

**TITLE: Product/Process Change Notice -Add Lead Frame material for Multiple Products in DPAK package**
**RELEASE DATE: 2021-03-02**
**OWNER DEPARTMENT: Product & Test**
**REVISION HISTORY**

(The original approval sheet is kept in DCC)

REVISION	RELEASE DATE	AUTHOR	DESCRIPTION OF CHANGES
A	2021-03-02	Yuye Cao	original

## PROCESS CHANGE NOTIFICATION

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**Add Lead Frame material for Multiple  
Products in DPAK package**

PCN #

CN-00443A

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Dear Valued Customer,

This Product Change Notification (PCN) contains advance information about changes we are planning to make to products that you have purchased within the last two years.

To mitigate the risk of the shortage of lead frame due to limitation of copper base material used, Chongqing Alpha and Omega Semiconductor Limited will qualify an alternative copper base material for lead frame production. These lead frames will be applied to the production of multiple products in the DPAK package.

The form, fit, function, quality and reliability of the products will not be affected in this change.

For details, please contact your local AOS Sales Representatives.

Please acknowledge receipt of this PCN within 30 days by signing in at <http://www.aosmd.com/quality/pcn> or sending the enclosed Acknowledgement Form to your local AOS Sales Representative.

Lack of acknowledgement of the PCN within 30 days constitutes acceptance of the change.

If you have any questions regarding this change notice, please contact your local AOS Sales Representative.

<http://www.aosmd.com/contact>

Sincerely,

CK OH

Senior Vice President of Quality

Alpha and Omega Semiconductor

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## Process Change Notification

<b>PRODUCT CATEGORY</b>  MOSFET, IGBT	<b>PRODUCT(S) AFFECTED</b> Please refer the affected part list at the end of this PCN. * This PCN extends to all related products that may be released after this PCN.														
<b>TYPE OF CHANGE</b>  Add Lead Frame Material															
<b>DESCRIPTION OF CHANGE</b>  Add one kind of lead frame material for multiple products in DPAK package. Whereas the vendor (Suzhou SH Precision Co. Ltd.) and package outline remain no change. For details, please contact your local AOS sales representatives.															
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2">Package</th> <th colspan="2">Original</th> <th colspan="2">Newly Added</th> </tr> <tr> <th>Supplier</th> <th>Material Type</th> <th>Supplier</th> <th>Material Type</th> </tr> </thead> <tbody> <tr> <td>DPAK</td> <td>Suzhou SH Precision Co. Ltd.(SSHP)</td> <td>12SnOFC-H</td> <td>Suzhou SH Precision Co. Ltd.(SSHP)</td> <td>C19210</td> </tr> </tbody> </table>		Package	Original		Newly Added		Supplier	Material Type	Supplier	Material Type	DPAK	Suzhou SH Precision Co. Ltd.(SSHP)	12SnOFC-H	Suzhou SH Precision Co. Ltd.(SSHP)	C19210
Package	Original		Newly Added												
	Supplier	Material Type	Supplier	Material Type											
DPAK	Suzhou SH Precision Co. Ltd.(SSHP)	12SnOFC-H	Suzhou SH Precision Co. Ltd.(SSHP)	C19210											
<b>REASON FOR CHANGE</b>  To avoid the shortage of material supply															
<b>SAMPLE AVAILIBILITY</b> See appendix (To obtain samples or production devices, please contact your AOS Sales Representative).	<b>FIRST SHIP DATE</b> Estimated to be from May, 28 <sup>th</sup> , 2021, or earlier upon customer approval.														
<b>METHOD OF IDENTIFICATION</b>  Estimated to start from Date Code: '21N'. For details, please contact your local AOS sales representatives.															
<b>IMPACT OF CHANGE</b> <b>Form:</b> None <b>Fit:</b> None <b>Function:</b> None <b>Reliability:</b> None <b>Environment:</b> None															
<b>QUALIFICATION / RELIABILITY DATA:</b>  Reliability Qualification :															
<b>Reliability test</b>															
<b>Test Item</b>	<b>Condition</b>	<b>Time Point</b>	<b>Applicable Products</b>	<b>Sample Size</b>											
TC	-65(+0/-10)°C to +150(+15/-0)°C air to air; 30mins/cycle (preferred)	1000 cycles	All	77*3											
HAST	130(±2)°C, 85(±5)%RH, 33.3psia, Vds=80%Vdsmax before arcing (typically ≤42V)	96hours	MOSFET	77*3											

	130(±2)°C, 85(±5)%RH, 33.3psia, Vce=80%Vcemax before arcing (typically ≤42V)		IGBT	
PCT	121(±2)°C, 29.7psia, RH=100%	96hours	All	77*3

Note: the qualification is based on generic product family data.

<b>PCN RESPONSE:</b> Please acknowledge receipt of this PCN within 30 days of delivery Lack of acknowledgement of the PCN within 30 days constitutes acceptance of the change.	<b>AOS CONTACTS:</b> Please contact your local AOS Sales Representative <a href="http://www.aosmd.com/contact/">http://www.aosmd.com/contact/</a>
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QRU-00022-02(d)

**Acknowledgement of Process Change Notification**

(Filled by the customer)

**Confirming the Receipt of the PCN**

PCN #:

Receiving date (YY/MM/DD):

Receiver:

Department / Title of the receiver:

Signature / Stamp:

**Customer Request**

Sample request

Quantity:

Requirement of qualification data:

**Approval of the Change**

Approve

Disapprove

Reason of disapproval:

Approver:

Department / Title of the approver:

Signature / stamp:

QRU-00022-02(d)

**Appendix: Affected Product List**

Part number	Estimated sample available date	Estimated completion date of qualification	Remark
AOD054N03	Contact Sales	NA	
AOD090N03	Contact Sales	NA	
AOD11S60	Contact Sales	NA	
AOD1N60	Contact Sales	NA	
AOD1N60M	Contact Sales	NA	
AOD1N60_001	Contact Sales	NA	
AOD1R4A70	Contact Sales	NA	
AOD1R4A70Z	Contact Sales	NA	
AOD1R4A70_2C1	Contact Sales	NA	
AOD1R4A70_3C1	Contact Sales	NA	
AOD21357	Contact Sales	NA	
AOD21357S	Contact Sales	NA	
AOD21357S_0C1	Contact Sales	NA	
AOD21357_0C1	Contact Sales	NA	
AOD2144	Contact Sales	NA	
AOD2146	Contact Sales	NA	
AOD2210	Contact Sales	NA	
AOD2210_001	Contact Sales	NA	
AOD240	Contact Sales	NA	
AOD242_001	Contact Sales	NA	
AOD2544	Contact Sales	NA	
AOD2544_101	Contact Sales	NA	
AOD2544_102	Contact Sales	NA	
AOD2544_201	Contact Sales	NA	
AOD256	Contact Sales	NA	
AOD2606	Contact Sales	NA	
AOD2610E	Contact Sales	NA	
AOD2610E_2C1	Contact Sales	NA	
AOD280A60	Contact Sales	NA	
AOD280A60_0C1	Contact Sales	NA	
AOD280A60_3C1	Contact Sales	NA	

AOD2810	Contact Sales	NA	
AOD2816	Contact Sales	NA	
AOD2908_DELTA	Contact Sales	NA	
AOD2910	Contact Sales	NA	
AOD2910E	Contact Sales	NA	
AOD2910E_001	Contact Sales	NA	
AOD2910_001	Contact Sales	NA	
AOD2910_002	Contact Sales	NA	
AOD2916	Contact Sales	NA	
AOD2922	Contact Sales	NA	
AOD2922_101	Contact Sales	NA	
AOD2922_102	Contact Sales	NA	
AOD2922_103	Contact Sales	NA	
AOD294A	Contact Sales	NA	
AOD296A	Contact Sales	NA	
AOD296A_001	Contact Sales	NA	
AOD296A_201	Contact Sales	NA	
AOD2N100	Contact Sales	NA	
AOD2N60	Contact Sales	NA	
AOD2N60A	Contact Sales	NA	
AOD2NL60	Contact Sales	NA	
AOD2NL60_001	Contact Sales	NA	
AOD32324	Contact Sales	NA	
AOD32326	Contact Sales	NA	
AOD32334C	Contact Sales	NA	
AOD32344C	Contact Sales	NA	
AOD360A70	Contact Sales	NA	
AOD360A70Z	Contact Sales	NA	
AOD360A70_0C1	Contact Sales	NA	
AOD360A70_3C1	Contact Sales	NA	
AOD380A60	Contact Sales	NA	
AOD380A60C	Contact Sales	NA	
AOD380A60C_2C1	Contact Sales	NA	
AOD380A60C_2C2	Contact Sales	NA	
AOD380A60C_3C1	Contact Sales	NA	

AOD380A60_2C1	Contact Sales	NA	
AOD3N40	Contact Sales	NA	
AOD3N40_001	Contact Sales	NA	
AOD3N50	Contact Sales	NA	
AOD3N50M_001	Contact Sales	NA	
AOD3N50_001	Contact Sales	NA	
AOD3N60	Contact Sales	NA	
AOD3N80	Contact Sales	NA	
AOD403	Contact Sales	NA	
AOD403_001	Contact Sales	NA	
AOD403_002	Contact Sales	NA	
AOD407	Contact Sales	NA	
AOD407_002	Contact Sales	NA	
AOD407_003	Contact Sales	NA	
AOD409	Contact Sales	NA	
AOD409G	Contact Sales	NA	
AOD409G_001	Contact Sales	NA	
AOD4126	Contact Sales	NA	
AOD4126L	Contact Sales	NA	
AOD4126L_DELT A	Contact Sales	NA	
AOD4126_001	Contact Sales	NA	
AOD4126_002	Contact Sales	NA	
AOD4126_BA_001 #M	Contact Sales	NA	
AOD4126_BL_001 #M	Contact Sales	NA	
AOD4126_GA_001 #M	Contact Sales	NA	
AOD4126_GL_001 #M	Contact Sales	NA	
AOD4130	Contact Sales	NA	
AOD4132	Contact Sales	NA	
AOD413A	Contact Sales	NA	
AOD413AL	Contact Sales	NA	
AOD413A_001	Contact Sales	NA	
AOD413A_003	Contact Sales	NA	



AOD4144_Delta	Contact Sales	NA	
AOD417	Contact Sales	NA	
AOD418	Contact Sales	NA	
AOD4184A	Contact Sales	NA	
AOD4184A_001	Contact Sales	NA	
AOD4184A_002	Contact Sales	NA	
AOD4184L	Contact Sales	NA	
AOD4184L_002	Contact Sales	NA	
AOD4184L_003	Contact Sales	NA	
AOD4184L_DELT A	Contact Sales	NA	
AOD4184_DELTA	Contact Sales	NA	
AOD4185	Contact Sales	NA	
AOD4185_001	Contact Sales	NA	
AOD4185_004	Contact Sales	NA	
AOD4186	Contact Sales	NA	
AOD4186_001	Contact Sales	NA	
AOD4189	Contact Sales	NA	
AOD4189_001	Contact Sales	NA	
AOD4189_DELTA	Contact Sales	NA	
AOD418G	Contact Sales	NA	
AOD423	Contact Sales	NA	
AOD424	Contact Sales	NA	
AOD424G	Contact Sales	NA	
AOD4286	Contact Sales	NA	
AOD4286_101	Contact Sales	NA	
AOD4286_102	Contact Sales	NA	
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AOD442G	Contact Sales	NA	
AOD442_001	Contact Sales	NA	
AOD444	Contact Sales	NA	
AOD444_001	Contact Sales	NA	
AOD4454	Contact Sales	NA	
AOD4454_001	Contact Sales	NA	
AOD4454_002	Contact Sales	NA	

AOD4454_DELTA	Contact Sales	NA	
AOD450	Contact Sales	NA	
AOD4504	Contact Sales	NA	
AOD4504_001	Contact Sales	NA	
AOD450A70	Contact Sales	NA	
AOD450_001	Contact Sales	NA	
AOD450_002	Contact Sales	NA	
AOD454A	Contact Sales	NA	
AOD454A_BA_001 #M	Contact Sales	NA	
AOD454A_DELTA	Contact Sales	NA	
AOD458	Contact Sales	NA	
AOD458_001	Contact Sales	NA	
AOD464	Contact Sales	NA	
AOD464_001	Contact Sales	NA	
AOD464_002	Contact Sales	NA	
AOD464_003	Contact Sales	NA	
AOD464_004	Contact Sales	NA	
AOD464_005	Contact Sales	NA	
AOD464_006	Contact Sales	NA	
AOD468	Contact Sales	NA	
AOD468_001	Contact Sales	NA	
AOD478	Contact Sales	NA	
AOD478_001	Contact Sales	NA	
AOD478_002	Contact Sales	NA	
AOD478_004	Contact Sales	NA	
AOD478_005	Contact Sales	NA	
AOD478_006	Contact Sales	NA	
AOD480	Contact Sales	NA	
AOD482	Contact Sales	NA	
AOD482G	Contact Sales	NA	
AOD482G_DELTA	Contact Sales	NA	
AOD482_001	Contact Sales	NA	
AOD486A	Contact Sales	NA	
AOD486A_001	Contact Sales	NA	

AOD4N60	Contact Sales	NA	
AOD4S60	Contact Sales	NA	
AOD508	Contact Sales	NA	
AOD512	Contact Sales	NA	
AOD514	Contact Sales	NA	
AOD516	Contact Sales	NA	
AOD526	Contact Sales	NA	
AOD526_001	Contact Sales	NA	
AOD536	Contact Sales	NA	
AOD538	Contact Sales	NA	
AOD558	Contact Sales	NA	
AOD5B60D	Contact Sales	NA	
AOD5B60D_001	Contact Sales	NA	
AOD5B65M1	Contact Sales	NA	
AOD5B65M1H	Contact Sales	NA	
AOD5B65MQ1E	Contact Sales	NA	
AOD5B65N1	Contact Sales	NA	
AOD5B65ND	Contact Sales	NA	
AOD5N40	Contact Sales	NA	
AOD5N40_001	Contact Sales	NA	
AOD5N50	Contact Sales	NA	
AOD5N50M_001	Contact Sales	NA	
AOD5N50_001	Contact Sales	NA	
AOD600A60	Contact Sales	NA	
AOD600A60_3C1	Contact Sales	NA	
AOD600A70	Contact Sales	NA	
AOD600A70F	Contact Sales	NA	
AOD600A70R	Contact Sales	NA	
AOD600A70RZ	Contact Sales	NA	
AOD600A70R_0C1	Contact Sales	NA	
AOD66406	Contact Sales	NA	
AOD66464	Contact Sales	NA	
AOD66466	Contact Sales	NA	
AOD66616	Contact Sales	NA	
AOD66620	Contact Sales	NA	

AOD66920	Contact Sales	NA	
AOD66920_001	Contact Sales	NA	
AOD66923	Contact Sales	NA	
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AOD6N50	Contact Sales	NA	
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AOD7N65	Contact Sales	NA	
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AOD7S65	Contact Sales	NA	
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AOD8N25	Contact Sales	NA	
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AOD950A70Z	Contact Sales	NA	
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AOD9N40	Contact Sales	NA	
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AOD9N40M_001	Contact Sales	NA	
AOD9N40_001	Contact Sales	NA	
AOD9N40_002	Contact Sales	NA	
AOD9N50	Contact Sales	NA	
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AOI1R4A70	Contact Sales	NA	
AOI1R4A70Z	Contact Sales	NA	
AOI21357	Contact Sales	NA	
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AOI280A60	Contact Sales	NA	
AOI294A	Contact Sales	NA	
AOI296A	Contact Sales	NA	
AOI2N60	Contact Sales	NA	
AOI2N60A	Contact Sales	NA	
AOI2NL60	Contact Sales	NA	
AOI360A70	Contact Sales	NA	
AOI360A70Z	Contact Sales	NA	
AOI360A70_3C1	Contact Sales	NA	
AOI380A60C	Contact Sales	NA	
AOI409	Contact Sales	NA	
AOI409_001	Contact Sales	NA	
AOI4126	Contact Sales	NA	
AOI4184	Contact Sales	NA	
AOI4184_001	Contact Sales	NA	
AOI4185	Contact Sales	NA	
AOI4185_001	Contact Sales	NA	
AOI423	Contact Sales	NA	
AOI4286	Contact Sales	NA	
AOI442	Contact Sales	NA	
AOI444	Contact Sales	NA	
AOI450A70	Contact Sales	NA	
AOI468	Contact Sales	NA	
AOI478	Contact Sales	NA	
AOI4N60	Contact Sales	NA	
AOI4S60	Contact Sales	NA	
AOI516_030	Contact Sales	NA	
AOI538	Contact Sales	NA	
AOI5N40	Contact Sales	NA	
AOI600A60	Contact Sales	NA	
AOI600A70	Contact Sales	NA	
AOI600A70F	Contact Sales	NA	
AOI600A70R	Contact Sales	NA	
AOI600A70RZ	Contact Sales	NA	
AOI66406	Contact Sales	NA	

AOI780A70	Contact Sales	NA	
AOI7N60	Contact Sales	NA	
AOI7N60_001	Contact Sales	NA	
AOI7N65	Contact Sales	NA	
AOI7S65	Contact Sales	NA	
AOI8N25	Contact Sales	NA	
AOI8N25_001	Contact Sales	NA	
AOI950A70	Contact Sales	NA	
AOI950A70Z	Contact Sales	NA	
AOI950A70_2C1	Contact Sales	NA	
AOI950A70_DELT A	Contact Sales	NA	
AOI9N50	Contact Sales	NA	
AOY2610E	Contact Sales	NA	
AOY2610E_2C1	Contact Sales	NA	
AOY2N60	Contact Sales	NA	
AOY423	Contact Sales	NA	
AOY516	Contact Sales	NA	
AOY536	Contact Sales	NA	
AOY66620	Contact Sales	NA	
AOY66920	Contact Sales	NA	
AOY66923	Contact Sales	NA	
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CQD5B65MQ1E	Contact Sales	NA	
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CQI1R4A70	Contact Sales	NA	
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