ON Semiconductor

FINAL PRODUCT/PROCESS CHANGE NOTIFICATION
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21-Oct-2008

SUBJECT: ON Semiconductor Final Product/Process Change Notification #16164

TITLE: Addition of PLCC20 / 28 package assembly capabilities at Amkor Technology Philippines (P1) Inc. package assembly site

PROPOSED FIRST SHIP DATE: 21-Jan-2009

AFFECTED CHANGE CATEGORY(S): Emitter –Coupled Logic (ECL)

AFFECTED PRODUCT DIVISION(S): Standard Products, Computing Products Group

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:
Contact your local ON Semiconductor Sales Office or Lance.James <lance.james@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office

ADDITIONAL RELIABILITY DATA: Available
Contact your local ON Semiconductor Sales Office or Matt Kas <Matt.Kas@onsemi.com>

NOTIFICATION TYPE:

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 90 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:

ON Semiconductor is pleased to announce the qualification of Amkor Technology Philippines (P1) Inc. located in Cupang, Muntinlupa City as our future new source for assembly of all PLCC20 and PLCC28 devices. The Initial PCN #16126 notifying of this addition was issued 4-June-2008. Our final test location will remain in ON Semiconductor Philippines, Inc (OSPI) in Carmona, Philippines.

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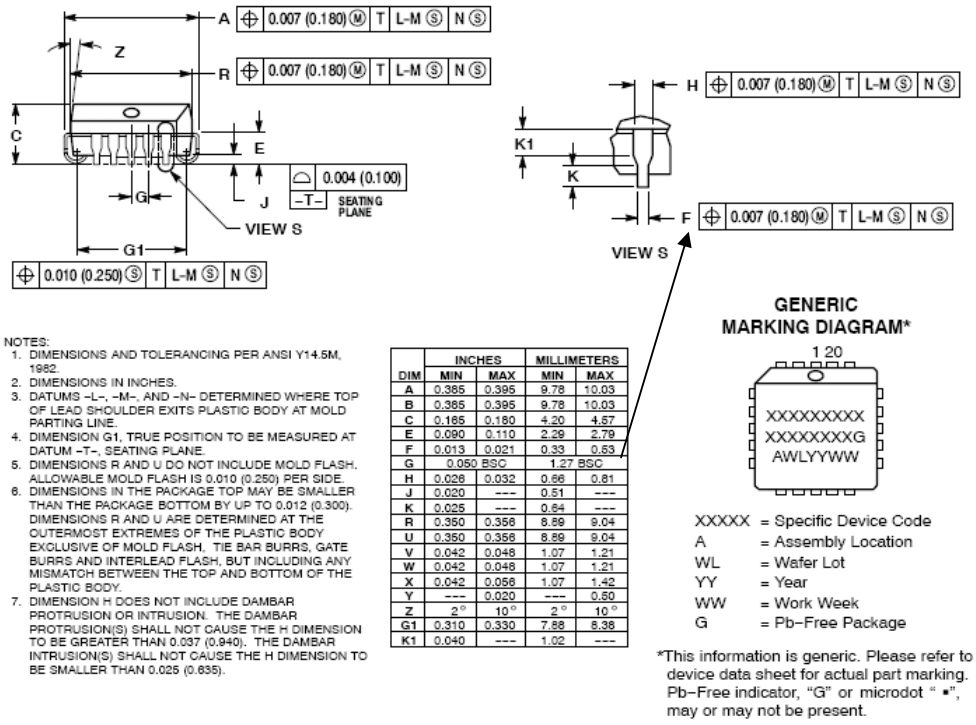
There is a minor dimension change related to the package lead width (see table below). ON Semiconductor has completed the update of the package drawing for this one change.

BEFORE	ON SEMI POD					AMKOR POD (00060/14)			REMARKS
	SYMBOL	MIN	NOM	MAX	SYMBOL	MIN	NOM	MAX	
leadwidth (external)	F	0.013	-	0.019	-	0.013	-	0.021	not compliant with current dimensions for max specs
AFTER	**ON SEMI POD**					**AMKOR POD (00060/14)**			**REMARKS**
	SYMBOL	MIN	NOM	MAX	SYMBOL	MIN	NOM	MAX	
leadwidth (external)	F	0.013	-	0.021	-	0.013	-	0.021	now compliant with current dimensions for max specs



NOTES:
1. DIMENSIONS AND TOLERANCING PER ANSI Y14.5M, 1982.
2. DIMENSIONS IN INCHES.
3. DATUMS –L–, –M–, AND –N– DETERMINED WHERE TOP OF LEAD SHOULDER EXITS PLASTIC BODY AT MOLD PARTING LINE.
4. DIMENSION G1, TRUE POSITION TO BE MEASURED AT DATUM –T–, SEATING PLANE.
5. DIMENSIONS R AND U DO NOT INCLUDE MOLD FLASH. ALLOWABLE MOLD FLASH IS 0.010 (0.250) PER SIDE.
6. DIMENSIONS IN THE PACKAGE TOP MAY BE SMALLER THAN THE PACKAGE BOTTOM BY UP TO 0.012 (0.300). DIMENSIONS R AND U ARE DETERMINED AT THE OUTERMOST EXTREMES OF THE PLASTIC BODY EXCLUSIVE OF MOLD FLASH, TIE BAR BURRS, GATE BURRS AND INTERLEAD FLASH, BUT INCLUDING ANY MISMATCH BETWEEN THE TOP AND BOTTOM OF THE PLASTIC BODY.
7. DIMENSION H DOES NOT INCLUDE DAMBAR PROTRUSION OR INTRUSION. THE DAMBAR PROTRUSION(S) SHALL NOT CAUSE THE H DIMENSION TO BE GREATER THAN 0.037 (0.940). THE DAMBAR INTRUSION(S) SHALL NOT CAUSE THE H DIMENSION TO BE SMALLER THAN 0.025 (0.635).

DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	0.385	0.395	9.78	10.03
B	0.385	0.395	9.78	10.03
C	0.165	0.180	4.20	4.57
E	0.090	0.110	2.29	2.79
F	0.013	0.021	0.33	0.53
G	0.050 BSC		1.27 BSC	
H	0.026	0.032	0.66	0.81
J	0.020	---	0.51	---
K	0.025	---	0.64	---
R	0.350	0.356	8.89	9.04
U	0.350	0.356	8.89	9.04
V	0.042	0.048	1.07	1.21
W	0.042	0.048	1.07	1.21
X	0.042	0.056	1.07	1.42
Y	---	0.020	---	0.50
Z	2°	10°	2°	10°
G1	0.310	0.330	7.88	8.38
K1	0.040	---	1.02	---

GENERIC MARKING DIAGRAM*

XXXXX = Specific Device Code
A = Assembly Location
WL = Wafer Lot
YY = Year
WW = Work Week
G = Pb–Free Package

*This information is generic. Please refer to device data sheet for actual part marking. Pb–Free indicator, "G" or microdot " •", may or may not be present.

RELIABILITY DATA SUMMARY:

Reliability Test Results: MC10E016FNG

Test	Conditions	Results
High Temp Op Life(HTOL)	125C/1008hrs	0/80, 0/80
High Temp Storage Life (HTSL)	150C/1008hrs	0/80, 0/80
Pre-Conditioning (PC)	MSL 3, 260C	0/285
PC + Autoclave (PC+AC)	121C/15psig/96hrs	0/80, 0/80
PC + HAST(PC+HAST)	130C/85%RH/96hrs/ Bias	0/80, 0/80
PC + Temp Cycle (PC+TC)	-65C/+150C/500 cyc	0/80, 0/78
PC + SAT	MSL 3,260C Precond.	0/5, 0/5

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Reliability Test Results: MC10H605FNG

Test	Conditions	Results
High Temp Storage Life (HTSL)	150C/1008hrs	0/80, 0/79
Pre-Conditioning (PC)	MSL 3, 260C	0/125
PC + Autoclave (PC+AC)	121C/15psig/96hrs	0/80, 0/80
PC + Temp Cycle (PC+TC)	-65C/+150C/500 cyc	0/80, 0/80
PC + SAT	MSL 3,260C Precond.	0/5, 0/5
Solderability	8 Hrs	0/15

ELECTRICAL CHARACTERISTIC SUMMARY:

There is no change in electrical parametric performance.

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AFFECTED DEVICE LIST:

MC100E016FNG
MC100E016FNR2G
MC100E101FNG
MC100E101FNR2G
MC100E104FNG
MC100E104FNR2G
MC100E107FNG
MC100E107FNR2G
MC100E111FNG
MC100E111FNR2G
MC100E112FNG
MC100E112FNR2G
MC100E116FNG
MC100E116FNR2G
MC100E131FNG
MC100E131FNR2G
MC100E136FNG
MC100E136FNR2G
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MC100E210FNG
MC100E210FNR2G
MC100E211FNG
MC100E211FNR2G
MC100E241FNG
MC100E241FNR2G
MC100E310FNG

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MC100E310FNR2G
MC100E404FNG
MC100E404FNR2G
MC100E416FNG
MC100E416FNR2G
MC100E431FNG
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MC10H350FNG

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