

**TITLE: Product/Process Change Notice - Assembly & Test Manufacturing Location Change for Multiple Products (Phase IV)**
**RELEASE DATE: 2018-12-27**
**OWNER DEPARTMENT: Product & Test**
**REVISION HISTORY**

(The original approval sheet is kept in DCC)

REVISION	RELEASE DATE	AUTHOR	DESCRIPTION OF CHANGES
A	2018-12-27	Weiwei Liu	original

## PROCESS CHANGE NOTIFICATION

---

<b>Assembly &amp; Test Manufacturing Location Change for Multiple Products (Phase IV)</b>	PCN #	CN-00411A
---	-------	-----------

---

Dear Valued Customer,

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

As part of the business development plan, Alpha & Omega Semiconductor (known as AOS) will move the assembly & test manufacturing location of DFN2.5x1.0\_10L & DFN1.6x1.0\_6L packages from AOS Shanghai factory to AOS Chongqing factory (newly established in Chongqing, China). The equipment, process and materials (except lead frame) used in AOS Shanghai have been transferred to AOS Chongqing as well. To unify the POD of AOS Shanghai factory and AOS subcontractor, the lead frame will be changed in this phase. To ensure the seamless operation, AOS Chongqing team has been working & being trained in AOS Shanghai factory. AOS Shanghai team will lead the daily operation in AOS Chongqing factory for a certain period after equipments relocation is done. Every effort has been made to ensure the function, quality and reliability of our products will not be affected with this change.

Please acknowledge receipt of this PCN as well as requests 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,

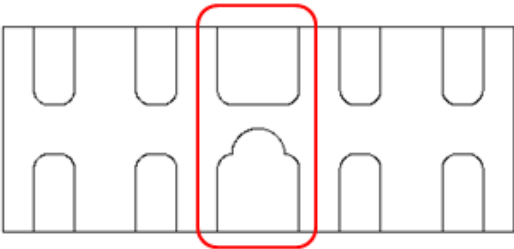
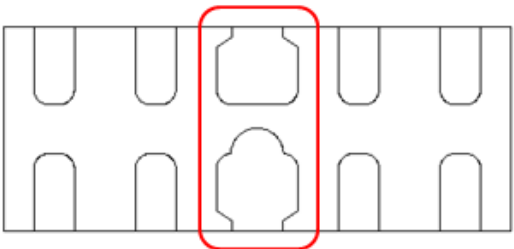
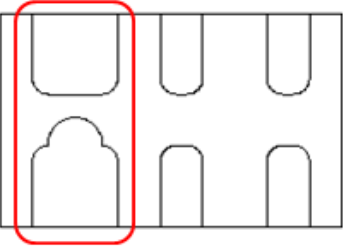
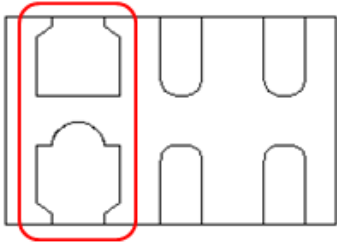
CK OH

Vice President of Quality

Alpha and Omega Semiconductor

---

## Process Change Notification

<b>PRODUCT CATEGORY</b>  TVS	<b>PRODUCT(S) AFFECTED</b> Please refer the affected part list at the end of this PCN. * This PCN extends to all new related products that may be released after this PCN.
<b>TYPE OF CHANGE</b>  Assembly & test manufacturing location change. Minor POD change.	
<b>DESCRIPTION OF CHANGE</b>  Move the assembly & test manufacturing location from AOS Shanghai factory to AOS Chongqing factory for DFN2.5x1.0_10L & DFN1.6x1.0_6L package products and POD will be slightly changed as below.	
<b>1. DFN2.5x1.0_10L:</b>	
DFN2. 5x1. 0_10L	
Original	New
	
<b>PS: no change for package dimension</b>	
<b>2. DFN1.6x1.0_6L:</b>	
DFN1. 6x1. 0_6L	
Original	New
	
<b>PS: no change for package dimension</b>	
<b>REASON FOR CHANGE</b>  Company business strategy.	

<b>SAMPLE AVAILABILITY</b> See appendix (To obtain samples or production devices, please contact your AOS Sales Representative).	<b>FIRST SHIP DATE</b> Estimated to be from Apr. 30th, 2019, or earlier upon customer approval.																												
<b>METHOD OF IDENTIFICATION</b>  By assembly location code on product marking. For details, please contact your local AOS sales representatives.																													
<b>IMPACT OF CHANGE</b> <b>Form:</b> Yes <b>Fit:</b> None <b>Function:</b> None <b>Reliability:</b> None <b>Environment:</b> None																													
<b>QUALIFICATION / RELIABILITY DATA:</b>  Reliability Qualification for each package : <table border="1" data-bbox="143 862 1356 1646" style="margin: 10px auto;"> <thead> <tr> <th colspan="4" style="text-align: center;">Reliability test</th> </tr> <tr> <th style="text-align: center;">Test Item</th> <th style="text-align: center;">Condition</th> <th style="text-align: center;">Time Point</th> <th style="text-align: center;">Sample Size</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">HTRB</td> <td style="text-align: center;">T=150°C Vdd=80%VRWMMmax</td> <td style="text-align: center;">1000 hours</td> <td style="text-align: center;">77*3</td> </tr> <tr> <td style="text-align: center;">Solder reflow precondition</td> <td style="text-align: center;">MSL soak + 3cycle reflow@ 260°C</td> <td style="text-align: center;">-</td> <td style="text-align: center;">77*9</td> </tr> <tr> <td style="text-align: center;">TC</td> <td style="text-align: center;">-65(+0/-10)°C to +150(+15/-0)°C air to air; 30mins/cycle (preferred)</td> <td style="text-align: center;">500 cycles</td> <td style="text-align: center;">77*3</td> </tr> <tr> <td style="text-align: center;">HAST</td> <td style="text-align: center;">130(±2)°C, 85(±5)%RH, 33.3psia, Vdd=80%VRWMMmax</td> <td style="text-align: center;">96hours</td> <td style="text-align: center;">77*3</td> </tr> <tr> <td style="text-align: center;">PCT</td> <td style="text-align: center;">121(±2)°C, 29.7psia, RH=100%</td> <td style="text-align: center;">96hours</td> <td style="text-align: center;">77*3</td> </tr> </tbody> </table> <p>Note: the qualification is base on generic product family data.</p>		Reliability test				Test Item	Condition	Time Point	Sample Size	HTRB	T=150°C Vdd=80%VRWMMmax	1000 hours	77*3	Solder reflow precondition	MSL soak + 3cycle reflow@ 260°C	-	77*9	TC	-65(+0/-10)°C to +150(+15/-0)°C air to air; 30mins/cycle (preferred)	500 cycles	77*3	HAST	130(±2)°C, 85(±5)%RH, 33.3psia, Vdd=80%VRWMMmax	96hours	77*3	PCT	121(±2)°C, 29.7psia, RH=100%	96hours	77*3
Reliability test																													
Test Item	Condition	Time Point	Sample Size																										
HTRB	T=150°C Vdd=80%VRWMMmax	1000 hours	77*3																										
Solder reflow precondition	MSL soak + 3cycle reflow@ 260°C	-	77*9																										
TC	-65(+0/-10)°C to +150(+15/-0)°C air to air; 30mins/cycle (preferred)	500 cycles	77*3																										
HAST	130(±2)°C, 85(±5)%RH, 33.3psia, Vdd=80%VRWMMmax	96hours	77*3																										
PCT	121(±2)°C, 29.7psia, RH=100%	96hours	77*3																										
<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>																												

## 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
AOZ8107DI	Contact Sales	Contact Sales	DFN2.5x1.0_10L
AOZ8309DI-03	Contact Sales	Contact Sales	DFN2.5x1.0_10L
AOZ8802ADI	Contact Sales	Contact Sales	DFN1.6x1.0_6L
AOZ8802ADI_2	Contact Sales	Contact Sales	DFN1.6x1.0_6L
AOZ8802ADI_3	Contact Sales	Contact Sales	DFN1.6x1.0_6L
AOZ8802DI	Contact Sales	Contact Sales	DFN1.6x1.0_6L
AOZ8802DI_2	Contact Sales	Contact Sales	DFN1.6x1.0_6L
AOZ8804ADI	Contact Sales	Contact Sales	DFN2.5x1.0_10L
AOZ8804ADI_2	Contact Sales	Contact Sales	DFN2.5x1.0_10L
AOZ8804ADI_3	Contact Sales	Contact Sales	DFN2.5x1.0_10L
AOZ8804ADI_4	Contact Sales	Contact Sales	DFN2.5x1.0_10L
AOZ8804DI	Contact Sales	Contact Sales	DFN2.5x1.0_10L
AOZ8804DI_1	Contact Sales	Contact Sales	DFN2.5x1.0_10L
AOZ8804DI_2	Contact Sales	Contact Sales	DFN2.5x1.0_10L
AOZ8808DI-03	Contact Sales	Contact Sales	DFN2.5x1.0_10L
AOZ8808DI-03_2	Contact Sales	Contact Sales	DFN2.5x1.0_10L
AOZ8808DI-05	Contact Sales	Contact Sales	DFN2.5x1.0_10L
AOZ8808DI-05_3	Contact Sales	Contact Sales	DFN2.5x1.0_10L
AOZ8809ADI-03	Contact Sales	Contact Sales	DFN2.5x1.0_10L
AOZ8809ADI-05	Contact Sales	Contact Sales	DFN2.5x1.0_10L
AOZ8809DI-03	Contact Sales	Contact Sales	DFN2.5x1.0_10L
AOZ8809DI-05	Contact Sales	Contact Sales	DFN2.5x1.0_10L
AOZ8812DI	Contact Sales	Contact Sales	DFN1.6x1.0_6L
AOZ8819DI-05	Contact Sales	Contact Sales	DFN2.5x1.0_10L
AOZ8819DI-05_2	Contact Sales	Contact Sales	DFN2.5x1.0_10L
AOZ8829DI-03	Contact Sales	Contact Sales	DFN2.5x1.0_10L
AOZ8829DI-03_1	Contact Sales	Contact Sales	DFN2.5x1.0_10L
AOZ8829DI-05	Contact Sales	Contact Sales	DFN2.5x1.0_10L
AOZ8839DI-03	Contact Sales	Contact Sales	DFN2.5x1.0_10L
AOZ8839DI-05	Contact Sales	Contact Sales	DFN2.5x1.0_10L
AOZ8847DI	Contact Sales	Contact Sales	DFN2.5x1.0_10L