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**UPDATE NOTIFICATION**  
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**13-SEP-2002**

**SUBJECT: ON Semiconductor Update Notification #12556**

**TITLE: Update to FPCN#12449 - Assembly Transfer of Wide Body SOIC Packaged Analog Devices to ASE CHUNG LI (ASECL)**

**EFFECTIVE DATE: 12-Nov-2002**

**AFFECTED CHANGE CATEGORY:**

On Semiconductor Assembly Site  
Subcontractor Assembly Site  
On Semiconductor Test Site

**AFFECTED PRODUCT DIVISION:** Analog Products Div

**ADDITIONAL RELIABILITY DATA:** Available

Contact your local ON Semiconductor Sales Office or Bob Marquis <[FC88FC@onsemi.com](mailto:FC88FC@onsemi.com)>

**SAMPLES:** Contact your local ON Semiconductor Sales Office or Bill Fontes <[FC8HYB@onsemi.com](mailto:FC8HYB@onsemi.com)>

**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**

Contact Sales Office or Bill Fontes <[FC8HYB@onsemi.com](mailto:FC8HYB@onsemi.com)>

**DISCLAIMER:**

Initial Product/Process Change Notification (IPCEN) - First Notification distributed to customers. Distributed at least 120 days from the effective date of the change.

Final Product/Process Change Notification (FPCN) - Final Notification completing the notification process. Distributed at least 60 days from the effective date 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 an update notification to FPCN#12449 - Assembly Transfer of Wide Body SOIC Packaged Analog Devices to ASE CHUNG LI (ASECL) that went out on 3-Sep-2002, adding devices.

**FPCN#12449 Verbage:**

This is the final PCN for the qualification of the listed wide body SO-packaged part types for assembly at ASE in Chung Li, Taiwan (ASECL). Devices will be transferred from Carsem-S in Malaysia, and Amkor sites in both Korea and the Philippines. Devices will also be transferred from Orient Semiconductor Engineering (OSE) in the Philippines; however, OSE will remain as an alternate site to ensure no capacity limitations. The consolidation of assembly sites creates greater process control ensuring timely delivery of reliable products. An improved moisture sensitivity level of one (MSL-1) has been achieved for all devices transferred to ASECL. MSL 1 packages will no longer require drypack. The devices will be tested at ON Semiconductor's Carmona, Philippines facility for final electrical.



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ASECL and Carmona are both certified QS-9000 factories qualified for the assembly and test of automotive products. ASECL is also certified ISO-9002, and Carmona is also certified ISO-9001.

**RELIABILITY DATA SUMMARY:**

**Reliability Test Summary: Package SOIC WB 16 ld**

**Device = CS41077DWR16**

<b>Test</b>	<b>Conditions</b>	<b>Interval</b>	<b>SS</b>
THB +PC	Ta=85 degC, RH=85%, bias	500 hours	0/231
A/clave +PC	Ta=121degC,P=15psig,RH=100%	96 hours	0/231
Temp Cyc +PC	Ta = -65 to +150 deg C	500 cycles	0/231
HTB	Ta = 150 deg C.	500 hours	0/231
HTOL	Ta = 125 deg C, bias	504 hours	0/231
MSL1	24 hr bake@125degC +168 hr 85/85 +3IR @ 235 deg C + 1x Flux immersion + DI rinse + visual	Readout	0/231
Solderability	In-line data	n/a	0/45
Bond Pull*	In-line data	n/a	0/30
*after 500 Temp Cycles			
Ball Shear	In-line data	n/a	0/10
Physical Dim	In-line data	n/a	0/10
ELFR	Ta = 125 deg C, bias	48 hours	0/2400

**Reliability Test Summary: Package SOIC WB 20 ld**

**Device = CS2001YDWF20**

<b>Test</b>	<b>Conditions</b>	<b>Interval</b>	<b>SS</b>
THB +PC	Ta=85 degC, RH=85%, bias	500 hours	0/231
A/clave +PC	Ta=121degC,P=15psig,RH=100%	96 hours	0/231
Temp Cyc +PC	Ta = -65 to +150 deg C	500 cycles	0/231
HTB	Ta = 150 deg C.	500 hours	0/231
HTOL	Ta = 125 deg C, bias	504 hours	0/231
MSL1	24 hr bake@125degC +168 hr 85/85 +3IR @ 235 deg C + 1x Flux immersion + DI rinse + visual	Readout	0/231
Solderability	In-line data	n/a	0/45
Bond Pull*	In-line data	n/a	0/30
*after 500 Temp Cycles			
Ball Shear	In-line data	n/a	0/10
Physical Dim	In-line data	n/a	0/10

**Reliability Test Summary: Package SOIC WB 24 ld**

**Device = CS43141XDWFR24**

<b>Test</b>	<b>Conditions</b>	<b>Interval</b>	<b>SS</b>
THB +PC	Ta=85 degC, RH=85%, bias	500 hours	0/231
A/clave +PC	Ta=121degC,P=15psig,RH=100%	96 hours	0/231
Temp Cyc +PC	Ta = -65 to +150 deg C	500 cycles	0/231
HTB	Ta = 150 deg C.	500 hours	0/231
HTOL	Ta = 125 deg C, bias	504 hours	0/231
MSL1	24 hr bake@125degC +168 hr 85/85 +3IR @ 235 deg C + 1x Flux immersion + DI rinse + visual	Readout	0/231
Solderability	In-line data	n/a	0/45
Bond Pull*	In-line data	n/a	0/30
*after 500 Temp Cycles			
Ball Shear	In-line data	n/a	0/10
Physical Dim	In-line data	n/a	0/10
ELFR	Ta = 125 deg C, bias	48 hours	0/2400



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**Reliability Test Summary: Package SOIC WB 28 ld  
Device = CS68140DWFR28**

<b>Test</b>	<b>Conditions</b>	<b>Interval</b>	<b>SS</b>
THB +PC	Ta=85 degC, RH=85%, bias	500 hours	0/231
A/clave +PC	Ta=121degC,P=15psig,RH=100%	96 hours	0/231
Temp Cyc +PC	Ta = -65 to +150 deg C	500 cycles	0/231
HTB	Ta = 150 deg C.	500 hours	0/231
HTOL	Ta = 125 deg C, bias	504 hours	0/231
MSL1	24 hr bake@125degC +168 hr 85/85 +3IR @ 235 deg C + 1x Flux immersion + DI rinse + visual	Readout	0/231
Solderability	In-line data	n/a	0/45
Bond Pull*	In-line data	n/a	0/30
*after 500 Temp Cycles			
Ball Shear	In-line data	n/a	0/10
Physical Dim	In-line data	n/a	0/10

**ELECTRICAL CHARACTERISTIC SUMMARY:**

The electrical performance, specifications, and designs of the devices being transferred are unchanged. Device specific comparison data is available upon request.

**CHANGED PART IDENTIFICATION:**

Material with datecode marking 0244 or later may be sourced from ASECL. ASECL assembly code marking is "X"

**AFFECTED DEVICE LIST (WITHOUT SPECIALS):**

**PART**

CS2082EDW20, CS2082EDWR20, CS3524AGDW16, CS3524AGDWR16  
 CS4192XDWF16, CS4192XDWFR16, CS5111YDWF24, CS5111YDWFR24  
 CS5112YDWF24, CS5112YDWFR24, CS5165AGDW16, CS5165AGDWR16  
 CS5165GDW16, CS5165GDWR16, CS5165HGDW16, CS5165HGDWR16  
 CS5166GDW16, CS5166GDWR16, CS5166HGDW16, CS5166HGDWR16  
 CS7054YDWR16, CS8101YDWF20, CS8101YDWFR20, CS8129YDW16  
 CS8129YDWR16, CS8151YDWF16, CS8151YDWFR16, CS8183YDWF20  
 CS8183YDWFR20, CS8190EDWF20, CS8190EDWFR20, CS8191XDWF20  
 CS8191XDWFR20, CS8361YDWF16, CS8361YDWFR16, CS9001DW16