


PRODUCT / PROCESS CHANGE NOTIFICATION

1. PCN basic data

1.1 Company		STMicroelectronics International N.V
1.2 PCN No.	ADG/18/11272	
1.3 Title of PCN	MDmesh™ DM2 Power MOSFET Top Metal change from AISi to AlCu+Barrier - Ang Mo Kio (Singapore) - AUTOMOTIVE	
1.4 Product Category	Power MOSFET	
1.5 Issue date	2018-12-19	

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	Maurizio GIUDICE
2.1.2 Marketing Manager	Paolo PETRALI
2.1.3 Quality Manager	Vincenzo MILITANO

3. Change

3.1 Category	3.2 Type of change	3.3 Manufacturing Location
Wafer Fab (Process)	Metallization : change in metal layers type/nature, composition or final thickness	Ang Mo Kio (Singapore)

4. Description of change

	Old	New
4.1 Description	MDmesh™ DM2 Power MOSFET Transistors Top Metal composition is AISi	MDmesh™ DM2 Power MOSFET Transistors Top Metal composition will be AlCu+Ti/TiN barrier
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?	no impact	

5. Reason / motivation for change

5.1 Motivation	Reliability Improvement
5.2 Customer Benefit	QUALITY IMPROVEMENT

6. Marking of parts / traceability of change

6.1 Description	by FG code and Q.A. number
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7. Timing / schedule

7.1 Date of qualification results	2018-12-13
7.2 Intended start of delivery	2019-06-16
7.3 Qualification sample available?	Upon Request

8. Qualification / Validation

8.1 Description	11272 Rel25-18.pdf		
8.2 Qualification report and qualification results	Available (see attachment)	Issue Date	2018-12-19

9. Attachments (additional documentations)

11272 Public product.pdf
11272 MDmesh™ DM2 Power MOSFET Top Metal change from AISi to AlCu+Barrier - Ang Mo Kio - AUT.pdf
11272 Rel25-18.pdf
11272 AlCu + Barrier vs AISi.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
	STB34N50DM2AG	
	STB37N60DM2AG	
	STB45N40DM2AG	
	STB45N50DM2AG	
	STB45N60DM2AG	
	STP45N40DM2AG	
	STP45N60DM2AG	
	STW37N60DM2AG	
	STW45N60DM2AG	
	STW50N65DM2AG	
	STW58N60DM2AG	
	STW58N65DM2AG	
	STW65N65DM2AG	
	STW72N60DM2AG	

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**Automotive Discrete Group (ADG)
Power Transistor Division
HV Business Unit
Process Change Notification**

**MDmesh™ DM2 Power MOSFET Top Metal change from AlSi to AlCu+Barrier - Ang Mo Kio
AUTOMOTIVE**

Dear Customer,

Following the continuous improvement of our service and in order to improve MDmesh™ DM2 Technology, for selected Power MOSFET Transistors manufactured in ST's Ang Mo Kio (Singapore) FAB, we are going to change the front top metal from AlSi to AlCu+Ti/TiN barrier.

This new process has been developed first on new MDmesh™ DM6 technology and now we are going to apply it also on MDmesh™ DM2.

MDmesh™ DM2 Technology manufactured in Ang Mo Kio (Singapore) FAB, guarantees the same quality and electrical characteristics as per current production.

The involved products series and affected packages are listed in the table below:

Product Family	Technology	Part Number
Power MOSFET Transistors	MDmesh™ DM2	See involved product list

Any other Product related to the above series, even if not expressly included or partially mentioned in the attached table, is affected by this change.

Qualification program and results availability:

The reliability test report is provided in attachment to this document.

Samples availability:

Samples of the test vehicle devices will be available on request starting from week 49-2018.
Any other sample request will be processed and scheduled by Power Transistor Division upon request.

Product Family	Package	Test Vehicle
Power MOSFET Transistors	D ² PAK TO-247 TO-247 long leads TO-247 long leads	STB45N60DM2AG STW65N65DM2AG STWA50N65DM2AG STWA65N65DM2AG

Change implementation schedule:

The production start and first shipments will be implemented after week 24 of 2019, after customer agreement.

Marking and traceability:

Unless otherwise stated by customer specific requirement, traceability of MDmesh™ DM2, manufactured in ST's Ang Mo Kio (Singapore) FAB with AlCu+Ti/TiN barrier, will be ensured by internal code (Finished Good) and Q.A. number.

Yours faithfully.



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

PCN Title : MDmesh™ DM2 Power MOSFET Top Metal change from AlSi to AlCu+Barrier - Ang Mo Kio (Singapore) - AUTOMOTIVE

PCN Reference : ADG/18/11272

Subject : Public Products List

Dear Customer,

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

STW58N65DM2AG	STW58N60DM2AG	STP45N40DM2AG
STB45N50DM2AG	STW72N60DM2AG	STB45N60DM2AG
STB34N50DM2AG	STB37N60DM2AG	STW50N65DM2AG
STW65N65DM2AG	STB45N40DM2AG	STW45N60DM2AG
STW37N60DM2AG	STP45N60DM2AG	



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