PRODUCT / PROCESS CHANGE NOTIFICATION

1. PCN basic data	
1.1 Company	STMicroelectronics International N.V
1.2 PCN No.	AMS/21/12569
1.3 Title of PCN	Reflow profile recommendation for selected BlueNRG modules
1.4 Product Category	See product list
1.5 Issue date	2021-02-01

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	Marco VENERI
2.1.2 Marketing Manager	Marco VENERI
2.1.3 Quality Manager	Jean-Marc BUGNARD

3. Change		
3.1 Category	3.2 Type of change	3.3 Manufacturing Location
General Product & Design	Modification of datasheet : Errata/error fix	Back end plant : ASE Korea

4. Description of change		
	Old	New
4.1 Description	Peak temperature (Tp) = 245 (-0) °C Time within 5°C of peak temperature (Tp-5°C) = min 30 s	Peak temperature (Tp) = 240 + 0 °C Time within 5°C of peak temperature (Tp-5°C) = 10-20 sec
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?	No impact	

5. Reason / motivation for change	
5.1 Motivation	To avoid any prohibited liquidus state of module solder joints during customer reflow.
5.2 Customer Benefit	QUALITY IMPROVEMENT

6. Marking of parts / traceability of change	
6.1 Description	N/A

7. Timing / schedule	
7.1 Date of qualification results	2021-01-21
7.2 Intended start of delivery	2021-05-01
7.3 Qualification sample available?	Upon Request

8. Qualification / Validation			
8.1 Description	12569 BLUENRG-M0L_M2SA_Reflow_Profile_Change.pdf		
8.2 Qualification report and qualification results	Available (see attachment)	Issue Date	2021-02-01

9. Attachments (additional documentations)
12569 Public product.pdf 12569 BLUENRG-M0L_M2SA_Reflow_Profile_Change.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
	BLUENRG-M0L	
	BLUENRG-M2SA	

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PCN Title : Reflow profile recommendation for selected BlueNRG modules

PCN Reference : AMS/21/12569

Subject : Public Products List

Dear Customer,

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

BLUENRG-M2SA	BLUENRG-M0L	

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BLUENRG-M0L
BLUENRG-M2SA
Reflow profile recommendations changes within datasheets

Reflow profile recommendations changes within datasheet

Profile feature	PB-free assembly
Average ramp up rate (T_{SMAX} to T_p)	3°C/ sec max
Preheat temperature min (T_S min.) temperature max (T_S max.) time (t_S min to t_S max) (t_S)	 150 °C 200 °C 60-100 s
Time maintained above: Temperature T_L Time t_L	 217 °C 60-70 s
Peak temperature (T_P)	245 (-0) °C
Time within 5 °C of peak temperature (T_P -5°)	min. 30 s
Ramp down rate	6 °C/s
Time from 25 °C to peak temperature	8 minutes max.

Peak temperature (Tp) and Time within 5°C of peak temperature (Tp-5°C) need to be changed.

Profile feature	PB-free assembly
Average ramp up rate (T_{SMAX} to T_p)	3°C/ sec max
Preheat Temperature min (T_S mn) Temperature max (T_S max) Time (t_S min to t_S max) (t_S)	 150 °C 200 °C 60-100 sec
Time maintained above: Temperature T_L Time t_L	 217 °C 60-70 sec
Peak temperature (T_P)	240 + 0 °C
Time within 5 °C of actual peak temperature (T_P)	10-20 sec
Ramp down rate	6 °C/sec
Time from 25 °C to peak temperature	8 minutes max

Peak temperature (Tp) and Time within 5°C of peak temperature (Tp-5°C) have been changed to avoid any prohibited liquidus state of module solder joints.

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Thank you

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