



<b>Title of Change:</b>	Additional Assembly and Test Site of ON Semiconductor Tarlac City, Philippines for NSPM1041BMUTBG, NSPM2051MUT5G and NSPM5131MUTBG.													
<b>Proposed first ship date:</b>	14 October 2017													
<b>Contact information:</b>	Contact your local ON Semiconductor Sales Office or <mike.begonia@onsemi.com>													
<b>Samples:</b>	Contact your local ON Semiconductor Sales Office.													
<b>Type of notification:</b>	<p>This is an Initial Product/Process Change Notification (IPCN) sent to customers. IPCNs are issued at least 30 days prior to the issuance of the Final Change Notice (FPCN). An IPCN is an advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan.</p> <p>The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN). This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 90 days prior to implementation of the change. In case of questions, contact &lt;PCN.Support@onsemi.com&gt;.</p>													
<b>Change Part Identification:</b>	<p>Change marking for identification</p> <p>Additional vertical line after one digit date code – MI</p> <table border="1"> <thead> <tr> <th>Device</th> <th>SBN MARKING</th> <th>OSPI TARLAC MARKING</th> </tr> </thead> <tbody> <tr> <td>NSPM1041BMUTBG</td> <td>MCM</td> <td>MCMI</td> </tr> <tr> <td>NSPM2051MUT5G</td> <td>M2M</td> <td>M2MI</td> </tr> <tr> <td>NSPM5131MUTBG</td> <td>A3M</td> <td>A3MI</td> </tr> </tbody> </table>		Device	SBN MARKING	OSPI TARLAC MARKING	NSPM1041BMUTBG	MCM	MCMI	NSPM2051MUT5G	M2M	M2MI	NSPM5131MUTBG	A3M	A3MI
Device	SBN MARKING	OSPI TARLAC MARKING												
NSPM1041BMUTBG	MCM	MCMI												
NSPM2051MUT5G	M2M	M2MI												
NSPM5131MUTBG	A3M	A3MI												
<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>	<input type="checkbox"/> All site(s) <input type="checkbox"/> not applicable <input checked="" type="checkbox"/> ON Semiconductor site(s) : ON Tarlac City, Philippines <input type="checkbox"/> External Foundry/Subcon site(s)													
<b>Description and Purpose:</b>	<p>This Initial Notification announces that ON Semiconductor Tarlac City, Philippines factory as additional production site for NSPM1041BMUTBG, NSPM2051MUT5G and NSPM5131MUTBG, which are currently manufactured in ON semiconductor Seremban, Malaysia factory.</p> <p>Upon the expiration of this IPCN, these devices will be assembled and tested in both locations.</p> <table border="1"> <thead> <tr> <th>Material to be changed for NSPM1041BMUTBG</th> <th>Before Change Description</th> <th>After Change Description</th> </tr> </thead> <tbody> <tr> <td>Lead Frame</td> <td>PPF uDFN20125-2L</td> <td>No change</td> </tr> <tr> <td>Epoxy</td> <td>AB 8008HT</td> <td>No change</td> </tr> <tr> <td>Mold Compound</td> <td>MC SU EMEG760</td> <td>No change</td> </tr> </tbody> </table>		Material to be changed for NSPM1041BMUTBG	Before Change Description	After Change Description	Lead Frame	PPF uDFN20125-2L	No change	Epoxy	AB 8008HT	No change	Mold Compound	MC SU EMEG760	No change
Material to be changed for NSPM1041BMUTBG	Before Change Description	After Change Description												
Lead Frame	PPF uDFN20125-2L	No change												
Epoxy	AB 8008HT	No change												
Mold Compound	MC SU EMEG760	No change												



Material to be changed for NSPM2051MUT5G	Before Change Description	After Change Description
Lead Frame	PPF uDFN1610-2L	No change
Epoxy	AB 8008HT	No change
Mold Compound	MC SU EMEG770	MC SU EMEG760

Material to be changed for NSPM5131MUTBG	Before Change Description	After Change Description
Lead Frame	Selective Ag UDFN 1.8 X 2.0 6L	PPF UDFN 1.8 X 2.0 6L
Epoxy	AB 8008HT	No change
Mold Compound	MC SU EMEG770	MC SU EMEG760

**Schedule:**

Evaluation and other schedules for the addition of the Philippines factory:

- ① EBR lots completion: W22'17
- ② Reliability test completion: End of Sep'17
- ③ Sample submission: Early Oct'17
- ④ Production start: Early Oct'1

**Qualification Plan:**

**QV DEVICE NAME:** NSPM1041BMUTBG

**RMS:** 41149

**PACKAGE:** UDFN2 2.0x1.25, 1.3P

Test	Specification	Condition	Interval
HTRB	JESD22-A108	High Temperature Reverse Bias Tj=150C Bias = 100% Vrwm	1008 hrs
HTSL	JESD22-A103	Ta=150C max storage temp for device	1008 hrs
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, deltaTj=100°C max, 2min on/off for 15000 cyc	15000 cyc
TC	JESD22-A104	Temp = -65°C to +150°C; for 1000 cycles	1000 cyc
HAST	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, 100% VRWM for 96hr (JA101)	192 hrs
uHAST	JESD22-A118	Temp = 130C, RH=85%, ~ 18.8 psig	96 hrs
PC	J-STD-020 JESD-A113	IR reflow at 260C	
RSH	JESD22- B106	Ta=265C 10 sec dwell B106	



**QV DEVICE NAME: NSPM2051MUT5G**

**RMS: 41150**

**PACKAGE: UDFN2 1.6x1.0, 1.1P**

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Tj = Max rate Tj for device, bias = 100% VRWM = 5V	1008 hrs.'
HTSL	JESD22-A103	Ta = 150C Max rate storage temp for device	1008 hrs
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, deltaTj=100°C max, 2 min Ton=Toff is pkg dependent	15000 cyc
TC	JESD22-A104	Temp = -65°C to +150°C; for 1000 cycles	1000 cyc
HAST	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, bias =100% VRWM = 5V	192 hrs
uHAST	JESD22-A118	Temp = 130C, RH=85%, ~ 18.8 psig	96 hrs
PC	J-STD-020 JESD-A113	IR reflow at 245C or 260C (pkg dependant)	
RSH	JESD22- B106	Ta=265C 10 sec dwell B106	

**QV DEVICE NAME: NSPM5131MUTBG**

**RMS: 41151**

**PACKAGE: UDFN6, 1.8x2, 0.4P**

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Tj = Max rate Tj for device, bias =80% or 100% of rated V (Not to exceed max rated)	1008 hours
HTSL	JESD22-A103	Ta =Max rate storage temp for device	1008 hrs
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, deltaTj=100°C max, 2 min Ton=Toff is pkg dependent	15000 cyc
TC	JESD22-A104	Temp = -55°C to +150°C; for 1000 cycles	1000 cyc
HAST	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, bias = 80% of rated V or 100V max	192 hrs
uHAST	JESD22-A118	Temp = 130C, RH=85%, ~ 18.8 psig	96 hrs
PC	J-STD-020 JESD-A113	IR reflow at 260C	
RSH	JESD22- B106	Ta=265C 10 sec dwell B106	

**Estimated date for qualification completion: 30 September 2017**

**List of Affected Standard Parts:**

Part Number	Qualification Vehicle
NSPM1041BMUTBG	NSPM1041BMUTBG
NSPM2051MUT5G	NSPM2051MUT5G
NSPM5131MUTBG	NSPM5131MUTBG