



PRODUCT / PROCESS CHANGE NOTIFICATION

PCN-000793

Date: MAR-17-2022

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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 supplier is making changes to the saw blade recipe to optimize the wafer sawing process and reduce risk of backside chipping. Changes are: - Increase Z1 blade original cut depth by 80% (D to D+80%) - Change Z2 blade grit from 3000 to 4000 - Blade speed, feed speed remain unchanged - Blade manufacturer and blade thickness remain unchanged			
Change Classification	☐ Major ☒ Minor	Impact to Form, Fit, Function	☐ Yes ☒ No
Impact to Data Sheet	☐ Yes ☒ No	New Revision or Date	☒ N/A
Impact to Performance, Characteristics or Reliability: No impact: Visual inspection after use of new recipe revealed no backside chipping bigger than 40um, Spec. is < 50um.			
Implementation Date	APR-17-2022	Work Week	WW17
Last Time Ship (LTS) Of unchanged product	N/A	Affecting Lot No. / Serial No. (SN)	N/A
Sample Availability	APR-17-2022	Qualification Report Availability	N/A
Supporting Documents for Change Validation/Attachments: Please see the pages below for the evaluation result.			

Issuing Authority	
Semtech Business Unit:	Signal Integrity Product Group (SIP)
Semtech Contact Info:	Pedro Jr. Bernas pbernas@semtech.com (289) 856-9326 x1162



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

Part Number(s) Affected:

1	GN7069E3-GRP6R	11	GN2149-CHIP	21	GN2109-GRP6R	31	GN1084-CHIP
2	GN7069E3-CHIP	12	GN2148-CHIP	22	GN2109-CHIP	32	GN1081-CHIP
3	GN7069A3-GRP6R	13	GN2147-CHIP	23	GN2108S-CHIP	33	GN1069-CHIP
4	GN7069A3-CHIP	14	GN2147B-CHIP	24	GN2108-GRP6R		
5	GN7055B-GRP6R	15	GN2110S-CHIP	25	GN2108-CHIP		
6	GN7055B-CHIP	16	GN1810SC2-CHIP	26	GN2108B-CHIP-A1		
7	GN1185-CHIP	17	GN1810-CHIP	27	GN2108B-CHIP		
8	GN1089SC2-CHIP	18	GN2110-CHIP	28	GN1088-CHIP		
9	GN1089-CHIP	19	GN2110B-CHIP	29	GN1086-CHIP		
10	GN1063-CHIP	20	GN2109S-CHIP	30	GN1085-CHIP		

- Evaluation Result:

- Comparison of recipe and blade

	Current	New
Z1 Blade supplier	Disco	Disco
Z1 Blade Thickness	30-35um	30-35um
Z1 Grit size	3500	3500
Z1 Speed	S1	S1
Z1 Feed Speed	R1	R1
Z1 Cut into wafer	D	D+80%
Z2 Blade supplier	Disco	Disco
Z2 Blade Thickness	20-25um	20-25um
Z2 Grit size	3000	4000
Z2 Speed	S2	S2
Z2 Feed Speed	R2	R2
Z2 Cut into wafer	D2	D2



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○ **Backside chipping measurement (Z2 kerf check area):**

Z1 Cut Height (mm)	Crack Qty.	Backside Chipping			Cpk
		Avg. (um)	Max (um)	Min (um)	
D+80%	0	9.85	15.71	2.14	4.38

D+80% – Inspected Z2 kerf check area, no crack and bevel chipping was found.
Maximum chipping = 15.71um, passed inspection criteria.

○ **Visual inspection Result (100% inspection):**

Z1 Cut Height (mm)	Device No	Lot No.	Runcard No.	PCS	In Q'ty	Out Q'ty	Yield	100% Inspect	Inspect Q'ty	Topside Defect (Particle/Scratch...)	Backside Defect
D+80%	GN2110- CHIP	M86172.1	A69LAQ03A1	3	4853	4828	99.48%	Normal Area	4182	17	0
								Kerf Check Area*	671	8	0
								Total	4853	25	0

D+80% – No crack or bevel chipping was found after 100% inspection.