



Public Products List

PCN Title : ST Shenzhen (China) new assembly site - TSSOP 20 products

PCN Reference : MDG/16/9299

PCN Created on : 19-Jun-2015

Subject : Public Products List

Dear Customer,

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

STM32F038F6P6	STM32F031F6P6TR	STM8S903F3P3
STM32F031F6P6	STM32F031F6P7TR	STM8S103F2P3TR
STM8S103F3P6TR	STM8S103F3P3TR	STM32F031F6P7
STM32F030F4P6	STM8S903F3P6	STM32F030F4P6TR
STM8S103F3P3	STM8S903F3P6TR	STM32F031F4P6
STM8S103F2P6	STM32F031F4P7	STM8SPLNB1P6
STM8S003F3P6TR	STM8S103F3P6	STM8S103F2P6TR
STM8S003F3P6	STM32F038F6P6TR	STM8S103F2P3
STM32F031F4P6TR		



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PRODUCT/PROCESS CHANGE NOTIFICATION PCN 9299 - Additional information

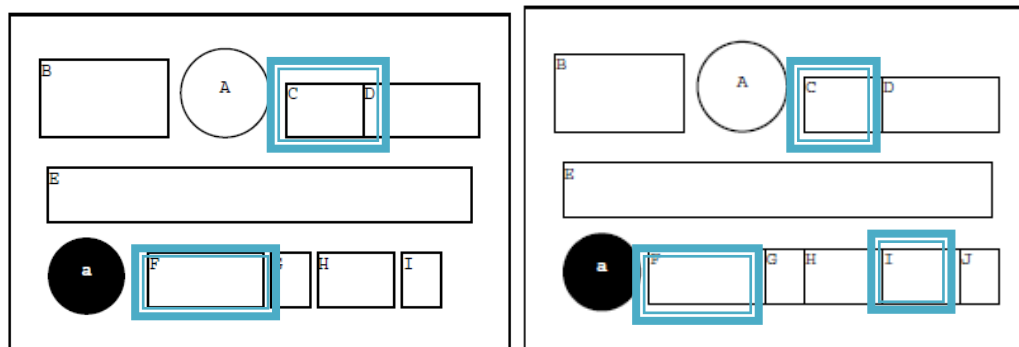
ST Shenzhen (China) new assembly site – TSSOP 20 products

MMS - Microcontrollers Division (MCD)

How can the changes be seen?

The marking instruction indicated on the products is changing from:

- Assembly plant changes from 7B (in C) to GK (in C)
- Country Of Origin change from PHL (in F) to CHN (in F)
- 2 digits are added for enhanced traceability (in I)



Previous marking

New marking

When ?

The production will start from:

Products	Date of Final Qualification Report Availability	Date of first Shipment
STM8x	Week 35 2016	Week 39 2016
STM32x	Week 43 2016	Week 48 2016

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 9299" into the remarks of your order.
- place **non standard** sample order using the following field in your system.

Header
SO Nr: [] Customer: [] SO Type: 38 Sample Order
PO Nr: [] Carrier Code: [] Price Policy: [] Currency: []
Notes: [] Status: [] Issuing Date: [] Ord Val: 0.0000

Sch 1 Nr	PO 1 Nr	Finished Good	Comm Qty	Open Qty	Plant Open Qty	Reqd 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: [] Finished Good: [] Period Ship: 01 Price Pol: [] Status: 01 Cnec: []
Notes: [] TAM K Pieces: 0 Our Share: 0 Sample Type: Sample New 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
Transport 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 Type	Text	Status Co	Last Update
01 INVOICE & O/C REMARK	PER PCN 9108: THANK YOU	01	30-Jul-2015



RERMCD1512 reliability plan for STS TSSOP20 - PCN 9299

Reliability Evaluation Plan

June 13th, 2016

MMS MCD Quality & Reliability Department-ST Rousset

PCN9299- RERMCD1512 reliability plan

ST Shenzhen TSSOP20

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- Context :

Today production is only issued from AMKOR ATP (Philippines). In order to ensure top class service for our customers, given the continued growth of the STM32 & STM8 families, ST Microcontrollers Division will increase production capacity and improve flexibility through the qualification of an additional assembly source.

- What are the changes?

4. Description of change		
	Old	New
4.1 Description	Current assembly plant : AMKOR ATP (Philippines) Current Bill Of Materials : <ul style="list-style-type: none">- Wire Bonding : 0.8 mil Au- Glue : 8290 Ablestik- Resin : G700K- Leadfinishing : Rough PPF	Current assembly plant, AMKOR ATP (Philippines), remains unchanged. Additional assembly plant : ST Shenzhen (China) Additional Bill Of Materials : <ul style="list-style-type: none">- Wire Bonding : 0.8 mil Ag- Glue : 8601-S25 Ablestik- Resin : G700KC- Leadfinishing : PPF
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?	Lead color and surface finish change depending on lead finishing.	

RERMCD1512 STM8S & STM32 TEST VEHICLES

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Package line	Package	Device (Partial RawLine Code)	Diffusion Process	Number of Lots
TSSOP	20L	STM8S (YA*767) STM32 (YA*444)	F9GO1 TSMC 0.18μm	3 3

RERMCD 1512 STM8S-STM32 TSSOP20

RELIABILITY TRIALS

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(*) tests performed after preconditioning

Reliability Trial		Test Conditions	Pass Criteria	Unit per Lot	Lot qty
PC	Pre Conditioning: Moisture Sensitivity Jedec Level 1 J-STD-020/ JESD22-A113	Bake (125°C / 24 hrs) Soak (85°C / 85% RH / 168 hrs) for level 1 Convection reflow: 3 passes with Jedec level 3	3 passes MSL1	308	3/ device
AC (*)	Autoclave JESD22 A102	121°C, 100% RH, 2 Atm	96h	77	3/ device
TC(*)	Thermal Cycling JESD22 A104	-65°C, +150°C	500Cy	77	3/ device
WBS/ WPT after TC 500cy	Mil Std 883 Method 2011 AEC Q100-001		Min pull strength 3g Min bond shear 15g	3 / 30 wires	3/ device
THB(*)	Temperature Humidity Bias JESD22 A101	85°C, 85% RH, biased	1000h	77	3/ device
HTSL	High Temperature Storage Life JESD22 A103	150°C- no bias	1000h	77	3/ device
ESD	ESD Charge Device Model ANSI/ESD STM5.3.1	500V or 750V depending on device datasheet	500V/ STM32 750V/ STM8S	3	1/ device
Construction analysis including Physical dimension	Dimension measurement JESD 22B100/B108		CPK >1.33 PPK >1.67	10	1/ device
Solderability	Lead solderability JESD 22B102		>95% lead coverage	45 leads/ 3 parts	1/ device

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