



## 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 :** SG8E (Singapore) additional source for STM32L1x listed products

**PCN Reference :** MDG/22/12924

**Subject :** Public Products List

Dear Customer,

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

STM32L151ZCT6TR	STM32L100R8T6	STM32L152VDT6TR
STM32L151CBU6TR	STM32L152CBT6	STM32L151VCT6ATR
STM32L151C8T6TR	STM32L152C8T6	STM32L152C6T6
STM32L152R6T6TR	STM32L151R6T6	STM32L100RBT6TR
STM32L151RBT6TR	STM32L152VCT6A	STM32L151R6H6
STM32L151VBH6TR	STM32L151R8T6	STM32L151C6U6
STM32L100R8T6TR	STM32L151RCT6A	STM32L152R8T6TR
STM32L152RCT6ATR	STM32L151VDT6	STM32L151C6T6TR
STM32L151RBT6	STM32L152VBH6	STM32L151QDH6TR
STM32L151C8U6	STM32L162RDT6TR	STM32L152RBT6
STM32L100RBT6	STM32L151R6T6TR	STM32L151CBT6TR
STM32L100C6U6TR	STM32L162VCT6A	STM32L152CBU6
STM32L151CBT6	STM32L152R8T6	STM32L152V8H6
STM32L151QDH6	STM32L151C6T6	STM32L151R8H6
STM32L152ZDT6	STM32L151VBT6	STM32L152QCH6
STM32L151RDT6	STM32L152ZCT6	STM32L162VDT6
STM32L152V8H6TR	STM32L152R6T6	STM32L151VBT6TR
STM32L152RBH6	STM32L152VDT6	STM32L151C6U6TR
STM32L152RDY6TR	STM32L100C6U6	STM32L151V8H6
STM32L151RCY6TR	STM32L151R8H6TR	STM32L151V8T6
STM32L152VBT6	STM32L151QCH6	STM32L151C8U6TR
STM32L152C8U6	STM32L152QDH6	STM32L162QCH6
STM32L152C6U6	STM32L151RBH6TR	STM32L162QDH6DTR
STM32L152R8H6	STM32L152RCT6A	STM32L152V8T6TR
STM32L151VBH6	STM32L162RDY6TR	STM32L152RDT6
STM32L151C8T6	STM32L152R6H6	STM32L151VCT6A
STM32L151RCT6ATR	STM32L151CBU6	STM32L151ZDT6
STM32L162RCT6A	STM32L162RDT6	STM32L151RDT6TR
STM32L152ZCT6TR	STM32L162ZDT6	STM32L152VBT6TR
STM32L162QDH6TR	STM32L162QDH6	STM32L151RDY6TR
STM32L151RDT7	STM32L151ZCT6	STM32L152V8T6
STM32L151VDT6TR	STM32L151RBH6	STM32L162ZCT6
STM32L162VDT6TR	STM32L151RBH6TTR	



### IMPORTANT NOTICE – PLEASE READ CAREFULLY

Subject to any contractual arrangement in force with you or to any industry standard implemented by us, STMicroelectronics NV and its subsidiaries (“ST”) reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST’s terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers’ products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.



**PRODUCT/PROCESS  
CHANGE NOTIFICATION  
PCN12924  
– Additional information**

---

**SG8E (Singapore) additional source  
for STM32L1x listed products**

---

**MDG – General Purpose Microcontrollers Division (GPM)**

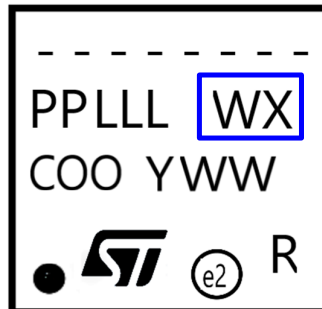
**What are the changes?**

New Front-end sources will be activated in ST (SG8E) 8" Singapore diffusion fab. It is an existing design being transferred with the same technology. Diffusion fab is already qualified for many years.

There is no change in the product functionality.

**How can the change be seen?**

Example of Marking on package TFBGA 5x5x1.2



**WX** code indicates the diffusion traceability plant code.

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



life.augmented

## 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 "**PCN12924**" into the NPO Electronic Sheet/**Regional Sheet**
- request sample(s) through Notice tool, indicating a single Commercial Product for each request

Partial Ship: 01 Price Pol: 05 Status: 01 Canc:

%: 0 Sample Type: Sample Non Std Type

Closing Type: Sample Std Type  
Sample Non Std Type  
Sample Non Std w Spl Tests

Lab Sheet:

SO | NPO Sample

Header  
SO Nr: 0018502433 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: 0000367006 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 12924

Lab Sheet:



life.augmented

## IMPORTANT NOTICE – PLEASE READ CAREFULLY

STMicroelectronics International NV and its affiliates (“ST”) reserve the right to make changes corrections, enhancements, modifications, and improvements to ST products and/or to this document any time without notice. This document is provided solely for the purpose of obtaining general information relating to an ST product. Accordingly, you hereby agree to make use of this document solely for the purpose of obtaining general information relating to the ST product. You further acknowledge and agree that this document may not be used in or in connection with any legal or administrative proceeding in any court, arbitration, agency, commission or other tribunal or in connection with any action, cause of action, litigation, claim, allegation, demand or dispute of any kind. You further acknowledge and agree that this document shall not be construed as an admission, acknowledgement or evidence of any kind, including, without limitation, as to the liability, fault or responsibility whatsoever of ST or any of its affiliates, or as to the accuracy or validity of the information contained herein, or concerning any alleged product issue, failure, or defect. ST does not promise that this document is accurate or error free and specifically disclaims all warranties, express or implied, as to the accuracy of the information contained herein. Accordingly, you agree that in no event will ST or its affiliates be liable to you for any direct, indirect, consequential, exemplary, incidental, punitive, or other damages, including lost profits, arising from or relating to your reliance upon or use of this document.

Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST’s terms and conditions of sale in place at the time of order acknowledgement, including, without limitation, the warranty provisions thereunder.

In that respect please note that ST products are not designed for use in some specific applications or environments described in above mentioned terms and conditions.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers’ products.

Information furnished is believed to be accurate and reliable. However, ST assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license, express or implied, to any intellectual property right is granted by ST herein. Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously in any prior version of this document.



life.augmented

# **PCN12924 - RER2108 F9G02 Technology Transfer to AMK– Die 416 and 436**

## **Reliability Evaluation Plan**

October 26th, 2022

MDG MCD Quality & Reliability

# RERMCD2108 – F9G02 Technology Transfer to AMK STM32 Die Test Vehicles

Die Vehicle	Process Perimeter	Assembly Line	Package	Number of Reliability Lots
416	F9G02	ATP1	LQFP 14x14 100L	1 lot by die
436		ATP3	UFBGA 7x7 132L	

# RERMCD2108 – F9G02 Technology Transfer to AMK STM32 Die Reliability Trials

Reliability Trial & Standard	Test Conditions	Pass Criteria	Lot Strategy	Units per Lot
<b>ELFR</b> Early Life Failure Rate MIL-STD-883 Method 1005 JESD22-A108 JESD74	125°C & 3.6V	48h	1 lot	800
<b>HTOL</b> High Temperature Operating Lifetest MIL-STD-883 Method 1005 JESD22-A108	125°C & 3.6V 100MHz	1200h	1 lot	77
<b>EDR + Bake</b> Endurance Data Retention JESD22-A117 JESD22-A103	125°C & 3.6V Cycling  150°C Bake	10k cycles PM(*) 300k cycles DM(*) 1500h	1 lot	77
<b>EDR + Bake</b> Endurance Data Retention JESD22-A117 JESD22-A103	25°C & 3.6V Cycling  150°C Bake	10k cycles PM(*) 300k cycles DM(*) 168h	1 lot	77
<b>EDR + Bake</b> Endurance Data Retention JESD22-A117 JESD22-A103	-40°C & 3.6V Cycling  150°C Bake	10k cycles PM(*) 300k cycles DM(*) 168h	1 lot	77
<b>ESD HBM</b> ElectroStatic Discharge Human Body Model JESD22-A114/C101	25°C	2kV (class 2)	1 lot	3
<b>LU</b> LatchUp EIA/JESD 78A 0018695 JESD78	125°C	No concern	1 lot	3 3

(\*) : PM = Program memory ; DM = Data Memory



# RERMCD2108 – F9G02 Technology Transfer to AMK STM32 Package Test Vehicles

Package Line	Assembly Line	Package	Wire	Die Vehicle / Rawline (*)	Number of Reliability Lots
LQFP	ATP1	LQFP14*14 100L	Au	416 / 1L*416	1 lot by Package Assembly Line
UFBGA	ATP3	UFBGA7*7 132b	Au	436 / PG*436	
TFBGA	MUAR	TFBGA5*5 64b	Au	416 / R8*416	
WLCSP	ATT1	WLCSP 64b	NA	436/ R6*436	

(\*) Some dice may be replaced by equivalent one upon similarity rules

# RERMCD2108 – F9G02 Technology Transfer to AMK STM32 Package Reliability Trials

Reliability Trial & Standard		Test Conditions	Pass Criteria	Lot Strategy	Units per Lot
<b>PC (Bonded packages)</b>	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	3 Passes MSL3	1 lot by package	231 to 308 (**)
<b>PC (WLCSP)</b>	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	3 passes MSL1	1 lot by package	308
<b>UHAST (*) (**)</b>	Unbiased Highly Accelerated Temperature & Humidity Stress JESD22-A118	130°C, 85%RH, 2 Atm	96h	1 lot by package	77
<b>TC (*)</b>	Thermal Cycling JESD22-A104	-65°C +150°C	500Cy	1 lot by package	77
<b>THB (*)</b>	Temperature Humidity Bias JESD22-A101	85°C, 85% RH, bias	1000h	1 lot by package	77
<b>HTSL (*)</b>	High Temperature Storage Life JESD22-A103	150°C - no bias	1000h	1 lot by package	77
<b>Construction Analysis</b>	JESD22-B102	Including Solderability & Physical Dimensions	No concern	1 lot by package	15
	JESD22-B100/B108				10
<b>ESD CDM</b>	ESD Charged Device Model ANSI/ESD STM5.3.1	Aligned with device datasheet	250V to 500V	1 lot by package	3

# Thank you

© STMicroelectronics - All rights reserved.

The STMicroelectronics corporate logo is a registered trademark of the STMicroelectronics group of companies. All other names are the property of their respective owners.



life.augmented

## IMPORTANT NOTICE – PLEASE READ CAREFULLY

STMicroelectronics International NV and its affiliates (“ST”) reserve the right to make changes corrections, enhancements, modifications, and improvements to ST products and/or to this document any time without notice.

This document is provided solely for the purpose of obtaining general information relating to an ST product. Accordingly, you hereby agree to make use of this document solely for the purpose of obtaining general information relating to the ST product. You further acknowledge and agree that this document may not be used in or in connection with any legal or administrative proceeding in any court, arbitration, agency, commission or other tribunal or in connection with any action, cause of action, litigation, claim, allegation, demand or dispute of any kind. You further acknowledge and agree that this document shall not be construed as an admission, acknowledgement or evidence of any kind, including, without limitation, as to the liability, fault or responsibility whatsoever of ST or any of its affiliates, or as to the accuracy or validity of the information contained herein, or concerning any alleged product issue, failure, or defect. ST does not promise that this document is accurate or error free and specifically disclaims all warranties, express or implied, as to the accuracy of the information contained herein. Accordingly, you agree that in no event will ST or its affiliates be liable to you for any direct, indirect, consequential, exemplary, incidental, punitive, or other damages, including lost profits, arising from or relating to your reliance upon or use of this document.

Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST’s terms and conditions of sale in place at the time of order acknowledgement, including, without limitation, the warranty provisions thereunder.

In that respect please note that ST products are not designed for use in some specific applications or environments described in above mentioned terms and conditions.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers’ products.

Information furnished is believed to be accurate and reliable. However, ST assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously in any prior version of this document.