



<b>Title of Change:</b>	Update to Reliability sample quantity of FPCN22198X-Additional Assembly and Test Manufacturing Site at GEM Shanghai for Mosfet Devices Packaged in DPAK.	
<b>Proposed first ship date:</b>	15 June 2018	
<b>Contact information:</b>	Contact your local ON Semiconductor Sales Office or Mohd Hezri <MohdHezri.AbuBakar@onsemi.com>	
<b>Samples:</b>	Contact your local ON Semiconductor Sales Office or <PCN.Samples@onsemi.com>	
<b>Additional Reliability Data:</b>	Contact your local ON Semiconductor Sales Office or Chean Ching Sim <ffxg4t@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. 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>.	
<b>Change Part Identification:</b>	Affected parts will be identified with a date code of WW24'18 or later.	
<b>Change category:</b>	<input type="checkbox"/> Wafer Fab Change <input checked="" type="checkbox"/> Assembly Change <input checked="" type="checkbox"/> Test Change <input type="checkbox"/> Other _____	
<b>Change Sub-Category(s):</b>	<input checked="" type="checkbox"/> Manufacturing Site Change/Addition <input type="checkbox"/> Material Change <input type="checkbox"/> Datasheet/Product Doc change <input type="checkbox"/> Manufacturing Process Change <input type="checkbox"/> Product specific change <input type="checkbox"/> Shipping/Packaging/Marking <input type="checkbox"/> Other: _____	
<b>Sites Affected:</b>	ON Semiconductor Sites: ON Dong Nai Province, Vietnam	External Foundry/Subcon Sites: GEM Electronics, Shanghai
<b>Description and Purpose:</b>		
This is an update to the Reliability sample quantity of FPCN22198X.  FPCN22198X was issued in March 2018 to announce the capacity expansion of ON Semiconductor's assembly and test operations of DPAK discrete packaged products, currently built at ON Semiconductor Vietnam (OSV) to GEM Shanghai.  Upon the expiration of the FPCN, Mosfet devices may be processed at either location. These products have been qualified to commodity/commercial requirements. These products will continue being Pb-free, Halide free and RoHS compliant.		
	<b>Before Change Description</b>	<b>After Change Description</b>
Assembly/Test Site	OSV	OSV and GEM



## Reliability Data Summary:

**QV DEVICE NAME: NTD6414ANT4G**

RMS: V44641, V44920

PACKAGE: DPAK case 369AA

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta= 175°C, 80% max rated V	504 hrs	0/252
HTGB	JESD22-A108	Ta= 175°C, 100% max rated Vgss	504 hrs	0/252
HTSL	JESD22-A103	Ta= 175°C	504 hrs	0/252
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta= +25°C, delta Tj=100°C On/off = 2 min	7500 cyc	0/252
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/252
H3TRB	JESD22-A101	Ta= 85°C, RH= 85%, 80% bias	504 hrs	0/252
uHAST	JESD22-A118	Ta= 130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/252
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/1008
RSH	JESD22- B106	Ta= 265C, 10 sec		0/90
SD	JSTD002	Ta= 245C, 10 sec		0/45

**QV DEVICE NAME: NTD24N06LT4G**

RMS: V44642, V44923

PACKAGE: DPAK case 369C

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta= 175°C, 80% max rated V	504 hrs	0/252
HTGB	JESD22-A108	Ta= 175°C, 100% max rated Vgss	504 hrs	0/252
HTSL	JESD22-A103	Ta= 175°C	504 hrs	0/252
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta= +25°C, delta Tj=100°C On/off = 2 min	7500 cyc	0/252
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/252
H3TRB	JESD22-A101	Ta= 85°C, RH= 85%, 80% bias	504 hrs	0/252
uHAST	JESD22-A118	Ta= 130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/252
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/1008
RSH	JESD22- B106	Ta= 265C, 10 sec		0/90
SD	JSTD002	Ta= 245C, 10 sec		0/45

**QV DEVICE NAME:** NTD5802NT4G**RMS:** V44643, V44925**PACKAGE:** DPAK case 369C

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta= 175°C, 80% max rated V	504 hrs	0/252
HTGB	JESD22-A108	Ta= 175°C, 100% max rated Vgss	504 hrs	0/252
HTSL	JESD22-A103	Ta= 175°C	504 hrs	0/252
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta= +25°C, delta Tj=100°C On/off = 2 min	7500 cyc	0/252
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/252
H3TRB	JESD22-A101	Ta= 85°C, RH= 85%, 80% bias	504 hrs	0/252
uHAST	JESD22-A118	Ta= 130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/252
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/1008
RSH	JESD22- B106	Ta= 265C, 10 sec		0/90
SD	JSTD002	Ta= 245C, 10 sec		0/45

**Electrical Characteristic Summary:**

Electrical characteristic are not impacted.



List of Affected Standard Parts:

Part Number	Qualification Vehicle
NTD25P03LT4G	NTD6414ANT4G
NTD6415ANLT4G	
NTD6416ANT4G	
NTD6416ANLT4G	
NTD14N03RT4G	
NTD20N03L27T4G	
NTD4302T4G	
NTD6414ANT4G	
NTD2955T4G	NTD24N06T4G
NTD20P06LT4G	
NTD3055L104T4G	
NTD3055-150T4G	
NTD3055-094T4G	
NTD20N06T4G	
NTD18N06LT4G	
NTD24N06LT4G	
NTD3055L170T4G	
NTD20N06LT4G	
NTD24N06T4G	NTD5802NT4G
NTD4858NT4G	
NTD4804NT4G	
NTD5802NT4G	
NTD4805NT4G	
NTD4860NT4G	
NTD4809NT4G	
NTD4813NHT4G	

**Appendix A: Changed Products**

Product	Customer Part Number	Qualification Vehicle
NTD14N03RT4G		NTD6414ANT4G
NTD18N06LT4G		NTD24N06T4G
NTD20N03L27T4G		NTD6414ANT4G
NTD20N06LT4G		NTD24N06T4G
NTD20N06T4G		NTD24N06T4G
NTD20P06LT4G		NTD24N06T4G
NTD24N06LT4G		NTD24N06T4G
NTD24N06T4G		NTD24N06T4G
NTD25P03LT4G		NTD6414ANT4G
NTD2955T4G		NTD24N06T4G
NTD3055-094T4G	NTD3055-094T4G	NTD24N06T4G
NTD3055-150T4G		NTD24N06T4G
NTD3055L104T4G	NTD3055L104T4G	NTD24N06T4G
NTD3055L170T4G		NTD24N06T4G
NTD4302T4G		NTD6414ANT4G
NTD4804NT4G		NTD5802NT4G
NTD4805NT4G		NTD5802NT4G
NTD4809NT4G		NTD5802NT4G
NTD4813NHT4G		NTD5802NT4G
NTD4858NT4G		NTD5802NT4G
NTD4860NT4G		NTD5802NT4G
NTD5802NT4G		NTD5802NT4G
NTD6414ANT4G		NTD6414ANT4G
NTD6415ANLT4G		NTD6414ANT4G
NTD6416ANLT4G		NTD6414ANT4G
NTD6416ANT4G		NTD6414ANT4G