



Public Products List

PCN Title : Update PCN 9160 in UFQFPN 4x4 package only - ST Calamba Philippines additional source for STM8S/L & STM32 products

PCN Reference : MDG/16/9829

PCN Created on : 30-May-2016

Subject : Public Products List

Dear Customer,

Please find below the Standard Public Products List impacted by the change.

STM32L031G6U7	STM32L011G4U6	STM32F031G6U6TR
STM32F031G6U7	STM8L151G6U6TR	STM32F038G6U6
STM8L151G6U3	STM8L151G2U6	STM8L151G4U6
STM8L101G3U6	STM8L151G3U6	STM8L151G6U7TR
STM32F031G4U6TR	STM8TL52G4U6	STM8L151G4U3
STM8TL53G4U6	STM32L031G6U6TR	STM8L101G3U6A
STM32F042G4U6	STM32F031G4U6	STM32F031G6U6
STM32L031G6U6	STM32F031G4U7TR	STM8L151G6U6
STM32F031G4U7	STM32F042G6U6	STM8L151G3U6TR
STM32F048G6U6	STM8L101G3U6TR	STM32L021G4U6
STM8L151G3U3	STM8L101G2U6	STM8TL53G4U6TR
STM32L041G6U7	STM32L031G4U6	STM8L151G4U6TR
STM32L011G3U6	STM8L151G6U7	STM8L101G2U6A
STM8L151G6U3TR	STM8L101G2U6TR	



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**PRODUCT/PROCESS
CHANGE NOTIFICATION
PCN 9829 – Additional information**

**Update PCN 9160 in UFQFPN 4x4 package only –
ST Calamba Philippines additional source for
STM8S/L & STM32 products**

MMS - Microcontrollers Division (MCD)

What are the changes?

Only Die attach Glue material is changing from Bill Of Material indicated in PCN 9160.

Only UFQFPN 4x4 package is impacted by this Die attach Glue material change.

UFQFPN 5x5 and 7x7 packages remain unchanged as PCN 9160.

		Current location	Additional / new location
Package products	BOM	Stats ChipPAC China	ST Calamba Philippines
UFQFPN 4x4 COL	Lead frame (1)	PPF	PPF
	Die attach Glue	Ablestick 8006NS	TAPE NEX-130C (in PCN 9160) TAPE LOCTITE ABLESTIK ATBF125E
	Mold compound (2)	Sumitomo G770HCD	Sumitomo EME G770HF
	Wire	0.8 mil Au	0.8 mil Ag

(1) Lead color and surface finish change depending on lead finishing.

(2) Package darkness changes depending on molding.

When ?

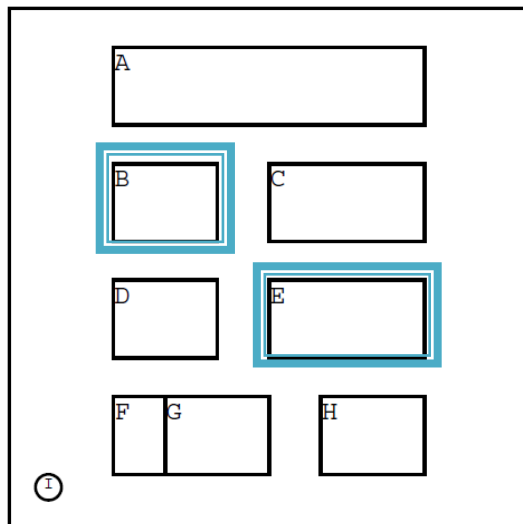
The production will start from :

Package products	Date of Final Qualification Report Availability	Date of first Shipment
UFQFPN 4x4 COL	Week 32-2016	Week 37-2016
	Week 42 2016	Week 47 2016

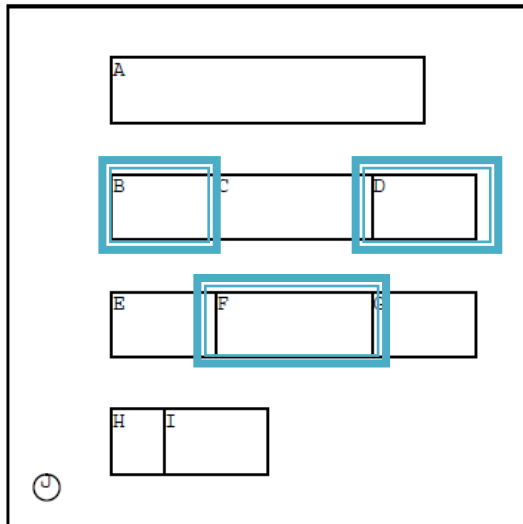
How can the change be seen?

For products in UFQFPN 4x4 packages, the marking instruction indicated on the products is changing:

- Assembly plant changes from GH (in B) to 78 (in B)
- Country Of Origin change from CHN (in E) to PHLS (in F)
- 2 digits are added for enhanced traceability (in D)



Previous marking



New marking

How to order samples?

For all sample request linked to this PCN, please:

- request sample(s) through Notice tool, indicating a single Commercial Product for each request.
- insert "PCN 9829" into the remarks of your order.
- place **non standard** sample order using the following field in your system.

SO | NPO Sample

Header

SO Nr: [] Customer: [] SO Type: 3B Sample Order

PO Nr: [] Carrier Code: [] Price Policy: [] Currency: []

Notes: [] Status: [] Issuing Date: [] Ord Val: 0.0000

Sch Nr	PO Nr	Finished Good	Comm Qty	Open Qty	Plant Open Qty	Req'd Qty	Unit Price	RD	CD	EDD	St
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PO Item: [] Comm Prod: [] Qty: 0 RD: 06-Jan-15 Unit Price: 0.0000 Final Cost: []

Cust Part Nr: [] Finshd Good: [] Partial Ship: 01 Price Pol: [] Status: 01 Cncc: []

Notes: [] TAM K Pieces: 0 Our Share: % Sample Type: Sample Non Std Type

Project Name: [] Closing Date: [] Closing Type: []

Regional Sheet: [] Lab Sheet: []

SO Nr: 7075S05890 Customer: 99800200 SGS-TH/USA PO Nr: Mos/TPapay/RBC-Ullmer

Company: STM Issuing Date: 29-JUL-2015 12:07:00 Ship To: 9980020081 SGS/USANPO Price Policy: 05 Curr Code: 02 U.S. DOLLAR

Carrier Code: 0001 * Bill To: 9980020001 SGS-TH/USA


Carriage Code: F1 F.I.S. Confirm To: 01

Transportn Mode: 01 AIR FREIGHT Sales Rep. ID: 07R00C NO COMMISSION

Payment Term: 0006 FREE OF CHARGE Cust Serv Rep ID: 11A000 Dummy FSA SWISS

SO Remark Details

SO Remark Type	Text	Status Co	Last Update
01 INVOICE & O/C REMARK	PER PCN 9108- THANK YOU	01	30-Jul-2015



RERMCD1602 reliability plan- ST Calamba Philippines UFQFPN 4x4, 5x5 & 7x7 packages PCN 9160- PCN 9829

Reliability Evaluation Plan

Mar 18th, 2016 updated May 30th, 2016

MMS MCD Quality & Reliability Department

PCN 9160/ 9829 - RERMCD1602 reliability plan ST Calamba Philippines additional source for STM8S/L & STM32 products in UFQFPN 4x4, 5x5 & 7x7 packages

- Context :

PCN9160- ST Microcontrollers Division decided to qualify an additional source to maintain best in class service level to our customers, improving flexibility on manufacturing sites.

PCN9829- ST Calamba Philippines will directly qualify a better Die attach Glue material for UFQFPN4x4 COL only.

- What are the changes?

		Actual	New
Package products	BOM	Stats ChipPAC China	ST Calamba Philippines
UFQFPN 4x4 COL	Lead frame (1)	PPF	PPF
	Die attach Glue	Ablestick 8006NS	TAPE NEX-130C(in PCN9160) TAPE Loctite Ablestik ATBF125E
	Mold compound (2)	Sumitomo G770HCD	Sumitomo EME G770HF
	Wire	0.8 mil Au	0.8 mil Ag
UFQFPN 5x5 & 7x7	Lead frame (1)	Pure Sn (e3)	PPF (e4)
	Die attach Glue	Alebond 8290	QMI519 (Henkel)
	Mold compound (2)	Sumitomo G770	Hitachi CEL9240ZHF10
	Wire	0.8 mil Au	0.8 mil Ag

RERMCD1602 STM8S/L & STM32 TEST VEHICLES

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Package line	Assembly Line	Package	Device (Partial RawLine Code)	Diffusion Process	Number of Lots	
UQFN	UQFN4*4 COL	UQFN4*4 COL 28L	STM32(MB*444)	TSMC0.18	1	
			STM32(MB*425)	F9GO2S	1	
			STM8(MB*761)	F9GO2	1	
	UQFN 5*5-7*7	UQFN5*5 32L	UQFN5*5 32L	STM32(MG*440)	TSMC0.18	1
				STM32(MG*417)	F9GO2S	1
				STM8(MG*767)	F9GO1	1
		UQFN7*7 48L	UQFN7*7 48L	STM32(MI*440)	TSMC0.18	1
				STM32(MI*423)	M10	1
				STM32(MI*435)	TSMC90nm	1
				STM8(MI*764)	F9GO2	1

RERMCD 1602 -STM8-STM32 UQFN

RELIABILITY TRIALS

Package Reliability Trials :

Reliability Trial	Test Conditions	Pass Criteria	Unit per Lot	Lot qty	
PC	Pre Conditioning: Moisture Sensitivity Jedec Level 3 J-STD-020/ JESD22-A113	Bake (125°C / 24 hrs) Soak (30°C / 60% RH / 192 hrs) for level 3 Convection reflow: 3 passes with Jedec level 3	3 passes MSL3	308	1/ device
AC or Uhast(*)	Autoclave JESD22 A102 or UnBiased Highly Accelerated Temperature and Humidity Stress JESD22 A118	121°C, 100% RH, 2 Atm 130°C, 85%RH, 2 Atm	96h	77	1/ device
TC(*)	Thermal Cycling JESD22 A104	-50°C, +150°C Or equivalent -65°C +150°C	1000Cy 500Cy (1000cy/2000cy as monitoring)	77	1/ device
WPT/WBS After TC	Wire Bond Pull- Mil Std883 method 2011 Wire Bond Shear ,AECQ100-001	3g min pull strength 15g min bond shear	500Cy 1000Cy 2000Cy		
THB or HAST(*)	Temperature Humidity Bias JESD22 A101 Or Biased Highly Accelerated Temperature and Humidity Stress JESD22 A110	85°C, 85% RH, bias 110°C/ 1.2 Atm	1000h 264h	77	1/ device
HTSL	High Temperature Storage Life JESD22 A103	150°C- no bias	1000h	77	1/ device
Construction analysis including Solderability, Physical demensions	JESD 22B102 JESDB100/B108			15 10	1/ Lead frame and Front end technology
ESD	ESD Charge Device Model ANSI/ESD STM5.3.1	250V or 500V depending on device datasheet	250V or 500V	3	1/ device

(*) tests performed after preconditioning

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