



---

**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION**Generic Copy

---

**03 Feb 2010****SUBJECT:** ON Semiconductor Final Product/Process Change Notification #16395**TITLE:** Add ON Semiconductor Philippines as Assembly Site/Change Marking to ON Format**PROPOSED FIRST SHIP DATE:** 03 May 2010**AFFECTED CHANGE CATEGORY(S):** Assembly Manufacturing**AFFECTED PRODUCT DIVISION(S):** APG, DMSG**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**Contact your local ON Semiconductor Sales Office John Blas<[ffx6th@onsemi.com](mailto:ffx6th@onsemi.com)>**SAMPLES:** Contact your local ON Semiconductor Sales Office or John Blas<[ffx6th@onsemi.com](mailto:ffx6th@onsemi.com)>**ADDITIONAL RELIABILITY DATA:** AvailableContact your local ON Semiconductor Sales Office Phine Guevarra< [Phine.Guevarra@onsemi.com](mailto:Phine.Guevarra@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:**

Addition of ON Semiconductor Philippines (OSPI) as an alternate source assembly site for SOIC and TSSOP packages. Current qualified assembly sites include Amkor-Philippines, ASE-Chung Li, Unisem B, and Carsem. OSPI is already a qualified source of SOIC and TSSOP packages for other ON Semiconductor devices and is TS16949 certified.

OSPI will be using its standard halogen free Bill of Materials and process flow. Package electrical, thermal, and reliability performance will be equivalent in OSPI to the current subcontract assembly sites. There is no impact to part form, fit, or function. OSPI has successfully completed reliability testing per AEC-Q100 standards at Moisture Sensitivity Level of 2 (MSL2).



## Final Product/Process Change Notification #16395

As a consequence of the assembly site transfer, the marking format will change to align with ON's standard marking for SOIC and TSSOP packages.

- Items to be Standardized
  - **Traceability Format** - Date Code, Location Code (SOP7-19), and Lot Info
  - **Pb Free Indicator** – from JEDEC ecat (e1 –e7) to either 'G' or 'dot'
  - **ON Semiconductor Logo** (except for devices with special customer logo)
  - **Number of lines and characters per line**
  - **No bottom part marking** – All device markings at the bottom of the package will be moved to the top. The special xxxx bottom marking (intended to improve board adhesion) on specific devices will be eliminated. All TSSOP and SOIC packages at OSPI passed glueability testing without the need for special bottom marking.

## RELIABILITY DATA SUMMARY:

Stress	Test Sequence	OREMQ-004			ODISA-014			OREMX-004			OSOFD-001		
		Run under MSL2 (rej/ss)			Run under MSL2 (rej/ss)			Run under MSL2 (rej/ss)			Run under MSL2 (rej/ss)		
		B79528.1	B79527.1	B79525.1	B79526.1	B79524.1	B79529.1	B79528.1	B79527.1	B79525.1	B84032.1	B84033.1	B84034.1
HTSL (bake)	High Temp Storage, 1000H at 150C	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77
Moisture Resistance Test (MRT)	Pre-MRT SAT	0/154	0/154	0/154	0/154	0/154	0/154	0/231	0/231	0/231	0/154	0/154	0/154
	Moisture Preconditioning at 260C Reflow Peak temp	0/154	0/154	0/154	0/154	0/154	0/154	0/231	0/231	0/231	0/154	0/154	0/154
Temp Cycling	Post-MRT SAT	0/154	0/154	0/154	0/154	0/154	0/154	0/231	0/231	0/231	0/154	0/154	0/154
	Temp. Cycling, 500 cycles at -55C/150C	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77
Unbiased-HAST	Post-TC SAT	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77
	Post-TC Bond Pull Test	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5
Internal Inspection	UHAST, 96H at 130C/85% RH	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77
	Post-UHAST SAT	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77	0/77
External Inspection	Xray	0/15	0/15	0/15	0/15	0/15	0/15	0/15	0/15	0/15	0/15	0/15	0/15
	SAT	0/15	0/15	0/15	0/15	0/15	0/15	0/15	0/15	0/15	0/15	0/15	0/15
Early Life Failure Rate Test	Internal Visual Inspection	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10
	Bond Pull Test	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5
High Temp Operating Life Test	Bond Shear Test	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5
	External Visual Inspection	0/ALL	0/ALL	0/ALL	0/ALL	0/ALL	0/ALL	0/ALL	0/ALL	0/ALL	0/ALL	0/ALL	0/ALL
Biased-HAST	Physical Dimension Inspection	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10
	Solderability Test	0/15	0/15	0/15	0/15	0/15	0/15	0/15	0/15	0/15	0/15	0/15	0/15
High Temp Operating Life Test	Burn-in, 48H at 125C							0/600	0/600	0/600			
	HTOL, 1000H at 125C							0/77	0/77	0/77			
Biased-HAST	HAST, 96H at 130C/85% RH							0/77	0/77	0/77			
	Post-HAST SAT							0/77	0/77	0/77			

## ELECTRICAL CHARACTERISTIC SUMMARY:

There were no changes in device electrical performance or specifications. Summary data is available. Please contact your local ON Semiconductor Sales Office.

## CHANGED PART IDENTIFICATION:

Products assembled in ON Semiconductor Philippines can be identified with the first character "P" of the tracecode marking.


**List of affected General Parts:**

Standard Parts		
0HALC-001-XTP	11825-101-XTP	AMIS39101PNPB4G
0MTHA-002-XTD	11825-102-XTD	AMIS39101PNPB4RG
0MTHA-002-XTP	11825-102-XTP	AMIS41682CANM1G
0WCGA-001-XTD	11825-103-XTP	AMIS41682CANM1RG
0WCGA-001-XTP	11825-109-XTD	AMIS41683CANN1G
0WCGA-002-XTD	11825-109-XTP	AMIS41683CANN1RG
0WCGA-002-XTP	11825-801-XTP	AMIS42665TJAA1G
11257-802-XTP	11825-803-XTP	AMIS42665TJAA1RG
11257-804-XTP	11825-804-XTD	AMIS42665TJAA6G
11486-801-XTD	11825-804-XTP	AMIS42665TJAA6RG
11486-801-XTP	11825-808-XTD	AMIS42670ICAH2G
11486-818-XTD	11825-808-XTP	AMIS42670ICAH2RG
11486-818-XTP	11825-822-XTP	AMIS42671ICAB1G
11486-901-XTD	11825-830-XTP	AMIS42671ICAB1RG
11486-901-XTP	11825-841-XTD	AMIS42673ICAG1G
11564-506-XTD	11825-841-XTP	AMIS42673ICAG1RG
11575-801-XTD	12025-801-XTP	AMIS42675ICAA1G
11575-801-XTP	12055-801-XTP	AMIS42675ICAA1RG
11575-809-XTP	12055-802-XTD	AMIS42700WCGA4H
11575-812-XTP	12055-802-XTP	AMIS42700WCGA4RH
11575-814-XTP	13715-802-XTD	AMIS42770ICAW1G
11575-815-XTD	13715-802-XTP	AMIS42770ICAW1RG
11575-816-XTP	13715-803-XTP	FS6128-04G-XTD
11575-820-XTP	AMIS30600LINI1G	FS6128-04G-XTP
11640-101-XTD	AMIS30600LINI1RG	FS6128-07-XTD
11640-101-XTP	AMIS30621AUA	FS6128-07-XTP
11640-223-XTP	AMIS30621C6213G	FS6370-01G-XTD
11640-801-XTP	AMIS30621C6213RG	FS6370-01G-XTP
11640-802-XTP	AMIS30621C6217G	FS6377-01G-XTD
11640-803-XTP	AMIS30621C6217RG	FS6377-01G-XTP
11640-804-XTP	AMIS30622C6223G	FS6377-01IG-XTD
11640-809-XTP	AMIS30622C6223RG	FS6377-01IG-XTP
11640-821-XTP	AMIS30622C6227G	FS7140-01G-XTD
11640-822-XTP	AMIS30622C6227RG	FS7140-01G-XTP
11640-823-XTP	AMIS30623C6238G	FS7145-01-XTD
11640-825-XTD	AMIS30623C6238RG	FS7145-01-XTP
11640-825-XTP	AMIS30623C6239G	MTC3054
11640-826-XTP	AMIS30623C6239RG	MTC3054R2
11640-829-XTP	AMIS30624C6244G	NCV7321D10G
11640-840-XTP	AMIS30624C6244RG	NCV7321D10R2G
11640-847-XTD	AMIS30660CANH2G	NCV7341D21G
11640-847-XTP	AMIS30660CANH2RG	NCV7341D21R2G
11640-848-XTP	AMIS30663CANG2G	NCV7420D23G
11640-849-XTP	AMIS30663CANG2RG	NCV7420D23R2G
11640-850-XTD	AMIS39100PNPB3G	NCV7420D25G
11640-850-XTP	AMIS39100PNPB3RG	NCV7420D25R2G
11640-851-XTP		