



PRODUCT / PROCESS CHANGE NOTIFICATION

PCN-000728

Date: MAY-11-2022

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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:

Greatek, a Semtech supplier, is introducing an additional QFN assembly plant to help boost production capacity and supplier alignment on the facility and resource.

Current	Additional
Gung Yi plant	Toufen plant III

Since the third quarter of 2019, Toufen Plant III has been assembling QFNs. It is a ten-minute drive from the current QFN assembly plant. The equipment models, process flow, and BOM are the same as in the current plant.

Change Classification	<input checked="" type="checkbox"/> Major <input type="checkbox"/> Minor	Impact to Form, Fit, Function	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Impact to Data Sheet	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	New Revision or Date	<input checked="" type="checkbox"/> N/A

Impact to Performance, Characteristics or Reliability:

The change mentioned above has no impact on performance, characteristics, or reliability.

Implementation Date	AUG-11-2022	Work Week	33
Last Time Ship (LTS) <small>Of unchanged product</small>	N/A	Affecting Lot No. / Serial No. (SN)	N/A
Sample Availability	MAR-01-2022	Qualification Report Availability	N/A

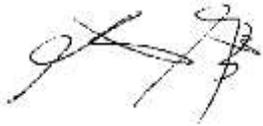
Supporting Documents for Change Validation/Attachments:

Please see the following pages.



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Issuing Authority	
Semtech Business Unit:	Signal Integrity Product Group (SIP)
Semtech Contact Info:	Pedro Jr. Bernas pbernas@semtech.com (289) 856-9326 x1162 
FOR FURTHER INFORMATION & WORLDWIDE SALES COVERAGE: http://www.semtech.com/contact/index.html#support	

• **Part Number(s) Affected**

1	GC1903-INE3	18	GN1444-INTE3D-A1	35	GN7151-QFN-TR-A0
2	GC1903-INTE3Z	19	GN2042-INE3-A1	36	GN7153B-INE3
3	GN1157BINE3	20	GN2042-INTE3D-A1	37	GN7153B-INE3-A0
4	GN1157BINTE3Z	21	GN2044-INE3	38	GN7153B-INTE3Z
5	GN1157-INE3	22	GN2044-INE3-A1	39	GN7153B-INTE3Z-A0
6	GN1157-INE3-A2	23	GN2044-INTE3D	40	GN7153-INE3
7	GN1157-INTE3Z	24	GN2044-INTE3D-A1	41	GN7153-INE3-A0
8	GN1157-INTE3Z-A2	25	GN25L95B-QFN-TR	42	GN7153-INTE3Z
9	GN1158-INE3	26	GN25L95C-QFN-TR	43	GN7153-INTE3Z-A0
10	GN1158-INTE3Z	27	GN25L95-QFN-TR	44	NT22L31-A06-QFN-TR
11	GN1159-INE3	28	GN25L96-QFN-TR	45	NT22L31-QFN-TR
12	GN1159-INTE3Z	29	GN25L96-QFN-TR	46	NT22L31W-QFN-TR
13	GN1160-INE3	30	GN25L98-QFN-TR	47	NT22L33-QFN-TR
14	GN1160-INTE3Z	31	GN25L99-QFN-TR	48	NT25L90-TR
15	GN1196-INE3	32	GN28L95-QFN-TR	49	NT25L91-QFN-TR
16	GN1196-INTE3Z	33	GN28L96-QFN-TR	50	NT28L90-QFN-TR
17	GN1444-INE3-A1	34	GN7151-QFN-TR		

Table 1: all products covered in this qualification and their package type

Product	Package type	Leadframe material	Bonding wire	Epoxy		
NT22L31/NT2231W	24L 4x4x0.75mm QFN	NiPd	Au wire 0,8mil	Epoxy CRM1076DJ		
NT22L33	24L 4x4x0.75mm QFN					
NT25L90	24L 4x4x0.75mm QFN					
NT25L91	24L 4x4x0.75mm QFN					
GN25L95/GN25L95B	24L 4x4x0.75mm QFN					
NT28L90	24L 4x4x0.75mm QFN					
GN28L96	32L 4x4x0.75mm QFN	AgCu	PdCu wire 1.0mil	DAF CDF625P12C		
HN5170	32L 4x4x0.75mm QFN					
GN7151	32L 4x4x0.85mm QFN		PdCu wire 0.8mil	DAF EM-430J1		
GN7153/GN7153B	32L 4x4x0.85mm QFN					
GC1903	28L 4x4x0.85mm QFN		PdCu wire 1.0mil	Epoxy CRM1076DJ		
GN1157/GN1157B	28L 4x4x0.85mm QFN					
GN1158	28L 4x4x0.85mm QFN					
GN1159	32L 4x4x0.85mm QFN					
GN1160	28L 4x4x0.85mm QFN					
GN1196	32L 4x4x0.85mm QFN					
GN25L95C	28L 4x4x0.75mm QFN				PdCu wire 0.8mil	
GN25L96	28L 4x4x0.75mm QFN					
GN25L98	28L 4x4x0.75mm QFN					
GN25L99	28L 4x4x0.75mm QFN					
HN5176/HN5176B/ HN5176C	28L 4x4x0.75mm QFN					
GN28L95	28L 4x4x0.75mm QFN				PdCu wire 1.0mil	Epoxy Hitachi EN-4900GC
GN1444	32L 5x5x0.85mm QFN					
GN2042	32L 5x5x0.85mm QFN					
GN2044	32L 5x5x0.85mm QFN					

Table 2: Reliability qualification stresses for AgCu group

Stress Test	Conditions	Duration	Qualification Vehicle	Sample Size	Result
High Temperature Storage (HTS)	JESD22-A103 T=150 °C	1000 hours	GN25L95	30 pcs/lot x 2 lots	Pass
			NT25L90	30 pcs/lot x 2 lots	Pass
UHASt	JESD22-A118 MSL1 preconditioning, 130°C, 85 % RH,	96hrs	GN25L95	30 pcs/lot x 2 lots	Pass
			NT25L90	30 pcs/lot x 2 lots	Pass
TC	JESD22-A104 MSL1 preconditioning, -40°C to +125°C (Condition G)	1000 cycles	GN25L95	30 pcs/lot x 2 lots	Pass
			NT25L90	30 pcs/lot x 2 lots	Pass
CSAM	CSAM was performed at T0, and post MSL	N/A	GN25L95	30 pcs/lot x 2 lots	Pass
			NT25L90	30 pcs/lot x 2 lots	Pass
TC*	JESD22-A104 MSL1 preconditioning, Pre and post CSAM -40°C to +125°C (Condition G)	500 cycles	GN25L95	30 pcs/lot x 1 lot	Pass

*500 cycles of TC were carried out at Semtech's Camarillo facility separately

Table 3: Reliability qualification stresses for NiPd leadframe group

Stress Test	Conditions	Duration	Qualification Vehicle	Sample Size	Result
High Temperature Storage (HTS)	JESD22-A103 T=150 °C	1000 hours	GN25L96	30 pcs/lot x 1 lot	Pass
			GN1157	30 pcs/lot x 1 lot	Pass
			GN1444	30 pcs/lot x 1 lot	Pass
UHAST	JESD22-A118 MSL1 preconditioning, 130°C, 85 % RH,	96hrs	GN25L96	30 pcs/lot x 1 lot	Pass
			GN1157	30 pcs/lot x 1 lot	Pass
			GN1444	30 pcs/lot x 1 lot	Pass
TC	JESD22-A104 MSL1 preconditioning, -40°C to +125°C (Condition G)	1000 cycles	GN25L96	30 pcs/lot x 1 lot	Pass
			GN1157	30 pcs/lot x 1 lot	Pass
			GN1444	30 pcs/lot x 1 lot	Pass
CSAM	CSAM was performed at T0 and post MSL	N/A	GN25L96	30 pcs/lot x 1 lot	Pass
			GN1157	30 pcs/lot x 1 lot	Pass
			GN1444	30 pcs/lot x 1 lot	Pass

Table 4: Reliability qualification stresses for DAF (Die attached film) group

Stress Test	Conditions	Duration	Qualification Vehicle	Sample Size	Result
High Temperature Storage (HTS)	JESD22-A103 T=150 °C	1000 hours	GN28L96	30 pcs/lot x 2 lots	Pass
			GN7151	30 pcs/lot x 2 lots	Pass
UHAST	JESD22-A118 MSL2 preconditioning, 130°C, 85 % RH,	96hrs	GN28L96	30 pcs/lot x 2 lots	Pass
			GN7151	30 pcs/lot x 2 lots	Pass
TC	JESD22-A104 MSL2 preconditioning, -40°C to +125°C (Condition G)	1000 cycles	GN28L96	30 pcs/lot x 2 lots	Pass
			GN7151	30 pcs/lot x 2 lots	Pass
CSAM	CSAM was performed at T0, and post MSL	N/A	GN28L96	30 pcs/lot x 2 lots	Pass
			GN7151	30 pcs/lot x 2 lots	Pass