

PRODUCT / PROCESS CHANGE NOTIFICATION

1. PCN basic data

1.1 Company		STMicroelectronics International N.V
1.2 PCN No.		APG/15/9167
1.3 Title of PCN		VIPower M05 in PSSO-12 (Deep Down Set): Activation of Shenzhen as Additional Assembly and Testing Location
1.4 Product Category		see list
1.5 Issue date		2015-04-10

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		Riccardo NICOLOSO
2.1.2 Marketing Manager		Nicola LIPORACE
2.1.3 Quality Manager		Francesco MINERVA

3. Change

3.1 Category	3.2 Type of change	3.3 Manufacturing Location
Transfer of a full process or process brick (process step, control plan, recipes) from one site to another site	Assembly site	ST Shenzhen (China)

4. Description of change

	Old	New
4.1 Description	Assembly and Testing in Bouskoura (Morocco)	Assembly and Testing in Shenzhen (China) as additional location beside Bouskoura
4.2 Anticipated Impact on form, fit, function, quality, reliability or processability?	No change	

5. Reason / motivation for change

5.1 Motivation	Service Improvement
5.2 Customer Benefit	SERVICE IMPROVEMENT

6. Marking of parts / traceability of change

6.1 Description	Dedicated Finished Good codes
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7. Timing / schedule

7.1 Date of qualification results	2015-03-26
7.2 Intended start of delivery	2015-07-06
7.3 Qualification sample available?	Upon Request

8. Qualification / Validation

8.1 Description	Qualification.pdf	
8.2 Qualification report and qualification results	Available (see attachment)	Issue Date 2015-04-10

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
	VN5050AJTR-E	
	VN5050JTR-E	
	VN5E050AJTR-E	
	VN5E050JTR-E	
	VN5E050MJTR-E	
	VND5160AJTR-E	
	VND5E160AJTR-E	
	VND5E160JTR-E	
	VND5E160MJTR-E	

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VIPOWER M05 in PSSO-12 (Deep Down Set): Activation of Shenzhen as Additional Assembly and Testing Location

WHAT:

Please be informed that we are going to activate ST Shenzhen (China) as additional assembly and testing location, beside ST Bouskoura (Morocco), for VIPOWER M05 devices housed in PowerSSO-12 package Deep Down Set version.

Material Comparison

Item	Bouskoura	Shenzhen
Molding Compound	SUMITOMO EME7026	SUMITOMO EMEG700LS
Die Attach	Preform Pb/Ag/Sn	Preform Pb/Ag/Sn
Bonding wire	Au 1.3 , Cu 2.5 mils	Cu 1.2 ,Cu 2.5 mils
LeadFrame	Standard Matrix	Matrix High Density (256 units)
Lead-plating	Sn 100%	Sn 100%

We will introduce "strip test" in Final Test as well.

Strip test* consists in testing the device directly on the Lead Frame form (strip) before singulating it (2nd crop). Same test coverage and quality will be applied.

*see below details about strip test

WHY:

Service Improvement

HOW:

See qualification report RR000415CT2235 and strip test validation activity.

WHEN:

From July 2015, but we are ready ship parts prior this date upon Customer agreement.

Sample will be available on demand .

PSSO Strip Test Introduction

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- Strip test is a new testing methodology that does not impact fit, form and function nor reliability of the products.
- Materials and equipments are not changed neither at FE nor at BE level
- Strip test is performed in between 1st crop (dam-bar cut) and 2nd crop (Trim&Form and final singulation)
- Further test step at ambient temperature is inserted after vision check

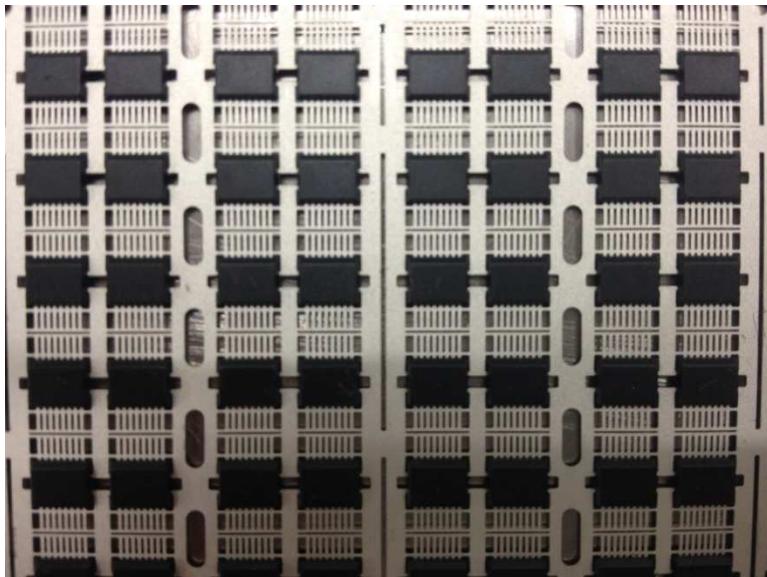
Here follows some slides to explain this new testing methodology.

PSSO Strip Test

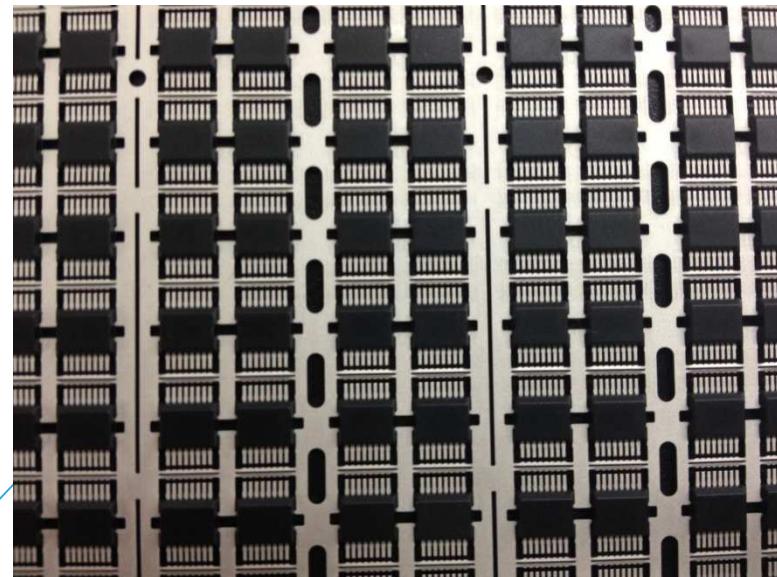
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Leadframe before and after 1st crop

BEFORE 1st CROP



AFTER 1st CROP



Dam-bar in between leads is cut during the 1st crop
As consequence pins are singulated