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**INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION**  
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**14-Dec-2005**

**SUBJECT: ON Semiconductor Initial Product/Process Change Notification #15174**

**TITLE: Initial PCN for Qualification of QFN 0.75 mm package thickness (1.2 x 1mm to 8x8mm, 6 to 52LD) at ON Seremban**

**EFFECTIVE DATE: 14-Apr-2006**

**AFFECTED CHANGE CATEGORY: ON Semiconductor Assembly & Test Site**

**AFFECTED PRODUCT DIVISION: Analog Power Management & Integrated Power Devices**

**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**

Contact Sales Office or John Veto <rrtd61@onsemi.com>

**NOTIFICATION TYPE:**

Initial Product/Process Change Notification (IPCEN)

First change notification sent to customers. IPCENs are issued at least 120 days prior to implementation of the change. An IPCEN is 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.

The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN).

This IPCEN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 60 days prior to implementation of the change.

**DESCRIPTION AND PURPOSE:**

This is the initial PCN announcing the qualification of .75mm thickness QFN packages in our ON Semiconductor facility located in Seremban. Seremban is currently a qualified site for the assembly and test of .9mm thickness QFN packages. There will be no changes in device functionality. Reliability will continue to meet or exceed ON Semiconductor's highest standards.

Final product change notifications will be released with the completion of reliability testing.

**Initial Product/Process Change Notification #15174****QUALIFICATION PLAN:**

## SBN QFN Qualification Plan Qualification Test Vehicles

Product Family	Qual Vehicle	Test
5x6mm 18ld	NCP5201	PC/TC/AC/HTB
8x8mm 52ld	NBSG113	PC/TC/AC/HTB
3x1mm 12ld COL	NLAS3158MNR2G	PC/TC/AC/HTB/HAST
1.8x2.6mm 16ld COL	NLAS3799MNR2G	PC/TC/AC/HTB/HAST

PC MSL1 or 2 Precondition; IR at 260DegC, prior to TC, HAST, AC; 250x3 lots  
PC-HAST; 131DegC/80%RH,96Hrs, Cycled bias; 80x3 lots  
PC-AC PC-Autoclave; 121DegC/100%RH/15PSIG,96hrs; 80x3 lots  
PC-AC PC-Autoclave; 121DegC/100%RH/15PSIG,96hrs; 80x3 lots  
PC-TC PC-Temp. Cycle; -65to+150DegC;500 cycles; 90x3 lots  
Reliability qualification plan will include SAT imaging after MSL PC.  
(standard BOM at 235C and green BOM at 260C reflow must show no signs of delamination)

**AFFECTED DEVICE LIST:**Part

MC100EP32MNR4  
MC100EP32MNR4G  
MC100EP33MNR4  
MC100EP33MNR4G  
MC100EPT20MNR4  
MC100EPT20MNR4G  
MC100EPT21MNR4  
MC100EPT21MNR4G  
MC100EPT23MNR4  
MC100EPT23MNR4G  
MC100EPT26MNR4  
MC100EPT26MNR4G  
MC100LVEP11MNR4  
MC100LVEP11MNR4G  
MC100LVEP16MNR4  
MC100LVEP16MNR4G  
NB100LVEP17MN  
NB100LVEP17MNG  
NB100LVEP17MNR2  
NB100LVEP17MNR2G  
NB100LVEP56MN  
NB100LVEP56MNG  
NB100LVEP56MNR2  
NB100LVEP56MNR2G  
NB100LVEP91MN  
NB100LVEP91MNG  
NB100LVEP91MNR2  
NB100LVEP91MNR2G  
NB4L16MMN  
NB4L16MMNG



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**AFFECTED DEVICE LIST con't:**

Part

NB4L16MMNR2  
NB4L16MMNR2G  
NB4N527SMN  
NB4N527SMNG  
NB4N527SMNR2  
NB4N527SMNR2G  
NB6L239MN  
NB6L239MNG  
NB6L239MNR2  
NB6L239MNR2G  
NB6N239SMN  
NB6N239SMNG  
NB6N239SMNR2  
NB6N239SMNR2G  
NB7L11MMN  
NB7L11MMNG  
NB7L11MMNR2  
NB7L11MMNR2G  
NB7L14MMN  
NB7L14MMNG  
NB7L14MMNR2  
NB7L14MMNR2G  
NB7L216MN  
NB7L216MNG  
NB7L216MNR2  
NB7L216MNR2G  
NB7L32MMNG  
NB7L32MMNR2G  
NB7L86MMN  
NB7L86MMNG  
NB7L86MMNR2  
NB7L86MMNR2G  
NBSG11MN  
NBSG11MNG  
NBSG11MNR2  
NBSG11MNR2G  
NBSG14MN  
NBSG14MNG  
NBSG14MNR2  
NBSG14MNR2G  
NBSG16MMN  
NBSG16MMNG  
NBSG16MMNR2  
NBSG16MMNR2G  
NBSG16MN  
NBSG16MNG  
NBSG16MNR2



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**AFFECTED DEVICE LIST con't:**

Part

NBSG16MNR2G  
NBSG16VSMN  
NBSG16VSMNG  
NBSG16VSMNR2  
NBSG16VSMNR2G  
NBSG53AMN  
NBSG53AMNG  
NBSG53AMNR2  
NBSG53AMNR2G  
NBSG72AMN  
NBSG72AMNG  
NBSG72AMNR2  
NBSG72AMNR2G  
NBSG86AMN  
NBSG86AMNG  
NBSG86AMNR2  
NBSG86AMNR2G  
NCN2500MNR2  
NCN2500MNR2G  
NCN4555MN  
NCN4555MNG  
NCN4555MNR2  
NCN4555MNR2G  
NCN4557MNG  
NCN4557MNR2G  
NCP1422MNR2  
NCP1422MNR2G  
NCP1508MNR2  
NCP1508MNR2G  
NCP1509MNR2  
NCP1509MNR2G  
NCP1835BMNR2  
NCP1835BMNR2G  
NCP1835MN20R2  
NCP1835MN20R2G  
NCP1835MN24R2  
NCP1835MN24R2G  
NCP1835MN24T2  
NCP1835MN24T2G  
NCP4894MNR2  
NCP4894MNR2G  
NCP500SQL18T1  
NCP500SQL18T1G  
NCP500SQL25T1  
NCP500SQL25T1G  
NCP500SQL27T1  
NCP500SQL27T1G  
NCP500SQL28T1



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Part

NCP500SQL28T1G  
NCP500SQL30T1  
NCP500SQL30T1G  
NCP500SQL33T1  
NCP500SQL33T1G  
NCP500SQL50T1  
NCP500SQL50T1G  
NCP5201MN  
NCP5201MNR2  
NCP5201MNR2G  
NCP5203MNR2  
NCP5210MNR2  
NCP5220MNR2  
NCP5220MNR2G  
NCP5603MNR2  
NCP5603MNR2G  
NCP5608MNR2G  
NCP623MN-33R2  
NCP623MN-40R2  
NCP623MN-40R2G  
NCP623MN-50R2  
NCS2200SQLT1  
NCS2200SQLT1G  
NCS5021MN  
NCS5021MNR2  
NLA3158MNR2G  
NLA3699MN1R2G  
NLA3799MNR2G  
NLA44599MN  
NLA44599MNG  
NLA44599MNR2  
NLA44599MNR2G  
NLA4684MNR2  
NLA4684MNR2G  
NLA4685MNR2  
NLA4783MN1R2G  
NLA5123MNR2G  
NLA5223LMNR2G  
NLA5223MNR2G  
NLA44599MN  
NLA44599MNG  
NLA44599MNR2  
NLA44599MNR2G  
NLSF1174MNR2  
NLSF1174MNR2G  
NLSF2500MN1R2G  
NLSF302MNR2  
NLSF302MNR2G



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**AFFECTED DEVICE LIST con't:**

Part

NLSF308MNR2  
NLSF308MNR2G  
NLSF3T125MNR2  
NLSF3T125MNR2G  
NLSF3T126MNR2  
NLSF3T126MNR2G  
NLSF595MNR2  
NTLGF3402PT1G  
NTLGF3501NT1G  
NTLJD3115PT1G  
NTLJD4116NT1G  
NTLJF4156NT1G  
NTLJS4159NT1G  
NTLTD7900NR2G  
NTLTD7900ZR2  
NTLTD7900ZR2G  
NTLTS3107PR2G  
NUD4301MNT1G  
NUF2020MNT1G  
NUF2114MNT1G  
NUF2116MNT1G  
NUF4110MNT1G  
NUF4210MNT1G  
NUF4401MNT1G  
NUF4402MNT1G  
NUF4403MNT1G  
NUF6401MNT1G  
NUF6402MNT1G  
NUF6406MNT1G  
NUF8401MNT4G  
NUF8402MNT4G  
NUF8410MNT4G  
NUP8010MNT1G  
NUS2045MNT1  
NUS2045MNT1G  
NUS3045MNT1  
NUS3045MNT1G  
NZMM7V0T4