

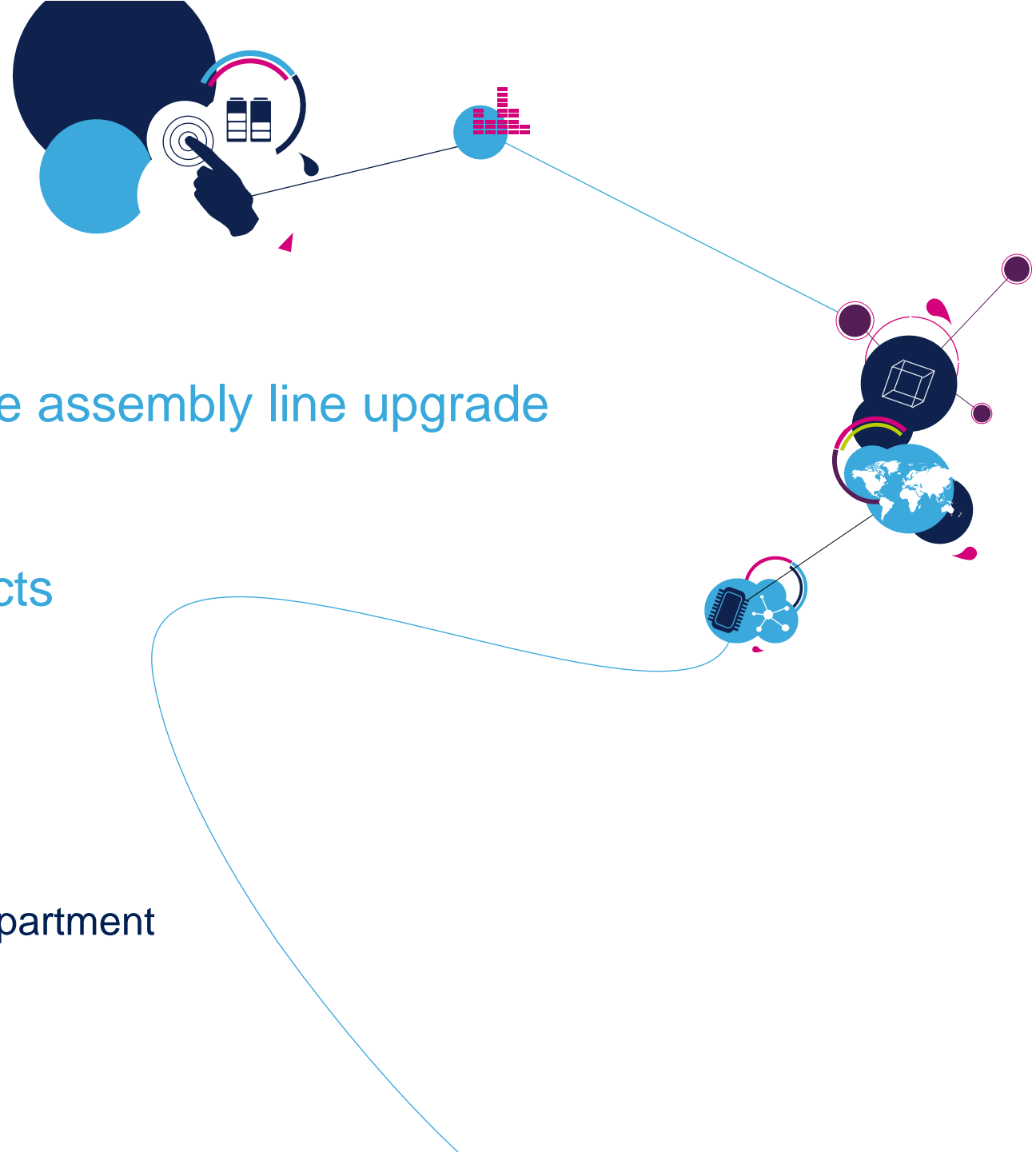
PCN 9844 & 9847- MCDRER1707

Qualification Plan for Muar SO20 package assembly line upgrade and Bill Of Materials (BOM) improvement

- ST7 automotive products
- ST7 and STM8S non-automotive products

April 26th 2017

MDG MCD Quality & Reliability Department



PCN 9844-PCN9847- MCDRER1707 Qualification Plan

Muar SO20 package assembly line upgrade

- Qualification plan for changes described in the PCN 9844 & 9847
- Reliability report: RERMCD1707
- Test Vehicles

Package line	Assembly Line	Package	Device (Partial RawLine Code)	Diffusion Process	Number of Lots
SO	SO20	20L	ST7 Auto (Z7*7L3)	CMOSM6DF	3
			STM8S (Z7*767)	F9GO1	1

RERMCD 1707- RELIABILITY TRIALS

ST7 & STM8S in SO20

Package Reliability Trials :

(*) tests performed after preconditioning

Reliability Trial/ AEC Q100 ref		Test Conditions	Pass Criteria	Unit per Lot	Lot qty	
EFR- HTOL	B2	Early Failure rate	Vdd max/ 140°C	24h	1/ Auto device	
	B1	High Temperature Operating Life test JESD22A108		692h		
PC	A1	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	3/ Auto device 1/ Std device
AC or Uhast(*)	A3	Autoclave JESD22 A102	121°C, 100% RH, 2 Atm	96h	77	3/ Auto device 1/ Std device
		UnBiased Highly Accelerated Temperature and Humidity Stress JESD22 A118	130°C, 85%RH, 2 atm			
TC(*)	A4	Thermal Cycling JESD22 A104	-50°C, +150°C	1000Cy	77	3/ Auto device 1/ Std device
THB(*)	A2	Temperature Humidity Bias JESD22 A101	85°C, 85% RH, bias	1000h	25	3/ Auto device 1/ Std device
HTSL	A6	High Temperature Storage Life	150°C- no bias	1000h	77	3/ Auto device 1/ Std device
		JESD22 A103				
WPT/WBS		MIL STD883 meth2011/ AECQ100-001		After TC1000Cy		3/ Auto device
Construction analysis including Solderability, Physical dimensions		JESD 22B102 JESDB100/B108				1/ device
ESD	E3	ESD Charge Device Model ANSI/ESD STM5.3.1	Upon datasheet	Upon datasheet	3	1/ device

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PRODUCT/PROCESS CHANGE NOTIFICATION PCN 9847 - Additional information

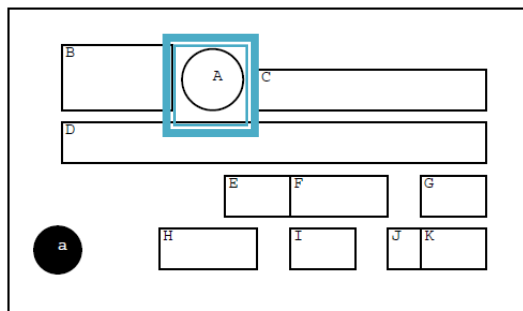
Muar SO20 package assembly line upgrade and Bill Of Materials (BOM) improvement on ST7 and STM8S non-automotive products

MDG - Microcontrollers Division (MCD)

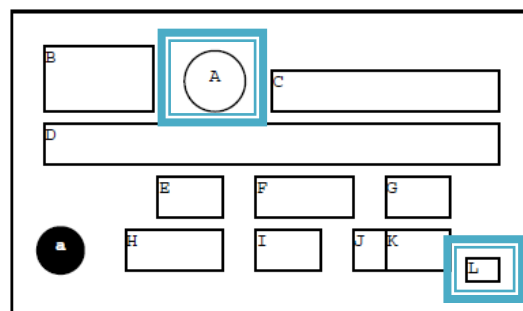
How can the change be seen?

The marking instruction indicated on the products is changing:

- 2 digits are added for enhanced traceability (in L)
- Second level interconnect : e4 (in A) to e3 (in A)



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 9847" 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: 38 Sample Order

PO Nr: Carrier Code: Price Policy: Currency:

Notes: Status: Issuing Date: Ord Val: 0.0000

Sch I Nr	PO I Nr	Finished Good	Comm Qty	Open Qty	Plant Open Qty	Reqd Qty	Unit Price	RD	CD	EDD	St

PO Item: Comm Prod: Qty: 0 RD: 06-Jan-15 Unit Price: 0.0000 Final Cost:

Cust Part Nr: Finishd Good: Partial Ship: 01 Price Pol: Status: 01 Canc:

Notes: TAM K Pieces: 0 Our Share %: 0 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 Carriage Code: F1 F.I.S. Transportn Mode: 01 AIR FREIGHT Payment Term: 0006 FREE OF CHARGE

Bill To: 9980020001 SGS-TH/USA Confirm To: 01 Sales Rep. ID: 07R00C NO COMMISSION Cust Serv Rep ID: 11A000 Dummy FSA SWISS

SO Remark Details

SO Nr: 7075S05890

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



Public Products List

Public Products are off the shelf products. They are not dedicated to specific customers, they are available through ST Sales team, or Distributors, and visible on ST.com

PCN Title : Muar SO20 package assembly line upgrade and Bill Of Materials (BOM) improvement on ST7 and STM8S non-automotive products

PCN Reference : MDG/17/9847

Subject : Public Products List

Dear Customer,

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

ST7FLIT15BF1M6	STM8S903F3M3TR	ST7FLITE35F2M6
STM8SPLNB1M6	ST7FDALIF2M6	ST7FLITE29F2M6
STM8S103F2M6TR	STM8S103F3M3	ST7FLIT19BF0M6
STM8S103F2M6	ST7FLITE19F1M6	ST7FLITE39F2M6
STM8S903F3M3	ST7FLIT19BF1M6	STM8S103F3M6
ST7FLITE20F2M6	STM8S903F3M6TR	ST7FLITE25F2M6
STM8S903F3M6		



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