

**TITLE: Product/Process Change Notice -Additional Assembly & Test  
 Manufacturing Location for SOT23 package products**
**RELEASE DATE: 2021-04-22**
**OWNER DEPARTMENT: Product & Test**
**REVISION HISTORY**

(The original approval sheet is kept in DCC)

| REVISION | RELEASE DATE | AUTHOR   | DESCRIPTION OF CHANGES |
|----------|--------------|----------|------------------------|
| A        | 2021-04-22   | Yuye Cao | original               |

## PROCESS CHANGE NOTIFICATION

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|   |       |           |
|---|-------|-----------|
| <b>Additional Assembly &amp; Test Manufacturing Location<br/>for SOT23 package products</b> | PCN # | CN-00449A |
|---|-------|-----------|

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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 increase manufacturing capacity, we qualified Qingdao TRS Microelectronics Co. LTD (known as QTM) as an additional Assembly & Test manufacturing location for SOT23 package products. The affected products are listed in the appendix. The fit, function, quality and reliability of our products will not be affected within this change.

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

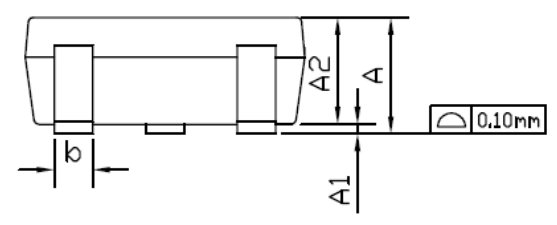
Alpha and Omega Semiconductor

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## Process Change Notification

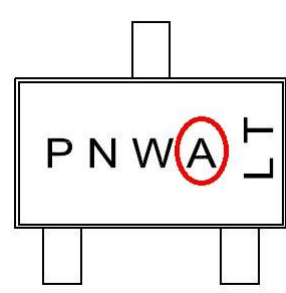
|                                       |  |
|---------------------------------------|--|
| <b>PRODUCT CATEGORY</b><br><br>MOSFET | <b>PRODUCT(S) AFFECTED</b><br>Please refer the affected part list at the end of this PCN.<br>* This PCN extends to all new related products that may be released after this PCN. |
|---------------------------------------|--|

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| <b>TYPE OF CHANGE</b><br><br>Additional Assembly & test manufacturing location. |
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| <b>DESCRIPTION OF CHANGE</b><br><br>Add QTM as an additional assembly & test manufacturing location for SOT23 package products.<br><br>There are minor deviations in package outline: <div style="text-align: center; margin: 10px 0;">  </div> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th rowspan="2">SYMBOL</th> <th colspan="3">Original Spec</th> <th colspan="3">New Spec</th> </tr> <tr> <th>MIN</th> <th>NOM</th> <th>MAX</th> <th>MIN</th> <th>NOM</th> <th>MAX</th> </tr> </thead> <tbody> <tr> <td>A1</td> <td>0</td> <td></td> <td>0.13</td> <td>0</td> <td style="text-align: center;">—</td> <td style="color: red;">0.15</td> </tr> <tr> <td>A2</td> <td>0.7</td> <td>1</td> <td>1.15</td> <td>0.7</td> <td style="color: red;">1.05</td> <td style="color: red;">1.2</td> </tr> </tbody> </table> | SYMBOL | Original Spec |      |     | New Spec |      |  | MIN | NOM | MAX | MIN | NOM | MAX | A1 | 0 |  | 0.13 | 0 | — | 0.15 | A2 | 0.7 | 1 | 1.15 | 0.7 | 1.05 | 1.2 |
|---|--------|---------------|------|-----|----------|------|--|-----|-----|-----|-----|-----|-----|----|---|--|------|---|---|------|----|-----|---|------|-----|------|-----|
| SYMBOL  |        | Original Spec |      |     | New Spec |      |  |     |     |     |     |     |     |    |   |  |      |   |   |      |    |     |   |      |     |      |     |
|   | MIN    | NOM           | MAX  | MIN | NOM      | MAX  |  |     |     |     |     |     |     |    |   |  |      |   |   |      |    |     |   |      |     |      |     |
| A1  | 0      |               | 0.13 | 0   | —        | 0.15 |  |     |     |     |     |     |     |    |   |  |      |   |   |      |    |     |   |      |     |      |     |
| A2  | 0.7    | 1             | 1.15 | 0.7 | 1.05     | 1.2  |  |     |     |     |     |     |     |    |   |  |      |   |   |      |    |     |   |      |     |      |     |

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| <b>REASON FOR CHANGE</b><br><br>To increase manufacturing capacity. |
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|  |   |
|--|---|
| <b>SAMPLE AVAILABILITY</b><br>See appendix<br>(To obtain samples or production devices, please contact your AOS Sales Representative). | <b>FIRST SHIP DATE</b><br>Estimated to be from Jul, 28 <sup>th</sup> , 2021, or earlier upon customer approval. |
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| <b>METHOD OF IDENTIFICATION</b><br><br>Assembly location code “G” will be printed on the surface marking of the product. For details, please contact your local AOS sales representatives. <div style="text-align: center; margin: 10px 0;">  </div> <p>A-Assembly location code: “G”-Qingdao TRS Microelectronics Co. LTD</p> |
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**IMPACT OF CHANGE****Form:** Yes, Minor deviations in Package Outline**Fit:** None**Function:** None**Reliability:** None**Environment:** None**QUALIFICATION / RELIABILITY DATA:**

Reliability Qualification for SOT23 package:

| Reliability test |  |             |             |
|------------------|--|-------------|-------------|
| Test Item        | Condition  | Time Point  | Sample Size |
| HTGB             | T=150°C, Vgs=100% Vgsmax   | 1000 hours  | 77*3        |
| HTRB             | T=150°C, Vds=80% Vdsmax  | 1000 hours  | 77*3        |
| Precon           | MSL soak + 3cycle reflow@ 260°C  | -           | 77*9        |
| TC               | -65(+0/-10)°C to +150(+15/-0)°C<br>air to air; 30mins/cycle(preferred) | 1000 cycles | 77*3        |
| HAST             | 130(±2)°C, 85(±5)% RH, 33.3psia,<br>Vds=80% Vdsmax                     | 96hours     | 77*3        |
| PCT              | 121(±2)°C, 29.7psia, RH=100%   | 96hours     | 77*3        |

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

**PCN RESPONSE:**

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.

**AOS CONTACTS:**Please contact your local AOS Sales Representative  
<http://www.aosmd.com/contact/>

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 |
|---------------|---------------------------------|--|--------|
| AO3400        | Contact Sales                   | Complete                                   |        |
| AO3400A       | Contact Sales                   | Complete                                   |        |
| AO3400C       | Contact Sales                   | Complete                                   |        |
| AO3400L       | Contact Sales                   | Complete                                   |        |
| AO3400L_101   | Contact Sales                   | Complete                                   |        |
| AO3400L_DELTA | Contact Sales                   | Complete                                   |        |
| AO3400_DELTA  | Contact Sales                   | Complete                                   |        |
| AO3401        | Contact Sales                   | Complete                                   |        |
| AO3401A       | Contact Sales                   | Complete                                   |        |
| AO3401A_101   | Contact Sales                   | Complete                                   |        |
| AO3401A_102   | Contact Sales                   | Complete                                   |        |
| AO3401A_201   | Contact Sales                   | Complete                                   |        |
| AO3401A_2C1   | Contact Sales                   | Complete                                   |        |
| AO3401A_2C2   | Contact Sales                   | Complete                                   |        |
| AO3401A_DELTA | Contact Sales                   | Complete                                   |        |
| AO3401C       | Contact Sales                   | Complete                                   |        |
| AO3401_101    | Contact Sales                   | Complete                                   |        |
| AO3402        | Contact Sales                   | Complete                                   |        |
| AO3402C       | Contact Sales                   | Complete                                   |        |
| AO3402_102    | Contact Sales                   | Complete                                   |        |
| AO3403        | Contact Sales                   | Complete                                   |        |
| AO3403_102    | Contact Sales                   | Complete                                   |        |
| AO3404A       | Contact Sales                   | Complete                                   |        |
| AO3404AL      | Contact Sales                   | Complete                                   |        |
| AO3404AL_104  | Contact Sales                   | Complete                                   |        |
| AO3404A_101   | Contact Sales                   | Complete                                   |        |
| AO3404A_102   | Contact Sales                   | Complete                                   |        |
| AO3404A_103   | Contact Sales                   | Complete                                   |        |
| AO3404A_201   | Contact Sales                   | Complete                                   |        |
| AO3404A_202   | Contact Sales                   | Complete                                   |        |
| AO3404A_DELTA | Contact Sales                   | Complete                                   |        |

|                    |               |          |  |
|--------------------|---------------|----------|--|
| AO3406             | Contact Sales | Complete |  |
| AO3406G            | Contact Sales | Complete |  |
| AO3406G_DELTA      | Contact Sales | Complete |  |
| AO3406_101         | Contact Sales | Complete |  |
| AO3406_106         | Contact Sales | Complete |  |
| AO3406_2C1         | Contact Sales | Complete |  |
| AO3406_DELTA       | Contact Sales | Complete |  |
| AO3407             | Contact Sales | Complete |  |
| AO3407A            | Contact Sales | Complete |  |
| AO3407AG           | Contact Sales | Complete |  |
| AO3407AG_DELT<br>A | Contact Sales | Complete |  |
| AO3407AL           | Contact Sales | Complete |  |
| AO3407A_102        | Contact Sales | Complete |  |
| AO3407A_103        | Contact Sales | Complete |  |
| AO3407A_201        | Contact Sales | Complete |  |
| AO3407A_202        | Contact Sales | Complete |  |
| AO3407A_2C1        | Contact Sales | Complete |  |
| AO3407B            | Contact Sales | Complete |  |
| AO3407B_101        | Contact Sales | Complete |  |
| AO3407_DELTA       | Contact Sales | Complete |  |
| AO3409             | Contact Sales | Complete |  |
| AO3409G            | Contact Sales | Complete |  |
| AO3409G_DELTA      | Contact Sales | Complete |  |
| AO3409L_101        | Contact Sales | Complete |  |
| AO3409L_102        | Contact Sales | Complete |  |
| AO3409L_103        | Contact Sales | Complete |  |
| AO3409_104         | Contact Sales | Complete |  |
| AO3413             | Contact Sales | Complete |  |
| AO3413_101         | Contact Sales | Complete |  |
| AO3414             | Contact Sales | Complete |  |
| AO3414_105         | Contact Sales | Complete |  |
| AO3414_106         | Contact Sales | Complete |  |
| AO3414_201         | Contact Sales | Complete |  |
| AO3415             | Contact Sales | Complete |  |

|              |               |          |  |
|--------------|---------------|----------|--|
| AO3415A      | Contact Sales | Complete |  |
| AO3415AL     | Contact Sales | Complete |  |
| AO3415AL_001 | Contact Sales | Complete |  |
| AO3415AL_105 | Contact Sales | Complete |  |
| AO3415AS     | Contact Sales | Complete |  |
| AO3415AS_101 | Contact Sales | Complete |  |
| AO3415AS_102 | Contact Sales | Complete |  |
| AO3415AS_201 | Contact Sales | Complete |  |
| AO3415AS_202 | Contact Sales | Complete |  |
| AO3415A_101  | Contact Sales | Complete |  |
| AO3415A_104  | Contact Sales | Complete |  |
| AO3415A_105  | Contact Sales | Complete |  |
| AO3415A_202  | Contact Sales | Complete |  |
| AO3415C      | Contact Sales | Complete |  |
| AO3415G      | Contact Sales | Complete |  |
| AO3415_107   | Contact Sales | Complete |  |
| AO3416       | Contact Sales | Complete |  |
| AO3416_101   | Contact Sales | Complete |  |
| AO3416_102   | Contact Sales | Complete |  |
| AO3416_103   | Contact Sales | Complete |  |
| AO3418       | Contact Sales | Complete |  |
| AO3419       | Contact Sales | Complete |  |
| AO3420       | Contact Sales | Complete |  |
| AO3420_103   | Contact Sales | Complete |  |
| AO3421       | Contact Sales | Complete |  |
| AO3421E      | Contact Sales | Complete |  |
| AO3421E_101  | Contact Sales | Complete |  |
| AO3422       | Contact Sales | Complete |  |
| AO3422_101   | Contact Sales | Complete |  |
| AO3422_102   | Contact Sales | Complete |  |
| AO3422_103   | Contact Sales | Complete |  |
| AO3422_104   | Contact Sales | Complete |  |
| AO3423       | Contact Sales | Complete |  |
| AO3424       | Contact Sales | Complete |  |
| AO3424L      | Contact Sales | Complete |  |



|                |               |          |  |
|----------------|---------------|----------|--|
| AO3424_101     | Contact Sales | Complete |  |
| AO3424_201     | Contact Sales | Complete |  |
| AO3434A        | Contact Sales | Complete |  |
| AO3434A_101    | Contact Sales | Complete |  |
| AO3434A_102    | Contact Sales | Complete |  |
| AO3434A_201    | Contact Sales | Complete |  |
| AO3434LS       | Contact Sales | Complete |  |
| AO3434LS_201   | Contact Sales | Complete |  |
| AO3434LS_202   | Contact Sales | Complete |  |
| AO3434L_001    | Contact Sales | Complete |  |
| AO3435         | Contact Sales | Complete |  |
| AO3435_101     | Contact Sales | Complete |  |
| AO3435_103     | Contact Sales | Complete |  |
| AO3437         | Contact Sales | Complete |  |
| AO3438_001     | Contact Sales | Complete |  |
| AO3442         | Contact Sales | Complete |  |
| AO3442_101     | Contact Sales | Complete |  |
| AO3442_201     | Contact Sales | Complete |  |
| AO3451         | Contact Sales | Complete |  |
| AO3480C        | Contact Sales | Complete |  |
| AO3481C        | Contact Sales | Complete |  |
| AO3482C        | Contact Sales | Complete |  |
| AO3485C        | Contact Sales | Complete |  |
| AO3499         | Contact Sales | Complete |  |
| AOSS21115C     | Contact Sales | Complete |  |
| AOSS21115C_2C1 | Contact Sales | Complete |  |
| AOSS21115S     | Contact Sales | Complete |  |
| AOSS21311C     | Contact Sales | Complete |  |
| AOSS21311S     | Contact Sales | Complete |  |
| AOSS21319C     | Contact Sales | Complete |  |
| AOSS21319C_2C1 | Contact Sales | Complete |  |
| AOSS21319S     | Contact Sales | Complete |  |
| AOSS32136C     | Contact Sales | Complete |  |
| AOSS32136S     | Contact Sales | Complete |  |
| AOSS32146C     | Contact Sales | Complete |  |

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|                |               |          |  |
|----------------|---------------|----------|--|
| AOSS32334C     | Contact Sales | Complete |  |
| AOSS32334S     | Contact Sales | Complete |  |
| AOSS32338C     | Contact Sales | Complete |  |
| AOSS32338C_2C1 | Contact Sales | Complete |  |
| AOSS32338S     | Contact Sales | Complete |  |
| AOSS62934      | Contact Sales | Complete |  |