



UPDATE CHANGE NOTIFICATION # 16277AGeneric Copy

05-May-2010

TITLE: Dual Source Fab10 Products with Gresham Fab**PROPOSED FIRST SHIP DATE:** 03-Mar-2011**AFFECTED CHANGE CATEGORY(S):** Wafer Fabrication**ADDITIONAL RELIABILITY DATA:** Available**SAMPLES:** Contact your local ON Semiconductor Sales Office**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**

Contact your local ON Semiconductor Sales Office or Richard Tan
<Richard.Tan@onsemi.com>

NOTIFICATION TYPE:

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 <quality@onsemi.com>.

DESCRIPTION AND PURPOSE:

1. Update to PCN030i – GE Medical on Nov. 12, 2008. GE assigned SCR # DOC0526107.
2. Update to UN16277 on Jun. 18, 2009. GE assigned SCR # DOC0632003.
3. Changed proposed first ship date from 07-Dec-2009 to 03-Mar-2011.
4. Added affected devices list (last page).
5. Added detailed qualification plan for 19063 and 19117.



UPDATE CHANGE NOTIFICATION #16277A

AMIS Product Name : **Sherlock RoHS conversion**
 Customer Product Name : **GE Medical Systems**
 Maskset : **19063-006**
 Die Size : **10.54 x 8.54**
 Process & Waferfab : **C5 USGR1**
 Package & Assembly House : **143 VFBGA (Amkor)**

Qual Plan Revision : **A**
 Date : **3/29/2010**
 Prepared by : **Richard Tan**
 Approved by : **Eddie Glines**
 Qual Start Date Forecast : **9/13/2010**
 Total parts required : **979**

ACCELERATED ENVIRONMENT STRESS TESTS

Test #	Test	Reference	Test Conditions	Electrical Test Requirements	Sample Size per lot	Accept Criteria	# of Lots	Total Parts Required	Comments
A1	Moisture Preconditioning (PC)	J-STD-020 & JESD22-A113	Moisture Soak (MSL = 3) Solder Reflow (3x @ 260°C)	Test @ room	236	0	3	708	Surface Mount Devices only. Preconditioning before tests A0 (SAT), A2 (HAST/THB), A3 (AC/UHST), A4 (TC), A5 (PTC). Test conditions are package dependent.
A0	Delamination check (SAT)	J-STD-020	Acoustic Microscopy	N.A.	5	0	3	15	Samples preconditioned per test A1 (PC)
A2	HAST Biased (HAST)	JESD22-A110	110°C / 85%RH for 264 hrs	Test @ room Test @ hot	77	0	3	231	Samples preconditioned per test A1 (PC)
A3	Autoclave (AC)	JESD22-A102	121°C / 100% RH for 96 hrs	Test @ room	77	0	3	231	Samples preconditioned per test A1 (PC)
A4	Temperature Cycling (TC)	JESD22-A104	-55°C to 125°C for 1000 cycles	Test @ hot	77	0	3	231	Samples preconditioned per test A1 (PC). Test conditions are dependent on environment.

ACCELERATED LIFETIME SIMULATION TESTS

Test #	Test	Reference	Test Conditions	Electrical Test Requirements	Sample Size per lot	Accept Criteria	# of Lots	Total Parts Required	Comments
B1	High Temperature Operating Lifetest (HTOL)	JESD22-A108	Ta = 125°C for 1000 hrs	Test @ room Test @ hot Test @ cold	77	0	3	231	

PACKAGE ASSEMBLY INTEGRITY TESTS

Test #	Test	Reference	Test Conditions	Electrical Test Requirements	Sample Size per lot	Accept Criteria	# of Lots	Total Parts Required	Comments
C1	Wire Bond Shear (WBS)	AEC-Q100-001		N.A.	30 bonds from 5 parts	Cpk > 1.33 Ppk > 1.66	1	5	
C2	Wire Bond Pull Strength (WBP)	MIL-STD883 Method 2011	Cond. C or D. Minimum pull strength after temperature cycle = 3 grams	N.A.	30 bonds from 5 parts	Cpk > 1.33 Ppk > 1.66 or 0 Fails after test A4 (TC)	1	5	

ELECTRICAL VERIFICATION TESTS

Test #	Test	Reference	Test Conditions	Electrical Test Requirements	Sample Size per lot	Accept Criteria	# of Lots	Total Parts Required	Comments
E2a	ESD - Human Body Model (HBM)	JESD22-A114	2 kV	Test @ room	3 per voltage	0	1	15	
E2b	ESD - Machine Model (MM)	JESD22-A115	200 V	Test @ room	3 per voltage	0	1	15	
E3	ESD - Charged Device Model (CDM)	ESD-STM 5-3-1-1999	750V corner pins ; 500V all other pins	Test @ room	3 per voltage	0	1	15	
E4	Latch-up (LU)	JESD78	100 mA @ 25°C	Test @ room	6	0	1	6	
E5	Electrical Distribution (ED)	AEC-Q100-009		Test @ room Test @ hot Test @ cold	30	Cpk > 1.33 Ppk > 1.66	3	90	



UPDATE CHANGE NOTIFICATION #16277A

AMIS Product Name : **HALO**
 Customer Product Name : **GE Medical Systems**
 Maskset : **19117-004**
 Die Size : **8.51x10.62mm^2**
 Process & Waferfab : **C5, USGR1**
 Package & Assembly House : **LFBGA 143 pin, Amkor**

Qual Plan Revision : **A**
 Date : **3/30/10**
 Prepared by : **Richard Tan**
 Approved by : **Eddie Glines**
 Qual Start Date Forecast : **9/13/2010**
 Total parts required : **296**

ACCELERATED ENVIRONMENT STRESS TESTS									
Test #	Test	Reference	Test Conditions	Electrical Test Requirements	Sample Size per lot	Accept Criteria	# of Lots	Total Parts Required	Comments
A1	Moisture Preconditioning (PC)	J-STD-020 & JESD22-A113	Moisture Soak (MSL = x) Solder Reflow (3x @ xxx°C) (conditions are package dependent)	Test @ room	140	0	1	140	Surface Mount Devices only. Preconditioning before tests A0 (SAT), A2 (HAST/THB), A3 (AC/UHST), A4 (TC), A5 (PTC). Test conditions are package dependent.
A0	Delamination check (SAT)	J-STD-020	Acoustic Microscopy	N.A.	5	0	1	5	Samples preconditioned per test A1 (PC)
A2	HAST Biased (HAST)	JESD22-A110	110°C/ 85%RH @ 264hrs	Test @ room Test @ hot	45	0	1	45	Samples preconditioned per test A1 (PC)
A3	Autoclave (AC)	JESD22-A102	121°C / 100% RH for 96 hrs	Test @ room	45	0	1	45	Samples preconditioned per test A1 (PC)
A4	Temperature Cycling (TC)	JESD22-A104	-55°C to 125°C for 1000 cycles	Test @ hot	45	0	1	45	Samples preconditioned per test A1 (PC) Test conditions are dependent on environment.
ELECTRICAL VERIFICATION TESTS									
Test #	Test	Reference	Test Conditions	Electrical Test Requirements	Sample Size per lot	Accept Criteria	# of Lots	Total Parts Required	Comments
E2a	ESD - Human Body Model (HBM)	JESD22-A114	500V, 1KV, 1K5V, 2KV, 4KV -or- 500V, 1KV, 2KV, 4KV	Test @ room	3 per voltage	0 @ ≤ 2KV	1	15	
E2b	ESD - Machine Model (MM)	JESD22-A115	100V, 150V, 200V, 250V, 300V - or - 50V, 100V, 200V, 400V	Test @ room	3 per voltage	0 @ ≤ 200V	1	15	
E3	ESD - Charged Device Model (CDM)	ESD-STM 5-3-1-1999	250V, 500V, 750V, 1000V	Test @ room	3 per voltage	0 @ ≤ 500V - or - 0 @ ≤ 750V	1	15	750V applies to corner pins only. All others, 500V
E4	Latch-up (LU)	JESD78	100 mA @ 25°C	Test @ room	6	0	1	6	
E5	Electrical Distribution (ED)	AEC-Q100-009		Test @ room Test @ hot Test @ cold	30	Cpk > 1.33 Ppk > 1.66	3	90	



UPDATE CHANGE NOTIFICATION #16277A

List of affected Customer Specific Parts:

19063-002-XTD
19063-003-XTD
19063-004-XTD
19063-005-XTD
19063-006-XTD
19117-002-XTD
19117-003-XTD
19117-004-XTD