



<b>Title of Change:</b>	Qualification of AFSM (Aizu Fujitsu Semiconductor Manufacturing) as an additional Wafer Fab facility for ONC25 Technology
<b>Proposed first ship date:</b>	28 September 2017 or earlier upon customer approval
<b>Contact information:</b>	Contact your local ON Semiconductor Sales Office or <Shannon.riggs@onsemi.com>
<b>Samples:</b>	Contact your local ON Semiconductor Sales Office
<b>Additional Reliability Data:</b>	Contact your local ON Semiconductor Sales Office or <Shannon.riggs@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>	Shipments made after work week 30, 2017 may contain die sourced from either AFSM Fab or ON Semiconductor fab in Gresham, Oregon. The product date code will indicate the work week of manufacturing and the product labels will contain the wafer source indicator.
<b>Change category:</b>	<input checked="" type="checkbox"/> Wafer Fab Change <input type="checkbox"/> Assembly Change <input 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 type="checkbox"/> ON Semiconductor site(s) : <input checked="" type="checkbox"/> External Foundry/Subcon site(s) <div style="margin-left: 400px;">AFSM (Aizu Fujitsu Semiconductor Manufacturing) Wafer Fab, Aizuwakamatsu, Japan</div>
<b>Description and Purpose:</b>	<p>The AFSM (Aizu Fujitsu Semiconductor Manufacturing) Wafer Fab located in Aizuwakamatsu, Japan has been qualified to process the ONC25 CMOS process.</p> <p>The exact same process technology has been transferred as is currently running in the ON Semiconductor wafer fab located at Gresham, Oregon, USA. Tool sets are different but the exact same masking layers and steps are being used in the AFSM Fab.</p> <p>This is a capacity expansion to supplement the existing ON Semiconductor wafer fab. The parts being qualified are dual sourced and may be processed at either wafer fab in the future depending on capacity requirements.</p> <p>Additional part families will be announced on future PCNs once qualifications of those parts are completed.</p> <p>This PCN will apply to future Regulator output voltage versions of the part families listed below.</p>



## Reliability Data Summary:

QV DEVICE NAME  
NCP170A/BXVxxxT2G

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta=125°C, 100 % max rated $V_{CC}$	1008 hrs	0/160
ELFR	JA108	Ta=125°C, 100 % max rated $V_{CC}$	48 hrs	0/2400
HTSL	JA103	Ta=150°C	1008 hrs	0/240
TC	JESD22-A104	Ta= -65°C to +150°C	500 <del>cyc</del>	0/270
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	264 hrs	0/270
UHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/240
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		PASS
RSH	JESD22- B106	Ta = 265C, 10 sec		0/90
ED	Electrical Distribution	Critical parameters		CPK>1.67, Pass
BPS	MILSTD883 Method 2011	Cond C.		CPK>1.67, Pass
SAT	J-STD-020 JESD-A113			Pass
ESD	CDM JS002		1kV	Pass
ESD	HBM JS001		2kV	Pass
LU	JESD78	Class II	+/-100ma	Pass

QV DEVICE NAME  
NCP160/1BFCSxxxT2G,  
NCP160/1BFCTxxxT2G,  
NCP160/1ABMXxxxTBG

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta=125°C, 100 % max rated $V_{CC}$	1008 hrs	0/336
HTSL	JA103	Ta=150°C	1008 hrs	0/251
TC	JESD22-A104	Ta= -40°C to +150°C	1000 <del>cyc</del>	0/334
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/336
UHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/336
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		Pass
ED	Electrical Distribution	Critical parameters		CPK>1.67, Pass
ESD	HBM JS001		2kV	Pass
LU	JESD78		+/-100mA	Pass

## Electrical Characteristic Summary:

There are no changes to any electrical parameters. All data sheet specifications remain the same.



List of affected Standard Parts:

Part Number			Qualification Vehicle
NCP120AMX080TCG	NCP133AMX110TCG	NCP170BMX120TCG	NCP170A/BXVxxxT2G NCP160/1BFCSxxxT2G NCP160/1BFCTxxxT2G NCP160/1A/BMXxxxTBG
NCP120AMX105TCG	NCP133AMX115TCG	NCP170BMX135TCG	
NCP120AMX110TCG	NCP133AMX120TCG	NCP170BMX150TCG	
NCP120AMX115TCG	NCP133AMX125TCG	NCP170BMX250TCG	
NCP120AMX120TCG	NCP133AMX130TCG	NCP170BMX280TCG	
NCP120AMX150TCG	NCP133AMX150TCG	NCP170BMX285TCG	
NCP120AMX180TCG	NCP133AMX180TCG	NCP170BMX300TCG	
NCP120AMX210TCG	NCP133AMXADJTCG	NCP170BMX310TCG	
NCP120BMX080TCG	NCP133BMXADJTCG	NCP170BXV120T2G	
NCP120BMX105TCG	NCP134AMX100TCG	NCP170BXV135T2G	
NCP120BMX110TCG	NCP134AMX105TCG	NCP170BXV150T2G	
NCP120BMX115TCG	NCP134AMX110TCG	NCP170BXV180T2G	
NCP120BMX120TCG	NCP134AMX120TCG	NCP170BXV250T2G	
NCP120BMX150TCG	NCP137AFCTADJ2G	NCP170BXV280T2G	
NCP120BMX180TCG	NCP137AFCTCADJ2G	NCP170BXV300T2G	
NCP120BMX210TCG	NCP170AMX120TCG	NCP170BXV310T2G	
NCP130AMX080TCG	NCP170AMX135TCG	NCP170BXV330T2G	
NCP130AMX090TCG	NCP170AMX150TCG	NCP186AMX120TAG	
NCP130AMX100TCG	NCP170AMX180TCG	NCP186AMX175TAG	
NCP130AMX105TCG	NCP170AMX190TCG	NCP186AMX180TAG	
NCP130AMX110TCG	NCP170AMX250TCG	NCP186AMX185TAG	
NCP130AMX115TCG	NCP170AMX280TCG	NCP186AMX250TAG	
NCP130AMX120TCG	NCP170AMX285TCG	NCP186AMX280TAG	
NCP130AMX150TCG	NCP170AMX300TCG	NCP186AMX300TAG	
NCP130BMX080TCG	NCP170AMX310TCG	NCP186AMX330TAG	
NCP130BMX090TCG	NCP170AMX330TCG	NCP186AMX350TAG	
NCP130BMX100TCG	NCP170AXV120T2G	NCP186AMX390TAG	
NCP130BMX110TCG	NCP170AXV135T2G	NCP186BMX120TAG	
NCP130BMX115TCG	NCP170AXV150T2G	NCP186BMX175TAG	
NCP130BMX120TCG	NCP170AXV180T2G	NCP186BMX180TAG	
NCP130BMX150TCG	NCP170AXV210T2G	NCP186BMX185TAG	
NCP130BMX180TCG	NCP170AXV250T2G	NCP186BMX250TAG	
NCP130BMX210TCG	NCP170AXV280T2G	NCP186BMX280TAG	
NCP133AMX090TCG	NCP170AXV300T2G	NCP186BMX300TAG	
NCP133AMX100TCG	NCP170AXV310T2G	NCP186BMX330TAG	
NCP133AMX105TCG	NCP170AXV330T2G	NCP186BMX350TAG	
		NCP186BMX390TAG	