ON Semiconductor®

Final Product/Process Change Notification

Document #:FPCN22935XA
Issue Date:14 Mar 2020

Title of Change:	Qualification of ON Semiconductor Shenzhen, China as Manufacturing Site for Power Integrated Module (PIM) Products.
Proposed First Ship date:	06 Jul 2020 or earlier if approved by customer
Contact Information:	Contact your local ON Semiconductor Sales Office or Way-Shan.Yong@onsemi.com
PCN Samples Contact:	Contact your local ON Semiconductor Sales Office or PCN.samples@onsemi.com 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.
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or Phine.Guevarra@onsemi.com
Type of Notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. ON Semiconductor 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
Marking of Parts/ Traceability of Change:	No change in product marking
Change Category:	Assembly Change
Change Sub-Category(s):	Manufacturing Site Addition

Sites Affected:

ON Semiconductor Sites	**External Foundry/Subcon Sites**
ON Semiconductor Shenzhen, China	None

Description and Purpose:

This FPCN announces the change of assembly site for affected OPN list to improve manufacturing efficiency.

The change is planned on transferring PIM production from ON Semiconductor Seremban, Malaysia to ON Semiconductor Shenzhen, China.

ON Semiconductor Shenzhen, China is a qualified assembly and test site for PIM module.

Upon the expiration of this PCN, OPNs in affected part list will be assemble/test at ON Semiconductor Shenzhen, China primarily.

This product will be qualified to industrial requirements.

	Before Change Description	**After Change Description**
Assembly Site	ON Semi Seremban only	ON Semi Shenzhen only

There are no product material changes as a result of this change.

There is no product marking change as a result of this change.

Reliability Data Summary:

QV DEVICE NAME : SNXH80T120L2Q0P2G (Module Qualification), DG1275 (Die Qualification)
RMS : S64113, S64114, V65420, U64960, S64085
PACKAGE : Q0PACK

Test	Specification	Condition	Interval	Result
THS	JESD22-A104	Tmin = -40°C, Tmax = 125°C, cycles = 200cyc, Dwell time 10min, Transition time 5sec max in two chamber equip.	200cyc	(0/12) 0/12
THU	JESD22-A101	T = 85°C, RH = 85%, time = 1008 hours	1008 hours	(0/11) 0/11
H3TRB	JESD22 A101	T = 85°C, RH = 85%, time = 1000 hours, VCE = 0.8Vces =<100V, VGE = 0V	1008 hours	0/11
HTRB	JESD22-A108	Tj=150C, VCE = 80%Vces, VGE = 0V	1008 hours	0/11
VVF	JESD22-B103	- 25-500Hz/15min, 10G, each 2 hours X, Y, Z	Each 2 hours	0/12
Solderability	JESD22-B102	- PbSn solder 215C,5S, (precon 93C 8hr)	5sec	0/12
		- Pb free solder, 245C, 5S,(precon 93C 8hr)	5sec	0/12

QV DEVICE NAME : NXH160T120L2Q2F2S1G (Module Qualification)
RMS : S64102
PACKAGE : Q2PACK

Test	Specification	Condition	Interval	Result
TC	JESD22-A104 cond. G, soak mode 4	Tmin = -40°C, Tmax = 125°C, cycles = 100cyc Dwell time 30min, Transition time 20min max in one chamber equip.	200cyc	0/11
THU	JESD22-A101	T = 85°C, RH = 85%, time = 1008 hours	1008 hours	0/11

QV DEVICE NAME : NXH40B120MNQ0SNG (Module Qualification), CM8012A (Die Qualification)
RMS : S64118, S64120, V65422, U64963, S64087
PACKAGE : Q0BOOST

Test	Specification	Condition	Interval	Result
TC	JESD22-A104 cond. G, soak mode 4	Tmin = -40°C, Tmax = 125°C, cycles = 100cyc Dwell time 30min, Transition time 20min max in one chamber equip.	100cyc	0/11
THU	JESD22-A101	T = 85°C, RH = 85%, time = 1008 hours	1008 hours	0/11
H3TRB	JESD22 A101	T = 85°C, RH = 85%, time = 1000 hours, VCE = 0.8Vces =<100V, VGE = 0V	1008 hours	0/11
HTRB	JESD22-A108	Tj=150C, VCE = 80%Vces, VGE = 0V	1008 hours	0/11
VVF	JESD22-B103	- 25-500Hz/15min, 10G, each 2 hours X, Y, Z	Each 2 hours	0/11
Solderability	JESD22-B102	- PbSn solder 215C,5S, (precon 93C 8hr)	5sec	0/11
		- Pb free solder, 245C, 5S,(precon 93C 8hr)	5sec	0/11

Electrical Characteristics Summary:

Electrical characteristics of qualification site matched to current production site.

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
NXH350N100H4Q2F2PG	NXH160T120L2Q2F2S1G
NXH350N100H4Q2F2SG	NXH160T120L2Q2F2S1G
NXH450B100H4Q2F2PG	NXH160T120L2Q2F2S1G
NXH450B100H4Q2F2SG	NXH160T120L2Q2F2S1G
NXH200T120H3Q2F2SG	NXH160T120L2Q2F2S1G
SNXH100M65L4Q2F2P2G-N1	NXH160T120L2Q2F2S1G
NXH40B120MNQ0SNG	NXH40B120MNQ0SNG
NXH80B120MNQ0SNG	NXH40B120MNQ0SNG
NXH100B120H3Q0PG	SNXH80T120L2Q0P2G
NXH100B120H3Q0SG	SNXH80T120L2Q0P2G
NXH100B120H3Q0PTG	SNXH80T120L2Q0P2G
NXH100B120H3Q0STG	SNXH80T120L2Q0P2G
NXH80T120L2Q0P2TG	SNXH80T120L2Q0P2G
SNXH160B90L2Q0PG	SNXH80T120L2Q0P2G
NXH80B120H2Q0SNG	SNXH80T120L2Q0P2G
NXH80T120L2Q0S2TG	SNXH80T120L2Q0P2G
SNXH80T120L2Q0P2G	SNXH80T120L2Q0P2G
NXH80B120H2Q0SG	SNXH80T120L2Q0P2G
NXH100T120L3Q0S1NG	SNXH80T120L2Q0P2G
SNXH100B120H2Q0PG-N	SNXH80T120L2Q0P2G
NXH80T120L2Q0S2G	SNXH80T120L2Q0P2G
NXH160T120L2Q2F2S1G	NXH160T120L2Q2F2S1G
NXH160T120L2Q2F2SG	NXH160T120L2Q2F2S1G
SNXH100M65L4Q2F2P2G	NXH160T120L2Q2F2S1G