



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION

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03-Feb-2006

SUBJECT: ON Semiconductor Final Product/Process Change Notification #15311

TITLE: Final PCN for Qualification of AIT, Batam, Indonesia for assembly/test of LQFP32/52 packages

EFFECTIVE DATE: 03-Apr-2006

AFFECTED CHANGE CATEGORY(S): Subcontractor Assembly & Test Site

AFFECTED PRODUCT DIVISION(S): Analog Power Management, Standard Components, Integrated Power Devices

ADDITIONAL RELIABILITY DATA: Available

Contact your local ON Semiconductor Sales Office or Matt Kas <fft7yg@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact your local ON Semiconductor Sales Office or John Veto <rtrd61@onsemi.com>

NOTIFICATION TYPE:

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 60 days prior to implementation of the change.

ON Semiconductor will consider this change approved unless specific conditions of acceptance are provided in writing within 30 days of receipt of this notice. To do so, contact your local ON Semiconductor Sales Office.

DESCRIPTION AND PURPOSE:

This is a Final Product Change Notice to IPCN 15023, announcing that AIT (Advanced Interconnect Technologies) is qualified to assemble and test the LQFP-32 7x7 package and LQFP-52 10x10 package. There will be a minor dimension change for the foot length of the lead for the LQFP-32. Dimension "K" is being modified to match the JEDEC (MS-026D) specification of .45 to .75 mm. The previous dimension was .50 to .70 mm. The qualification is for additional capacity to supplement the current assembly site at ASE located in Taiwan. AIT is QS9000, ISO9002 and TS16949 certified. AIT is qualified and currently assembling other packages for ON Semiconductor.

**Final Product/Process Change Notification #15311****RELIABILITY DATA SUMMARY:****Reliability Test Results:**

The MC100LVEP111 is a differential driver. The devices used in this study were produced at COM1 Wafer Fab with M5 Bipolar Technology and packaged at AIT in LQFP-32 7X7 using both Lead Free and Standard Packages.

Test	Conditions	Rej. / Samp. Size
High Temp	150 C for 1008 Hrs	0 / 160
Storage Life	500 Hrs	0 / 170
Wire Pull	Wire Pull after 1008 Hrs of HTSL, Min. 8 lbs pull	0 / 5
Autoclave-PC	TA=121C, RH=100%, P= 15 psig, 96 Hrs	0 / 200
Temp.Cycling-PC	Ta= -65C to 150C, air to air, 500 cycles	0 / 209
Solderability	At first team aging=8hrs(93C) Solderability=260C,T=10 sec.	0 / 20

The MC100LVE222 is a differential ECL fanout buffer. The devices used in this study were produced at COM1 Wafer Fab with M5 Bipolar Technology and packaged at AIT in LQFP-52 using both Lead Free and Standard Packages.

Test	Conditions	Rej. / Samp. Size
High Temp	150 C for 1008 Hrs	0 / 160
Storage Life	500 Hrs	0 / 170
Wire Pull	Wire Pull after 1008 Hrs of HTSL, Min. 8 lbs pull	0 / 5
Autoclave-PC	TA=121C, RH=100%, P= 15 psig, 96 Hrs	0 / 200
Temp.Cycling-PC	Ta= -65C to 150C, air to air, 500 cycles	0 / 209
Solderability	At first team aging=8hrs(93C) Solderability=260C,T=10 sec.	0 / 20



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The NCP5331FTR2G is a two phase pulse width modulation controller with integrated gate drivers. The devices used were produced at the ON Semiconductor CZ4 wafer Fab using the 14 volt Bipolar technology and packaged at AIT in LQFP-32 7X7 in the Lead Free package.

Test	Conditions	Rej. / Samp. Size
High Temp Operational	125 C for 500 Hrs	0 / 231
Preconditioning	MSL2, 260 Deg C	0 / 693
Temp.Cycling-PC	Ta= -65C to 150C, air to air, 500 cycles	0 / 231
Autoclave-PC	TA=121C, RH=100%, P= 15 psig, 96 Hrs	0 / 231
Highly Accelerated Stress Test - PC	Ta = 130C, RH = 85% 96 Hrs	0 / 231
High Temp Bake	Ta = 175 C, 504 Hrs	0 / 231
Wire Pull	Wire Pull after 500 Hrs of HTSL, 30 Bonds	0 / 5

ELECTRICAL CHARACTERISTIC SUMMARY:

No changes in electrical characterization; all product performance meets current datasheet specifications.

CHANGED PART IDENTIFICATION:

Device marking for AIT assembly and test double digit code is CP; single digit code is 2

AFFECTED DEVICE LIST:

PART

- MC100EP016AFA
- MC100EP016AFAG
- MC100EP016AFAR2
- MC100EP016AFAR2G
- MC100EP101FA
- MC100EP101FAG
- MC100EP101FAR2
- MC100EP101FAR2G
- MC100EP105FA
- MC100EP105FAG
- MC100EP105FAR2
- MC100EP105FAR2G
- MC100EP116FA
- MC100EP116FAG



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AFFECTED DEVICE LIST: con't

PART

MC100EP116FAR2
MC100EP116FAR2G
MC100EP131FA
MC100EP131FAG
MC100EP131FAR2
MC100EP131FAR2G
MC100EP142FA
MC100EP142FAG
MC100EP142FAR2
MC100EP142FAR2G
MC100EP195FA
MC100EP195FAG
MC100EP195FAR2
MC100EP195FAR2G
MC100EP196FA
MC100EP196FAG
MC100EP196FAR2
MC100EP196FAR2G
MC100EP210SFA
MC100EP210SFAG
MC100EP210SFAR2
MC100EP210SFAR2G
MC100EP445FA
MC100EP445FAG
MC100EP445FAR2
MC100EP445FAR2G
MC100EP446FA
MC100EP446FAG
MC100EP446FAR2
MC100EP446FAR2G
MC100EP451FA
MC100EP451FAG
MC100EP451FAR2
MC100EP451FAR2G
MC100EP809FA
MC100EP809FAG
MC100EP809FAR2
MC100EP809FAR2G
MC100EPT622FA
MC100EPT622FAG
MC100EPT622FAR2
MC100EPT622FAR2G
MC100LVE164FA
MC100LVE164FAG
MC100LVE164FAR2
MC100LVE164FAR2G
MC100LVE222FA
MC100LVE222FAG



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AFFECTED DEVICE LIST: con't

PART

MC100LVE222FAR2
MC100LVE222FAR2G
MC100LVEP111FA
MC100LVEP111FAG
MC100LVEP111FAR2
MC100LVEP111FARG
MC100LVEP210FA
MC100LVEP210FAG
MC100LVEP210FAR2
MC100LVEP210FARG
MC10EP016FA
MC10EP016FAG
MC10EP016FAR2
MC10EP016FAR2G
MC10EP101FA
MC10EP101FAG
MC10EP101FAR2
MC10EP101FAR2G
MC10EP105FA
MC10EP105FAG
MC10EP105FAR2
MC10EP105FAR2G
MC10EP116FA
MC10EP116FAG
MC10EP116FAR2
MC10EP116FAR2G
MC10EP131FA
MC10EP131FAG
MC10EP131FAR2
MC10EP131FAR2G
MC10EP142FA
MC10EP142FAG
MC10EP142FAR2
MC10EP142FAR2G
MC10EP195FA
MC10EP195FAG
MC10EP195FAR2
MC10EP195FAR2G
MC10EP445FA
MC10EP445FAG
MC10EP445FAR2
MC10EP445FAR2G
MC10EP446FA
MC10EP446FAG
MC10EP446FAR2
MC10EP446FAR2G
MC10EP451FA
MC10EP451FAG



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AFFECTED DEVICE LIST: con't

PART

MC10EP451FAR2
MC10EP451FAR2G
NB4L858MFAG
NB4L858MFAR2G
NBC12429AFA
NBC12429AFAG
NBC12429AFAR2
NBC12429AFAR2G
NBC12429FA
NBC12429FAG
NBC12429FAR2
NBC12429FAR2G
NBC12430AFA
NBC12430AFAG
NBC12430AFAR2
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NBC12430FA
NBC12430FAG
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NBC12430FAR2G
NBC12439AFA
NBC12439AFAG
NBC12439AFAR2
NBC12439AFAR2G
NBC12439FA
NBC12439FAG
NBC12439FAR2
NBC12439FAR2G
NCP5314FTR2
NCP5314FTR2G
NCP5318FTR2
NCP5318FTR2G
NCP5331FTR2
NCP5331FTR2G