

# PRODUCT / PROCESS CHANGE NOTIFICATION

PCN-000791

Date: MAR-08-2022

P1/4

Semtech Corporation, 200 Flynn Road, Camarillo CA 93012

## Change Details

**Part Number(s) Affected:**

Please see the next page for a list of affected part numbers.

**Customer Part Number(s) Affected:**  N/A

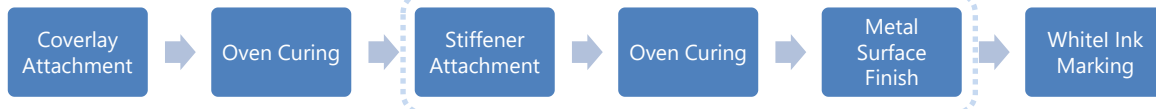
**Description, Purpose and Effect of Change:**

Semtech's tier 2 supplier has changed their manufacturing process sequence to improve the flex's robustness. The color of the flex plating area has also been changed, but the thickness dimension remains unchanged.

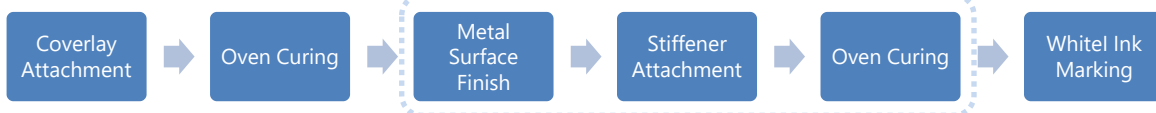
Flex is one of ROSA's BOM materials. There has been no change to the ROSA assembly process.

- Change in process sequence**

Current process sequence

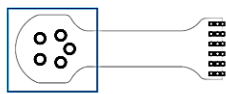


New process sequence



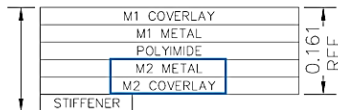
- Change in color of the flex plating area (M2 Ni/Au)**

Current



M2 Ni/Au PLATING AREA  
(VIEW FROM M1 SIDE FACING UP)

0.236 REF.

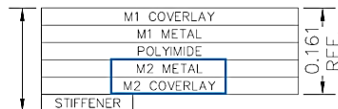


New



M2 Ni/Au PLATING AREA  
(VIEW FROM M1 SIDE FACING UP)

0.236 REF.






## PRODUCT / PROCESS CHANGE NOTIFICATION

### PCN-000791

Date: MAR-08-2022

P2/4

<b>Change Classification</b>	<input checked="" type="checkbox"/> Major <input type="checkbox"/> Minor	<b>Impact to Form, Fit, Function</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Impact to Data Sheet</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>New Revision or Date</b>	<input checked="" type="checkbox"/> N/A
<b>Impact to Performance, Characteristics or Reliability:</b>			
The changes mentioned above have no impact on performance, characteristics, or reliability.			
<b>Implementation Date</b>	<b>JUN-08-2022</b>	<b>Work Week</b>	<b>24</b>
<b>Last Time Ship (LTS) Of unchanged product</b>	<b>N/A</b>	<b>Affecting Lot No. / Serial No. (SN)</b>	<b>N/A</b>
<b>Sample Availability</b>	Available Upon Request	<b>Qualification Report Availability</b>	See pages below
<b>Supporting Documents for Change Validation/Attachments:</b>			
<ul style="list-style-type: none"> <li>Please see the pages below for the evaluation result.</li> </ul>			
<b>Issuing Authority</b>			
<b>Semtech Business Unit:</b>	Signal Integrity Product Group (SIP)		
<b>Semtech Contact Info:</b>	Pedro Jr. Bernas pbernas@semtech.com (289) 856-9326 x1162		
<b>FOR FURTHER INFORMATION &amp; WORLDWIDE SALES COVERAGE:</b> <a href="http://www.semtech.com/contact/index.html#support">http://www.semtech.com/contact/index.html#support</a>			

• **Part Number(s) Affected:**

1	GN3357-3EB9AQ9E3	8	GN3368-3EC8AN4E3	12	GN3358-3EF8AT9E3	15	GN3257-3EB9AU2E3
2	GN3357-3EB9AS6E3	9	GN3368-3EC8AT6E3	13	GN3358-3EF8AU2E3	16	GN3270-3EC7AV8E3
3	GN3357-3EB9AT6E3	10	GN3368-3EC8AT8E3	14	GN3358-3EF9AU2E3	17	GN3289-3ED7BC2E3
4	GN3357-3EB9AU2E3	11	GN3368-3EC8AU8E3				
5	GN3357-3EB9AU4E3						
6	GN3357-3EB9AU7E3						
7	GN3357-3ED9AU2E3						

**PRODUCT / PROCESS CHANGE NOTIFICATION**  
**PCN-000791**

**Date: MAR-08-2022**

P3/4

• **Evaluation Result:**

○ **S-parameter Test**

- The sample consisted of GN3357 ROSAs with old and new flex.
- The test specification was met.
  - When comparing new and old flex, there is no significant difference in bandwidth (BW) / RF measurement.
  - When comparing new and old flex, there is no significant difference in sensitivity performance (URS).

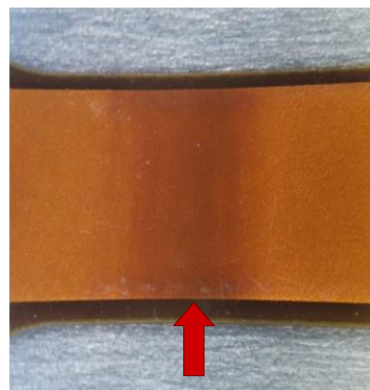
<b>Sensitivity (dBm)</b>	<b>Old flex</b>	<b>New flex</b>	<b>Variance</b>
Upper limit: -25.5			
Sample#1	-27.5	-27.56	0.06
Sample#2	-27.75	-27.49	-0.26
<b>Bandwidth (GHz)</b>	<b>Old flex</b>	<b>New flex</b>	<b>Variance</b>
Typical: 7			
Sample#1	6.94	7.03	-0.09
Sample#2	7.22	7.19	0.03

○ **Bending Test**

- Condition: Bending radius 0.4mm, 180 degrees, 25 times
- Samples: 11 units
- Result: The open/short test and visual inspection at the bending area both passed.



Bending area



Bending area

# PRODUCT / PROCESS CHANGE NOTIFICATION

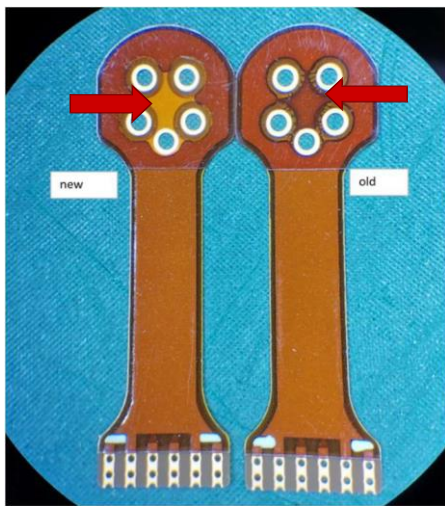
## PCN-000791

Date: MAR-08-2022

P4/4

○ **Visual Inspection**

- A slight color difference can be seen in the center of the back side, left photo. There is no color difference on the front side, as shown in the right photo.
- Visual inspection passed Semtech criteria.



Back side

Flex attached to ROSA

New

Old

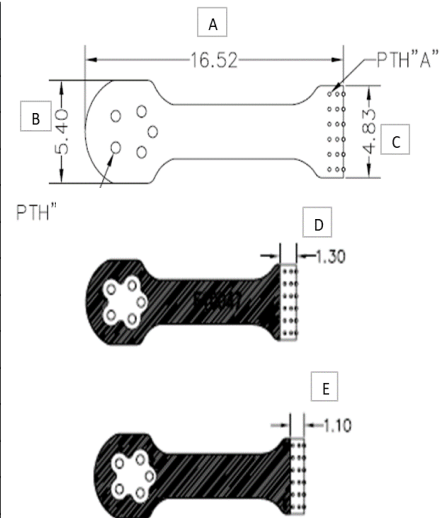


Front side

○ **Dimension Measurement**

- Measuring the critical dimensions
- Result: Passed

Unit: mm	A	B	C	D	E
Upper limit	16.62	5.50	4.93	1.40	1.20
Lower limit	16.42	5.30	4.73	1.20	1.00
1	16.53	5.40	4.84	1.33	1.11
2	16.53	5.41	4.83	1.32	1.12
3	16.53	5.41	4.84	1.31	1.13
4	16.52	5.41	4.83	1.31	1.13
5	16.54	5.41	4.84	1.30	1.12
6	16.53	5.42	4.84	1.32	1.13
7	16.52	5.41	4.84	1.33	1.12
8	16.54	5.41	4.84	1.32	1.13
9	16.54	5.41	4.84	1.30	1.13
10	16.54	5.41	4.84	1.32	1.13
Max	16.54	5.42	4.84	1.33	1.13
Min	16.52	5.40	4.83	1.30	1.11
<b>Result</b>	<b>Pass</b>	<b>Pass</b>	<b>Pass</b>	<b>Pass</b>	<b>Pass</b>



Tolerance: +/- 0.1mm