



Title of Change:	NCP81278MNTXG change in operation mode when PSI-pin is at mid-level voltage, implemented by test program change.
Proposed first ship date:	3 September 2016 or earlier upon customer approval
Contact information:	Contact your local ON Semiconductor Sales Office or <Joe.Chong@onsemi.com>
Samples:	Contact your local ON Semiconductor Sales Office or <Joe.Chong@onsemi.com>
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <Tomas.Vajter@onsemi.com>.
Type of notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are normally issued 90 days prior to implementation of the change. However, ON Semiconductor is requesting customer approval for immediate implementation of this 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>.
Change Part Identification:	Affected first lot will be identified with Datecode of week 18 of 2016. Datecode top marking is "GAER".
Change category:	<input type="checkbox"/> Wafer Fab Change <input type="checkbox"/> Assembly Change <input checked="" type="checkbox"/> Test Change <input type="checkbox"/> Other _____
Change Sub-Category(s):	<input type="checkbox"/> Manufacturing Site Change/Addition <input type="checkbox"/> Material Change <input checked="" type="checkbox"/> Datasheet/Product Doc change <input type="checkbox"/> Manufacturing Process Change <input checked="" type="checkbox"/> Product specific change <input type="checkbox"/> Shipping/Packaging/Marking <input checked="" type="checkbox"/> Other: <u>Test Program Change</u>
Sites Affected:	<input type="checkbox"/> All site(s) <input checked="" type="checkbox"/> not applicable <input type="checkbox"/> ON Semiconductor site(s) : <input type="checkbox"/> External Foundry/Subcon site(s)
Description and Purpose:	<p>This FPCN announces a change in the electrical function of the PSI pin, as defined by the datasheet Electrical Characteristics table and Table 1, shown below.</p> <p>This is implemented by a change in the test program only. There is no change to the package, materials, or die/wafer fabrication.</p> <p>After the change, when the PSI pin is at mid-level voltage, the NCP81278 will be in 1-phase forced CCM mode. Before the change, when the PSI pin is at mid-level voltage, the NCP81278 would be in 2-phase CCM/DCM Auto transition mode.</p>



Change FROM:

ELECTRICAL CHARACTERISTICS

POWER SAVE INPUT

Characteristics	Test Condition	Symbol	Min	Typ	Max	Units
Connected to PVCC	PSH: 2-Phase Auto CCM/DCM Mode		$V_{PVCC} - 0.25$			V
High Threshold	PS0: 2-Phase FCCM Mode	$V_{highPSI}$	1.5			V
Mid Voltage level	PS1: 2-Phase Auto CCM/DCM Mode	V_{midPSI}	0.6		1.2	V
Low Threshold	PS2: 1-Phase Auto CCM/DCM Mode	V_{lowPSI}			0.3	V

Table 1. POWER SAVING INTERFACE (PSI) CONFIGURATIONS

PSI Level	Power Mode	Phase Configuration
Connected to PVCC	PSH	2-Phase, Auto CCM/DCM
High	PS0	2-Phase, FCCM
Intermediate	PS1	2-Phase, Auto CCM/DCM
Low	PS2	1-Phase, Auto CCM/DCM

Change TO:

ELECTRICAL CHARACTERISTICS

POWER SAVE INPUT

Characteristics	Test Condition	Symbol	Min	Typ	Max	Units
Connected to PVCC	PSH: 2-Phase Auto CCM/DCM Mode		$V_{PVCC} - 0.25$			V
High Threshold	PS0: 2-Phase FCCM Mode	$V_{highPSI}$	1.5			V
Mid Voltage level	PS1: 1-Phase CCM Mode	V_{midPSI}	0.6		1.2	V
Low Threshold	PS2: 1-Phase Auto CCM/DCM Mode	V_{lowPSI}			0.3	V

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PSI Level	Power Mode	Phase Configuration
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High	PS0	2-Phase, FCCM
Intermediate	PS1	1-Phase CCM
Low	PS2	1-Phase, Auto CCM/DCM



Reliability Data Summary:

N/A. No impact to reliability. Change is implemented by test program change only.

Electrical Characteristic Summary:

See above Description and Purpose section.

List of affected Standard Parts:

Part Number	Qualification Vehicle
NCP81278MNTXG	NCP81272MNTXG