



# PRODUCT / PROCESS CHANGE NOTIFICATION

PCN-000617

Date: Apr-13-2020

P1/3

<input type="checkbox"/>	Semtech Corporation, 200 Flynn Road, Camarillo CA 93012
<input checked="" type="checkbox"/>	Semtech Canada Corporation, 4281 Harvester Road, Burlington, Ontario L7L 5M4 Canada
<input type="checkbox"/>	Semtech Irvine, 5141 California Ave., Suite 100, Irvine CA 92617
<input type="checkbox"/>	Semtech Neuchatel Sarl, Route des Gouttes d'Or 40, CH-2000 Neuchatel Switzerland
<input type="checkbox"/>	Semtech Bristol - EMEA Limited, Block B, St James Court, Great Park Road, Bristol BS32 4QJ, UK
<input type="checkbox"/>	Semtech Corpus Christi SA de CV, Carretera Matamorros Edificio 7, Reynosa, Tamaulipas, Mexico 88780
<input type="checkbox"/>	Semtech Plano, 1101 Resource Drive, Suite 121, Plano TX 75074
<input type="checkbox"/>	

## Change Details

<b>Part Number(s) Affected:</b> Multiple, please see complete list on page 3.	<b>Customer Part Number(s) Affected:</b> <input checked="" type="checkbox"/> N/A
--	--

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

Changing wafer dicing blade grit from 4000 to 3000 and increasing blade rotation speed, with purpose of parameters optimization as best practice for the listed products.

Item	Dicing Blade			Dicing recipe	
	Brand	Blade width	Blade grit size	Feed Speed	Rotation Speed
Existing	DISCO	20~25um	#4000	KYEC Standard	KYEC Standard
NEW	DISCO	20~25um	#3000	KYEC Standard	KYEC Standard + 18%

<b>Change Classification</b>	<input type="checkbox"/> Major <input checked="" 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

**Impact to Performance, Characteristics or Reliability:**

No impact to performance, characteristics or reliability.

<b>Implementation Date</b>	May 13 2020	<b>Work Week</b>	NA
<b>Last Time Ship (LTS)</b> Of unchanged product	NA	<b>Affecting Lot No. / Serial No. (SN)</b>	NA
<b>Sample Availability</b>	Upon request	<b>Qualification Report Availability</b>	NA

**Supporting Documents for Change Validation/Attachments:**

This process change was qualified using GN2110S product.



# PRODUCT / PROCESS CHANGE NOTIFICATION

PCN-000617

Date: Apr-13-2020

P2/3

## Blade & recipe comparison

	Brand	Blade width	Blade grit	Feed speed	Rotation speed
EXISTING	Disco	20~25 um	# 4000	Standard	Standard
NEW	Disco	20~25 um	# 3000	Standard	Standard +18%

Backside chipping comparison: Requirement is less than or equal to 0.50um.

Blade grit	Feed speed	Rotation speed	Min	Max	Ave	CPK
# 4000	Standard	Standard	12.21	39.30	22.07	1.67
# 3000	Standard	Standard +18%	9.52	15.63	5.48	1.96

## Final die size is within spec:

Z2 Grit No.	Side	Backside Die size measurement(um)										Avg.	Min.	Max
#4000	X	2108.0	2106.9	2106.7	2107.6	2106.6	2106.2	2108.8	2108.2	2109.1	2105.1	2107.3	2105.1	2109.3
		2106.3	2108.9	2106.8	2106.8	2109.3	2106.6	2107.4	2107.2	2106.2	2107.3			
	Y	3087.6	3086.4	3086.1	3088.0	3089.1	3087.1	3088.0	3088.2	3087.4	3087.7	3087.5	3086.0	3089.2
		3086.6	3086.4	3088.1	3088.8	3087.8	3086.3	3086.0	3086.3	3088.4	3089.2			
#3000	X	2107.4	2106.5	2107.9	2107.7	2108.6	2108.8	2107.6	2109.3	2107.9	2107.5	2107.9	2106.0	2109.3
		2108.8	2108.3	2106.0	2108.3	2106.2	2108.3	2108.0	2107.3	2107.9	2109.2			
	Y	3085.0	3087.2	3085.5	3087.5	3084.9	3088.8	3087.1	3089.0	3085.2	3086.8	3086.9	3084.9	3089.1
		3085.2	3085.6	3087.8	3089.1	3088.4	3085.5	3089.1	3086.5	3086.6	3086.8			

## Blade setup procedure comparison: No changes

Blade	At present (#4000)	New (#3000)
Blade dressing	After blade install on machine.	
Blade life	80um from wafer surface.	
Blade Setup	Use kerf check to align and adjust the kerf position.	

## Issuing Authority

Semtech Business Unit:	Signal Integrity Products	
Semtech Contact Info:	Dusanka Hewlett QMS Engineer, Quality Assurance Semtech Canada Corporation 289-856-9272 dhewlett@semtech.com	



# PRODUCT / PROCESS CHANGE NOTIFICATION

PCN-000617

Date: Apr-13-2020

P3/3

FOR FURTHER INFORMATION & WORLDWIDE SALES COVERAGE: <http://www.semtech.com/contact/index.html#support>

## Part Numbers Affected:

GN1063-CHIP	GN2110B-CHIP
GN1068-GRP6	GN2110-CHIP
GN1068-CHIP	GN2110S-CHIP
GN1068-COT1	GN2147B-CHIP
GN1068A-CHIP	GN2147-CHIP
GN1069-CHIP	GN2148-CHIP
GN1081-CHIP	GN2149-CHIP
GN1084-CHIP	GN24L80-GRP6
GN1085-CHIP	GN24L80-WP
GN1086-CHIP	GN25L53-GRP6
GN1088-CHIP	GN7055B-CHIP
GN1089-CHIP	GN7055B-GRP6R
GN1089SC2-CHIP	GN7055-CHIP
GN1185-CHIP	GN7069A3-CHIP
GN1810-CHIP	GN7069A3-GRP6
GN1810SC2-CHIP	GN7069A3-GRP6R
GN2108B-CHIP	GN7069E3-CHIP
GN2108-CHIP	GN7069E3-GRP6
GN2108-GRP6R	GN7069E3-GRP6R
GN2108S-CHIP	HN5185AR-CHIP
GN2109-CHIP-TAOI	HN5185AR-GRP6R
GN2109-GRP6R	HN5185CP-CHIP
GN2109S-CHIP	HN5185CP-GRP6R