



# Final Product/Process Change Notification

Document #:FPCN22966XV

Issue Date:29 Sep 2022

<b>Title of Change:</b>	Qualification of FS4 Trench IGBT 12inch Technology at Global Foundries in New York, US for Wafer capacity expansion	
<b>Proposed First Ship date:</b>	06 Jan 2023 or earlier if approved by customer	
<b>Contact Information:</b>	Contact your local onsemi Sales Office or Bokyun.Seo@onsemi.com	
<b>PCN Samples Contact:</b>	Contact your local onsemi Sales Office. Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final PCN, for this change. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.	
<b>Additional Reliability Data:</b>	Contact your local onsemi Sales Office or Marco.kang@onsemi.com	
<b>Type of Notification:</b>	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. onsemi will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact PCN.Support@onsemi.com	
<b>Marking of Parts/ Traceability of Change:</b>	Material will be traceable with onsemi lot trace code & tracking.	
<b>Change Category:</b>	Wafer Fab Change	
<b>Change Sub-Category(s):</b>	Manufacturing Site Addition	
<b>Sites Affected:</b>		
<b>onsemi Sites</b>	<b>External Foundry/Subcon Sites</b>	
onsemi Aizu, Japan	Global Foundries East Fishkill, New York, United States	
onsemi Bucheon, Korea		
<b>Description and Purpose:</b>		
This is a Final Change Notification to inform customers of the qualification of Global Foundries in New York, US facility as an additional wafer fab location for FS4 IGBT technology.		
	<b>From</b>	<b>To</b>
Fab Site & Wafer size	onsemi, Bucheon, Korea (200mm) onsemi, AIZU, Japan (200mm)	onsemi, Bucheon, Korea (200mm) onsemi, AIZU, Japan (200mm) Global Foundries, East Fishkill, USA (300mm)

**Reliability Data Summary:**

**QV DEVICE NAME : AFGHL75T65SQD**  
**RMS : U81563**  
**PACKAGE: TO247**

Test	Specification	Condition	Interval	Results
uHAST	JESD22-A118	Temp = 130C, RH=85%, ~ 18.8 psig	96 hrs	0/240
HAST	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, bias = 80% of rated V or 42V max	96 hrs	0/240
HTGB	JESD22-A108	Ti = Maximum rated junction temperature for 1008 hrs, Vgss Bias = 100% of max rated	1008hrs	0/240
HTRB	JESD22-A108	Tj = Max rate Tj for device, bias = 80% of rated V	1008hrs	0/240
HTSL	JESD22-A103	Ta =Max rate storage temp for device	1008hrs	0/240
IOL	MIL STD750, M 1037 AEC Q101	Ta=+25°C, deltaTj=100°C max, Ton=Toff is pkg dependent	6000cyc	0/240
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/239
RSH	JESD22- B106	Ta = 265°C, 10 sec Required for through hole devices only	24hrs	0/30

**QV DEVICE NAME : SNXH100M65L4Q2F2P2G**  
**RMS : U82295 (FHL6575)**  
**PACKAGE: Q2x (Universal module for Die Qual)**

Test	Specification	Condition	Interval	Results
H3TRB	JESD22-A101	T = 85°C, RH = 85%, VCE = 520V (80%)	1008hrs	0/12
H3TRBx	JESD22-A108	T = 85°C, RH = 85%, VCE = 100V	1008hrs	0/12
HTRB	JESD22-A108	TA = 145°C, Bias = 520V(80%)	1008hrs	0/12
PCT	MIL-STD-750 (M1036&M1037)	Delta T = 100°C, Tjunction max = 150°C, cycles = 20k	20kcyc	0/6

**QV DEVICE NAME : SNXH100M65L4Q2F2P2G**  
**RMS : U82296 (FHM6575)**  
**PACKAGE: Q2x (Universal module for Die Qual)**

Test	Specification	Condition	Interval	Results
H3TRB	JESD22-A101	T = 85°C, RH = 85%, VCE = 520V (80%)	1008hrs	0/12
H3TRBx	JESD22-A108	T = 85°C, RH = 85%, VCE = 100V	1008hrs	0/12
HTRB	JESD22-A108	TA = 145°C, Bias = 520V(80%)	1008hrs	0/12

**QV DEVICE NAME : SNXH100M65L4Q2F2P2G**  
**RMS : U82294, U82739**  
**PACKAGE: Q2 (Actual module Qual)**

Test	Specification	Condition	Interval	Results
TC	JESD22-A104	Tmin = -40°C, Tmax = 125°C	200cyc	0/30
TS	JESD22-A104	Tmin = -40°C, Tmax = 125°C	100cyc	0/24



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## Electrical Characteristics Summary:

Electrical characteristics are not impacted.

## List of Affected Parts:

**Note:** Only the standard (off the shelf) part numbers are listed in the parts list. Any custom parts affected by this PCN are shown in the customer specific PCN addendum in the PCN email notification, or on the **PCN Customized Portal**.

Part Number	Qualification Vehicle
FGH75T65SQDNL4	AFGHL75T65SQDT
FGH75T65SQDT-F155	AFGHL75T65SQDT
FGH75T65SQD-F155	AFGHL75T65SQDT
FGH40T65SQD-F155	AFGHL75T65SQDT
FGHL50T65SQDT	AFGHL75T65SQDT
NXH450N65L4Q2F2SG	SNXH100M65L4Q2F2P2G
SNXH100M65L4Q2F2P2G	SNXH100M65L4Q2F2P2G
NXH200T120H3Q2F2SG	SNXH100M65L4Q2F2P2G
NXH200T120H3Q2F2STG	SNXH100M65L4Q2F2P2G
NXH100T120L3Q0S1NG	SNXH100M65L4Q2F2P2G
NXH450N65L4Q2F2PG	SNXH100M65L4Q2F2P2G
NXH450N65L4Q2F2S1G	SNXH100M65L4Q2F2P2G
NXH75M65L4Q1SG	SNXH100M65L4Q2F2P2G
NXH200T120H3Q2F2STNG	SNXH100M65L4Q2F2P2G
SNXH100M65L4Q2F2P2G-N1	SNXH100M65L4Q2F2P2G
NXH80T120L3Q0P3G	SNXH100M65L4Q2F2P2G
NXH80T120L3Q0S3G	SNXH100M65L4Q2F2P2G
NXH80T120L3Q0S3TG	SNXH100M65L4Q2F2P2G

**Appendix A: Changed Products**

**PCN#: FPCN22966XV**  
**Issue Date: Sep 29, 2022**

DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
FGH75T65SQDNL4		AFGHL75T65SQDT	NA	
FGH75T65SQD-F155		AFGHL75T65SQDT	NA	
FGH40T65SQD-F155		AFGHL75T65SQDT	NA	
FGHL50T65SQDT		AFGHL75T65SQDT	NA	
NXH80T120L3Q0S3G		SNXH100M65L4Q2F2P2G	NA	
FGH75T65SQD-F155		AFGHL75T65SQDT	NA	