

PRODUCT / PROCESS CHANGE NOTIFICATION

1. PCN basic data

1.1 Company		STMicroelectronics International N.V
1.2 PCN No.		ADG/20/12070
1.3 Title of PCN		Technology transfer of RF DMOS LV 1931/1941 line from 6" CT6 fab to 6" SG6 (Singapore) FAB
1.4 Product Category		RF DMOS LV
1.5 Issue date		2020-04-21

2. PCN Team

2.1 Contact supplier	
2.1.1 Name	ROBERTSON HEATHER
2.1.2 Phone	+1 8475853058
2.1.3 Email	heather.robertson@st.com
2.2 Change responsibility	
2.2.1 Product Manager	Roberto CRISAFULLI
2.1.2 Marketing Manager	Gaetano PIGNATARO
2.1.3 Quality Manager	Vincenzo MILITANO

3. Change

3.1 Category	3.2 Type of change	3.3 Manufacturing Location
Transfer	Line transfer for a full process or process brick (process step, control plan, recipes) from one site to another site: Wafer fabrication	AMK Singapore

4. Description of change

	Old	New
4.1 Description	Tech DMOS LV 1931/1941 Line produced in Catania 6 inch Fab	Tech DMOS LV 1931/1941 Line produced in Ang Mo Kio (Singapore) 6 inch Fab
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?	No Impact	

5. Reason / motivation for change

5.1 Motivation	Capacity extension and improvement in flexibility to better manage the customer orders
5.2 Customer Benefit	CAPACITY INCREASE

6. Marking of parts / traceability of change

6.1 Description	by Q.A. number
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7. Timing / schedule

7.1 Date of qualification results	2020-07-12
7.2 Intended start of delivery	2020-10-12
7.3 Qualification sample available?	Upon Request

8. Qualification / Validation

8.1 Description	12070 Transfer RF Power DMOS from CT6 to SG6_Reliability Plan.pdf	
8.2 Qualification report and qualification results	Available (see attachment)	Issue Date 2020-04-21

9. Attachments (additional documentations)

10. Affected parts		
10.1 Current		10.2 New (if applicable)
10.1.1 Customer Part No	10.1.2 Supplier Part No	10.1.2 Supplier Part No
	SD2931-10W	
	SD2931-12MR	
	SD2932W	
	SD2933W	
	SD2941-10W	
	SD2942W	
	SD2943W	
	STAC2942BW	

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PACKAGE/PRODUCT RELIABILITY PLAN

Reliability evaluation for Transfer RF Power DMOS silicon lines 1931/1941 from CT6" to SG6"

(Mix Flow)

Package used : M174 / M177 manufactured in ST BOUSKOURA plant (MOROCCO)

Site for Reliability assessment: CATANIA

Test vehicle details:

- LOT1: silicon line 1931 - in M174 package
- LOT2: silicon line 1931 - in M177 package
- LOT3: silicon line 1941 - in M174 package

TEST #	TEST Description	Reference	LOT1	LOT2	LOT3	Sample Size per lot	TEST Condition	Requirement	pass conditions	Description
1	Pre- and Post-Stress Electrical Test	User Specification	x	x	x	All qualification parts tested per the requirements of the appropriate device specification.			zero rejects	The test is performed as specified in the applicable stress reference at room temperature
2	External visual	JESD22 B-101	x	x	x	All devices submitted for testing			zero rejects	
3	High Temperature Reverse Bias (HTRB)	JESD22 A-108	x	x	x	45	Ta=175°C , Vbias=80% of max breakdown voltage	1000 hours	zero rejects	The device is stressed in static configuration, trying to satisfy as much as possible the following conditions: <ul style="list-style-type: none"> • low power dissipation; • max. supply voltage compatible with diffusion process and internal circuitry limitations.
4	High Temperature Gate Bias (HTGB)	JESD22 A-108	x	x	x	45	Ta=175°C, Vgs= Vgsmax	1000 hours	zero rejects	
5	High Temperature Storage Life (HTSL)	JESD22 A-103	x	x	x	45	Ta=175°C	1000 hours	zero rejects	
6	Temperature Cycling (TC)	JESD22 A-103	x	x	x	25	Ta= -65°C / +150°C (1h cycle - 30min at extreme temp.)	500 cycles	zero rejects	The device is submitted to cycled temperature excursions, between a hot and a cold chamber in air atmosphere.
7	ESD	ESDA-JEDEC_JES-001 ANSI-ESD S5.3.1	x			3	HBM CDM	-	-	
										Rel - 37/2018RW Issued 25/Jan/2018



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 : Technology transfer of RF DMOS LV 1931/1941 line from 6" CT6 fab to 6" SG6 (Singapore) FAB

PCN Reference : ADG/20/12070

Subject : Public Products List

Dear Customer,

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

SD2943W	SD2931-10W	SD2932W
SD2933W	SD2941-10W	SD2931-12MR
SD2942W		



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