

## PRODUCT / PROCESS CHANGE INFORMATION

### 1. PCI basic data

1.1 Company	 STMicroelectronics International N.V
1.2 PCI No.	AMS/23/14193
1.3 Title of PCI	Implementation of Bare Copper Lead Frame on DPAK package products
1.4 Product Category	See product list
1.5 Issue date	2023-06-27

### 2. PCI 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	Marcello SAN BIAGIO
2.1.2 Marketing Manager	Salvatore DI VINCENZO
2.1.3 Quality Manager	Giuseppe LISI

### 3. Change

3.1 Category	3.2 Type of change	3.3 Manufacturing Location
Materials	New direct material part number (same supplier, different supplier or new supplier), Lead frame finishing material / area (internal)	ATXWH

### 4. Description of change

	Old	New
4.1 Description	DPAK Ag plated Lead frame: - L/F TO-252 Matrix SP T-post Ag - L/F TO-252 Matrix T-post+ Sel.Pad Ag II	DPAK bare copper Lead frame: - L/F TO-252 Matrix Bare Cu
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?	Minor. L/F design without change, the same vendors use same design (Same drawing with different Ag plating position).	

### 5. Reason / motivation for change

5.1 Motivation	Quality improvement
5.2 Customer Benefit	QUALITY IMPROVEMENT

### 6. Marking of parts / traceability of change

6.1 Description	New Finished good codes
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### 7. Timing / schedule

7.1 Date of qualification results	2023-06-16
7.2 Intended start of delivery	2023-08-31
7.3 Qualification sample available?	Upon Request

### 8. Qualification / Validation

8.1 Description	14193 RER 6088-1787-W-2023_New Bare Copper Lead-frame TO-252 DPAK in ASE WEIHAI-China.pdf		
8.2 Qualification report and qualification results	Available (see attachment)	Issue Date	2023-06-27

### 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
L78M05ABDT-TR	L78M05ABDT-TR	
L78M08CDT-TR	L78M08CDT-TR	
L78M09ABDT-TR	L78M09ABDT-TR	
L78M09CDT-TR	L78M09CDT-TR	
L78M12ABDT-TR	L78M12ABDT-TR	
L78M12CDT-TR	L78M12CDT-TR	
L78M15ABDT-TR	L78M15ABDT-TR	
L78M15CDT-TR	L78M15CDT-TR	
LD1117DT33CTR	LD1117DT33CTR	
LM317MDT-TR	LM317MDT-TR	

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**PRODUCT/PROCESS  
CHANGE NOTIFICATION**

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**PCI AMS/23/14193**

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**Analog, MEMS & Sensors Group (AMS)**

**Introduction of new Bare Copper Lead-frame for TO-252 DPAK  
in ASE WEIHAI-China**

## WHAT:

Progressing on the activities related to quality continuous improvement, ST is pleased to announce the release of a new Bare Copper Lead-frame for TO-252 DPAK assembled in ASE WEIHAI China, which will help us to improve the quality and reduce eventual delamination issue.

Please note that this new **bare copper lead-frame will NOT affect the internal structure of the lead-frame** (keeping same form, same fit, same internal design and function), it will only allow us to improve the quality of the product, so it can be considered as a **MINOR change**.

Impacted Product: see excel file

The table here below shows the list of current and new material affected by this change.

Material	Current process	Modified process	Comment
Diffusion location		No change	No change
Assembly location	ASE WEIHAI China	ASE WEIHAI China	No change
Molding compound	Sumitomo EME G600F	Sumitomo EME G600F	No change
Lead-frame	Ag plated Leadframe	Bare copper leadframe	change
Wire	CU 1.5 mil	CU 1.5 mil	No change
MSL	1	1	No change

## WHY:

This change will contribute to ST's continuous service improvement and to improve the quality of the product, enhancing adhesion between lead frame surface & molding compound

## HOW:

The qualification program consists mainly of comparative electrical characterization and reliability tests.

You will find here after the qualification test plan which summarizes the various test methods and conditions that ST uses for this qualification program.

## WHEN:

This new bare copper Lead-frame will be implemented in September 2023 in ASE WEIHAI China

## Marking and traceability:

Unless otherwise stated by customer's specific requirement, the traceability of the parts assembled with the new material set will be ensured by new internal sales type, date code and lot number.

The changes here reported will not affect the electrical, dimensional and thermal parameters keeping unchanged all the information reported on the relevant datasheets.

There is -as well- no change in the packing process or in the standard delivery quantities.

## APPENDICES:

Final reliability report

## 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

**PCI Title :** Implementation of Bare Copper Lead Frame on DPAK package products

**PCI Reference :** AMS/23/14193

**Subject :** Public Products List

Dear Customer,

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

L78M09CDT-TR	L78M12ABDT-TR	L78M09ABDT-TR
LM317MDT-TR	L78M15ABDT-TR	L78M05ABDT-TR
L78M05CDT-TR	L78M08CDT-TR	L78M15CDT-TR
L78M08ABDT-TR	L78M12CDT-TR	LD1117DT33CTR

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