

RELIABILITY MONITOR REPORT
FOR

SOIC Package

Dallas Semiconductor

4401 South Beltwood Parkway
Dallas, TX 75244-3292

This Report was prepared by
Dallas Semiconductor Reliability Engineering

Summary:

The data in the tables that follow was generated as the result of an on-going Package Reliability Monitor. The assemblies covered by this package monitor are:

ASSY SITE	PINS	PACKAGE		
ATK (Amkor, K)	14	SOIC	ATK (Amkor, K)	16 SOIC
ATK (Amkor, K)	20	SOIC	ATK (Amkor, K)	24 SOIC
ATK (Amkor, K)	28	SOIC	ATK (Amkor, K)	8 SOIC
ATP (Amkor, PI)	14	SOIC	ATP (Amkor, PI)	16 SOIC
ATP (Amkor, PI)	20	SOIC	ATP (Amkor, PI)	24 SOIC
ATP (Amkor, PI)	28	SOIC	ATP (Amkor, PI)	8 SOIC
ATP (Amkor, PI)	16	SOIC (Pb-Free)	ATP (Amkor, PI)	20 SOIC (Pb-Free)
ATP (Amkor, PI)	24	SOIC (Pb-Free)	ATP (Amkor, PI)	28 SOIC (Pb-Free)
ATP (Amkor, PI)	8	SOIC (Pb-Free)	ATP (Amkor, PI)	16 SOIC w/CRYSTAL
Carsem	14	SOIC	Carsem	16 SOIC
Carsem	20	SOIC	Carsem	24 SOIC
Carsem	28	SOIC	Carsem	8 SOIC
Carsem	14	SOIC (Pb-Free)	Carsem	16 SOIC (Pb-Free)
Carsem	20	SOIC (Pb-Free)	Carsem	24 SOIC (Pb-Free)
Carsem	28	SOIC (Pb-Free)	Carsem	8 SOIC (Pb-Free)
CIRTEK	16	SOIC	CIRTEK	16 SOIC (Pb-Free)
CIRTEK	16	SOIC w/Welded Crystal (Pb-Free)	CIRTEK	20 SOIC w/Welded Crystal (Pb-Free)
Hana	8	SOIC	Hana	8 SOIC (Pb-Free)
Hana	16	SOIC w/Welded Crystal (Pb-Free)	NSEB	14 SOIC
NSEB	16	SOIC	NSEB	8 SOIC
NSEB	14	SOIC (Pb-Free)	NSEB	16 SOIC (Pb-Free)
NSEB	8	SOIC (Pb-Free)	OSEP	14 SOIC
OSEP	16	SOIC	OSEP	20 SOIC
OSEP	24	SOIC	OSEP	28 SOIC
OSEP	8	SOIC	OSEP	14 SOIC (Pb-Free)
OSEP	16	SOIC (Pb-Free)	OSEP	20 SOIC (Pb-Free)
OSEP	24	SOIC (Pb-Free)	OSEP	28 SOIC (Pb-Free)
OSEP	8	SOIC (Pb-Free)	Unisem	8 SOIC
Unisem	8	SOIC (Pb-Free)		

The calculated failure rate for this assembly is:

FAILURE RATE: **MTTF (YRS): 141122** **FITS: 0.8**

The parameters used to calculate this failure rate are as follows:

Cf: 60% **Ea: 0.7** **B: 0** **Tu: 25 °C** **Vu: 5.5 Volts**

The reliability data follows. At the start of this data is a description of the assembly vehicle used to generate this reliability data. The next section is the detailed reliability data for each stress. The reliability data section includes the latest data available. This report covers data between 04/01/2005 and 03/31/2006 .

Assembly Information:

Package Type: SOIC 150
Flammability: UL 94-V0
Moisture Sensitivity
(JEDEC J-STD20A) Level 1
Date Code Range: 0507 to 0547

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0507	DS2715	125C, 5.5 V (PSA) & 17.0 V (PSB)	1000 HRS	45	0	
HIGH TEMP OP LIFE	0512	DS2431	125C, 5.25 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0521	DS1099	125C, 5.5 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0533	DS2431	125C, 5.25 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0545	DS1672	125C, 3.6 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0547	DS2431	125C, 5.25 VOLTS	1000 HRS	77	0	
					Total:	0	

PRECONDITIONING LEVEL 1

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	0521	DS1099	125C	24 HRS	315		
MOISTURE SOAK			85 C/85% R.H.	168 HRS	315		
CONVECTION REFLOW			235C +/-0C	3 PASS	315	0	
					Total:	0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	0507	DS2715	150C	1000 HRS	77	0	
					Total:	0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE	0512	DS2431	-55C TO 125C	1000 CYS	77	0	
TEMP CYCLE	0521	DS1099	-55C TO 125C	1000 CYS	77	0	
TEMP CYCLE	0533	DS2431	-55C TO 125C	1000 CYS	77	0	
TEMP CYCLE	0547	DS2431	-55C TO 125C	1000 CYS	77	0	
					Total:	0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HAST	0512	DS2431	130C, 85%R.H.,5.5V	96 HRS	77	0	
HAST	0521	DS1099	130C, 85%R.H.,5.5V	96 HRS	77	0	
HAST	0533	DS2431	130C, 85%R.H.,5.5V	96 HRS	77	0	
HAST	0547	DS2431	130C, 85%R.H.,5.5V	96 HRS	72	0	
					Total:	0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
AUTOCLAVE	0512	DS2431	121C, 2 ATM STEAM, UNBIASED	168 HRS	77	0	
AUTOCLAVE	0521	DS1099	121C, 2 ATM STEAM, UNBIASED	168 HRS	77	0	
AUTOCLAVE	0533	DS2431	121C, 2 ATM STEAM, UNBIASED	168 HRS	77	0	

AUTOCLAVE	0547	DS2431	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
Total:							0

Assembly Information:

Package Type: SOIC 208
 Flammability: UL 94-V0
 Moisture Sensitivity (JEDEC J-STD20A) Level 1
 Date Code Range: 0535 to 0535

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0535	DS1624	125C, 5.5 VOLTS	1000	HRS	77	0
Total:							0

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE	0535	DS1624	-55C TO 125C	1000	CYS	77	0
Total:							0

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HAST	0535	DS1624	130C, 85%R.H.,5.5V	96	HRS	77	0
Total:							0

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
AUTOCLAVE	0535	DS1624	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
Total:							0

Assembly Information:

Package Type: SOIC 300
 Flammability: UL 94-V0
 Moisture Sensitivity (JEDEC J-STD20A) Level 1
 Date Code Range: 0513 to 0513

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0513	DS4026C	125C, 3.6 VOLTS	1000	HRS	45	0
Total:							0

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	0513	DS4026C	150C	1000	HRS	77	0
Total:							0

Assembly Information:

Package Type: SOIC (Pb-Free) 150
Flammability: UL 94-V0
Moisture Sensitivity (JEDEC J-STD20A) Level 1
Date Code Range: 0530 to 0550

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0530	DS1482	125C, 4.9 V (PSA) & 3.6 V (PSB)	1000 HRS	45	0	
HIGH TEMP OP LIFE	0550	DS1337	125C, 5.5 VOLTS	1000 HRS	77	0	
Total:						0	

Assembly Information:

Package Type: SOIC (Pb-Free) 208
Flammability: UL 94-V0
Moisture Sensitivity (JEDEC J-STD20A) Level 1
Date Code Range: 0511 to 0532

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0532	DS1624	125C, 5.5 VOLTS	1000 HRS	77	0	
Total:						0	

PRECONDITIONING LEVEL 1

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	0511	DS2433	125C	48 HRS	350		
MOISTURE SOAK			85 C/85% R.H.	168 HRS	350		
CONVECTION REFLOW			260C +/-5C	3 PASS	350	0	
STORAGE LIFE	0511	DS2433	125C	48 HRS	350		
MOISTURE SOAK			85 C/85% R.H.	168 HRS	350		
CONVECTION REFLOW			260C +/-5C	3 PASS	350	0	
Total:						0	

Assembly Information:

Package Type: SOIC (Pb-Free) 300
Flammability: UL 94-V0
Moisture Sensitivity (JEDEC J-STD20A) Level 1
Date Code Range: 0511 to 0511

MOISTURE SENSITIVITY LEVEL 1

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
ULTRASOUND	0511	DS12885	J-STD-020		8	0	
STORAGE LIFE			125C	48 HRS	8		
MOISTURE SOAK			85 C/85% R.H.	168 HRS	8		
CONVECTION REFLOW			260C +/-5C	3 PASS	8	0	

PRECONDITION U/S	0511	DS12885	J-STD-020			8	0
EXTERNAL VISUAL			J-STD-020, 6.1a			8	0
ULTRASOUND	0511	DS12885	J-STD-020			8	0
STORAGE LIFE			125C	48	HRS	8	
MOISTURE SOAK			85 C/85% R.H.	168	HRS	8	
CONVECTION REFLOW			260C +/-5C	3	PASS	8	0
PRECONDITION U/S			J-STD-020			8	0
EXTERNAL VISUAL			J-STD-020, 6.1a			8	0
ULTRASOUND	0511	DS12885	J-STD-020			8	0
STORAGE LIFE			125C	48	HRS	8	
MOISTURE SOAK			85 C/85% R.H.	168	HRS	8	
CONVECTION REFLOW			260C +/-5C	3	PASS	8	0
PRECONDITION U/S			J-STD-020			8	0
EXTERNAL VISUAL			J-STD-020, 6.1a			8	0
Total:						0	0

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0511	DS12885	125C, 5.0 VOLTS	1000 HRS	45	0	
VISUAL INSPECTION			WHISKERS < 50uM		3	0	
HIGH TEMP OP LIFE	0511	DS12885	125C, 5.0 VOLTS	1000 HRS	45	0	
VISUAL INSPECTION			WHISKERS < 50uM		3	0	
HIGH TEMP OP LIFE	0511	DS12885	125C, 5.0 VOLTS	1000 HRS	45	0	
VISUAL INSPECTION			WHISKERS < 50uM		3	0	
Total:						0	0

PACKAGE TESTS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
SOLDERABILITY (Sn/Pb)	0511	DS12885	JESD22-B102, COND C		3	0	
SOLDERABILITY (Pb-Free)			JESD22-B102, COND C		3	0	
X-RAY	0511	DS12885	MIL-STD-883-2012 : TOP & SIDE VIEW		6	0	
PHYSICAL DIMENSIONS			JESD22-B100		6	0	
MARK PERMANENCY			JESD22-B107		6	0	
LEAD INTEGRITY			JESD22-B105, COND B		6	0	
SOLDERABILITY (Sn/Pb)	0511	DS12885	JESD22-B102, COND C		3	0	
SOLDERABILITY (Pb-Free)			JESD22-B102, COND C		3	0	
X-RAY	0511	DS12885	MIL-STD-883-2012 : TOP & SIDE VIEW		6	0	
PHYSICAL DIMENSIONS			JESD22-B100		6	0	
MARK PERMANENCY			JESD22-B107		6	0	
LEAD INTEGRITY			JESD22-B105, COND B		6	0	
SOLDERABILITY (Sn/Pb)	0511	DS12885	JESD22-B102, COND C		3	0	
SOLDERABILITY (Pb-Free)			JESD22-B102, COND C		3	0	
X-RAY	0511	DS12885	MIL-STD-883-2012 : TOP & SIDE VIEW		6	0	
PHYSICAL DIMENSIONS			JESD22-B100		6	0	
MARK PERMANENCY			JESD22-B107		6	0	
LEAD INTEGRITY			JESD22-B105, COND B		6	0	
Total:						0	0

PRECONDITIONING LEVEL 1

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	0511	DS12885	125C	48 HRS	353		
MOISTURE SOAK			85 C/85% R.H.	168 HRS	353		
CONVECTION REFLOW			260C +0/-5C	3 PASS	353	0	
STORAGE LIFE	0511	DS12885	125C	48 HRS	353		
MOISTURE SOAK			85 C/85% R.H.	168 HRS	353		
CONVECTION REFLOW			260C +0/-5C	3 PASS	353	0	
STORAGE LIFE	0511	DS12885	125C	48 HRS	353		
MOISTURE SOAK			85 C/85% R.H.	168 HRS	353		
CONVECTION REFLOW			260C +0/-5C	3 PASS	353	0	
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	0511	DS12885	150C	1000 HRS	77	0	
VISUAL INSPECTION			WHISKERS < 50uM		3	0	
STORAGE LIFE	0511	DS12885	150C	1000 HRS	77	0	
VISUAL INSPECTION			WHISKERS < 50uM		3	0	
STORAGE LIFE	0511	DS12885	150C	1000 HRS	77	0	
VISUAL INSPECTION			WHISKERS < 50uM		3	0	
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE	0511	DS12885	-55C TO 125C	1000 CYS	77	0	
VISUAL INSPECTION			WHISKERS < 50uM		3	0	
TEMP CYCLE	0511	DS12885	-55C TO 125C	1000 CYS	77	0	
VISUAL INSPECTION			WHISKERS < 50uM		3	0	
TEMP CYCLE	0511	DS12885	-55C TO 125C	1000 CYS	77	0	
VISUAL INSPECTION			WHISKERS < 50uM		3	0	
Total:						0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HAST	0511	DS12885	130C, 85%R.H.,5.5V	96 HRS	77	0	
VISUAL INSPECTION			WHISKERS < 50uM		3	0	
HAST	0511	DS12885	130C, 85%R.H.,5.5V	96 HRS	77	0	
VISUAL INSPECTION			WHISKERS < 50uM		3	0	
HAST	0511	DS12885	130C, 85%R.H.,5.5V	96 HRS	77	0	
VISUAL INSPECTION			WHISKERS < 50uM		3	0	
Total:						0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
AUTOCLAVE	0511	DS12885	121C, 2 ATM STEAM, UNBIASED	168 HRS	77	0	
VISUAL INSPECTION			WHISKERS < 50uM		3	0	

AUTOCLAVE	0511	DS12885	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
VISUAL INSPECTION			WHISKERS < 50uM			3	0
AUTOCLAVE	0511	DS12885	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
VISUAL INSPECTION			WHISKERS < 50uM			3	0
Total:						0	0

Assembly Information:

Package Type: SOIC w/Crystal 300
 Flammability: UL 94-V0
 Moisture Sensitivity (JEDEC J-STD20A) Level 1
 Date Code Range: 0509 to 0522

MOISTURE SENSITIVITY LEVEL 1

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
ULTRASOUND	0520	DS32KHZS	J-STD-020		44	0	
STORAGE LIFE			125C	24 HRS	44		
MOISTURE SOAK			85 C/85% R.H.	168 HRS	44		
CONVECTION REFLOW			260C +/-5C	2 PASS	44	0	
X-RAY			MIL-STD-883-2012 : TOP & SIDE VIEW		44	0	
EXTERNAL VISUAL			J-STD-020, 6.1a		44	0	
PRECONDITION U/S			J-STD-020		44	0	
ULTRASOUND	0520	DS32KHZS	J-STD-020		44	0	
STORAGE LIFE			125C	24 HRS	44		
MOISTURE SOAK			85 C/85% R.H.	168 HRS	44		
CONVECTION REFLOW			260C +/-5C	2 PASS	44	0	
X-RAY			MIL-STD-883-2012 : TOP & SIDE VIEW		44	0	
EXTERNAL VISUAL			J-STD-020, 6.1a		44	0	
PRECONDITION U/S			J-STD-020		44	0	
ULTRASOUND	0520	DS32KHZS	J-STD-020		44	0	
STORAGE LIFE			125C	24 HRS	44		
MOISTURE SOAK			85 C/85% R.H.	168 HRS	44		
CONVECTION REFLOW			260C +/-5C	2 PASS	44	0	
X-RAY			MIL-STD-883-2012 : TOP & SIDE VIEW		44	0	
EXTERNAL VISUAL			J-STD-020, 6.1a		44	0	
PRECONDITION U/S			J-STD-020		44	0	
ULTRASOUND	0522	DS32KHZS	J-STD-020		44	0	
STORAGE LIFE			125C	24 HRS	44		
MOISTURE SOAK			85 C/85% R.H.	168 HRS	44		
CONVECTION REFLOW			260C +/-5C	2 PASS	44	0	
X-RAY			MIL-STD-883-2012 : TOP & SIDE VIEW		44	0	
EXTERNAL VISUAL			J-STD-020, 6.1a		44	0	
PRECONDITION U/S			J-STD-020		44	0	
ULTRASOUND	0522	DS32KHZS	J-STD-020		44	0	
STORAGE LIFE			125C	24 HRS	44		
MOISTURE SOAK			85 C/85% R.H.	168 HRS	44		
CONVECTION REFLOW			260C +/-5C	2 PASS	44	0	
X-RAY			MIL-STD-883-2012 : TOP & SIDE VIEW		44	0	
EXTERNAL VISUAL			J-STD-020, 6.1a		44	0	
PRECONDITION U/S			J-STD-020		44	0	
ULTRASOUND	0522	DS32KHZS	J-STD-020		44	0	

STORAGE LIFE	0522	DS32KHZS	125C	24	HRS	44	
MOISTURE SOAK			85 C/85% R.H.	168	HRS	44	
CONVECTION REFLOW			260C +0/-5C	2	PASS	44	0
X-RAY			MIL-STD-883-2012 : TOP & SIDE VIEW			44	0
EXTERNAL VISUAL			J-STD-020, 6.1a			44	0
PRECONDITION U/S			J-STD-020			44	0
Total:						0	

MOISTURE SENSITIVITY LEVEL 3

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
ULTRASOUND	0509	DS32KHZS	J-STD-020		45	0	
STORAGE LIFE			125C	24	HRS	45	
MOISTURE SOAK			30C/60% R.H.	192	HRS	45	
CONVECTION REFLOW			235C +5/-0C	2	PASS	45	0
X-RAY			MIL-STD-883-2012 : TOP & SIDE VIEW			45	0
EXTERNAL VISUAL			J-STD-020, 6.1a			45	0
PRECONDITION U/S			J-STD-020			45	0
Total:						0	

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0509	DS32KHZS	125C, 5.5 VOLTS	1000	HRS	45	0
HIGH TEMP OP LIFE	0520	DS32KHZS	125C, 5.5 VOLTS	1000	HRS	45	0
HIGH TEMP OP LIFE	0520	DS32KHZS	125C, 5.5 VOLTS	1000	HRS	45	0
HIGH TEMP OP LIFE	0520	DS32KHZS	125C, 5.5 VOLTS	1000	HRS	45	0
HIGH TEMP OP LIFE	0522	DS32KHZS	125C, 5.5 VOLTS	1000	HRS	45	0
HIGH TEMP OP LIFE	0522	DS32KHZS	125C, 5.5 VOLTS	1000	HRS	45	0
HIGH TEMP OP LIFE	0522	DS32KHZS	125C, 5.5 VOLTS	1000	HRS	45	0
Total:						0	

PACKAGE TESTS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
X-RAY	0509	DS32KHZS	MIL-STD-883-2012 : TOP & SIDE VIEW		398	0	
SOLDERABILITY (Pb-Free)	0520	DS32KHZS	JESD22-B102, COND C		3	0	
X-RAY	0520	DS32KHZS	MIL-STD-883-2012 : TOP & SIDE VIEW		6	0	
PHYSICAL DIMENSIONS			JESD22-B100		6	0	
MARK PERMANENCY			JESD22-B107		6	0	
LEAD INTEGRITY			JESD22-B105, COND B		6	0	
X-RAY	0520	DS32KHZS	MIL-STD-883-2012 : TOP & SIDE VIEW		397	0	
SOLDERABILITY (Pb-Free)	0520	DS32KHZS	JESD22-B102, COND C		3	0	
X-RAY	0520	DS32KHZS	MIL-STD-883-2012 : TOP & SIDE VIEW		6	0	
PHYSICAL DIMENSIONS			JESD22-B100		6	0	
MARK PERMANENCY			JESD22-B107		6	0	
LEAD INTEGRITY			JESD22-B105, COND B		6	0	
X-RAY	0520	DS32KHZS	MIL-STD-883-2012 : TOP & SIDE VIEW		397	0	

SOLDERABILITY (Pb-Free)	0520	DS32KHZS	JESD22-B102, COND C	3	0
X-RAY	0520	DS32KHZS	MIL-STD-883-2012 : TOP & SIDE VIEW	6	0
PHYSICAL DIMENSIONS			JESD22-B100	6	0
MARK PERMANENCY			JESD22-B107	6	0
LEAD INTEGRITY			JESD22-B105, COND B	6	0
X-RAY	0520	DS32KHZS	MIL-STD-883-2012 : TOP & SIDE VIEW	397	0
SOLDERABILITY (Pb-Free)	0522	DS32KHZS	JESD22-B102, COND C	3	0
X-RAY	0522	DS32KHZS	MIL-STD-883-2012 : TOP & SIDE VIEW	6	0
PHYSICAL DIMENSIONS			JESD22-B100	6	0
MARK PERMANENCY			JESD22-B107	6	0
LEAD INTEGRITY			JESD22-B105, COND B	6	0
X-RAY	0522	DS32KHZS	MIL-STD-883-2012 : TOP & SIDE VIEW	397	0
SOLDERABILITY (Pb-Free)	0522	DS32KHZS	JESD22-B102, COND C	3	0
X-RAY	0522	DS32KHZS	MIL-STD-883-2012 : TOP & SIDE VIEW	6	0
PHYSICAL DIMENSIONS			JESD22-B100	6	0
MARK PERMANENCY			JESD22-B107	6	0
LEAD INTEGRITY			JESD22-B105, COND B	6	0
X-RAY	0522	DS32KHZS	MIL-STD-883-2012 : TOP & SIDE VIEW	397	0
SOLDERABILITY (Pb-Free)	0522	DS32KHZS	JESD22-B102, COND C	3	0
X-RAY	0522	DS32KHZS	MIL-STD-883-2012 : TOP & SIDE VIEW	6	0
PHYSICAL DIMENSIONS			JESD22-B100	6	0
MARK PERMANENCY			JESD22-B107	6	0
LEAD INTEGRITY			JESD22-B105, COND B	6	0
X-RAY	0522	DS32KHZS	MIL-STD-883-2012 : TOP & SIDE VIEW	397	0
				Total:	0

PRECONDITIONING LEVEL 1

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	0520	DS32KHZS	125C	24	HRS	353	
MOISTURE SOAK			85 C/85% R.H.	168	HRS	353	
CONVECTION REFLOW			260C +/-5C	2	PASS	353	0
X-RAY			MIL-STD-883-2012 : TOP & SIDE VIEW			353	0
STORAGE LIFE	0520	DS32KHZS	125C	24	HRS	353	
MOISTURE SOAK			85 C/85% R.H.	168	HRS	353	
CONVECTION REFLOW			260C +/-5C	2	PASS	353	0
X-RAY			MIL-STD-883-2012 : TOP & SIDE VIEW			353	0
STORAGE LIFE	0520	DS32KHZS	125C	24	HRS	353	
MOISTURE SOAK			85 C/85% R.H.	168	HRS	353	
CONVECTION REFLOW			260C +/-5C	2	PASS	353	0
X-RAY			MIL-STD-883-2012 : TOP & SIDE VIEW			353	0
STORAGE LIFE	0522	DS32KHZS	125C	24	HRS	353	
MOISTURE SOAK			85 C/85% R.H.	168	HRS	353	
CONVECTION REFLOW			260C +/-5C	2	PASS	353	0
X-RAY			MIL-STD-883-2012 : TOP & SIDE VIEW			352	0
STORAGE LIFE	0522	DS32KHZS	125C	24	HRS	353	

MOISTURE SOAK	0522	DS32KHZS	85 C/85% R.H.	168	HRS	353		
CONVECTION REFLOW			260C +/-5C	2	PASS	353	0	
X-RAY			MIL-STD-883-2012 : TOP & SIDE VIEW			353	0	
STORAGE LIFE	0522	DS32KHZS	125C	24	HRS	353		
MOISTURE SOAK			85 C/85% R.H.	168	HRS	353		
CONVECTION REFLOW			260C +/-5C	2	PASS	353	0	
X-RAY			MIL-STD-883-2012 : TOP & SIDE VIEW			353	0	
Total:							0	

PRECONDITIONING LEVEL 3

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	0509	DS32KHZS	125C	24	HRS	353	
MOISTURE SOAK			30C/60% R.H.	192	HRS	353	
CONVECTION REFLOW			235C +/-0C	2	PASS	353	0
X-RAY			MIL-STD-883-2012 : TOP & SIDE VIEW			352	0
Total:							0

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	0509	DS32KHZS	125C	1000	HRS	77	0
STORAGE LIFE	0520	DS32KHZS	125C	1000	HRS	77	0
STORAGE LIFE	0520	DS32KHZS	125C	1000	HRS	77	0
STORAGE LIFE	0520	DS32KHZS	125C	1000	HRS	77	0
STORAGE LIFE	0522	DS32KHZS	125C	1000	HRS	77	0
STORAGE LIFE	0522	DS32KHZS	125C	1000	HRS	77	0
STORAGE LIFE	0522	DS32KHZS	125C	1000	HRS	77	0
Total:							0

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE	0509	DS32KHZS	-40 TO 85C	1000	CYS	77	0
TEMP CYCLE	0520	DS32KHZS	-40 TO 85C	1000	CYS	77	0
TEMP CYCLE	0520	DS32KHZS	-40 TO 85C	1000	CYS	77	0
TEMP CYCLE	0520	DS32KHZS	-40 TO 85C	1000	CYS	77	0
TEMP CYCLE	0522	DS32KHZS	-40 TO 85C	1000	CYS	77	0
TEMP CYCLE	0522	DS32KHZS	-40 TO 85C	1000	CYS	77	0
TEMP CYCLE	0522	DS32KHZS	-40 TO 85C	1000	CYS	77	0
Total:							0

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
BIASED MOISTURE	0509	DS32KHZS	85/85, 5.5 VOLTS	1000	HRS	77	0
BIASED MOISTURE	0520	DS32KHZS	85/85, 5.5 VOLTS	1000	HRS	77	0
BIASED MOISTURE	0520	DS32KHZS	85/85, 5.5 VOLTS	1000	HRS	77	0
BIASED MOISTURE	0520	DS32KHZS	85/85, 5.5 VOLTS	1000	HRS	77	0

BIASED MOISTURE	0522	DS32KHZS	85/85, 5.5 VOLTS	1000 HRS	77	0
BIASED MOISTURE	0522	DS32KHZS	85/85, 5.5 VOLTS	1000 HRS	77	0
BIASED MOISTURE	0522	DS32KHZS	85/85, 5.5 VOLTS	1000 HRS	77	0
Total:						0

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
AUTOCLAVE	0509	DS32KHZS	121C, 2 ATM STEAM, UNBIASED	168 HRS	76	0	
AUTOCLAVE	0520	DS32KHZS	121C, 2 ATM STEAM, UNBIASED	168 HRS	77	0	
AUTOCLAVE	0520	DS32KHZS	121C, 2 ATM STEAM, UNBIASED	168 HRS	77	0	
AUTOCLAVE	0520	DS32KHZS	121C, 2 ATM STEAM, UNBIASED	168 HRS	77	0	
AUTOCLAVE	0522	DS32KHZS	121C, 2 ATM STEAM, UNBIASED	168 HRS	76	0	
AUTOCLAVE	0522	DS32KHZS	121C, 2 ATM STEAM, UNBIASED	168 HRS	77	0	
AUTOCLAVE	0522	DS32KHZS	121C, 2 ATM STEAM, UNBIASED	168 HRS	77	0	
Total:						0	

FAILURE RATE: MTTF (YRS): 141122 FITS: 0.8