

PRODUCT / PROCESS CHANGE NOTIFICATION

1. PCN basic data

1.1 Company		STMicroelectronics International N.V
1.2 PCN No.		AMS/19/11662
1.3 Title of PCN		Power Management BU: Additional tester for Test & Finishing in Muar for ALED1262xx product Family.
1.4 Product Category		ALED1262xx product Family
1.5 Issue date		2019-07-04

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		Lorenzo NASO
2.1.2 Marketing Manager		Marcello SAN BIAGIO
2.1.3 Quality Manager		Sergio Tommaso SPAMPINATO

3. Change

3.1 Category	3.2 Type of change	3.3 Manufacturing Location
Equipment (EWS-FT)	New tester, or prober option or major HW changes (ex: computer), brand or model (Unknown type)	ST Muar

4. Description of change

	Old	New
4.1 Description	Current Testing Platform: SZ //2	New Testing Platform: SZ //2 and ETS363 // 4
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?		No changes of the Electrical Characteristics and Quality.

5. Reason / motivation for change

5.1 Motivation	Following Divisional commitments towards a continuous improvement philosophy a New Testing Platform will be utilised for ALED1262xx product family. The new Testing platform will bring to have a major testing capacity of the IC and consequently a higher production flexibility that it is translated in a better Service versus our Customers.
5.2 Customer Benefit	SERVICE IMPROVEMENT

6. Marking of parts / traceability of change

6.1 Description	The traceability of the new parts will be ensured by different internal codification and QA number.
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7. Timing / schedule

7.1 Date of qualification results	2019-06-06
7.2 Intended start of delivery	2019-10-10
7.3 Qualification sample available?	Upon Request

8. Qualification / Validation

8.1 Description	11662 U1K2 Muar FT Additional Testing Platform_official_summary.pdf		
8.2 Qualification report and qualification results	Available (see attachment)	Issue Date	2019-07-04

9. Attachments (additional documentations)

11662 Public product.pdf
11662 U1K2 Muar FT Additional Testing Platform_official_summary.pdf

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
	ALED1262ZTTR	

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Public Products List

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PCN Title : Power Management BU: Additional tester for Test & Finishing in Muar for ALED1262xx product Family.

PCN Reference : AMS/19/11662

Subject : Public Products List

Dear Customer,

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

ALED1262ZTTR		
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U1K2 Muar FT additional testing platform

Shierly Yee / Daniele Malabocchia - Ivan Verra
Operation and AMG / GPA Product Engineer Department
W22 2019

❑ GOAL

Based on the requested demand for increased FT production capacity we developed a new testing solution based on a different ATE

❑ ATE

- ✓ Standard tester SZ Advantest M36x0 (testing cluster // by2)
- ✓ Additional tester Teradyne Eagle ETS364 (testing cluster // by4)

❑ FT Validation Process

- ✓ Robustness/Endurance Check
- ✓ FT comparison analysis btw SZ and ETS on 2 different FT lots (overall min qty 1kpcs).

FT validation process: Method

3

- 2 different assy lots for a total amount of at least 1Kpcs
- All the parts are:
 - All the parts are tested using the old and new platform alternatively
 - ✓ @amb temp
 - Collect testing data on the first equipment
 - Retest on the second equipment
 - Collecting testing data to correlate:
 - ✓ screening efficiency (good and bad)
 - ✓ parametric alignment

FT validation process: Robustness/Endurance Check

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- ❑ Spike analysis
- ❑ Bin1 reliability

Equipment qualification

5

Test / Evaluation	Test Conditions / Parameters	Result
Spike analysys	Each pin is monitored during tp flow	Pass – no spikes over the Absolute Maximum Rating voltages
Reliability	300 loops on golden samples parts on all sites	Pass: no kill unit

ALED1262X AMBIENT

- First test on SZ
- Retest on ETS

Part Type	ALED1262XTRA1	
Test Program	E1K2FAA1	
Lot ID	9991524FRP	
Diffusion ID	V583961M	
Tester Type	SZ	ETS 364 VS2015
Tester ID	MUAM366A	MUAE364T13
Handler ID	MULTITEST MT9928	MULTITEST MT9928
Qty In	500	500
Qty Out	494	493
Yield	98,80%	98,60%

SW/HW Bin	Bin name	Total Count	Fail Rate	Total Count	Fail Rate	Delta
5	Open	6	1,20%	6	1,20%	0,00%
20	Clock	0	0,00%	1	0,20%	0,20%

- First test on ETS
- Retest on SZ

Part Type	ALED1262XTRA1		
Test Program	E1K2FAA1		
Lot ID	99918152RQ named 99918152RZ on SZ retest		
Diffusion ID	V5845FCR		
Tester Type	ETS 364 VS2015	SZ	
Tester ID	MUAE364T13	MUAM366A	
Handler ID	MULTITEST MT9928	MULTITEST MT9308	
Qty In	1000	1000	
Qty Out	991	991	
Yield	99,10%	99,10%	

SW/HW Bin	Bin name	Total Count	Fail Rate	Total Count	Fail Rate	Delta
20	Freq/Timing	5	0,50%	7	0,70%	0,20%
21	Memories	1	0,10%	0	0,00%	0,10%
24	i2c_comError	0	0,00%	0	0,00%	0,00%
5	Open	1	0,10%	1	0,10%	0,00%
6	Short	1	0,10%	1	0,10%	0,00%
8	Bandgap	1	0,10%	0	0,00%	0,10%