



INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION
Generic Copy

03-Dec-2005

SUBJECT: ON Semiconductor Initial Product/Process Change Notification #15130

TITLE: Initial notification of intent to dual source devices at ONCR and ONPY1 in Slovakia.

EFFECTIVE DATE: 03-Apr-2006

AFFECTED CHANGE CATEGORY: ON Semiconductor Fab Site

AFFECTED PRODUCT DIVISION: Analog Power Management

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:
Contact Sales Office or Alan Garlington <rpr180@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 (FPCEN).

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

DESCRIPTION AND PURPOSE:

This is an Initial PCN to notify customers of the intent to qualify and dual source specific devices currently being processed at the ON Semiconductor M1 wafer fab in the Czech Republic (ONCR) to the existing ON Semiconductor wafer fab in Piestany, Slovakia (ONPY1). The ONPY1 fab will be used to provide additional capacity for these specified products. The existing design database currently in use at ONCR will be transferred to ONPY1 with no change to the functional circuit design. New mask sets will be generated which will incorporate required process control and alignment patterns. Full electrical characterization and bench analysis will be performed on all devices transferred to ensure no change to device functionality or data sheet electrical specifications.

As this is an initial PCN only, a final PCN will be issued at least 60 days prior to actual conversion. Final PCN's will be issued as the specific devices are prepared for release in the new wafer facility and will contain specific dates for each device. Samples will be available per the Final PCN schedule.

**Initial Product/Process Change Notification #15130****QUALIFICATION PLAN:**

MC1413, MC7805, MC7812 & MC33063 devices will be process qualified based on similarity to the LM224 & LM239 devices which run on the same processes and were qualified previously as shown below. Each device series will have temperature characterization, ESD (HBM, MM, CDM) and latch up evaluation performed on three assembly lots, as well as any necessary bench analysis. In addition, probe and final test yield analysis will be completed to ensure performance is well matched to the source fabrication facility.

Three assembly lots of LM224D and two assembly lots of LM239N, along with the associated control lots were built and qualified to plan below. No failures were observed on any of the lots using the qualification plan described below.

3x lots LM224D

Test Conditions EndPoint

Autoclave 121C,100%RH,15psig 96 hours

Temp Cycle 150C/-65C 500 cycles

HAST 130C,85%RH,18psig 96 hours

HTSL 175C 504 hours

HTOL Ta = 145C 504 hours

PC MSL1 260C Test 3x reflow

2x lots LM239N

Test Conditions EndPoint

Autoclave 121C,100%RH,15psig 96 hours

Temp Cycle 150/-65C 1000 cycles

HAST 130C,85%RH,18psig 96 hours

HTOL Ta = 125C 1008 hours

AFFECTED DEVICE LIST:**Part**

MC1413BD

MC1413BDG

MC1413BDR2

MC1413BDR2G

MC1413BP

MC1413BPG

MC1413D

MC1413DG

MC1413DR2

MC1413DR2G

MC1413P

MC1413PG

MC33063AD

MC33063ADG

MC33063ADR2

MC33063ADR2G

MC33063AP1

MC33063AP1G

MC33063AVD

MC33063AVDG



Initial Product/Process Change Notification #15130

AFFECTED DEVICE LIST:

Part

MC33063AVDR2
MC33063AVDR2G
MC33063AVP
MC33063AVPG
MC34063AD
MC34063ADG
MC34063ADR2
MC34063ADR2G
MC34063AM
MC34063AMEL
MC34063AMELG
MC34063AP1
MC34063AP1G
MC34063BD
MC34063BDG
MC34063BDR2
MC34063BDR2G
MC7805BD2T
MC7805BD2TG
MC7805BD2TR4
MC7805BD2TR4G
MC7805BDT
MC7805BDTG
MC7805BDTRK
MC7805BDTRKG
MC7805BT
MC7805BTG
MC7805CD2T
MC7805CD2TG
MC7805CD2TR4
MC7805CD2TR4G
MC7805CDT
MC7805CDTG
MC7805CDTRK
MC7805CDTRKG
MC7805CT
MC7805CTG
MC7812BD2T
MC7812BD2TG
MC7812BD2TR4
MC7812BD2TR4G
MC7812BDT
MC7812BDTG
MC7812BDTRK
MC7812BDTRKG
MC7812BT



Initial Product/Process Change Notification #15130

AFFECTED DEVICE LIST:

Part

MC7812BTG
MC7812CD2T
MC7812CD2TG
MC7812CD2TR4
MC7812CD2TR4G
MC7812CDT
MC7812CDTG
MC7812CDTRK
MC7812CDTRKG
MC7812CT
MC7812CTG