PRODUCT / PROCESS CHANGE NOTIFICATION

1. PCN basic data

1.1 Company	STMicroelectronics International N.V
1.2 PCN No.	ADG/22/13788
1.3 Title of PCN	IPAK Al wire line relocation from Shenzhen to Tongfu Microelectronics (China)
1.4 Product Category	Power MOSFET HV, IGBT
1.5 Issue date	2022-11-22

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,Angelo RAO
2.1.2 Marketing Manager	Paolo PETRALI,Natale Sandro D'ANGELO
2.1.3 Quality Manager	Vincenzo MILITANO

3. Change

3.1 Category	3.2 Type of change	3.3 Manufacturing Location
Transfer	Line transfer for a full process or process brick (process step, control plan, recipes) from one site to another site: Assembly site (SOP 2617)	Shenzhen (China), Tongfu Microelectronics (China)

4. Description of change

	Old	New
4.1 Description	IPAK Al wire products are manufactured in Shenzhen (China)	IPAK Al wire products are manufactured in Tongfu Microelectronics (China)
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?	no impact	

5. Reason / motivation for change

5.1 Motivation	IPAK Line Shenzhen (China) closure
5.2 Customer Benefit	SERVICE CONTINUITY

6. Marking of parts / traceability of change

6.1 Description	By internal traceability and dedicated FG code

7. Timing / schedule

7.1 Date of qualification results	2022-11-20
7.2 Intended start of delivery	2023-03-27
7.3 Qualification sample available?	Upon Request

8. Qualification / Validation

8.1 Description	13788 Binder1.pdf		
8.2 Qualification report and qualification results	Available (see attachment)	**Issue Date**	2022-11-22

9. Attachments (additional documentations)

13788 Public product.pdf
13788 IPAK Al wire line relocation from Shenzhen to TFME.pdf
13788 Binder1.pdf
13788 Comparison IPAK STS vs TFME.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**
	STD2HNK60Z-1	
	STD2NK90Z-1	
STD5NM60-1	STD5NM60-1	
	STGD6NC60H-1	
	STU10NM60N	
	STU12N60M2	
	STU13N60M2	
	STU13NM60N	
	STU16N65M2	
	STU2NK100Z	
	STU5N62K3	
	STU5N95K3	
	STU6N62K3	
	STU6N95K5	
	STU7N105K5	
	STU7N60DM2	
	STU7NM60N	
	STU8N80K5	

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Comparison IPAK Shenzhen vs TFME

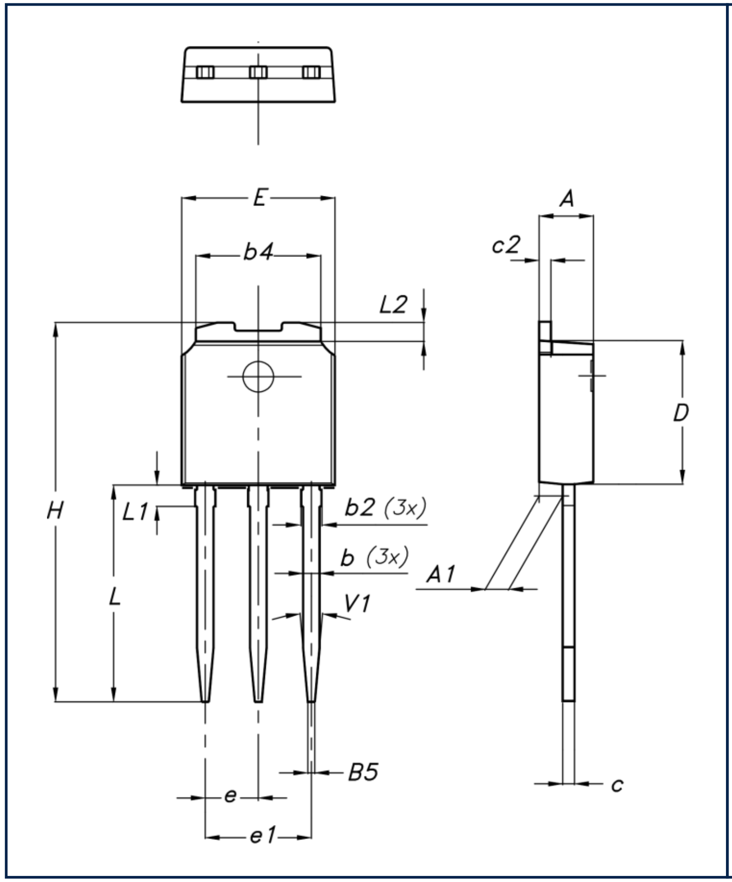
Shenzhen (type A)

Dim.	mm		
	Min.	**Typ.**	**Max.**
A	2.2		2.4
A1	0.9		1.1
b	0.64		0.9
b2			0.95
b4	5.2		5.4
B5		0.3	
c	0.45		0.6
c2	0.48		0.6
D	6		6.2
E	6.4		6.6
e		2.28	
e1	4.4		4.6
H		16.1	
L	9		9.4
L1	0.8		1.2
L2		0.8	1
V1		10°	

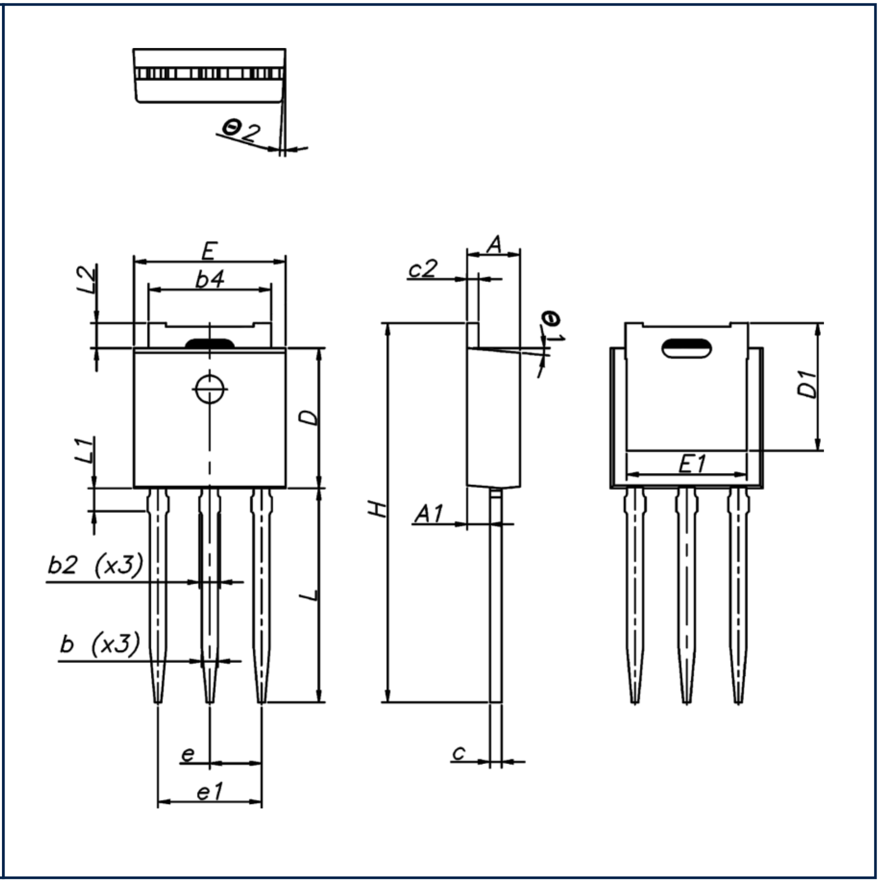
TFME (type E)

Dim.	mm		
	Min.	**Typ.**	**Max.**
A	2.2	2.3	2.35
A1	0.9	1	1.1
b	0.66		0.79
b2			0.9
b4	5.23	5.33	5.43
c	0.46		0.59
c2	0.46		0.59
D	6	6.1	6.2
D1	5.3	5.53	5.75
E	6.5	6.6	6.7
E1	5.05	5.23	5.4
e	2.2	2.25	2.3
e1	4.4	4.5	4.6
H	16.18	16.48	16.78
L	9	9.3	9.6
L1	0.8	1	1.2
L2	0.9	1.08	1.25
$\vartheta 1$	3°	5°	7°
$\vartheta 2$	1°	3°	5°

Shenzhen



TFME



Catania, November 21, 2022

Automotive & Discrete Group (ADG)
Power Transistor Sub-Group
High Voltage Business Unit
IGBT & IPM Business Unit

Process Change Notification

IPAK Al wire line relocation from Shenzhen to Tongfu Microelectronics (China)
INDUSTRIAL

Dear Customer,

Following the continuous improvement of our service and with the aim of increasing production capacity, this document announces the closure of IPAK Shenzhen (China) line.

As results of the above-mentioned decision, all products assembled in IPAK with Al wires, will be relocated to our subcontractor Tongfu Microelectronics (China) named also TFME.

The IPAK Al wires products, manufactured in TFME, guarantees the same quality and electrical characteristics as per current production.

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 plan is provided in attachment to this document.

Samples availability:
Samples of the test vehicle devices will be available on request starting from week 48 of 2022.
Any other sample request will be processed and scheduled by Power Transistor Sub-Group upon request.

Involved Products	Package	Test Vehicle	End of Qualification
Selected High Voltage Power MOSFET Selected IGBT	IPAK Al wire	STD4NK80Z-1 STU6N95K5 STU8N80K5 STGD6NC60H-1	Week 07/2023

Change implementation schedule:
The production start and first shipments will be implemented after week 13 of 2023 or earlier, upon agreement with the customer.

Marking and traceability:
Unless otherwise stated by customer specific requirement, traceability of products in IPAK Al wires, manufactured in TFME, will be ensured by internal code (Finished Good) and Q.A. number.

Yours faithfully.

Public Products List

Publict 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 : IPAK Al wire line relocation from Shenzhen to Tongfu Microelectronics (China)

PCN Reference : ADG/22/13788

Subject : Public Products List

Dear Customer,

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

STU5N95K3	STD2HNK60Z-1	STU13N60M2
STU2NK100Z	STU12N60M2	STD2NK90Z-1
STU7NM60N	STD5NM60-1	STU6N62K3
STD4NK80Z-1	STU8N80K5	STU6N95K5
STU16N65M2	STGD6NC60H-1	STU10NM60N
STU5N62K3	STU5N95K5	STU6N60DM2
STU7N60DM2	STU13NM60N	STU7N105K5

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