

## PRODUCT / PROCESS CHANGE INFORMATION

### 1. PCI basic data

1.1 Company		STMicroelectronics International N.V
1.2 PCI No.		ADG/21/13022
1.3 Title of PCI		SOT223 - SOT323 - PowerFLAT 3x3 : Additional Carrier and Cover Tape Supplier
1.4 Product Category		see list
1.5 Issue date		2021-09-23

### 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	Mario ASTUTI,Angelo RAO,Stephane CHAMARD,Maurizio GIUDICE
2.2.2 Marketing Manager	Anna RANIOLO,Michele SCUTO,Philippe LEGER,Natale Sandro D'ANGELO,Paolo PETRALI
2.2.3 Quality Manager	Vincenzo MILITANO,Jean-Paul REBRASSE

### 3. Change

3.1 Category	3.2 Type of change	3.3 Manufacturing Location
Materials	New Indirect material part number (same supplier or different supplier): Boxes, trays, carriers, back grinding tape, wafer mounting tape, mold tape, etc..	Subcontractor TFME (China)

### 4. Description of change

	Old	New
4.1 Description	Carrier: KOSTAT Cover Tape: DENKA	Carrier: KOSTAT and Wuxi Furun Cover Tape: DENKA and SUMITOMO
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?	No impact	

### 5. Reason / motivation for change

5.1 Motivation	Double Source Suppliers for Service improvement
5.2 Customer Benefit	SERVICE IMPROVEMENT

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

6.1 Description	Date code
-----------------	-----------

### 7. Timing / schedule

7.1 Date of qualification results	2021-09-15
7.2 Intended start of delivery	2021-10-31
7.3 Qualification sample available?	Upon Request

### 8. Qualification / Validation

8.1 Description	13022 Qualification TFME Additional supplier for carrier and cover tape.pptx		
8.2 Qualification report and qualification results	Available (see attachment)	Issue Date	2021-09-23

**9. Attachments (additional documentations)**

13022 Public product.pdf  
 13022 PCI Add supplier TFME carrier and cover tape.pdf  
 13022 Qualification TFME Additional supplier for carrier and cover tape.pptx

**10. Affected parts**

<b>10. 1 Current</b>		<b>10.2 New (if applicable)</b>
<b>10.1.1 Customer Part No</b>	<b>10.1.2 Supplier Part No</b>	<b>10.1.2 Supplier Part No</b>
	2STN1360	
	2STN1550	
	2STN2540	
ACS108-6SN-TR	ACS108-6SN-TR	
	ACS108-8SN-TR	
	ACS108-8TN-TR	
ACS110-7SN	ACS110-7SN	
	BCP53-16	
	BCP56-16	
ESDA25W5	ESDA25W5	
ESDA6V1-5W6	ESDA6V1-5W6	
ESDA6V1W5	ESDA6V1W5	
ESDALC6V1W5	ESDALC6V1W5	
P0102DN 5AA4	P0102DN 5AA4	
P0102MN 5AA4	P0102MN 5AA4	
P0111MN 5AA4	P0111MN 5AA4	
	STL11N3LLH6	
	STL20N6F7	
	STL4N10F7	
	STL6P3LLH6	
	STL7N10F7	
	STL8N10F7	
	STL8N6F7	
	STL8P4LLF6	
	STL9P3LLH6	
	STN0214	
	STN1HNK60	
	STN1NF20	
STN1NK60Z	STN1NK60Z	
	STN1NK60ZL	
STN1NK80Z	STN1NK80Z	
	STN2580	
STN2NF10	STN2NF10	
	STN3N40K3	
	STN3N45K3	
STN3NF06	STN3NF06	
STN3NF06L	STN3NF06L	
	STN3P6F6	
STN4NF03L	STN4NF03L	
	STN4NF20L	
	STN6N60M2	
STN790A	STN790A	
	STN83003	
STN851	STN851	

	STN851-A	
	STN9260	
	STN93003	
	STN9360	
	STN951	
	X00619MN5AL2	
X0202MN 5BA4	X0202MN 5BA4	
X0202NN 5BA4	X0202NN 5BA4	
	Z00607MN 5AA4	
Z0103MN 5AA4	Z0103MN 5AA4	
Z0103MN 6AA4	Z0103MN 6AA4	
	Z0103NN5AA4	
Z0107MN 5AA4	Z0107MN 5AA4	
	Z0107MN6AA4	
Z0107NN 5AA4	Z0107NN 5AA4	
Z0107SN 5AA4	Z0107SN 5AA4	
Z0109MN 5AA4	Z0109MN 5AA4	
	Z0109MN 6AA4	
Z0109NN 5AA4	Z0109NN 5AA4	
	Z0109NN6AA4	
	Z0109SN 5AA4	
Z0110MN 5AA4	Z0110MN 5AA4	
	Z0110SN 5AA4	

**IMPORTANT NOTICE – PLEASE READ CAREFULLY**

Subject to any contractual arrangement in force with you or to any industry standard implemented by us, STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST's terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers' products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2018 STMicroelectronics – All rights reserved

## **SOT223 - SOT323 - PowerFLAT 3x3 : Additional Carrier and Cover Tape Supplier**

### **WHAT is the change?**

Additional Suppliers for SOT223 (SC70) - SOT323 - PowerFLAT 3x3 (PDFN8NT3.3).  
This affected ST subcontractor TFME.

### **WHY?**

To reduce material supply risk.

1. Ensure the continuous supply of materials and reduce the risk of material supply.
2. For material standardization management.

### **WHEN will this change occur?**

Additional Supplier Introduction beginning of October 2021

### **HOW will the change be qualified?**

Items \ PKG	SC70	SOT223	PDFN8NT3.3
Appearance	Pass	Pass	Pass
Visual Inspection	Pass	Pass	Pass
Critical Dimension Check	Pass	Pass	Pass
Fit analysis	Pass	Pass	Pass
ESD Properties	Pass	Pass	Pass
Cover Tape transparency	Pass	Pass	Pass
Peel Back Force Test	Pass	Pass	Pass
Bent and Twist Test	Pass	Pass	Pass
Outgas material test	Pass	Pass	Pass
Aging test	Pass	Pass	Pass
Anti-product adhesive test	Pass	Pass	Pass
Anti-tearing test	Pass	Pass	Pass
Drop Test	Pass	Pass	Pass

### **IMPACTS of the Change**

Form: No change on product  
Fit: No change on product  
Function: No change on product  
Reliability : No change on product  
Processability : No change on product

### **APPENDICES:**

APPENDIX 1 Risk assessment  
APPENDIX 2 Qualification plan  
APPENDIX 3 Qualification results

## APPENDIX 1: RISK ASSESSMENT

#	Risks identified	Potential risk resulting from	Class (Low / Medium)	Considered action
1	Reliability	Aging	Low	Perform aging test
2	Device malfunction	EOS damage due to ESD	Low	Perform validation for ESD protection compliance
2	Transparency abnormal	Affect mark inspection	Low	Visual and mark inspection
4	Insufficient lead protection from accidental drops up to 4	Units cannot be soldered at PCBA due to bent leads	Medium	Perform drop test
5	Insufficient clearance between leads and carrier tape pocket	Bent leads due to mechanical contact	Medium	Perform fit analysis considering all potential combinations for carrier tape vs package dimensions
6	Opened/improper cover tape sealing	Units drop out of carrier tape	Medium	Perform peel off strength to ensure it meets ST requirements
7				
8				
9				

## APPENDIX 2: QUALIFICATION PLAN

Items	PKG
Appearance	
Visual Inspection	
Critical Dimension Check	
Fit analysis	
ESD Properties	
Cover Tape transparency	
Peel Back Force Test	
Bent and Twist Test	
Outgas material test	
Aging test	
Anti-product adhesive test	
Anti-tearing test	
Drop Test	

### APPENDIX 3: QUALIFICATION EXECUTION & RESULTS

Items	PKG	SC70	SOT223	PDFN8NT3. 3
Appearance	<i>Pass</i>	<i>Pass</i>	<i>Pass</i>	
Visual Inspection	<i>Pass</i>	<i>Pass</i>	<i>Pass</i>	
Critical Dimension Check	<i>Pass</i>	<i>Pass</i>	<i>Pass</i>	
Fit analysis	<i>Pass</i>	<i>Pass</i>	<i>Pass</i>	
ESD Properties	<i>Pass</i>	<i>Pass</i>	<i>Pass</i>	
Cover Tape transparency	<i>Pass</i>	<i>Pass</i>	<i>Pass</i>	
Peel Back Force Test	<i>Pass</i>	<i>Pass</i>	<i>Pass</i>	
Bent and Twist Test	<i>Pass</i>	<i>Pass</i>	<i>Pass</i>	
Outgas material test	<i>Pass</i>	<i>Pass</i>	<i>Pass</i>	
Aging test	<i>Pass</i>	<i>Pass</i>	<i>Pass</i>	
Anti-product adhesive test	<i>Pass</i>	<i>Pass</i>	<i>Pass</i>	
Anti-tearing test	<i>Pass</i>	<i>Pass</i>	<i>Pass</i>	
Drop Test	<i>Pass</i>	<i>Pass</i>	<i>Pass</i>	

Details on *Qualification TFME Additional supplier for carrier and cover tape.ppt*

# Conclusion

- **Based** on all evaluations performed, the additional carrier tape and cover tape supplier meets all ST requirements



## 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 :** SOT223 - SOT323 - PowerFLAT 3x3 : Additional Carrier and Cover Tape Supplier

**PCI Reference :** ADG/21/13022

**Subject :** Public Products List

Dear Customer,

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

STN2NF10	STN4NF20L	Z0110SN 5AA4
STN851-A	Z00607MN 5AA4	STN3NF06
STN1NK80Z	STN3P6F6	STN6N60M2
BCP53-16	Z0103NN5AA4	Z0109MN 5AA4
Z0109MN 6AA4	BCP56-16	X0202MN 5BA4
X0202NN 5BA4	STL8P4LLF6	Z0109NN6AA4
Z0107MN6AA4	STN83003	ACS108-8SN-TR
X00619MN5AL2	Z0107SN 5AA4	STN93003
Z0103MN 6AA4	STN1NK60ZL	Z0107NN 5AA4
Z0109NN 5AA4	STN790A	ACS108-6SN-TR
STN1HNK60	P0111MN 5AA4	STN1NF20
Z0110MN 5AA4	STL7N10F7	STL11N3LLH6
ESDA25W5	ACS110-7SN	STN0214
STN9260	ESDA6V1W5	STL6P3LLH6
STN1NK60Z	ACS108-8TN-TR	STN3NF06L
STN851	P0102DN 5AA4	STN3P10F6
ESDALC6V1W5	STL8N10F7	STL9P3LLH6
STN3N45K3	STN2580	STN4NF03L
2STN1550	STL4N10F7	STL8N6F7
Z0109SN 5AA4	ESDA6V1-5W6	2STN1360
STN951	Z0103MN 5AA4	Z0107MN 5AA4
STN3N40K3	P0102MN 5AA4	STL20N6F7
STL35N75LF3	STN9360	2STN2540

### **IMPORTANT NOTICE – PLEASE READ CAREFULLY**

Subject to any contractual arrangement in force with you or to any industry standard implemented by us, STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST's terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers' products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2018 STMicroelectronics – All rights reserved