Standardized Information for Process/Product Change Notification (PCN)

Form provided by ZVEI - Revision 3.0.0

1. PCN basic data		
1.1 Company	TAIWAN SEMICONDUCTOR	
1.2 PCN No.	PCN19001	
1.3 Title of PCN	TO-92 package of plating process changed from hang plating to solder dipping	
1.4 Product Category	Active Components － Discrete Components	
1.5 Issue date	2019/01/22	
1.6 PCN revision history (optional)	1.7 Issue date of previous revision (optional)	1.8 Delta to previous revision (optional)

2. PCN Team		
2.1 Contact supplier		
2.1.1 Name	Sunnie.lin	
2.1.2 Phone	886-2-8913-1588 Ext:2205	
2.1.3 Email	sunnie.lin@mail.ts.com.tw	
2.2 Team supplier (optional)		
2.2.1 Name (optional)	2.2.2 Phone (optional)	2.2.3 Email (optional)
Yanting Liu	086-022-59816699 Ext : 2051	qa@mail.tew.com.cn
Chris Lin	886-2-8913-1588 Ext.2406	chris_lin@mail.ts.com.tw

3. Changes			
No.	**3.0 Ident**	**3.1 Category**	**3.2 Type of change**
#1	SEM-PA-14	PROCESS - ASSEMBLY	Change in process technology (e.g. sawing, die attach, bonding, moulding, plating, trim and form, lead frame preperation, …)
#2	SEM-EQ-01	EQUIPMENT	Production from a new equipment/tool which uses a different basic technology or which due to its unique form or function can be expected to influence the integrity of the final product
#3			
#4			
#5			

4. Description of change		
	Old	**New**
Change #1	Hang plating process. The method of hang plating is immersed in the whole, and the Soldering time is 25±5min.	Dip soldering process. The method of dip soldering is soaked the pins, and the level of the flux is closed to the product's plastics case, and the soaking time is 4±1 seconds.

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Change #2	External summary of hang plating process:	External summary of dip soldering process:
Change #3	Hang plating tin layer average thickness is 8.65um.	Dip soldering process tin layer average thickness is 4.04um.
Change #4		
Change #5		
4.6 Anticipated impact on form, fit, function, reliability or processability?	Not impact the form, fit, function, reliability or processability	
4.7 Reference parts with customer number (optional)		

5. Reason / motivation for change	
5.1 Motivation	TO-92 package plating process changed from hang plating to solder dipping, because plating solution have to be used during hang planting process which will pollution the environment.
5.2 Additional explanation (optional)	

6. Marking of parts / traceability of change	
6.1 Description	Use date code to trace the change.

7. Timing / schedule		
7.1 Date of qualification results	**2018/10/26**	
7.2 Last order date (optional)	**2019/07/21**	
7.3 Last delivery date (optional)	**2020/07/20**	
7.4 Intended start of delivery	**2019/07/21**	
7.5 Qualification samples available?	Qualification samples can be provided within 2 weeks upon customer order confirmation.	
7.6 Customer feedback required until	**2019/03/08**	

8. Qualification / validation				
8.1 Description (e.g. qual. plan/report, AEC-Q...)	According to JESD22			
8.2 Qualification report and qualification results	available (see attachement)	**issue date**	**2018/10/26**	

9. Input to customer for risk assessment process

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Human Resource : Low Risk
Equipment : Low Risk
Technique-Wafer : Low Risk
Technique-Assembly : Low Risk
Form/ Fit / Function : Low Risk
Reliability : Low Risk

10. Attachments (e.g. new datasheet, additional documentation, pictures, process flow, sample plan, ...)

Refer to the official e-mail announcement for the applicable documents.

11. Affected parts

11.1 Current						11.2 New (if applicable)			
11.1.1 Customer Part No.	11.1.2 Supplier Part Name	11.1.3 Supplier Part No. (optional)	11.1.4 Package Name	11.1.5 Part Description (optional)	11.1.6 Additional Part Information (optional)	11.2.2 Supplier Part Name	11.2.3 Supplier Part No. (optional)	11.2.4 Package Name	11.2.6 Additional Part Information (optional)

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