



Title of Change:	Qualification of the ON Semiconductor Niigata, Japan facility as an additional wafer fabrication site for the listed ON Semiconductor products. Additionally, there will be a change of mold compound and Lead Frame design in the ATPAK packaged products.													
Proposed first ship date:	3 November 2016 <i>or earlier upon customer approval</i>													
Contact information:	Contact your local ON Semiconductor Sales Office or <Yasunari.Noguchi@onsemi.com>													
Samples:	Contact your local ON Semiconductor Sales Office													
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <Kazutoshi.Kitazume @onsemi.com>.													
Type of notification:	<p>This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change.</p> <p>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>.</p>													
Change Part Identification:	Affected products will be identified with date code.													
Change category:	<input checked="" type="checkbox"/> Wafer Fab Change <input checked="" type="checkbox"/> Assembly Change <input type="checkbox"/> Test Change <input type="checkbox"/> Other _____													
Change Sub-Category(s):	<input checked="" type="checkbox"/> Manufacturing Site Change/Addition <input checked="" 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: _____													
Sites Affected:	<input type="checkbox"/> All site(s) <input type="checkbox"/> not applicable <input checked="" type="checkbox"/> ON Semiconductor site(s) : ON Niigata, Japan ON Shenzhen, China _____ <input type="checkbox"/> External Foundry/Subcon site(s) _____													
Description and Purpose:	<p>This is a Final Process Change Notification to announce the qualification of an additional wafer fabrication site, the change of mold compound and the change of lead frame design. The details are as follows:</p> <ol style="list-style-type: none"> 1) The ON Semiconductor Niigata Co., Ltd. (OSNC) facility located in Niigata, Japan, will be qualified as an additional wafer fabrication site along with the current wafer manufacturing facility, United Microelectronics Corporation (UMC). OSNC obtained ISO9001 certification. 2) The mold compound will change from GE-1030 to EME-G700. 3) The lead frame design will be upgraded to add a V-notch on a flag for prevention of solder flow. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #00b050; color: white;"> <th></th> <th>Before change</th> <th>After change</th> </tr> </thead> <tbody> <tr> <td>FE fab site</td> <td>UMC</td> <td>UMC and Niigata</td> </tr> <tr> <td>Mold compound</td> <td>GE-1030</td> <td>EME-G700</td> </tr> <tr> <td>Lead frame</td> <td>Lead frame without V-notch for preventing solder flow.</td> <td>Lead frame with V-notch for preventing solder flow.</td> </tr> </tbody> </table>			Before change	After change	FE fab site	UMC	UMC and Niigata	Mold compound	GE-1030	EME-G700	Lead frame	Lead frame without V-notch for preventing solder flow.	Lead frame with V-notch for preventing solder flow.
	Before change	After change												
FE fab site	UMC	UMC and Niigata												
Mold compound	GE-1030	EME-G700												
Lead frame	Lead frame without V-notch for preventing solder flow.	Lead frame with V-notch for preventing solder flow.												



Reliability Data Summary:

QV DEVICE NAME ATP304-TL-H

PACKAGE: ATPAK / DPAK (Single Gauge)

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 80% max rated V	1008 hrs	0/231
HTGB	JESD22-A108	Ta=150°C, 100% max rated Vgss	1008 hrs	0/231
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/231
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15000 cyc	0/231
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/231
AC	JSTD020 JESD-A102	Tj=121°C, RH=100%, Pressure=15psig	96 hrs	0/231

PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C	
RSH	JESD22- B106	Ta = 265C, 10 sec	0/90

Electrical Characteristic Summary:

There is no change in the electrical performance. Datasheet specifications remain unchanged.

List of Affected Standard Parts:

Part Number	Qualification Vehicle
ATP102-TL-H	ATP304-TL-H
ATP103-TL-H	
ATP104-TL-H	
ATP107-TL-H	
ATP113-TL-H	