final risk
	PAC-ALL-MA-CO  PAC-ALL-MA-CO  PAC-ALL-MA-CO  PAC-ALL-MA-CO  PAC-ALL-MA-CO  PAC-ALL-MA-CO	Owey of material companies - Select Treatment Owey of material companies - Select Owey of septim of material	P P P P	Domp of decind insulation / desiring     Dowp of black or outer termination.      Dowp of black or outer termination.      Dowp of poper type / feemal insulation.      Dowp of decindpts	e p change from PPC too PET o p change of cale e p change of an off to minor his coppor o p change of law from him his his coppor o p change of law for fine him his hid days o change of law for fine him his hid days o change of pager Bodress 50 just to 40 just to o change of pager Bodress 50 just to 40 just o change of the contraction o change of pager Bodress 50 just to 40 just o change of the contraction o change of contraction o change o ch	C C C B	(Consider glains, largaring, casting of PCD, nanc conting of PCD, nanc conting, washing,)  B: Only for glasd capacitors.  At in case of change of lead material (consider shration, valid only when the all capa are not additionally flead in the acclusion).  At City II impedance increase (delta characterization). Chack I databased in afficient (PAS-ALU-SS-49).	· · · · · · · · · · · · · · · · · · ·	@•	• -	-	- 0	-		()	@S • · · · · · · · · · · · · · · · · · ·	•	• B B				• •	-			-	· · · · · · · · · · · · · · · · · · ·	© • Test effort deported assessment.	nds on final risk
	PAS-ALLIAN-GO  PAS-ALLIAN-GO  PAS-ALLIAN-GO  PAS-ALLIAN-GO  PAS-ALLIAN-GO  PAS-ALLIAN-GO	Charge of material composition - External hospitals Charge of material composition - External hospitals Charge of material composition - Hospital hospitals of Proper Charge of material composition - Hospital hospitals of Proper Charge of material composition - Hospitals Charge of material composition - Hospitals Charge of material composition - Extern Pate Charge of material composition - Extern Pate Charge of staget of material CHARGE of August of August of Material CHARGE OF CHAR	P P P P P	Dougs of animal tradeform favoring     Dougs of and or coar remotion.     Dougs of and or coar remotion.     Dougs of part from Tradeform favoring     Dougs of part from Tradeform favoring     Dougs of animal part remoti	es diseage hann for C on PET  40 diseage de Alle Monton in Incape  40 diseage de Alle diseage  40 diseage  40 diseage diseage  40 di	C C C B C C	(Consider glains, largaring, casting of PCD, nanc conting of PCD, nanc conting, washing,)  B: Only for glasd capacitors.  At in case of change of lead material (consider shration, valid only when the all capa are not additionally flead in the acclusion).  At City II impedance increase (delta characterization). Chack I databased in afficient (PAS-ALU-SS-49).	· · · · · · · · · · · · · · · · · · ·	@•	• -	-	- 0	-			@S • · · · · · · · · · · · · · · · · · ·	•	• B B				• •	-				· · · · · · · · · · · · · · · · · · ·	② ◆ ② ◆ Tast effort departed.	nds on final risk
	PAC-ALI-MA-03  PAC-ALI-MA-04  PAC-ALI-MA-05  PAC-ALI-MA-05  PAC-ALI-MA-05  PAC-ALI-MA-05	Owage of material companion - Search Standards  Owage of material companion - Leaf Theoretical  Owage of material companion - Search Standards  Owage of material companion - Search Standards  Owage of material companion - Search Standards  Owage of material companion - Search Standard  Owage of material companion - Search Standard  Owage of designed of material  FESSOR  Owage of designed of material  FESSOR  Owage of the Search Standards - Search	P P P P	P Overget annat switzer / dening P Overget fast or an vertration P Overget fast or an vertration P Overget fast or an vertration P Overget desired P Overget des desired	e p change from PPC too PET o p change of cale e p change of an off to minor his coppor o p change of law from him his his coppor o p change of law for fine him his hid days o change of law for fine him his hid days o change of pager Bodress 50 just to 40 just to o change of pager Bodress 50 just to 40 just o change of the contraction o change of pager Bodress 50 just to 40 just o change of the contraction o change of contraction o change o ch	C C C B	(Consider glains, largaring, casting of PCD, nanc conting of PCD, nanc conting, washing,)  B: Only for glasd capacitors.  At in case of change of lead material (consider shration, valid only when the all capa are not additionally flead in the acclusion).  At City II impedance increase (delta characterization). Chack I databased in afficient (PAS-ALU-SS-49).	· · · · · · · · · · · · · · · · · · ·	@•	• -	-	- 0	-		()	@S • · · · · · · · · · · · · · · · · · ·	•	• B B				· · · · · · · · · · · · · · · · · · ·	-	-		-	· · · · · · · · · · · · · · · · · · ·	② ◆ ② ◆ Tast effort departed.	nds on final risk
	PAS-ALL-MA-CO	Owang of material companion - External Invasions  Owang of material companion - External Invasions  Owang of material companion - Level Terrorisation  Owang of material companion - External Invasions / Piper  Owang of material companion - Section (a)  Owang of despite of material  ESSEN  Despite of materials - Archive (a)  Owang of despite of materials  Despite of materials - Archive (a)  Owang of despite of materials  Owang of materials - Archive (a)  Owang of materials - Ar	P P P P P P P P P P P P P P P P P P P	Dropped seminal tradebars deeing     Dropped seminal tradebars deeing     Dropped spark type 7 steered redebars     Dropped spark type 7 steered redebars     Dropped dropped seminal     Dropped dropped seminal     Dropped dropped seminal     Dropped spark type 7 steered redebars     Dropped dropped seminal     Dropped s	see diverge from PC cas (PCT )  2- diverge from PC cas (PCT )  2- diverge of fact from in on caper ( 2- diverge of fact from in one caper ( 2- diverge of fact from in one caper ( 2- diverge of fact from in one caper ( 2- diverge of fact from in one caper ( 2- diverge of fact from in one caper ( 2- diverge of fact from in one caper ( 2- diverge of fact from in one diverge of ( 2- diverge of fact from in one diverge of ( 2- diverge of fact from in one diverge of ( 2- diverge of fact for in one diverge of ( 2- diverge of fact for in one diverge of ( 2- diverge of fact for in one diverge of ( 2- diverge of fact for in one diverge of ( 2- diverge of fact for in one diverge of ( 2- diverge of fact for in one diverge of ( 2- diverge of fact for in one diverge of ( 2- diverge of fact for in one diverge of ( 2- diverge of fact fact for in one diverge of ( 2- diverge of fact fact for in one diverge of ( 2- diverge of fact fact for in one diverge of ( 2- diverge of fact fact fact for in one diverge of ( 2- diverge of fact fact fact fact fact fact fact fac	C C C B C C	(Consider glains, largaring, casting of PCD, nanc conting of PCD, nanc conting, washing,)  B: Only for glasd capacitors.  At in case of change of lead material (consider shration, valid only when the all capa are not additionally flead in the acclusion).  At City II impedance increase (delta characterization). Chack I databased in afficient (PAS-ALU-SS-49).	· · · · · · · · · · · · · · · · · · ·	@•	• -	-	- 0	-			@S • · · · · · · · · · · · · · · · · · ·	•	• B B					-			-		② ◆ ② ◆ Tast effort departed.	nds on final risk
	PAS-ALL-MA-CO	Owang of material companion - External Invasions  Owang of material companion - External Invasions  Owang of material companion - Level Terrorisation  Owang of material companion - External Invasions / Piper  Owang of material companion - Section (a)  Owang of despite of material  ESSEN  Despite of materials - Archive (a)  Owang of despite of materials  Despite of materials - Archive (a)  Owang of despite of materials  Owang of materials - Archive (a)  Owang of materials - Ar	P P P P P P P P P P P P P P P P P P P	Dropped seminal tradebars deeing     Dropped seminal tradebars deeing     Dropped spark type 7 steered redebars     Dropped spark type 7 steered redebars     Dropped dropped seminal     Dropped dropped seminal     Dropped dropped seminal     Dropped spark type 7 steered redebars     Dropped dropped seminal     Dropped s	see diverge from PC cas (PCT )  2- diverge from PC cas (PCT )  2- diverge of fact from in on caper ( 2- diverge of fact from in one caper ( 2- diverge of fact from in one caper ( 2- diverge of fact from in one caper ( 2- diverge of fact from in one caper ( 2- diverge of fact from in one caper ( 2- diverge of fact from in one caper ( 2- diverge of fact from in one diverge of ( 2- diverge of fact from in one diverge of ( 2- diverge of fact from in one diverge of ( 2- diverge of fact for in one diverge of ( 2- diverge of fact for in one diverge of ( 2- diverge of fact for in one diverge of ( 2- diverge of fact for in one diverge of ( 2- diverge of fact for in one diverge of ( 2- diverge of fact for in one diverge of ( 2- diverge of fact for in one diverge of ( 2- diverge of fact for in one diverge of ( 2- diverge of fact fact for in one diverge of ( 2- diverge of fact fact for in one diverge of ( 2- diverge of fact fact for in one diverge of ( 2- diverge of fact fact fact for in one diverge of ( 2- diverge of fact fact fact fact fact fact fact fac	C C C C A A B	(Consider glains, largaring, casting of PCD, nanc conting of PCD, nanc conting, washing,)  B: Only for glasd capacitors.  At in case of change of lead material (consider shration, valid only when the all capa are not additionally flead in the acclusion).  At City II impedance increase (delta characterization). Chack I databased in afficient (PAS-ALU-SS-49).		@•	• -	-	- 0	-		(	@S • · · · · · · · · · · · · · · · · · ·	•	• B				• • • • • • • • • • • • • • • • • • •	-					② ◆ ② ◆ Tast effort departed.	nds on final risk
	PAS-ALL-MA-CO	Owang of material companion - External Invasions  Owang of material companion - External Invasions  Owang of material companion - Level Terrorisation  Owang of material companion - External Invasions / Piper  Owang of material companion - Section (a)  Owang of despite of material  ESSEN  Despite of materials - Archive (a)  Owang of despite of materials  Despite of materials - Archive (a)  Owang of despite of materials  Owang of materials - Archive (a)  Owang of materials - Ar	P P P P P P P P P P P P P P P P P P P	Dropped seminal tradebars deeing     Dropped seminal tradebars deeing     Dropped spark type 7 steered redebars     Dropped spark type 7 steered redebars     Dropped dropped seminal     Dropped dropped seminal     Dropped dropped seminal     Dropped spark type 7 steered redebars     Dropped dropped seminal     Dropped s	see diverge from PC cas (PCT )  2- diverge from PC cas (PCT )  2- diverge of fact from in on caper ( 2- diverge of fact from in one caper ( 2- diverge of fact from in one caper ( 2- diverge of fact from in one caper ( 2- diverge of fact from in one caper ( 2- diverge of fact from in one caper ( 2- diverge of fact from in one caper ( 2- diverge of fact from in one diverge of ( 2- diverge of fact from in one diverge of ( 2- diverge of fact from in one diverge of ( 2- diverge of fact for in one diverge of ( 2- diverge of fact for in one diverge of ( 2- diverge of fact for in one diverge of ( 2- diverge of fact for in one diverge of ( 2- diverge of fact for in one diverge of ( 2- diverge of fact for in one diverge of ( 2- diverge of fact for in one diverge of ( 2- diverge of fact for in one diverge of ( 2- diverge of fact fact for in one diverge of ( 2- diverge of fact fact for in one diverge of ( 2- diverge of fact fact for in one diverge of ( 2- diverge of fact fact fact for in one diverge of ( 2- diverge of fact fact fact fact fact fact fact fac	C C C C B C C C B B C C C B B C C C B B C C C B B C C C B B C	(Consider glains, largaring, casting of PCD, nanc conting of PCD, nanc conting, washing,)  B: Only for glasd capacitors.  At in case of change of lead material (consider shration, valid only when the all capa are not additionally flead in the acclusion).  At City II impedance increase (delta characterization). Chack I databased in afficient (PAS-ALU-SS-49).			@ - Q	-	@• • · · · · · · · · · · · · · · · · · ·			(	8S • · · · · · · · · · · · · · · · · · ·	•	• B · · · · · · · · · · · · · · · · · ·	• •									That offen department of the second of the s	nds on final risk
	PRE-ALL-MA-CO PR	Compari of material companions - Seame Translation  Change of material companions - Seame Translation  Change of material companions - Seame Translation - Proper  Change of material companions - Seame Translation - Proper  Change of material companions - Seame Translation - Proper  Change of material companions - Seame Translation - Proper  Change of material companions - Seame Translation  Change of material companions - Seame Translation  Change of a seame Translation - Seame Translation  Change of a seame Translation - Seame Translation  Change of a seame Translation - Translation - Seame	P P P P P P P P P P P P P P P P P P P	P Compared annual trainbear deeling P Compared from the trainbear deel	we disease for the Case (1972) de designed of the Case (1972)	C C C C B B C C C B B A A B B B A	(Consider glains, largaring, casting of PCD, nanc conting of PCD, nanc conting, washing,)  B: Only for glasd capacitors.  At in case of change of lead material (consider shration, valid only when the all capa are not additionally flead in the acclusion).  At City II impedance increase (delta characterization). Chack I databased in afficient (PAS-ALU-SS-49).		@•	· · · · · · · · · · · · · · · · · · ·	-	- 0	-		- ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	8 S • · · · · · · · · · · · · · · · · · ·	-	B - B - B - B	• •									State aftern departed assessment.  State aftern departed assessment.  Assessment assessment as the departed as the de	nds on final risk
	PASSALDANA GI PASSALDO GI	Compari of material companions - Seame Translation  Change of material companions - Seame Translation  Change of material companions - Seame Translation - Proper  Change of material companions - Seame Translation - Proper  Change of material companions - Seame Translation - Proper  Change of material companions - Seame Translation - Proper  Change of material companions - Seame Translation  Change of material companions - Seame Translation  Change of a seame Translation - Seame Translation  Change of a seame Translation - Seame Translation  Change of a seame Translation - Translation - Seame	P P P P P P P P P P P P P P P P P P P	P Compared annual trainbear deeling P Compared from the trainbear deel	we disease for PC can PCT can	C C C C B B C C C B B A A B B B A	(Consider glains, largaring, casting of PCD, nanc conting of PCD, nanc conting, washing,)  B: Only for glasd capacitors.  At in case of change of lead material (consider shration, valid only when the all capa are not additionally flead in the acclusion).  At City II impedance increase (delta characterization). Chack I databased in afficient (PAS-ALU-SS-49).		•	· · · · · · · · · · · · · · · · · · ·	-	- 0	-		- ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	8 S • · · · · · · · · · · · · · · · · · ·	-	B - B - B - B	• •									That offen department of the second of the s	nds on final risk
	PRE-ALUME OF PRE-ALUME OF PRE-PRE-PRE-PRE-PRE-PRE-PRE-PRE-PRE-PRE-	Compari of material companion - Entered Securities  Compari of material companion - Entered Securities  Compari of material companion - Entered Securities  Compari of material companion - Securities  Compari of materials - Securities  Comparid of materials - Securities  Compar	P P P P P P P P P P P P P P P P P P P	P Compared annual trainfactor deeping P Compared and or due to exceeding. P Compared and or due to exceeding. P Compared annual trainfactor deeping annual t	As disagree from TVC (a) PET 2 A disagree of the Colonian of t	C C C B B C C C C C C C C C C C C C C C	(Consider glains, largaring, casting of PCD, nanc conting of PCD, nanc conting, washing,)  B: Only for glasd capacitors.  At in case of change of lead material (consider shration, valid only when the all capa are not additionally flead in the acclusion).  At City II impedance increase (delta characterization). Chack I databased in afficient (PAS-ALU-SS-49).			©	-	@• · · · · · · · · · · · · · · · · · · ·				8 S		B - B	• •									The distant department of the distance of the	nds on final risk
	PRE-ALLINE GI PR	Compared or material companions - Seatern Shandarian  Change of material companions - Seater Shandarian  Cha	P P P P P P P P P P P P P P P P P P P	P Oveget and trade and trade per per per per per per per per per pe	we disting the DC on 1971  40 driving of 100 to 100  40 driving of 100	C C C B B C C C C C C C C C C C C C C C	(Consider glains, largaring, casting of PCD, nanc conting of PCD, nanc conting, washing,)  B: Only for glasd capacitors.  At in case of change of lead material (consider shration, valid only when the all capa are not additionally flead in the acclusion).  At City II impedance increase (delta characterization). Chack I databased in afficient (PAS-ALU-SS-49).		•		-	@•				8 S		B . B	• •									The effect depends assume the effect depends as a supplied to the eff	nds on final risk
	PRE-ALISM GE PRE-A	Compared or material companions - Seatern Shandarian  Change of material companions - Seater Shandarian  Cha	P P P P P P P P P P P P P P P P P P P	P Oveget and trade and trade per per per per per per per per per pe	As disagree from TOT COL PETS  40 design of face or the contract of the contra	C C C C A A B B A C C C C C C C C C C C	(Consider glains, largaring, casting of PCD, nanc conting of PCD, nanc conting, washing,)  B: Only for glasd capacitors.  At in case of change of lead material (consider shration, valid only when the all capa are not additionally flead in the acclusion).  At City II impedance increase (delta characterization). Chack I databased in afficient (PAS-ALU-SS-49).		•		-					8 S		B B B B B B B B B B B B B B B B B B B	• •									The afford department of the second of the s	nds on final risk
	PRE-ALUMN GO PRE-A	Compared or material companions — Seamer Invasionis  Charge of material companions — Learn's Trevendors  Charge of material companions — Learn's Trevendors  Charge of material companions — Seamer Invasions — Proper  Charge of material companions — Seamer Invasions — Charge of material companions — Seamer Invasions —	P P P P P P P P P P P P P P P P P P P	P Compared annual trademics / sheening P Compared found or such reconstitution P Compared found or such reconstitution P Compared sheening to reconstitution P Compared annual trademics P Compared annual trademics P Compared on such reconstitution P Compared annual trademics P Compa	we disting the DC on 1971  40 driving of 100 to 100  40 driving of 100	C C C B B C C C C C C C C C C C C C C C	(Consider glains, largaring, casting of PCD, nanc conting of PCD, nanc conting, washing,)  B: Only for glasd capacitors.  At in case of change of lead material (consider shration, valid only when the all capa are not additionally flead in the acclusion).  At City II impedance increase (delta characterization). Chack I databased in afficient (PAS-ALU-SS-49).		•	©	-	@•				8 S		B . B	• •									The distant department of the distance of the	nds on final risk
	PRIMADENCE  PRIMAD	Owage of material companion - Entered Invasional Owage of material companion - Entered Invasional Owage of material companion - Entered Invasional Owage of material companion - Security Invasional Owage of materials - Security Invasional - Security Invasional - Security Invasional Owage of materials - Security Invasional - Securit	P P P P P P P P P P P P P P P P P P P	P Compared annual trainfactor deeping P Compared and or due to exceeding. P Compared and or due to exceeding. P Compared annual trainfactor deeping annual a	As design for the TOT COL PET 2 A design of face or the TOT COL PET 2	C C C C C C C C C C C C C C C C C C C	(Consider glains, largaring, casting of PCD, nanc conting of PCD, nanc conting, washing,)  B: Only for glasd capacitors.  At in case of change of lead material (consider shration, valid only when the all capa are not additionally flead in the acclusion).  At City II impedance increase (delta characterization). Chack I databased in afficient (PAS-ALU-SS-49).		@•		-							* B	• • •	-								Se la del de genérale de la del de genérale de la del del genérale del del genérale del del genérale del del genérale del	tots an front sisk.  According software and up with closely and the part of the control of the control and the control of the control of the control and the control of the control of the control and the control of the
	PRE-ALUNG CO PRE-A	Owage of material companion - Searent Invadation  Owage of material companion - Searent Invadation  Owage of material companion - Searent Invadation / Paper  Owage of material companion - Searent Invadation / Paper  Owage of material companion - Searent Invadation / Paper  Owage of material companion - Searent Invadation / Paper  Owage of material companion - Searent Invadation - Sear	P P P P P P P P P P P P P P P P P P P	P Oveget and trade and trade p P Oveget fact or not verticate. P Oveget factority.	see disease in the Cost (1971)  see de compare de la compa	C C C C C C C C C C C C C C C C C C C	(Consider glains, largaring, casting of PCD, nanc conting of PCD, nanc conting, washing,)  B: Only for glasd capacitors.  At in case of change of lead material (consider shration, valid only when the all capa are not additionally flead in the acclusion).  At City II impedance increase (delta characterization). Chack I databased in afficient (PAS-ALU-SS-49).		@• @•	@ - @ - @ - @ - @ - @ - @ - @ - @ - @ -					@ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @			* 8 - 8 - 8 - 8 - 8 - 8 - 8 - 8 - 8 - 8	• • •								· · · · · · · · · · · · · · · · · · ·	Ge   Ge   Ge   Ge   Ge   Ge   Ge   Ge	tots an front sisk.  According software and up with closely and the part of the control of the control and the control of the control of the control and the control of the control of the control and the control of the
	PRO-ALLIAN GO  PRO-AL	Compared or manufacture production - External Transmission  Changed of material companions - Least Transmission  Changed of material companions - Least Transmission  Changed of material companions - Security Se	P P P P P P P P P P P P P P P P P P P	P Compared annual trademics / sheening P Compared and or such annual trademics P Compared and or such annual trademics P Compared annual trade	As disagree from DC (a) PET 2 As disagree from the compare of a disagree of a dis	C C C C C C C C C C C C C C C C C C C	(Consider glains, largaring, casting of PCD, nanc conting of PCD, nanc conting, washing,)  B: Only for glasd capacitors.  At in case of change of lead material (consider shration, valid only when the all capa are not additionally flead in the acclusion).  At City II impedance increase (delta characterization). Chack I databased in afficient (PAS-ALU-SS-49).		@• @•									• 8 · 8 · • 8 · • 8 · • 8 · • 8 · • 8 · • 8 · • 8 ·	• • •								· · · · · · · · · · · · · · · · · · ·	Se la serie de constitución de la serie del serie de la serie del serie de la serie del seri	this is the final rate.  If the controlling is defended in the controlling is defended in the controlling is defended in the controlling in the co
	PRO-ALUSTO DI  PRO-PRO-ALUSTO DI  PRO-PRO-PRO-PRO-PRO-PRO-PRO-PRO-PRO-PRO-	Compart of marrier comparison: - Searent Invasions:  Change of marrier comparison: - Searent Invasions:  Change of marrier comparison: - Searent Invasions: - Property of marrier comparison: - Searent Invasions: - Property of marrier comparison: - Searent Invasions: - Property of marrier comparison: - Searent Invasions: - S	P P P P P P P P P P P P P P P P P P P	P Compared annual trademics / sheening P Compared and or such annual trademics P Compared and or such annual trademics P Compared annual trade	As disagree from DC (a) PET 2 As disagree from the compare of a disagree of a dis	C C C C C C C C C C C C C C C C C C C	(Consider glains, largaring, casting of PCD, nanc conting of PCD, nanc conting, washing,)  B: Only for glasd capacitors.  At in case of change of lead material (consider shration, valid only when the all capa are not additionally flead in the acclusion).  At City II impedance increase (delta characterization). Chack I databased in afficient (PAS-ALU-SS-49).		@•	· · · · · · · · · · · · · · · · · · ·						885 • • • • • • • • • • • • • • • • • •		• 8 · 8 · • 8 · • 8 · • 8 · • 8 · • 8 · • 8 · • 8 ·	• • •								· · · · · · · · · · · · · · · · · · ·	Be and the specific of the spe	this see front risk.  As conting a silf-seed  and conting a silf-seed  and continues and continues  and continues and  and continues and  and  and  and  and  and  and  and
	PRE-ALLIAN GO  PRE-AL	Compared or material companions — Seatern Shoulders  Change of material companions — Least Theoretains  Change of material companions — Seater Shoulders  Change of a seater companions — Seater Shoulders  Change of seater companions — Seater Shoulders  Change of the seater companions — Seater Shoulde	P P P P P P P P P P P P P P P P P P P	P Compared annual transistence developed processing to the compared transistence of the compared transi	we disease has the Cost 1971  40 drown of the Co	C C C C C C C C C C C C C C C C C C C	(Consider glains, largaring, casting of PCD, nanc conting of PCD, nanc conting, washing,)  B: Only for glasd capacitors.  At in case of change of lead material (consider shration, valid only when the all capa are not additionally flead in the acclusion).  At City II impedance increase (delta characterization). Chack I databased in afficient (PAS-ALU-SS-49).		@• @•	· · · · · · · · · · · · · · · · · · ·						885 • • • • • • • • • • • • • • • • • •		* 8 - 8	• • •								· · · · · · · · · · · · · · · · · · ·	Comment of the commen	to an had only a country to the had not count
	PRE-ALLIAN GO  PRE-AL	Compart of marrier comparison: - Searent Invasions:  Change of marrier comparison: - Searent Invasions:  Change of marrier comparison: - Searent Invasions: - Property of marrier comparison: - Searent Invasions: - Property of marrier comparison: - Searent Invasions: - Property of marrier comparison: - Searent Invasions: - S	P P P P P P P P P P P P P P P P P P P	P Compared annual transistence developed processing to the compared transistence of the compared transi	As disagree from DC (a) PET 2 As disagree from the compare of a disagree of a dis	C C C C C C C C C C C C C C C C C C C	(Consider glains, largaring, casting of PCD, nanc conting of PCD, nanc conting, washing,)  B: Only for glasd capacitors.  At in case of change of lead material (consider shration, valid only when the all capa are not additionally flead in the acclusion).  At City II impedance increase (delta characterization). Chack I databased in afficient (PAS-ALU-SS-49).		@•	· · · · · · · · · · · · · · · · · · ·						885 • • • • • • • • • • • • • • • • • •		• 8 · 8 · • 8 · • 8 · • 8 · • 8 · • 8 · • 8 · • 8 ·	• • •								· · · · · · · · · · · · · · · · · · ·	Be and the specific of the spe	to an had only a country to the had not count

PAS-ALU-PR-OS PAS-ALU-PR-OT																										
PAS-ALU-PR-07	Changes in process technology or manufacturing methods - Trim & Form Leaded -	P Change of trim & form process (less	e.g. change of tooling shape or bending procedure	В	• •		-			@• -	-				-			-	-	-		-			-	- Solderability
			e.g. change of tooling shape or bending procedure		• •		4 -			@• -	-	- @•		- @•	-	- @•	@• -	-	-	-		-			-	- Solderability
PAS-ALU-PR-08	Process integrity: tuning within specification -	P Variation within process specification	e.g. process control	С			لحل								-			-		-		-			-	-
PAS-ALU-PN-01	PACKING / SHIPPING - NEW MATERIAL, CRITICAL DIMENSIONS	P P Change of packing specification.		В			$\overline{}$								т т			T T								
PAS-ALU-PN-01	Packing / shipping specification change (sosening of tolerances) P	P P Change of packing specification.	e.g. number of pieces on real.	8			4-1				-				-			-	-	-		-			-	•
PAS-ALU-PN-02	Dry pack requirements change	Change of dry pack requirements.  (B): Relaxation of dry pack requirem  (P): Tightening of dry pack requirem	e.g. change in dry pack assurance (HC, MEE) onts (I): MSL 3 -> MSL 1 sents (IP): MSL 1 -> MSL 3	В	1	4 - 1	/ - /				-				-			-		-		-			-	
PAS-ALU-PN-03	Change of carrier (tray, reel)	p Change of carrier	e.g. change by material	В			+						+						+							
	PACKING / SHIPPING - VISUAL INSPECTION	, , , , , , , , , , , , , , , , , , , ,	e.g. change by material e.g. change by geometry.	1 2						1 - 1 -		- 1 - 1	- 1 - 1			-   -	-   -				-   -					-
PAS-ALU-PV-01	Change of labeling	P Change of labeling, also on reel.	(i) e.g. additional information (RoHS stamp) (P) e.g. change of customer specific information	В			1-1				- I									-		-				
			(P) e.g. change of customer specific information e.g. change of content of marking				+															+				
PAS-ALU-PV-02		P Marking on device.	e.g. change of content of marking e.g. change of method of marking e.g. change of appearance of marking	В	* * I	* 1 */	/ - /				-				-			-	-	-		-			-	
PAS-ALU-PV-03	Change of packing/shipping specification P	Change in packing specification whi	ch does e.g. change of documentation in packing specification																							
PAG-ALU-PV-UI	Change or packing support speciments p	P P Change in packing specification whi not described a change of dimension material of the packing.	E or apecification												-			-	-	-		-			-	•
	LOGISTICS / CAPACITY / TESTING - EQUIPEMENT					_	_									_								_		_
PAS-ALU-EIQ-01	Production from a new equipment/bot which uses a different technology or which due to its unique former function can be expected to influence the integrity of the final product	p Change in process technique which already covered above.  Note: Changes affecting the produc covered by the table require also a fi	is not  e. g. new equipment supplier with different process t not concept	· c			/ . /			١.١.					B			_		_		_			_	@● Test effort of assessment Performance
	form or function can be expected to influence the integrity of the final product	Note: Changes affecting the produc covered by the table require also a R	not concept CN.				4 /																			process ch
PAS-ALU-EQ-02	Production from a new equipment/bol which uses the same basic technology (replacement	PCN required for dedicated equipms sensitive component production.	e.g. additional equipment to increase production	с											В											@ Test effort of assessment Devlopment
PAS-ALU-EIQ-02	Production from a new equipment/bot which uses the same basic technology (replacement equipment or extension of existing equipment pool)  -			· ·			/ 1		•	١٠١.				•	ь			· 1	•	-		-				②◆ Test effort of assessment Performanc process ch
		Change of final test equipment which	1 000																							
PAS-ALU-EIQ-03	Change in final test equipment type that uses a different technology	P P Change of final test equipment which different technology. PCN required for dedicated equipment sensitive parameters.	e.g. change of tester platform	c		* 1 */	/ - /				-				@B			-	-	-		-			-	@● Gage R&R.
	LOGISTICS / CAPACITY / TESTING - PROCESS FLOW		·				_																			_
AS-ALU-PF-01	Manufacturing site transfer or movement of a part of production process to a different location/site P	p Change of manufacturing site. Includes transfer as well as addition Note: Recognization inside one pla vol attented	e.g. movement or transfer of manufacturing site or process step(s) to a different location/site.	В			@•								В										@•	
AS-ALU-PF-01	Manufacturing site transfer or movement of a part of production process to a different location/site P	Note: Reorganization inside one plant	ntititle is an deal arrows / list strategy equation (i.g. washing / classing process	P			@•		•   •		'	.   .	•   •		ь	•   •	•   •		•	-		-			@●	@•
AS-ALU-PF-02	Elimination or addition of a manufacturing process step	<ul> <li>P Change of manufacturing process s</li> </ul>	e.g. washing / cleaning process equence.	С	• •						-				-			-	-	-		-			-	@ Characteria
AS-ALU-PF-03	Elimination of final electrical measurement / test flow block	Peduction of final testing. PCN required for dedicated final test reductions for sensitive parameters.	e.g. elemination of additional impedance control	c							-				-			-	-	-		-			-	@ Characteria final test fo
	LOGISTICS / CAPACITY / TESTING - Q-GATE	THE STATE OF SECURITY CONTROL OF																								
NAS-ALU-OG-01	Change of test coverage used by the supplier to ensure data sheet compliance (e.g., elimination)siddison of electrical measurement/lest flow block, releastion/enhancement of monitoring procedure or sampling)	. P Change of test coverage.	e.g. change from 100% to sample inspection e. g. test flow block, reduction from three to two	С																						R (electr. ft. R (reliability
		, and a second	temperature measurements e.g. change in burn in/run in process.																							process.
	NTC																									
	AVY	Intended to be used if no other type	of change																							
AS-NTC-AN-01	Any change with impact on agreed upon technical contractual agreements P	P P is applicable but the change affects technical contractual agreements.					4 1				-				-		- 1	-	-	-		-			-	
PAS-NTC-AN-02	Any change with impact on processability/manufacturability at customer, which is not covered in the matrix below.	P P	Technical interface means component terminals.	В			4 -				-				-			-	-	-		-			@•	-
PAS-NTC-DS-01	DATASHEET		-																				-			
AS-NTC-DS-01	Change of distantivest parameters/electrical specification (min./max/typ. values) and / or ACIDC specification  p	P Not included: Editorial charges.	e.g. sighten of electrical parameter distribution	A Risk assessment depending on change for each application.	<u> </u>		4-				-				-			-	-	-		-			-	
		Ne inchesical change of product, pro- ted.  New description of behavior which to,  I specified before or which is different trisks apportination.  Please indicate closely, that inforces this type of changes!  Assessment in application required!  Description of a new not previously in parameter.			1		4 /																			
AS-NTC-DS-02	Correction of data sheet or issue of errats	pecified before or which is different initial specification.	t from e.g. data sheet correction because of new information about component behavior	A	1	4 - 1	/ - /				-				-				-	-		-			-	-
		Please indicate clearly, that infoncts this type of change!	contains		1		4 /																			
		Assessment in application required? Description of a new not previously	overed				+						+						+							
PAS-NTC-DS-03	Specification of additional parameters	Description of a new not previously parameter. No included change of the product. (I) P (I): Roll assessment depending on each application to provide evidence additional carameters into each arise.	e.g. adding new (tested) parameter.	Α	1		4 /																			
- Navaru-Darus	specification of additional parameters.	(P): Risk assessment depending on	change for	^		1 1	/ 1				- I	-   -			- 1					-		-				-
	MATERIAL	additional parameters (stat. evaluation																<u> </u>	$\perp$							_
PAS-NTC-MA-01	Change of material composition - Ceramic Binder P	P P Change of Binder Material to bind o	eranics.	c			T - T			T - T -	T - T	@• - (	2• @•		T - T			T - T	T - T	- 1		T - I			T - T	-
																										Parameter : an anticipal
PAS-NTC-MA-02	Change of material composition - Ceramic P	P P ceramic composition or position or position or position only dopands will be changed	anged, e.g. changes in additives amount	С	· · /	* 1 */	/ - /				-	• -	• •	-	@B	• @S		-	-	-		-			-	@ an anticipal performance S = SMD d
PAS-NTC-MA-03			ink structures e.g. change from AgPI material to AgPI material				+						+		В				+							
PAS-NTC-MA-03	Change of material composition - Inner Electrode P	P P material). Valid in case of multilayer only.	structures e.g. change from AgPt material to AgPd material	С			4 -	-	•		-			• -	В			-	-			-			-	@•
PAS-NTC-MA-04			a.o. channe of continu	A: Plak assessment on application level, if interaction with other material expected. Consider explicity usage where NTC is not mounted on PCE.	1		4 /						2.			_										Parameter :
PAS-NTC-MA-04	Change of material composition - Encapsulation P	P Change of encapsulation material.	e.g. change of costing e.g. change of additives in an insulation.	B Consider explicity usage where NTC is not mounted on PCB.		• • •	/ 1	• @•			- 1	(	g• •		@B	20.0	-   -	-		-		-	-   -		-	Parameter : an anticipal performance
		Comment and an extra section to	Samuel .	Risk assessment needed to evaluate compatibility of soldering process.			#																			
PAS-NTC-MA-05	Change of material composition - Lead material / Termination P	Change of lead or outer termination.  P   P   lead (finish) material, termination material.	Change of derial or e.g. change from SnPb to pure Sn	B compatibility of soldering process.	· · /		/ - /	@• @•	@•	- @	• -	@• -		@• @•	@B	- @•	@•	-	-	-		-			-	@•
PAS-NTC-MA-06				с			##								В				+ +							Assumption remains un
PAS-NTC-MA-06		Change to a new or additional mater at component manufacturer.	e.g. for 2nd source purpose	c	• 1		41 - 17	•			•   •		• •	-	В		•	-		-		-				@  Assumption remains un change of a
	DESIGN	<u> </u>							•	- •																
PAS-NTC-DE-01	Changes of termination, surface finish, shape, color, appearance or dimension structure - Lead Diameter						=																	_		
		P Change of lead diameter (for soldered THT components)	e.g. change lead diameter from 0.5 to 0.4 mm	A			Ħ	@• -		@• @	• -	-1-1			@B	- @•	@• -	-	-	-		-				@•
	Changes of termination, surface finish, shape, color, appearance or dimension structure -	P Change of lead diameter (for soldered THT components)						_	- @•	@• @	• -		-   -			_		-	-	-		-			1-1	
PAS-NTC-DE-02	Changes of termination, surface finish, shape, color, appearance or dimension structure - Termination Area	P Change of lead diameter (for soldered THT components)     P Change of termination area	e.g. change of termination layer thickness e.g. change in termination dimensions	В			-	@• -	- @•	@• @ @• -	-				@B	- @•	@• -	-		-		-			-	②◆ SMD сотр
PAS-NTC-DE-02 PAS-NTC-DE-03	Changes of termination, surface finish, shapes, color, appearance or dimension structure - Termination Area  Changes of termination, surface finish, shapes, color, appearance or dimension structure - internal	P Change of termination area  P Change of inner connection	e.g. change of termination layer thickness e.g. change in termination dimensions e.g. change from soldered connection to welded connection	8 C	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		-	_	· @•	@• @ @• -	-			 . @•	@B	- @•	@• -	-		-	 	-			-	
PAS-NTC-DE-02	Changes of termination, surface finish, shapes, color, appearance or dimension structure - Termination Area  Changes of termination, surface finish, shapes, color, appearance or dimension structure - internal	P Change of termination area  P Change of inner connection	e.g. change of termination layer thickness e.g. change in termination dimensions e.g. change from soldered connection to welded connection	В	* • • • • • • • • • • • • • • • • • • •		-	@• -	- @•	@• @ @• -	-				@B	- @•	@• -	-		-	 	-			-	②◆ SMD сотр
PAS-NTC-DE-02 PAS-NTC-DE-03	Disarges of termination, surface finish, shape, color, appearance or dimension structure -  Termination Area  Termination Area  Disarges of termination, surface finish, shape, color, appearance or dimension structure - Internation Convention  Disarges of termination, surface finish, shape, color, appearance or dimension structure -  properations  I	P Change of tentination area     P Change of inner connection     P Change of inner connection     P Change of appearance.     Note: Marking on device is defined superaischange (PASTEMPP-42).	a.g., change of termination layer thickness a.g., change in termination demensions a.g., change from soldered connection to welded connection a.g., change or adding of color on component Mainly in combination with other changes!	8 C	- · · · · · · · · · · · · · · · · · · ·		-	@• · · · · · · · · · · · · · · · · · · ·	· @•	@• @ @• - @	-				@B	- @• - @•	@• - @• -	-				-			-	@● SMD comp
PAS-NTC-DE-02 PAS-NTC-DE-03 PAS-NTC-DE-04 PAS-NTC-DE-05	Polipan of Introduction Jurison State, Pringe, color, appearance or dimension structure -      Disregard Internation, surface State), Pringe, color, appearance or dimension structure - States     Disregard Internation, surface State), Pringe, color, appearance or dimension structure -    Disregard Internation, surface State), Pringe, color, appearance or dimension structure -	P Change of Iterativation area   P Change of Inner connection   P Change of Inner connection   P Note: Marking on disclose is defined apparate change (PAS-PLASP-02)   P Change of electrode byer thickness   p geometry For mall-byer inclination	e.g. change of benefondion by or historiess e.g. change in hermitodion dimensions e.g. change in benefondion dimensions e.g. change is benefondion connection to well-de- connection ass displaced in combination with other changes or	B C B C		·		@• · · · · · · · · · · · · · · · · · · ·	· @•	@• @	-	(	· · ·		@B	- @• - @• 	@• - @• -	-				-			-	②◆ SMD сотр
PAS-NTC-DE-02 PAS-NTC-DE-03 PAS-NTC-DE-04	Disarges of termination, surface finish, shape, color, appearance or dimension structure -  Termination Area  Termination Area  Disarges of termination, surface finish, shape, color, appearance or dimension structure - Internation Convention  Disarges of termination, surface finish, shape, color, appearance or dimension structure -  properations  I	P Change of Iterativation area   P Change of Inner connection   P Change of Inner connection   P Note: Marking on disclose is defined apparate change (PAS-PLASP-02)   P Change of electrode byer thickness   p geometry For mall-byer inclination	e.g. change of benefondion by or historiess e.g. change in hermitodion dimensions e.g. change in benefondion dimensions e.g. change is benefondion connection to well-de- connection ass displaced in combination with other changes or	8 C		·	-	@• · · · · · · · · · · · · · · · · · · ·	· @•	@• @ @• - @	-	(			@B	- @• - @• 	@• - @• -	-				-			-	@● SMD comp
PAS-NTC-DE-02  PAS-NTC-DE-03  PAS-NTC-DE-04  PAS-NTC-DE-06  PAS-NTC-DE-06	Chapter Feminates, while hind, these clark, operation of dimension broken - I be a control of the control of th	P Change of territorition awas     P Change of territorition     P Change of territorition     P See See See See See See See See Se	p. change of terrorisation layer thickness     e.p. change in terrorisation consistence     e.p. change in terrorisation consistence     e.p. change in terrorisation consistence     e.p. change of terrorisation to welfall     conversion in terrorisation component     Macing in contribution with other changed     or change of electrodic design     for maller     e.p. change of electrodic design     for maller     e.p. change of electrodic design	8 C C C		· · · · · · · · · · · · · · · · · · ·	. @•	@• · · · · · · · · · · · · · · · · · · ·	· @•	@• @	-	(	· · · · · · · · · · · · · · · · · · ·		@B	· @• · @• · @• · @•	@• - @• - 	-		-   -   -   -   -		-			-	@● SMD comp
PAS-NTC-DE-02 PAS-NTC-DE-03 PAS-NTC-DE-04 PAS-NTC-DE-05	Dispayer for immunities, soften filled, plays, state, opposition or diseases contains— Internation Area  Dispayer for immunities, soften filled, plays, site, opposition of diseases outcomes for diseases outcomes for a property of immunities, soften filled plays, and opposition or diseases outcomes.  I property for contraction filled plays filled plays for contraction filled plays filled plays for contraction filled plays.  Outgaped for contraction filled plays filled plays.	P Change of Iterativation area   P Change of Inner connection   P Change of Inner connection   P Note: Marking on disclose is defined apparate change (PAS-PLASP-02)   P Change of electrode byer thickness   p geometry For mall-byer inclination	p. change of terrorisation layer thickness     e.p. change in terrorisation consistence     e.p. change in terrorisation consistence     e.p. change in terrorisation consistence     e.p. change of terrorisation to welfall     conversion in terrorisation component     Macing in contribution with other changed     or change of electrodic design     for maller     e.p. change of electrodic design     for maller     e.p. change of electrodic design	B C B C		·	. @•	@• · · · · · · · · · · · · · · · · · · ·	· @•	@• @	-	(	· · ·		@B	- @• - @• 	@• - @• -	-		:   :   :   :   :		-			-	@● SMD comp
PAS-NTC-DE-02 PAS-NTC-DE-03 PAS-NTC-DE-04 PAS-NTC-DE-05 PAS-NTC-DE-05 PAS-NTC-DE-05	Disput of immedia, while him, impa, tale, queries o disease modes—  provided here  Danged immedia, suche him, impa, tale, queries or disease modes—  provided here  Danged immedia, suche him, impa, tale, queries or disease modes—  provided immedia, suche him, impa, tale, queries or disease modes—  provided immedia, suche him, impa, tale, queries or disease modes—  Danged immedia, suche him, impa Trichess  Danged immedia, suche him, impa Trichess	P Overge of terrorisation area     P Overge of terrorisation consecution     P Overge of preparations.     What the terrorisation of terrorisation of the terrorisation of t	e g, chappe of imministration layer thickness e, a Chappe in terrorisation femalisms e, a Chappe in terrorisation diministration e, a Chappe in terrorisation diministration withind each chappe in the femalism of investment in the chapped each chappe in the femalism of the chapped each chapped in the chapped each chappe	8 C C C C	*	· · · · · · · · · · · · · · · · · · ·	· @•	@• · · · · · · · · · · · · · · · · · · ·	@• @• · · · @•	@• @  @	• •	1	2• @• 2• @•	@• @•   	@B @B	· @• · @• · @• · @• · @•	@• - @• - @• - @• -	-								@
PAS-NTC-DE-02 PAS-NTC-DE-03 PAS-NTC-DE-04 PAS-NTC-DE-05 PAS-NTC-DE-05 PAS-NTC-DE-05 PAS-NTC-DE-07	Charge of intercents when their dept. deep cate, openess of described late.  Seep of American and Control of their dept. deep cate, openess of described indicates related and an advantage of their described indicates related and appearance of described indicates related	P Change of terroration area   P Change of inner connection   P Change of inner connection   P Meet Entering on Inner in Additional   P Meet Entering on Inner in Additional   P Meet Entering on Inner in Additional   P Meet Inner inn	e a, charge of terrorisation by air Prociones  e a, charge of terrorisation development  development of the control of the control  development of the control  e a, charge of the control of the control  e a, charge of the control of the control  e a, charge of the	8 C C C C C C C C C C C C C C C C C C C		· · · · · · · · · · · · · · · · · · ·	· @•	@• · · · · · · · · · · · · · · · · · · ·	@• - @•	@• @  @• - @  @• - @  @• - @	• •		2• @• 2• @•	@• @•   	@B	· @• · @• · @• · @• · @•	@• - @• - @• - @• -									@
PAS-NTC-DE-02 PAS-NTC-DE-03 PAS-NTC-DE-04 PAS-NTC-DE-05 PAS-NTC-DE-05 PAS-NTC-DE-05	Charge of intercents when their dept. deep cate, openess of described late.  Seep of American and Control of their dept. deep cate, openess of described indicates related and an advantage of their described indicates related and appearance of described indicates related	P Overge of terrorisation area     P Overge of terrorisation consecution     P Overge of preparations.     What the terrorisation of terrorisation of the terrorisation of t	e a, charge of terrorisation by air Prociones  e a, charge of terrorisation development  development of the control of the control  development of the control  e a, charge of the control of the control  e a, charge of the control of the control  e a, charge of the	8 C C C C		· · · · · · · · · · · · · · · · · · ·	· @•	@• · · · · · · · · · · · · · · · · · · ·	@• - @•	@• @  @	• •		2• @• 2• @•	@• @•   	@B @B	· @• · @• · @• · @• · @•	@• - @• - @• - @• -									@
PAS-NTC-DE-02 PAS-NTC-DE-03 PAS-NTC-DE-04 PAS-NTC-DE-05 PAS-NTC-DE-05 PAS-NTC-DE-05 PAS-NTC-DE-07	Dayper of minimals, white 18th, plays class, openiors or discussion includes. In Exemption 2 to the control of	P Change of terroration area   P Change of inner connection   P Change of inner connection   P Meet Entering on Inner in Additional   P Meet Entering on Inner in Additional   P Meet Entering on Inner in Additional   P Meet Inner inn	e a, charge of terrorisation by air Prociones  e a, charge of terrorisation development  development of the control of the control  development of the control  e a, charge of the control of the control  e a, charge of the control of the control  e a, charge of the	8 C C C C C C C C C C C C C C C C C C C		@• @• @•	· @•	@• @• @• 	. @• . @•	@•		(	2• @• 2• @•	@• @•   	@B	· @• · @• · @• · @• · @•	@• - @• - @• - @• -									@• SMC comp
PAS-NTC-DE-02  PAS-NTC-DE-03  PAS-NTC-DE-06  PAS-NTC-DE-06  PAS-NTC-DE-06  PAS-NTC-DE-07  PAS-NTC-PR-01  PAS-NTC-PR-02  PAS-NTC-PR-02  PAS-NTC-PR-03	Dispay or Femination, white 1 float, Props, rate, apparents a direction conductive floated for the Control Act of the Control	P Design of termination was   P Design of termination was   P Design of termination was   P Design of termination of the termination of termination of the termination of the termination of the terminat	a deep of ammodatin by an indicate a deep of ammodatin by an indicate a deep of a dee	6 C C C C C C C C C C C C C C C C C C C			@• @•	@• @•	. @•	@•	• • •		2• @• 2• @•	@• @•	@B	. @• . @• . @• . @• . @• . @• . @•	@•									@• SMC comp. @•
PREMITOR OF THE PREMITOR OF T	Danger of moreous veiller blank, dreps, risks, opportions of denotes oracles—  Through John State Blank, dreps, risks, opportion of denotes oracles—  State of the denotes of the blank blank, dreps, risks, opportions of denotes oracles—  Danger of more controller. Epithods  Danger of more controller. Epithods  Danger of more controller. Epithods  Danger of more controller. Inger Tolkens  Danger of more controller. Inger oraclescorp methods. English Danger oraclescorp methods. Trip  Danger oraclescorp oraclescorp controller. Trip  Danger process before or marketing or marketing methods. Trip  Danger process before oraclescorp methods.	P Design of termination was   P Design of termination was   P Design of termination of termination     P Design of termination of termination     P Design of termination of termination     P Design of termination     P Desig	a. diverge of femonical in yet incloses     a. diverge on a diverge of the control of the c	B C C C C C C C C C C C C C C C C C C C			@• @•	@• @•	. @• . @•	@•	• • •		2• @• 2• @• 2• @•	@• @•	@B	. @• . @• . @• . @• . @• . @• . @• . @•	@• - @• - @• - @• -									@• SAD comp
PAS-NTC-DE-02  PAS-NTC-DE-03  PAS-NTC-DE-06  PAS-NTC-DE-06  PAS-NTC-DE-06  PAS-NTC-DE-07  PAS-NTC-PR-01  PAS-NTC-PR-02  PAS-NTC-PR-02  PAS-NTC-PR-03	Dayper of manation, while hitch, plays size, openions or discussion instants— Internation June Dayper of manation stands from the post of the openions or disministration instants— Internation Dayper of manations of the other plays size, openions or disministration instants— Internation Appearation or controller. Fishbale Dayper of two controller. Fishbale. Estable. Estable.	P Owego of berminden was   P Owego of berminde	A change of mentioning have frequency     A change of mentioning have frequency     A change from selected connection to selected     A change of selected connection to selec	8			@• @•	@• @•	. @• . @•	@•	• • •		2• @• 2• @•	@• @•	@B	. @• . @• . @• . @• . @• . @• . @•	@•									@• SMC comp. @•
PREMITOR OF THE PREMITOR OF T	Dayper of manation, while hitch, plays size, openions or discussion instants— Internation June Dayper of manation stands from the post of the openions or disministration instants— Internation Dayper of manations of the other plays size, openions or disministration instants— Internation Appearation or controller. Fishbale Dayper of two controller. Fishbale. Estable. Estable.	P Owego of berminden was   P Owego of berminde	A change of mentioning have frequency     A change of mentioning have frequency     A change from selected connection to selected     A change of selected connection to selec	8			@• @•	@• @•	- @• - @• - @• - @•	@• @  @• @	@•		2•	@• @•	@B	. @• . @• . @• . @• . @• . @• . @• . @•	@•									@• SAD comp
PAGATIC-DE-GO  PAGATIC-DE-GO  PAGATIC-DE-GO  PAGATIC-DE-GO  PAGATIC-DE-GO  PAGATIC-DE-GO  PAGATIC-DE-GO  PAGATIC-DE-GO  PAGATIC-DE-GO  PAGATIC-PR-GO	Diagnet of minimals, while 18th it progs clies, opposes or diseases motives—  Internation Ava Diagnet of minimals, while 18th it is possible, opposes or diseases motives—19th of Diagnet of minimals, while 18th it is possible or opposes or diseases motives—19th Appearance  In Diagnet from contention - facilities or opposes or diseases or diseases motives—  Diagnet from contention - facilities  Diagnet from the facilities of facilities  Diagnet from the facilities of f	P Owego of termination was   P Owego of termination proper dealers   P Owego of termination proper d	a deep of mentioning her follows a deep of mentioning and a deep of mentioning a deep of mentioning and a deep of mentioning a deep of mentioning and a deep of mentioning a deep of mentioning and a deep of mentioning a deep of mentioning and a deep of mentioning a deep of mentioning and a deep of mentioning a deep of mentioning and a deep of mentioning a deep of mentioning and a deep of mentioning a deep of mentioning and a deep of mentioning a deep of mentioning and mentioning and a deep of mentioning and a deep	8			@• @•	@• @•	- @• - @• - @• - @•	@•	• • •		2	@• @•	@B	. @• . @• . @• . @• . @• . @• . @• . @•	@•									@• SAD comp
PREATOR DE GO PREATO DE GO PREA	Diagnet of minimals, while 18th in plays clies, oppositive or discussion includes. The Change of minimals have been seen to the client of the control of the	P Owego of termination was   P Owego of termination proper dealers   P Owego of termination proper d	a disease of mentioning her inclines a disease of mentioning her inclines a disease of mentioning her inclines a disease of mentioning mention of mentioning a disease of mentioning mentioning mentioning a disease of mentioning mentioning mentioning a disease of mentioning a disea	6 C C C C C C C C C C C C C C C C C C C			@• @• @•	@• @•	- @• - @• - @• - @•	@• @  @• @	@•		2	@• @•	@B	. @• . @• . @• . @• . @• . @• . @• . @•	@•									@• SAD comp
PAGATIC-DE-GO  PAGATIC-DE-GO  PAGATIC-DE-GO  PAGATIC-DE-GO  PAGATIC-DE-GO  PAGATIC-DE-GO  PAGATIC-DE-GO  PAGATIC-DE-GO  PAGATIC-DE-GO  PAGATIC-PR-GO	Danger of moreous white that, prop. size, openies or desires organized and security of the control of the contr	P Owego of bermindens was   P Owego of beginned from connection   P Owego of the connection   P Owego of connection beginned from the connection   P Owego of connection beginned from the connection   P Owego of connection of the connection of the connection   P Owego of connection of the	4 a change of mentionin har fractions  4 a change of mentionin har fractions  4 a change them settled connection to well-did  4 a change them settled connection to well-did  5 a change of the connection of the change of the connection of the change of the connection of the change	8			@• @• @•	@• @•	- @• - @• - @• - @•	@• @  @• @	@•		2	@• @•	@B	. @• . @• . @• . @• . @• . @• . @• . @•	@•									@• SAD compo
PREATOR DE GI PREATO DE GI PREA	Danger of moreous white that, prop. size, openies or desires organized and security of the control of the contr	P Owego of bermindens was   P Owego of beginned from connection   P Owego of the connection   P Owego of connection beginned from the connection   P Owego of connection beginned from the connection   P Owego of connection of the connection of the connection   P Owego of connection of the	4 a change of mentionin har fractions  4 a change of mentionin har fractions  4 a change them settled connection to well-did  4 a change them settled connection to well-did  5 a change of the connection of the change of the connection of the change of the connection of the change	B C C C C C C C C C C C C C C C C C C C			@• @• @•	@• @•	- @• - @• - @• - @•	@• @  @• @	@•		2	@• @•	@B	. @• . @• . @• . @• . @• . @• . @• . @•	@•									@• SAD compo
PREATOR DE GO PREATO DE GO PREA	Danger of moreous white that, prop. size, openies or desires organized and security of the control of the contr	P Owego of termination was   P Owego of termination proper dealers   P Owego of termination proper d	4 a change of mentionin har fractions  4 a change of mentionin har fractions  4 a change them settled connection to well-did  4 a change them settled connection to well-did  5 a change of the connection of the change of the connection of the change of the connection of the change	6 C C C C C C C C C C C C C C C C C C C			@• @• @•	@• @•	- @• - @• - @• - @•	@• @  @• @	@•		2	@• @•	@B	. @• . @• . @• . @• . @• . @• . @• . @•	@•									@• SAD compo
PRESENT DE GE PRESENTE DE GE PRESENT	Charge of immunities, while filled, drops, risks, opportune of determine instance.  Included John State (Incl.) drops, risks, opportune of determine instance.  Symposium State (Incl.) drops, risks, opportune of determine instance instance.  Symposium State (Incl.) drops, risks, opportune of determine instance.  Symposium State (Incl.) drops, opportune instance.  Policy (Incl.) drops, opportune instance.  Symposium State (Incl.) dr	P Owego of terrorisation was   P Owego of terrorisation was not contained by the School was   P Owego of terrorisation was not contained by the School   P Owego of terrorisation was not contained by the School was   P Owego of terrorisation of terrorisation was not contained by the School was not contained by the Schoo	a duding of amendating per follows:  a duding of amendating per follows:  a duding the solitor of control to washed or services of control to washed or services.  a duding the solitor of control to washed or services.  b duding the solitor of control to washed or services.  a duding the solitor of control to services.  a duding the solitor of control o	8 C C C C C C C C C C C C C C C C C C C			@• @• @•	@• @•	- @• - @• - @• - @•	@• @  @• @	@•		2	@• @•	@B	. @• . @• . @• . @• . @• . @• . @• . @•	@•									@• SAD compo
PRE-NTC-DE-GI	Disper for minimals, while filted, plays size, openines or designs instantial view for contraction. Hotelands  Disper for our contraction - Equity Thickness  Ourgest of two contraction - Equity Thickness  Ourgest or process through or manufacturing windows - Exercise - Ourgest in process through or manufacturing windows - Exercise - Ourgest in process through or manufacturing windows - Exercise - Ourgest in process through or manufacturing windows - Exercise - Ourgest in process through or manufacturing windows - Exercise - Ourgest in process through or manufacturing windows - Exercise - Ourgest in process through or manufacturing windows - Exercise - Ourgest in process through or manufacturing windows - Exercise - Ourgest in process through or manufacturing windows - Exercise - Ourgest in process through our manufacturing windows - Exercise - Ourgest in process through our manufacturing windows - Exercise - Ourgest in process through our manufacturing windows - Exercise - Ourgest in process - Ourgest in process - Ourgest in process - Ourgest in process - Ourgest -	P Owego of bermindens was   P Owego of beginned from connection   P Owego of the connection   P Owego of connection beginned from the connection   P Owego of connection beginned from the connection   P Owego of connection of the connection of the connection   P Owego of connection of the	Pa disagn of minimization have findingen     Pa disagn of minimization have findingen     Pa disagn of minimization of minimization     Pa disagn of minimization of minimization     Page disagn of minimization of minimization     Minimization of min	B C C C C C C C C C C C C C C C C C C C			@• @• @•	@• @•	- @• - @• - @• - @•	@• @  @• @	@•		2	@• @•	@B	. @• . @• . @• . @• . @• . @• . @• . @•	@•									@• SAD compo
PRE-NTC-DE-GI	Congres of neuroscan, reflect filled, drops, risks, opportunes of administration residents.  Seeing of Administration Active filled, drops, risks, opportunes of administration residents.  Seeing of Administration fills, risks, risks, opportunes of administration residents.  Appearance.  Oranges of reconstruction: Epithodolo  Oranges of reconstruction or residenting residents: Expension  Oranges or process factoring or residenting residents: Expension apple  Oranges or process factoring or residenting residents: Expension apple  Oranges or process factoring or residenting residents: Expension apple  Oranges or process factoring or residenting residents: Expension apple  Oranges or process factoring or residenting residents  Oranges or process factoring oranges orang	P Owage of termination was   P Owage of termination was not terminated was followed by   P Owage of termination was followed by   P Owage of termination of termination was followed by   P Owage of termination of termin	Pa disagn of minimization have findingen     Pa disagn of minimization have findingen     Pa disagn of minimization of minimization     Pa disagn of minimization of minimization     Page disagn of minimization of minimization     Minimization of min	8 C C C C C C C C C C C C C C C C C C C			@• @• @•	@• @•	- @• - @• - @• - @•	@• @  @• @	@•		2	@• @•	@B	. @• . @• . @• . @• . @• . @• . @• . @•	@•									@• SAD compo
PROJECTION OF ONE PROJECTION O	College of immunities, while filling drops, risks, openines or denominal numbers of immunities. In Congress of immunities school films, drops, risks, openines or denominal numbers of immunities. In Congress of immunities of immunities and immunities of immunities. In Congress of immunities of immunities of immunities of immunities. In Congress of immunities of immunities of immunities of immunities of immunities. In Congress of immunities of immunities of immunities of immunities. In Congress of immunities of immunities of immunities of immunities of immunities of immunities. In Congress of immunities of immunities of immunities of immunities. In Congress of immunities of immunities of immunities of immunities of immunities. In Congress of immunities of immunities of immunities of immunities of immunities. In Congress of immunities of immunities. In Congress of immunities of immunities of immunities of immunities of immunities of immunities of immunities. In Congress of immunities of immunities of immunities of immunities of immunities. In Congress of immunities	P Owego of termination was   P Downgord interconnection   P Downgo of termination was   P Downgo of termination was   P Downgo of termination   P Downgo of termination   P Downgo of termination where the company   P Downgo of termination where the company   P Downgo of termination was the company   P Downgo of termination of termination   P Downgo of termination programmination   P Downgo of termination   P Downgo of t	Pa disagn of minimization have findingen     Pa disagn of minimization have findingen     Pa disagn of minimization of minimization     Pa disagn of minimization of minimization     Page disagn of minimization of minimization     Minimization of min	8			@• @• @•	@• @•	- @• - @• - @• - @•	@• @  @• @	@•		2	@• @•	@B	. @• . @• . @• . @• . @• . @• . @• . @•	@•									@• SAD compo
PROATCHE DE PROATC	Disappe of invariants, white 18th it progs clies, openions or denominal notices - 18th intention July - 18th intention Intention - 18th intent	P Owego of bermination was   P Owego of a four connection	a discognitive control and the part follows:  a discognitive control and the part follows:  a discognitive control and the co	B C C C B C C B B C C B B B B B B B B B			@• @• @•	@• @•	- @• - @• - @• - @•	@• @  @• @	@•		2	@• @•	@B	. @• . @• . @• . @• . @• . @• . @• . @•	@•									@• SAD compo
PRE-REC-ES OF PR	Disappe of invariants, white 18th it progs clies, openions or denominal notices - 18th intention July - 18th intention Intention - 18th intent	P Owego of termination was   P Downgord interconnection   P Downgo of termination was   P Downgo of termination was   P Downgo of termination   P Downgo of termination   P Downgo of termination where the company   P Downgo of termination where the company   P Downgo of termination was the company   P Downgo of termination of termination   P Downgo of termination programmination   P Downgo of termination   P Downgo of t	a discognitive control and the part follows:  a discognitive control and the part follows:  a discognitive control and the co	8			@• @• @•	@• @•	- @• - @• - @• - @•	@• @  @• @	@•		2	@• @•	@B	. @• . @• . @• . @• . @• . @• . @• . @•	@•									@• SAD compo

PAS-NTC-EQ-01	Drocker from transport and immediated which yours a different technology or which that in its private		Change in process technique which is not should covered whose														@B -											0.	Test effort depends on final risk
PAS-NTC-EQ-01	Production from a new equipment bot which uses a different technology or which due to its unique form or function can be expected to influence the integrity of the final product.	PP	Change in process technique which is not already covered above. Note: Changes affecting the product not covered by the table require also a PCN.	e. g. change from wet to dry technology.	С					1		-   -	1 1 1		1 - 1 -		@B -	1 - 1 -	1	1 1	-	-	-   -	-	-	-   -		@•	assessment. Performance test according to affect process change.
PAS-NTC-809-02	Production from a new equipment/tool which uses the same basic technology (replacement equipment or extension of existing equipment pool)	. Р	PCN required for dedicated equipment for sensitive component production.	e.g. elimination of manual handling processes	С					-							@B -		-		-	-			-			@•	process change. Test effort depends on final risk sssessment. Performance test according to affect process change.
	equipment or exercision or exercing equipment pool)																		+						-		+	_	process change.
PAS-NTC-EQ-03	Change in final test equipment type that uses a different technology	P P	Change of final test equipment which use different technology. PCN required for dedicated equipment for	e.g. change of teater platform	С			-		-							@B -		-		-	-		-	-		- 1	@•	Gage R&R / delta correlation
	LOGISTICS / CAPACITY / TESTING - PROCESS FLOW		Change of manufacturing site	a.c. mountainer in baselar of manufacturion site or		<u> </u>																					=		
PAS-NTC-PF-01	Manufacturing site transfer or movement of a part of production process to a different location/site	P P	Change of manufacturing site. Includes transfer as well as additional site. Note: Reorganization inside one plantisite is	e.g. movement or transfer of manufacturing site or process step(s) to a different location/site.	В		• • •	•	• •	•	• •		• •				в •		-		-	-		-	-		@•	@•	
PAS-NTC-PF-02	Elimination or addition of a manufacturing process step	. Р	Change of manufacturing process sequence.	e.g. washing / cleaning process e.g. change of order of processes	С			-		-									-		-	-		-	-		- 1	@•	Characterisation depends on impact production flow.
	LOGISTICS / CAPACITY / TESTING - Q-GATE					1																					=		
PAS-NTC-QG-01	Change of test coverage used by the supplier to ensure data sheet compliance (e.g., elimination/addition of electrical measurement/test flow block, relocation/terhancement of monitoring procedure or sampling)	. Р	Change of test coverage.	e.g. change from 100% to sample inspection e. g. test flow block, reduction from three to two temperature measurements e.g. change in burn in/tun in process.	с			-		-									-		-	-		-	-		- 1	@•	Characterisation depends on impact test coverage.  R (electr. funct.): test coverage.  R (reliability) only for change in burn
	PTC			e.g. change in burn in/hun in process.								$\sqcup \sqcup$							$\perp \perp$										ic (reasolety) only for change in our process.
	ANY		Intended to be used if no other type of change	w.	1	T				1													-				$\overline{}$		
PAS-PTC-AN-01			Intended to be used if no other type of chang is applicable but the change affects agreed ter-holinal contractual accessments					-		-									-		-	-		-	-			-	
PAS-PTC-AN-02	Any change with impact on processability/manufacturability at customer, which is not covered in the mains below. DATASHEET	P P		Technical interface means component terminals. See processability on board level.	В			-		1 -									-	-   -	- 1	-	-   -	-	-	-   -	@•	-	
PAS-PTC-DS-01		р р	Change of application relevant information	e.g. lighten of electrical parameter distribution	_	Risk assessment depending on change for each application.				Τ.												. [		Τ	- 1				
	specification	-	No technical change of product, process or			tor each appecasion.				+										_			+				+		
PAS-PTC-DS-02	Connection of data sheet or issue of errats		No technical change of product process or test.  New description of behavior which was not specified below or which is different from trisks specification.  Please indicate clearly, test inforces consists a periodication.  Please indicate clearly, test inforces consists to the test of the test	e.g. data sheet correction because of new information about component behavior	Α.					_									_		_	_		_	_				
			initial specification.  Please indicate clearly, that Infoncts contains this type of change!	Information about component behavior																									
			Assessment in application required!  Description of a new not previously covered carameter.																								_		
PAS-PTC-DS-03	Specification of additional parameters	I P	Description of a new not previously covered parameter. No technical change of the product. (8: no influence (P): Risk assessment depending on change to such application to provide evidence of	e.g. adding new (tested) parameter.	A			-											-		-	-		-	-			-	
			(P): Risk assessment depending on change to each application to provide evidence of artificial numerates (stat. auch attent).	1																									
PAS-PTC-MA-01	MATERIAL  Change of material composition - Ceramic Binder	РР	Change of Binder Material to bind ceramics.	T	С			-					-   -	@• -	@• @•							- 1		- 1	- 1			-	
PAS-PTC-MA-02	Change of material correction - Geranic	P P	Change of ceramic composition ceramic material class will not be changed, only depends will be changed	e.c. changes in additives amount	c									•			@B •	@S -										@•	Parameter analyse only necessary if an anticipated impact on electrical
PAS-PTC-MA-03																											النب		performance. S = SMD device only
	Change of material composition - Polymer		Change of polymer composition	+	С	A: Risk assessment on application level, if			@• -		@• @•		- @•		@• -		@B @•			-		-	-	-	-			@•	
PAS-PTC-MA-04	Change of material composition - Encapsulation	P P	Change of encapsulation material.	e.g. change of costing e.g. change of additives in an insulation.	В	A: Fink assessment on application level, it interaction with other material expected. Consider explicity usage where PTC is not mounted on PCB.		•	• -	•	@• -				@• •		@B @		-		-	-		-	-			@•	Parameter analyse only necessary if an anticipated impact on electrical performance.
PAS-PTC-MA-05	Change of material composition - Lead material / Termination		Change of lead (finish) material, termination material or attachment material.		В	Risk assessment needed to evaluate compatibility of soldering process.				@•	@• @•		@• -	@• -		@• @•	@P										-		
						companies or scenning process.		-													-	-		-	-		H	-	Assumption material specification
PAS-PTC-MA-06	Charge of supplier of material  DESIGN	- Р	Change to a new or additional material supple at component manufacturer.	e.g. for 2nd source purpose	С			-	• -	•			·   ·			- •	В •	<u> </u>	- 1		-	-		-	-			@•	Assumption material specification remains unchanged. Otherwise see change of material.
PAS-PTC-DE-01	Changes of termination, surface finish, shape, color, appearance or dimension structure - Lead	I P	Change of lead diameter (for soldered THT components)	e.g. change lead diameter from 0.5 to 0.4 mm	Α.				- 1 -	@•	I . I .	@• @	@• ·	T - T -	T - T -	T - T -	@B -	@• @•	Τ.Τ		Ι.Ι	- 1		Ι	- 1			@•	
PAS-PTC-DE-02	Changes of termination, surface linish, sharps only, appearance or dimension structure.			e.g. change of termination layer thickness e.g. change in termination dimensions	В			-								- @•	@B -				-	-		-	-		+-		SMD components only!
PAS-PTC-DE-03	Changes of termination, surface finish, shape, color, appearance or dimension structure - Internal Connection	I P	Change of inner connection	e.g. change from soldered connection to welded	С		- •	-			@• @•					@• @•		@• @•			-	-		-	-		-	@•	
PAS-PTC-DE-04	Changes of termination, surface linish, shape, color, appearance or dimension structure - Appearance	I P	Change of appearance.  Note: Marking on device is defined as	e.g. change or adding of color on component Mainly in combination with other changes!	В			-		-		@• -							-		-	-		-	-			-	
PAS-PTC-DE-05	Changes of inner construction - Electrode	. Р	Change of appearance.  Note: Marking on device is defined as secerate chance (PAS-PTC-PY-Q2).  Change of electrode byer thickness or geometry.	e.g. change of electrode design	С				@• @•			- @			@• @•			@• @•			-	-		-	-		-	@•	
PAS-PTC-DE-06	Changes of inner construction - Layer Thickness	- P	Change of ceramic layer thickness. For multi- layer technology only.	e.g. change from 1.5µm into 1.0µm	с		• •	-	@• @•			- @			@• @•			@• @•	-		-	-		-	-		-	-	
PAS-PTC-DE-07	Changes of inner construction - Number of Layers	. Р	Change of number of ceramic or electrode layers. For multi-layer technology only. Allway in combination with PAS-PTC-DE-06.	ys see also layer thickness	С			-	@• @•			- @			@• @•			@• @•	-		-	-		-	-			-	
	PROCESS		In combination with PAS-PTC-DE-06.															تلتا	$\perp \perp$				_						
	Changes in process technology or manufacturing methods - Lamination	. Р	Change of lamination / press technique technology	e.g. stamp press to isostatic press	С		•	-	- @		@• -				@• @•			@• -			- 1	-		-	-		1 - 1	@•	
PAS-PTC-PR-02	Changes in process technology or manufacturing methods - Firing		Change of firing / sintering profile	e.g. temperature and / or time and / or atmosphere. e.g. from tunnel to batch kiln.	с			-	@• @•		- @•	- @			- @•	@• -	@B -		-		-	-		-	-		-	@•	
PAS-PTC-PR-03	Changes in process technology or manufacturing methods - Dicing		Change of dicing / slicing	e.g. change from cutting to sawing	С		•				@• -			@• -			@B -		-		-	-		-	-		-	@•	
PAS-PTC-PR-04	Changes in process technology or manufacturing methods - Termination	. Р	Change for termination preparation like plating or apply of termination base layer.	e.g. change in plating technology (final termination) e.g. change from dip in paste to plating (apply)	В			-		•			• -	• -			в -		-		-	-		-	-		- 1	@•	
PAS-PTC-PR-05	Changes in process technology or manufacturing methods - Electrode apply	. Р	Change of electrode apply. For multi layer technology only.	e.g. change from dp in paste to plating (apply) e.g. change of inner electrode lay down method.	С		• •	@•		-	@• -				@• @•	@• -	@B -	@• -	-		-	-		-	-		- 1	@•	
PAS-PTC-PR-06	Changes in process technology or manufacturing methods - Assembly	. Р	Change in assembly process for leaded or encapsulated devices.	e.g. soldering method for lead attach to element or costing / encapsulation process	В			•	• •	-					• -				-		-	-		-	-		- 1	-	
			Variation within process specification.		С			-		-									-		-	-		-	-		-	-	
	PACKING / SHIPPING - NEW MATERIAL, CRITICAL DIMENSIONS Packing / shipping specification change (lossening of folerances)	р о	Change of packing specification.	a.n. number of planes on real	В							T - T -			T . T .			T . T .	T . T					T . T	- 1				
PAS-PTC-PN-02	Packing / singping specification change (scalaring or tolerances)  Dry pack requirements change	1 P	Change of dry pack requirements. (8: Relaxation of dry pack requirements. (85: Turbiserius of dry pack requirements.	e.g. number of pieces on real. e.g. change in dry pack sesurance (HC, MEB) (I): MSL 3 -> MSL 1 (II): ARC 4> ARC 5	В			-																					
PAS-PTC-PN-03	Change of carrier (tray, reel)	P P	494: Trablemina of dry name sequinements Change of carrier	eg. change by material e.g. change by material e.g. change by osometry.	В			-		-									-		-	-		-	-			-	
	PACKING / SHIPPING - VISUAL INSPECTION					T				_												_	_						
PAS-PTC-PV-01	Change of labelling		Change of labelling, also on reel.	(8) e.g. additional information (RoPG stamp) (P) e.g. change of customer specific information	В			-		-									-		-	-		-	-		-	-	
PAS-PTC-PV-02			Marking on device.	e.g. change of content of marking e.g. change of method of marking e.g. change of appearance of marking	В			-		-									-	-   -	-	-	-   -	-	-			-	
PAS-PTC-PV-03	Change of packing/shipping specification	РР	Change in packing specification which does not described a change of dimensions or material of the cacking.	e.g. change of documentation in packing specification															-		- T	-		-	-			-	
	LOGISTICS / CAPACITY / TESTING - EQUIPEMENT	÷				i i																							
PAS-PTC-EQ-01	Production from a new equipment/boll which uses a different technology or which due to its unique form or function can be expected to influence the integrity of the final product	P P	Change in process technique which is not already covered above.  Note: Changes affecting the product not covered by the table require also a PCN.	e. g. change from wet to dry technology.	С			-									@B -		-		-	-		-	-			@•	Test effort depends on final risk assessment. Performance test according to affect process change.
																													process change.  Test effort depends on final risk
PAS-PTC-EQ-02	Production from a new equipment/tool which uses the same basic technology (replacement equipment or extension of existing equipment pool)		PCN required for dedicated equipment for sensitive component production.	e.g. elmination of manual handling processes	С			-		-							@B -		-	-   -	-	-		-	-			@•	Test effort depends on final risk assessment. Performance test according to affect process change.
PAS-PTC-EQ-03																	@B -											@•	
	Change in final test equipment type that uses a different technology	РР	Change of final test equipment which use different technology. PCN required for dedicated equipment for sensitive parameters.	e.g. change of tester platform	С												@B -					•			-			@•	Gage R&R / delta correlation
	LOGISTICS / CAPACITY / TESTING - PROCESS FLOW		Change of manufacturing site. Includes transfer on well as additional site. Note: Recognization inside one plant/site is not affected.	e.g. movement or transfer of manufacturing site or process step(s) to a different location/site.						T												Ŧ							
			includes transfer as well as additional site.	process step(s) to a different location/site.	В			٠	• •	•	- •		• -				в •		-	-	-	-	-	-	-	-	@•	@•	
PAS-PTC-PF-01	Manufacturing site transfer or movement of a part of production process to a different location/site	P P	not affected.	e.o. dual source / fab strategy																									Characterisation depends on impact production flow.
	Elimination or addition of a manufacturing process step	P P	Note: reorganization inside one penniste is not affected.  Change of manufacturing process sequence.	e.g. dual source / fab strategy e.g. washing / cleaning process e.g. change of order of processes	С			-		-		-   -			1 - 1 -				-		- 1	-		-	-		1 - 1	@•	production tow.
PAS-PTC-PF-01	Elmination or addition of a manufacturing process step  LOGSTICS / CAPACITY / TESTING - G-GATE	P P	Note: veceparument inside one partities is not affected.  Change of manufacturing process sequence.	e.g. washing / cleaning process e.g. change of order of processes	С			-	-   -	1 -	-   -		1 - 1 -		1 - 1 -		-   -		-		-	_	-   -	-	-			@•	Characterization depends on impact
PAS-PTC-PF-01	Elmination or addition of a manufacturing process step  LOGSTICS / CAPACITY / TESTING - G-GATE	P P	Note: recognization index one particles is considered.  Change of manufacturing process sequence.  Change of said coverage.	e.g. washing / cleaning process e.g. change of order of processes	С					-											- 1	-	-   -	-	-			@•	Characterization depends on impact
PAS-PTC-PF-01	Elimination or addition of a menufacturing process step  LOGSTICS (CAPACITY ITESTING - 0-0.4TE  Change of least countrying used by the applier to ensure data sheet compliance (e.g., distinguishmodality of decirior immunicement built from block, visibation-inherizancement of	. P	Change of manufacturing process sequence.	an, that issures / Tigh artisten e.g. unshing / Caraining process e.g. change of order of processes e.g. change for order of processes e.g. change from 190% to sample inspection e.g. set like block, reduction from these to has berryearture resourcereds. e.g. change in hum finition in process.				-		-									-			-		-	-				Characterisation depends on impact test coverage. R (electr. funct.): test coverage. R (helability) only for change in burn process.
PAS-PTC-PF-01  PAS-PTC-PF-02  PAS-PTC-OG-01	Streamen or station of a market-long process sep  Liconstel CHARCTY/ESTING - G-SATE  Charge of an occurrency used by the significant behavior completed to a completed to a completed to a completed to a complete t	. P	Change of manufacturing process sequence.  Change of last coverage.	e.g. washing / dearing process e.g. change of order of processes e.g. change from 100% to sample impaction e.g. change from 100% to sample impaction e.g. dearlies block reduction from these to be temperature measurements e.g. change in them trivial in process.						-   -									-			-	-   -		-				Characterization depends on impact
PAS-PTC-OF-01  PAS-PTC-OF-02  PAS-PTC-OS-01  PAS-PTC-OS-01	Consider a distinct of a resultancing process day  (Admittal CAMPETT INTENNAL OF GAST  Compared for compared by the applies in terms dath after compleme by all and an admittal compleme by all and an admittal complement by the admittal complement of a resultance and a res	. P	Change of test coverage.  Change of test coverage.  Intended to be used if no other type of change is applicable but the change affects agreed in applicable but the change affects agreed.	a.g. usefully cleaning process     a.g. change of order of processes     a.g. change from 100% to sample inspection     a.g. change from 100% to sample inspection     a.g. change in the 100% to sample inspection     a.g. change in burn links in process.	c		 	-		-												-			-				Characterization depends on impact
PAS-PTC-PF-02  PAS-PTC-OG-01	Streamen or station of a market-long process sep  Liconstel CHARCTY/ESTING - G-SATE  Charge of an occurrency used by the significant behavior completed to a completed to a completed to a completed to a complete t	. P	Change of test coverage.  Change of test coverage.  Intended to be used if no other type of change is applicable but the change affects agreed in applicable but the change affects agreed.	e.g. washing / dearing process e.g. change of order of processes e.g. change from 100% to sample impaction e.g. change from 100% to sample impaction e.g. dearlies block reduction from these to be temperature measurements e.g. change in them trivial in process.			• · · ·	-														-		-	-				Characterization depends on impact

PAS-VDR-DS-01	Change of databaset parameters/electrical specification (min/max/lyp. values) and / or ACIDC specification	Р	P Change of application relevant information Not included: Editorial changes.	e.g. Sighten of electrical parameter distribution	A	Risk assessment depending on change for each application.				-				-					-							-			-		-	-		
PAS-VCR-05-02	Connection of data sheet or issue of errats		No technical change of product, process or test. New description of behavior which was not specified before or which is different from initial specification. Please indicate clearly, that infonctic contains this type of change!	e.g. data sheet correction because of new information about correcovert behavior	A					-				_			_		-	-						_					-			
			Assessment in acceltation recurred:																													4		
PAS-VOR-OS-03	Specification of additional parameters	1 8	Description of a new not previously covered parameter.  Po technical change of the product.  (P): Risk assessment depending on change for such application to provide audience of additional parameters (stat. evakuation)	e.g. adding new (tested) parameter.	A		-		-   -	-				-	-   -	-	-		-	-		-		-	-	-	-	.   -	-	-	-	-   -		
	MATERIAL																																	
PAS-VOR-MA-01	Change of material composition - Ceramic Binder	Р	P Change of Binder Material to bind ceramics.		С		•	• •		-				-	- @		@• @		-	-		-		-	-	-	-		-	-	-	سند	_	
PAS-VDR-MA-02 PAS-VDR-MA-03	Change of material composition - Ceramic	P	P Change of ceramic composition ceramic material class (2nO, etc.) will not be changed, only dopands will be changed Change of inner electrode material Valid in	e.g. changes in additives amount	С		-	: :		-				-	- @•		@• @			@B @B	@• @S	-		-	-	-	-		-	-	-	- @		
	Change of material composition - Electrods		case or museayer structures only.	e.g. change from AgPI material to AgPd material	С	A: Risk assessment on application level, if	•	•	@• @		- @		@•	-		-	-	- @•	+	-		-		-	-	-	-		-	-	-	- @		
PAS-VDR-MA-04	Change of material composition - Encapsulation	P		e.g. change of coaling e.g. change of additives in an insulation.	В	A: Risk assessment on application level, if interaction with other material expected.	-	• •	@• @	• -	@• @	•		-		-	@• @		-	@B	@• -	-		-	-	-	-		-	-	-	- @	į•	
PAS-VDR-MA-05	Change of material composition - Lead material / Termination	P	material or attachment material.	e.g. change from SnPb to pure Sn	В	Risk assessment needed to evaluate compatibility of soldering process.	-			-	@• @	+	@•	@•	- @	+	-	- @•	+ +	@B	- @•			-	-	-	-		-	-	-	-		
PAS-VOR-MA-06	Change of supplier of material	- 1	at component manufacturer.	e.g. for 2nd source purpose	С		•	•		-	•		•	•		•	•	-   •	•	В	- •	•	-   -	-	-	-	•	-   -	-	-	-	- @	nemains unc change of n	n material specification changed. Otherwise see material.
PAS-VDR-DE-01	DESIGN  Changes of termination, surface finish, shape, color, appearance or dimension structure - Lead Diameter		Change of lead diameter	e.g. change lead dameter from 0.8 to 0.6 mm	A					Τ.	@•	T	- @• @•	@•		Τ.			1.1	@B	. @•	@•		Π.	Т.		- 1			- 1	- 1	- @	ò•	
PAS-VDR-DE-02	Diameter  Changes of termination, surface linish, shape, color, appearance or dimension structure - Termination Area		(for soldered THT components)  P Change of termination area	e.g. change of termination layer thickness e.g. change in termination dimensions	В			•			@•		- @• @•	-						@B		@•			-	-	-		-		-		SMD compo	onents only!
PAS-VOR-DE-03	Changes of termination, surface finish, shape, color, appearance or dimension structure - Internal		p Change of inner connection	e.c. change from soldered connection to welded	c			•		-	@• @			@•	- @			- @•	@•			@•		1	1 -		-			-	-		e and confo	
PAS-VDR-DE-04	Connection  Changes of termination, surface finish, shape, color, appearance or dimension structure— Accessrance			connection  e.g. change or adding of color on component Mainly in combination with other changes!	В					T.	e- e		- @• -			1				-				ΗĒ	1.						-			
PAS-VDR-08-05	Appearance Changes of inner construction - Electrode		P Note: Marking on device is defined as secerate chance (PAS-VDR-PV-02).  P Change of electrode byer thickness or	Mainly in combination with other changes!  e.g. change of electrode design	c			•	. 0	• @•			• - @•	_		+ -	@• @			В			_		+ -	_	_		+	_		- @		
PAS-VDR-DE-06	Changes of inner construction - Laver Thickness		Change of ceramic layer thickness. For multi-		c			•			•	-	• • @•					9•	-	В		_					-						9∙	
PAS-VOR-DE-07		H	P layer technology only.  Change of number of ceramic or electrode tayers. For multi-layer technology only. Allways. in combination with PAS-VDR-DE-06.							_		_					@•			1	- @•			Ħ							7			
	Changes of inner construction - Number of Layers	- 1			С		-	•		@•	•		• - @•	-		•	@• .	·   -	-	-	- @•	@•	- '		1	-	•		-	-	-	- @		
PAS-VDR-DE-08	Changes of inner construction - Grain size	- 1	Change of grain size. Grain size is a result of process and / or material change.	e. g. change of grain size.	С		-	• •		-		_	•	-		-	-			В		-		-	-	-	٠		-	-	-	- @		
PAS-VDR-DE-09	Changes of inner construction - Grain boundary size	- 1	Overge of grain boundary size. Grain boundary size is a result of process and / or material chance.	e.g. change of grain boundary size.	С		-	•		-	•		•	-		-	-		-	В		-		-	-	-	•	.   -	-	-	-	- @	<b>)•</b>	
PAS-VDR-PR-01	PROCESS  Changes in process technology or manufacturing methods - Lamination		P Change of lamination / press technique method	a n starm mean or involvir nous	С					@•	- @			- 1		Τ.	@• @	no -	T - T	@B	- @•	- T			Τ.		.		T .	- 1	- 1	- 0	<b>∳•</b>	
PAS-VDR-PR-02	Changes in process technology or manufacturing methods - Firing			e.g. temperature and / or time and / or atmosphere. e.g. from tunnel to batch kiln.	С			•					• - @•	-						В						-			-	-	-		<b>§•</b>	-
PAS-VDR-PR-03	Changes in process technology or manufacturing methods - Dicing	- 6	P Change of dicing	e.g. change from cutting to sawing	c						@•				@• @•					В				-	1 -	-	•		-	-	-		0∙	
PAS-VDR-PR-04	Changes in process technology or manufacturing methods - Termination		P Change for termination preparation like plating or apply of termination base layer.		В											@•				В				-	-	-			-	-	-	- @		
PAS-VDR-PR-05	Changes in process technology or manufacturing methods - Electrode apply	- 1	P Change of electrode apply. For multi layer technology only.	e.g. change of inner electrode by down method. e.g. soldering method for lead attach to element or costing / encapsulation process	С		٠	• .	@• -	-	- @	•		-		-	@• @	@•	-	@B	- @•	-		-	-	-	-		-	-	-	- 6	₽•	
PAS-VDR-PR-06	Changes in process technology or manufacturing methods - Assembly	. 6	P Change in assembly process for leaded or encapsulated devices.	e.g. soldering method for lead attach to element or coating / encapsulation process	В		•	•	@• @				- @• @•		@• -		@•		@•	-	@• -	-		-	-	-	-		-	-	-	- 7		
PAS-VOR-PR-07	Process integrity: tuning within specification  PACKING / SHIPPING - NEW MATERIAL, CRITICAL DIMENSIONS	- 6	P Variation within process specification.	e.g. process control	С					-	1 - 1 -	<u> </u>		-	-   -	-	-		-	-		-	-   -		٠-	-	-	-   -	-	-	-	سلت		
PAS-VDR-PN-01		Р	p Change of packing specification.	e.g. number of pieces on reel.	В						Τ.Ι.			- 1		Τ.			T - T	- 1		- T			Τ.		.		T .	- 1	- 1			
PAS-VDR-PN-02	Dry pack requirements change	1 1		e.g. change in dry pack assurance (HC, MEE) (8: MSL 3 -> MSL 1	В					1	l			_						-		_			-	_				_	-			
PAS-VDR-PN-03			(P): Tightening of dry pack requirements.	(P): MSL 1> MSL 3	В					_		+			_				+	-				+			_	-		-	-		_	-
PAS-10K-PN-03	Change of carrier (tray, reel)  PACKING / SHEPPING - VISUAL INSPECTION	Р ,		e.g. change by material e.g. change by geometry.	В				-		تلتل				-   -	<u> </u>		-   -	1 - 1	- 1	-   -	- 1	-   -				-			- 1		تلك	_	
PAS-VOR-PV-01	Change of labeling	1 8	P Change of labelling, also on reel.	(8) e.g. additional information (RoPG stamp) (P) e.g. change of customer specific information	В		-			-				-		-			-	-		- [		-	-	- 1	-		-	-	-	- 7		
PAS-VDR-PV-02	Change of product marking	1 8	P Marking on device.	e.g. change of content of marking e.g. change of method of marking	В		-			-				-		-			-	-		-			-	-	-		-	-	-	- 7	-	
PAS-VDR-PV-03	Change of packing/shipping specification	P F	Change in packing specification which does not described a change of dimensions or material of the packing.	e.g. change of appearance of marking e.g. change of documentation in packing specification												١.			-	-		-			1 -		-		-	-	-			
	LOGISTICS / CAPACITY / TESTING - EQUIPEMENT		material of the packing.	speciment)								_		ш						_		ш										_		
PAS-VDR-ED-01	Production from a new equipment/loof which uses a different technology or which due to its unique form or function can be expected to influence the integrity of the final product	Р	Change in process technique which is not already covered above.  Note: Changes affecting the product not covered by the table require also a PCN.	e.g. change from wet to dry technology.	с			•						•					-	В		-			@•	-			-	-	-	- @	Statistment. Performance	depends on final risk t. on test according to affected ange.
PAS-VOR-EQ-02	Production from a new equipment/bol which uses the same basic technology (replacement equipment or extension of obtaing equipment pool)		PCN required for dedicated equipment for sensitive component production.	e.g. elimination of manual handling processes	С					-							-		-	В		-			@•	-			-	-	-	- @	Test effort di assessment. Performance	depends on final risk t. on test according to affected
PAS-VOR-EQ-03	Change in final test equipment type that uses a different technology	P	Change of final test equipment which use different technology.  PCN required for dedicated equipment for	e.g. change of teater platform	с					1.				-		-	-		-	@B		-		-	-	-	-		-	-	-	- @	process cha	ange. / delta correlation
	LOGISTICS / CAPACITY / TESTING - PROCESS FLOW		sensitive parameters.			1						_								_														
PAS-VDR-PF-01	Manufacturing sile transfer or movement of a part of production process to a different location/site	P	Change of manufacturing site. Includes transfer as well as additional site. Note: Reorganization inside one plantitite is not affected.	e.g. movement or transfer of manufacturing site or process step(s) to a different location/site.	В		•	•		-				•				.   .		В	-		@•	-	-	-	•		-	-	-	@• @	ş•	
PAS-VDR-PF-02	Elimination or addition of a manufacturing process step			e.o. dual source / fab strategy e.g. washing / cleaning process e.g. change of order of processes	С					-				-		-			-	-		-		-	-	-	-		-	-	-	- (	Characteriss production fi	sation depends on impact of flow.
	LOGISTICS / CAPACITY / TESTING - Q-GATE																																	
PAS-VDR-QG-01	Charge of test coverage used by the supplier to ensure date sheet compliance (e.g., elimination) addition of electrical measurement test flow block, releastion/enhancement of mentioning procedure or sampling)	- 1	p Change of test coverage.	e.g. change from 100% to sample inspection e.g. test flow block, reduction from three to two temperature measurements e.g. change in burn infrum in process.	С		-			-				-		-	-		-	-		-		-	-	-	-		-	-	-	-	R (electr. fu R (reliability) process.	unct): test coverage. y) only for change in burn in
Tests, which shou	ld be considered for the appropriate process change.		<u> </u>				-			-	-   -			-		-				-		-	-		-	-	-		-	-	-			
Tests, which shou	ld be considered for the appropriate process change after selection of condition	n table.					-							-		-	-		-	-					-	-	-		-		-	-	-	
Suppliers performe	id tests (mark with an 'X' for done or 'C' for generic)																																	
	ion of tests and/or usage of generic data:																																	

-	Not required
- 1	Information Note required
P	PCN required

A latter or \*\* indicates that performance of that stress test should be considered for the appropriate process change.
A \*® is recommended additionally by ZVEI

CONDITIONS
Termination equipment of Ceramics only



. => Please mark 'NO' with 'x', default is 'YES'