

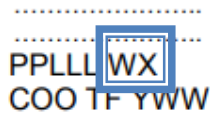


**PRODUCT/PROCESS
CHANGE NOTIFICATION
PCN 11442 – Additional information**

**SG8E (Singapore) additional source for
STM8L052 32k/64k - STM8L15x 32k/64k products**

MDG - Microcontrollers Division (MCD)

The standard marking is:



WX code indicates the diffusion traceability plant code.

Please refer to the [DataSheet](#) for marking details.

The marking is changing as follows:

Existing		Additional	
WX code	Fab	WX code	Fab
VG	ST Rousset 8”(France)	VC	ST SG8 8" (Singapore)

How to order samples?

For all samples request linked to this PCN, please:

- place a **Non-standard** sample order (choose Sample Non Std Type from pull down menu)
- insert the PCN number “**PCN11442**” into the NPO Electronic Sheet/**Regional Sheet**
- request sample(s) through Notice tool, indicating a single Commercial Product for each request

The image shows two screenshots of the SAP NPO Sample order form. The top screenshot is a close-up of the 'Sample Type' dropdown menu, which is open and shows the following options: 'Sample Std Type', 'Sample Non Std Type', and 'Sample Non Std w Spl Tests'. A red arrow points from the 'Sample Non Std Type' option in the dropdown to the 'Sample Type' field in the main form below. The main form is titled 'SO | NPO Sample' and contains the following fields:

Header
SO Nr: 8018502433 Customer: 99770200 01 ST-TOKYO SO Type: 30 Sample Order Cost Center: JT3129 SAMPLES /SALES J
PO Nr: Carrier Code: 0001 Price Policy: 05 Currency: 02 U.S. DOLLAR Req Name:
Notes: Status: 01 All items pending_n Issuing Date: 25-JUN-2018 Ord Val: 0.0000 Sample Req Date: 25-Jun-2018

Sch I Nr	PO I. Nr.	Finished Good	Comm Qty	Open Qty	Plant Open Qty	Reqd Qty	Unit Price	RD	CD	EDD	St
1.1.10	000001	STM32F429NIH6	30	30	30	30	0.0000	25-Jun-18	01-Mar-59	01-Mar-59	01

Final Cust:
PO Item: 000001 Comm Prod: STM32F429NIH6 Qty: 30 RD: 25-Jun-18 Unit Price: 0.0000 Final Cust: 8800367006 SANSHIN/NPC

Cust Part Nr: Finished Good: Partial Ship: 01 Price Pol: 05 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: PCN 10595 Lab Sheet:

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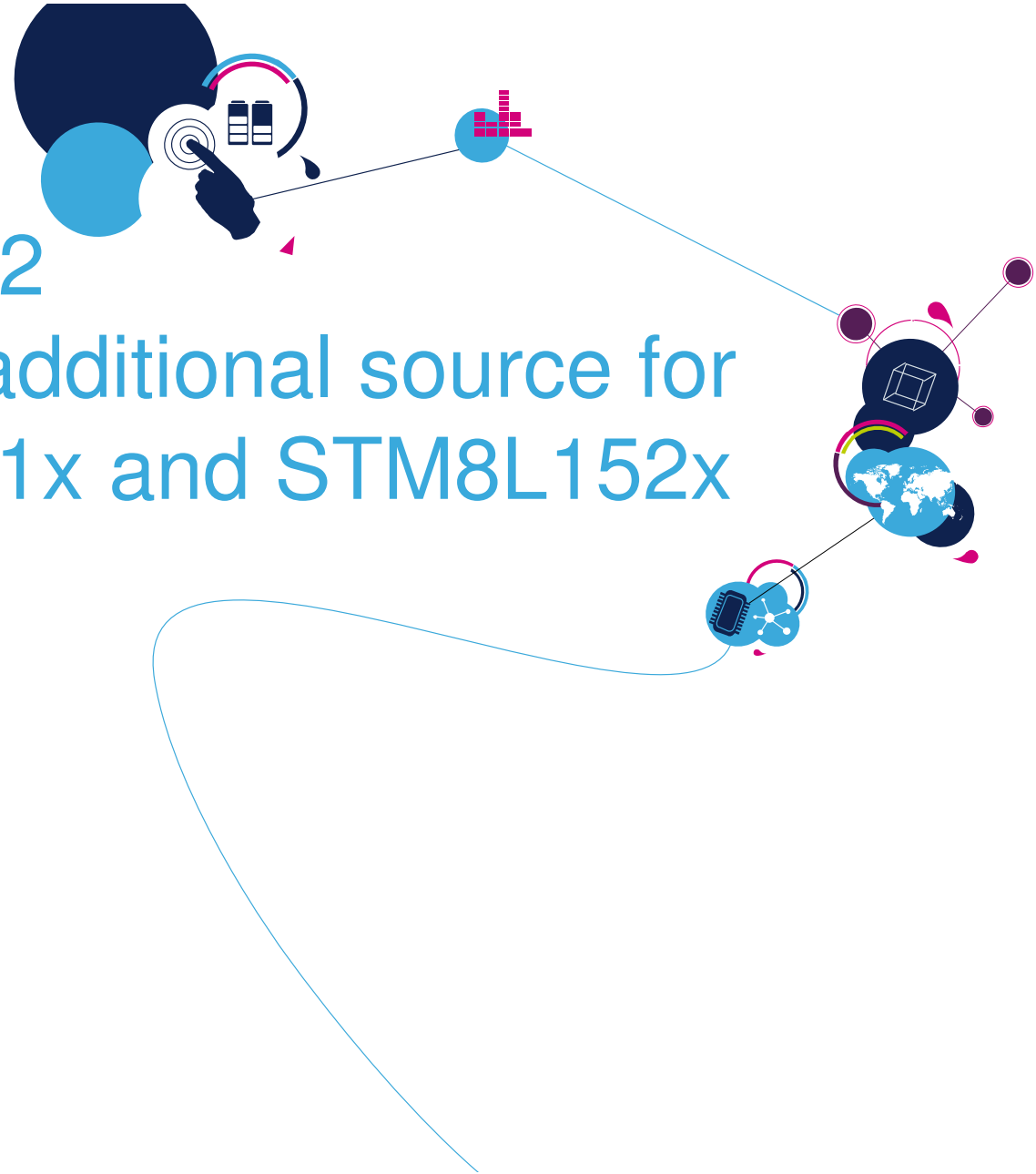
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RER1906 for PCN11442 ST SG8E (Singapore) additional source for STM8L052x, STM8L151x and STM8L152x products

Reliability Evaluation Plan

Oct 09th, 2020

MDG Quality & Reliability Department



RERMCD1906 – F9GO2 Technology Transfer R8 to SG8E (Singapore) STM STM8L Die Test Vehicles

Die Vehicle	Process Perimeter	Assembly Line	Package	Number of Reliability Lots
768	F9GO2	MUAR	LQFP14*14 80L	3 lots to qualify Process Perimeter Then 1 lot by Die
764		JSCC	LQFP7*7 48L	

RERMCD1906 – F9GO2 Technology Transfer R8 to SG8E (Singapore) STM STM8L Die Reliability Trials

Reliability Trial & Standard		Test Conditions	Pass Criteria	Lot Strategy	Units per Lot
ESD HBM	0060102 JESD22-A114ANSI/ESDA JEDEC JS-001	25°C	2kV (class 2)	1 to 3 lots	3
ESD CDM	ESD Charged Device Model ANSI/ESD STM5.3.1	Aligned with device datasheet	250V to 500V	1 lot	3
LU	0018695 JESD78	125°C REG-ON Configuration 125°C REG-OFF Configuration	No concern	1 to 3 lots	3 3
EDR + Bake	JESD22-A117 JESD22-A103	125°C & 3.6V Cycling 150°C Bake	10k cycles 1500h 1000h	1 to 3 lots 1 st lot 2 nd & 3 rd if any	77
EDR + Bake	JESD22-A117 JESD22-A103	25°C & 3.6V Cycling 150°C Bake	10k cycles 168h	1 to 3 lots	77
EDR + Bake	JESD22-A117 JESD22-A103	-40°C & 3.6V Cycling 150°C Bake	10k cycles 168h	1 to 3 lots	77
ELFR	MIL-STD-883 Method 1005 JESD22-A108 JESD74	125°C & 3.6V	48h	3 lots by process perimeter	500 units min per lot Total of 2000 units
HTOL	MIL-STD-883 Method 1005 JESD22-A108	125°C & 3.6V 100MHz	1200h 600h	1 st lot 2 nd & 3 rd if any	77

RERMCD1906 – F9GO2 Technology Transfer R8 to SG8E (Singapore) STM8L Package Test Vehicles

Package Line	Assembly Line	Package	Wire	Die Vehicle / Rawline (*)	Number of Reliability Lots
LQFP	MUAR	LQFP14*14 80L	Au	768 / 1S*768	3 lots to qualify F9GO2 Technology Then 1 lot by Package Assembly Line
	JSCC	LQFP7*7 48L	Ag	764 / 5B*764	
	ASE	LQFP7*7 48L	Au	768 / 5B*768	
QFN	JSCC	UFQFPN4*4 28L	Ag	764 / MB*764	
WLCSP	SCS	WLCSP32	-	768 / CF*768	

RERMCD1906 – F9GO2 Technology Transfer R8 to SG8E (Singapore) STM STM8L Package Reliability Trials

Reliability Trial & Standard		Test Conditions	Pass Criteria	Lot Strategy	Units per Lot
PC	Pre Conditioning: Moisture Sensitivity Jedec Level 1 J-STD-020/ JESD22-A113	Bake (125°C / 24h) Soak (85°C / 85% RH / 168h) for level 1 Convection reflow: 3 passes with Jedec level 1	3 Passes MSL1/3	1 to 3 lots	231 to 308 (**)
	Pre Conditioning: Moisture Sensitivity Jedec Level 3 J-STD-020/ JESD22-A113	Bake (125°C / 24h) Soak (30°C / 60% RH / 192h) for level 3 Convection reflow: 3 passes with Jedec level 3			
UHASt (*) (**)	Unbiased Highly Accelerated Temperature & Humidity Stress JESD22-A118	130°C, 85%RH, 2 Atm	96h	1 to 3 lots	77
TC (*)	Thermal Cycling JESD22-A104	-65°C +150°C	500Cy	1 to 3 lots	77
THB (*)	Temperature Humidity Bias JESD22-A101	85°C, 85% RH, bias	1000h	1 to 3 lots	77
HTSL (*)	High Temperature Storage Life JESD22-A103	150°C - no bias	1000h	1 to 3 lots	77
Construction Analysis	JESD22-B102	Including Solderability & Physical Dimensions	No concern	1 by package assembly line	15
	JESD22-B100/B108				10
ESD CDM	ESD Charged Device Model ANSI/ESD STM5.3.1	Aligned with device datasheet	250V to 500V	1 by package assembly line	3



(*) Tests performed after preconditioning

(**) UHASt not done for BGA

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