

# RELIABILITY MONITOR

STRESS: WRITE CYCLE STRESS

CONDITIONS: 85 C, 5.5 VOLTS

PRODUCT	REV	MONITOR DATE	JOB NO	DATE ASSEMBLY CODE FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAIL
DS1620	D1	OCT '03	32507	0334 Hana	DU110113AA	SOIC	50	50	0
DS1620	D1	JAN '04	33351	0350 Hana	DU218030AC	SOIC	50	50	0
DS1621	A7	SEP '03	32326	0326 OSEP	DE319631AAB	SOIC	50	50	0

# RELIABILITY MONITOR

STRESS: ULTRASOUND

CONDITIONS: J-STD-020

PRODUCT	REV	MONITOR		DATE	ASSEMBLY	LOT NO.	PACKAGE	READ		
		DATE	JOB NO					CODE	FACILITY	POINT
DS1100	A3	JUL '03	31896	0323	NSEB	DJ330003ACC	SOIC	1	4	0
DS1100	A3	OCT '03	32520	0333	ATP (Amkor, PI)	DK340403AA	SOIC	1	4	0
DS1232	C2-L	JUL '03	31903	0327	ATP (Amkor, PI)	DK343027AA	SOIC	1	4	0
DS1232	C2-L	JAN '04	33389	0403	NSEB	DJ416122AAD	SOIC	1	4	0
DS1233	A5-5	JAN '04	33361	0402	Hana	DU331316AEA	SOT223	1	4	0
DS1267	A1-5	OCT '03	32759	0340	ATP (Amkor, PI)	DK230310AC	TSSOP	5	4	0
DS1267	A1-5	JAN '04	33382	0357	ATP (Amkor, PI)	DK233308AD	TSSOP	5	4	0
DS1620	D1	OCT '03	32501	0334	Hana	DU110113AA	SOIC	7	4	0
DS1620	D1	JAN '04	33345	0350	Hana	DU218030AC	SOIC	7	4	0
DS1621	A7	SEP '03	32320	0326	OSEP	DE319631AAB	SOIC	7	4	0
DS1803	A2-	OCT '02	30226	0234	ATP (Amkor, PI)	DK236047AA	SOIC	2	4	0
DS1803	A2-	JUL '03	31925	0317	OSEP	DE335021AAB	SOIC	2	4	0
DS1803	A2-	JAN '04	33353	0345	ATP (Amkor, PI)	DK401427AA	SOIC	2	4	0
DS2118M	C1-6	SEP '03	32417	0309	ATK (Amkor, K)	DN319658AA	SSOP	6	4	0
DS21352	A4	NOV '03	33006	0340	Stats	DC034262AA	LQFP	2	4	0
DS2154	D1	NOV '03	32951	0343	ATP (Amkor, PI)	DK303551AA	LQFP	2	4	0
DS5002	C6	NOV '03	32957	0220	ATK (Amkor, K)	DN126044AA	MQFP	2	4	0
DS87C520	A15-	DEC '02	30252	0232	ATP (Amkor, PI)	DK241602AA	PLCC	2	4	0
DS87C520	A15-	SEP '03	32406	0329	OSEP	DE346161AAB	PLCC	2	4	0

# RELIABILITY MONITOR

STRESS: TEMP CYCLE

CONDITIONS: -40 TO 85C

PRODUCT	REV	MONITOR DATE	JOB NO	DATE ASSEMBLY CODE	FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAIL
DS12887	A2-	APR '03	31297	0311	Fastech	334654	Module w/Bent Fra	300	100	0
DS12887	A2-	JUL '03	31923	0318	Fastech	335549	Module w/Bent Fra	300	100	0
DS1990	A,F(	NOV '03	33004	0337	Fastech	MA337538AA	iButton F50w/IC's	500	77	0
DS1992	S-Z(	DEC '03	33048	0350	Fastech	MA338834AA	iButton F50 w/Bum	500	77	0

## RELIABILITY MONITOR

STRESS: TEMP CYCLE

CONDITIONS: -55C TO 125C

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAIL
DS1100	A3	JUL '03	31900	0323	NSEB	DJ330003ACC	SOIC	500	40	0
DS1100	A3	JUL '03	31900	0323	NSEB	DJ330003ACC	SOIC	1000	40	0
DS1232	C2-L	JUL '03	31907	0327	ATP (Amkor, PI)	DK343027AA	SOIC	500	40	0
DS1232	C2-L	JUL '03	31907	0327	ATP (Amkor, PI)	DK343027AA	SOIC	1000	40	0
DS1267	A1-5	OCT '03	32763	0340	ATP (Amkor, PI)	DK230310AC	TSSOP	500	40	0
DS1267	A1-5	OCT '03	32763	0340	ATP (Amkor, PI)	DK230310AC	TSSOP	1000	40	0
DS1620	D1	OCT '03	32505	0334	Hana	DU110113AA	SOIC	500	40	0
DS1620	D1	OCT '03	32505	0334	Hana	DU110113AA	SOIC	1000	40	0
DS1803	A2-	OCT '02	30230	0234	ATP (Amkor, PI)	DK236047AA	SOIC	500	40	0
DS1803	A2-	OCT '02	30230	0234	ATP (Amkor, PI)	DK236047AA	SOIC	1000	40	0
DS2118M	C1-6	SEP '03	32421	0309	ATK (Amkor, K)	DN319658AA	SSOP	500	77	0
DS2118M	C1-6	SEP '03	32421	0309	ATK (Amkor, K)	DN319658AA	SSOP	1000	77	0
DS2401	C2	AUG '03	32238	0331	Hana	DU342603AB	TO92	500	45	0
DS2401	C2	AUG '03	32238	0331	Hana	DU342603AB	TO92	1000	45	0
DS2401	C2	NOV '03	32948	0345	Hana	DU346103AF	TO92	500	45	0
DS2401	C2	NOV '03	32948	0345	Hana	DU346103AF	TO92	1000	45	0
DS2401	C2	FEB '04	33397	0403	Hana	DU349304AC	TO92	500	45	0
DS2401	C2	FEB '04	33397	0403	Hana	DU349304AC	TO92	1000	45	0
DS5002	C6	NOV '03	32961	0220	ATK (Amkor, K)	DN126044AA	MQFP	500	40	0
DS5002	C6	NOV '03	32961	0220	ATK (Amkor, K)	DN126044AA	MQFP	1000	40	0
DS80C320	C5	SEP '03	32414	0323	ATEC	DQ338181AA	PDIP	500	45	0
DS80C320	C5	SEP '03	32414	0323	ATEC	DQ338181AA	PDIP	1000	45	0

# RELIABILITY MONITOR

STRESS: TEMP CYCLE

CONDITIONS: -55C TO 125C

PRODUCT	REV	MONITOR DATE	JOB NO	DATE ASSEMBLY CODE	FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAIL
DS87C520	A15-	DEC '02	30256	0232	ATP (Amkor, PI)	DK241602AA	PLCC	500	50	0
DS87C520	A15-	DEC '02	30256	0232	ATP (Amkor, PI)	DK241602AA	PLCC	1000	50	0
DS87C520	A15-	SEP '03	32410	0329	OSEP	DE346161AAB	PLCC	500	50	0

# RELIABILITY MONITOR

STRESS: TEMP CYCLE

CONDITIONS: 0C TO 70C

PRODUCT	REV	MONITOR DATE	JOB NO	DATE ASSEMBLY CODE FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAIL
DS1643	C1	FEB '04	33415	0404 Fastech	MA339200AA	Module w/Hi Densit	500	77	0

# RELIABILITY MONITOR

STRESS: STORAGE LIFE

CONDITIONS: 150C

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAIL
DS1620	D1	OCT '03	32508	0334	Hana	DU110113AA	SOIC	500	50	0
DS1620	D1	OCT '03	32508	0334	Hana	DU110113AA	SOIC	1000	50	0
DS1621	A7	SEP '03	32327	0326	OSEP	DE319631AAB	SOIC	500	50	0
DS1621	A7	SEP '03	32327	0326	OSEP	DE319631AAB	SOIC	1000	50	0

# RELIABILITY MONITOR

STRESS: STORAGE LIFE

CONDITIONS: 70 C

PRODUCT	REV	MONITOR DATE	JOB NO	DATE ASSEMBLY CODE FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAIL
DS1643	C1	FEB '04	33414	0404 Fastech	MA339200AA	Module w/Hi Densit	500	77	0
DS1990	A,F(	NOV '03	33003	0337 Fastech	MA337538AA	iButton F50w/IC's	500	77	0
DS1990	A,F(	NOV '03	33003	0337 Fastech	MA337538AA	iButton F50w/IC's	1000	77	0
DS1992	S-Z(	DEC '03	33047	0350 Fastech	MA338834AA	iButton F50 w/Bum	500	77	0

# RELIABILITY MONITOR

STRESS: SOLDERABILITY

CONDITIONS: JESD22-B102

PRODUCT	REV	MONITOR DATE	JOB NO	DATE ASSEMBLY CODE FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAIL
DS12887	A2-	APR '03	31295	0311 Fastech	334654	Module w/Bent Fra	1	3	0
DS12887	A2-	JUL '03	31921	0318 Fastech	335549	Module w/Bent Fra	1	3	0
DS1643	C1	FEB '04	33412	0404 Fastech	MA339200AA	Module w/Hi Densit	5	3	0

# RELIABILITY MONITOR

STRESS: PRECONDITION U/S

CONDITIONS: J-STD-020

PRODUCT	REV	MONITOR		DATE	ASSEMBLY	LOT NO.	PACKAGE	READ		
		DATE	JOB NO					CODE	FACILITY	POINT
DS1100	A3	JUL '03	31898	0323	NSEB	DJ330003ACC	SOIC	1	4	0
DS1232	C2-L	JUL '03	31905	0327	ATP (Amkor, PI)	DK343027AA	SOIC	7	4	0
DS1232	C2-L	JAN '04	33391	0403	NSEB	DJ416122AAD	SOIC	7	4	0
DS1267	A1-5	OCT '03	32761	0340	ATP (Amkor, PI)	DK230310AC	TSSOP	2	4	0
DS1620	D1	OCT '03	32503	0334	Hana	DU110113AA	SOIC	7	4	0
DS1620	D1	JAN '04	33347	0350	Hana	DU218030AC	SOIC	7	4	0
DS1621	A7	SEP '03	32322	0326	OSEP	DE319631AAB	SOIC	7	4	0
DS1803	A2-	OCT '02	30228	0234	ATP (Amkor, PI)	DK236047AA	SOIC	2	4	0
DS1803	A2-	JUL '03	31927	0317	OSEP	DE335021AAB	SOIC	2	4	0
DS2118M	C1-6	SEP '03	32419	0309	ATK (Amkor, K)	DN319658AA	SSOP	6	4	0
DS5002	C6	NOV '03	32959	0220	ATK (Amkor, K)	DN126044AA	MQFP	6	4	0
DS87C520	A15-	DEC '02	30254	0232	ATP (Amkor, PI)	DK241602AA	PLCC	2	4	0

# RELIABILITY MONITOR

STRESS: PHYSICAL DIMENSIONS

CONDITIONS: JESD22-B100

PRODUCT	REV	MONITOR DATE	JOB NO	DATE ASSEMBLY CODE FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAIL
DS12887	A2-	APR '03	31296	0311 Fastech	334654	Module w/Bent Fra	1	6	0
DS12887	A2-	JUL '03	31922	0318 Fastech	335549	Module w/Bent Fra	1	6	0
DS1643	C1	FEB '04	33413	0404 Fastech	MA339200AA	Module w/Hi Densit	5	6	0

# RELIABILITY MONITOR

STRESS: MOISTURE SOAK

CONDITIONS: 60C/90% R.H.

PRODUCT	REV	MONITOR DATE	JOB NO	DATE ASSEMBLY CODE FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAIL
DS1643	C1	FEB '04	33416	0404 Fastech	MA339200AA	Module w/Hi Densit	500	77	0
DS1992	S-Z(	DEC '03	33049	0350 Fastech	MA338834AA	iButton F50 w/Bum	500	77	0

# RELIABILITY MONITOR

STRESS: HAST

CONDITIONS: 130C, 85%R.H.,5.5V

PRODUCT	REV	MONITOR DATE	JOB NO	DATE ASSEMBLY CODE FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAIL
DS1232	C2-L	JUL '03	31908	0327 ATP (Amkor, PI)	DK343027AA	SOIC	96	77	0
DS2401	C2	AUG '03	32239	0331 Hana	DU342603AB	TO92	96	77	0
DS2401	C2	NOV '03	32949	0345 Hana	DU346103AF	TO92	96	77	0
DS87C520	A15-	DEC '02	30257	0232 ATP (Amkor, PI)	DK241602AA	PLCC	96	59	0

# RELIABILITY MONITOR

STRESS: CONVECTION REFLOW

CONDITIONS: 220C

PRODUCT	REV	MONITOR DATE	JOB NO	DATE ASSEMBLY CODE FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAIL
DS5002	C6	NOV '03	32958	0220 ATK (Amkor, K)	DN126044AA	MQFP	3	206	0
DS87C520	A15-	DEC '02	30253	0232 ATP (Amkor, PI)	DK241602AA	PLCC	3	239	0

# RELIABILITY MONITOR

STRESS: CONVECTION REFLOW

CONDITIONS: 235C

PRODUCT	REV	MONITOR		DATE	ASSEMBLY	LOT NO.	PACKAGE	READ		
		DATE	JOB NO					CODE	FACILITY	POINT
DS1100	A3	JUL '03	31897	0323	NSEB	DJ330003ACC	SOIC	3	241	0
DS1100	A3	OCT '03	32521	0333	ATP (Amkor, PI)	DK340403AA	SOIC	3	241	0
DS1232	C2-L	JUL '03	31904	0327	ATP (Amkor, PI)	DK343027AA	SOIC	3	241	0
DS1232	C2-L	JAN '04	33390	0403	NSEB	DJ416122AAD	SOIC	3	241	0
DS1233	A5-5	JAN '04	33362	0402	Hana	DU331316AEA	SOT223	3	241	0
DS1267	A1-5	OCT '03	32760	0340	ATP (Amkor, PI)	DK230310AC	TSSOP	3	241	0
DS1267	A1-5	JAN '04	33383	0357	ATP (Amkor, PI)	DK233308AD	TSSOP	3	241	0
DS1620	D1	OCT '03	32502	0334	Hana	DU110113AA	SOIC	3	244	0
DS1620	D1	JAN '04	33346	0350	Hana	DU218030AC	SOIC	3	244	0
DS1621	A7	SEP '03	32321	0326	OSEP	DE319631AAB	SOIC	3	241	0
DS1803	A2-	OCT '02	30227	0234	ATP (Amkor, PI)	DK236047AA	SOIC	3	241	0
DS1803	A2-	JUL '03	31926	0317	OSEP	DE335021AAB	SOIC	3	241	0
DS1803	A2-	JAN '04	33354	0345	ATP (Amkor, PI)	DK401427AA	SOIC	3	241	0

# RELIABILITY MONITOR

STRESS: BIASED MOISTURE

CONDITIONS: 85/85, 5.5 VOLTS

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAIL
DS1100	A3	JUL '03	31901	0323	NSEB	DJ330003ACC	SOIC	500	77	0
DS1100	A3	JUL '03	31901	0323	NSEB	DJ330003ACC	SOIC	1000	77	0
DS1267	A1-5	OCT '03	32764	0340	ATP (Amkor, PI)	DK230310AC	TSSOP	500	77	0
DS1267	A1-5	OCT '03	32764	0340	ATP (Amkor, PI)	DK230310AC	TSSOP	1000	77	0
DS12887	A2-	APR '03	31298	0311	Fastech	334654	Module w/Bent Fra	500	100	0
DS12887	A2-	APR '03	31298	0311	Fastech	334654	Module w/Bent Fra	1000	99	0
DS12887	A2-	JUL '03	31924	0318	Fastech	335549	Module w/Bent Fra	500	100	0
DS12887	A2-	JUL '03	31924	0318	Fastech	335549	Module w/Bent Fra	1000	99	0
DS1620	D1	OCT '03	32506	0334	Hana	DU110113AA	SOIC	500	70	0
DS1621	A7	SEP '03	32325	0326	OSEP	DE319631AAB	SOIC	500	70	0
DS1621	A7	SEP '03	32325	0326	OSEP	DE319631AAB	SOIC	1000	70	0
DS1803	A2-	OCT '02	30231	0234	ATP (Amkor, PI)	DK236047AA	SOIC	500	77	0
DS1803	A2-	OCT '02	30231	0234	ATP (Amkor, PI)	DK236047AA	SOIC	1000	77	0
DS5002	C6	NOV '03	32962	0220	ATK (Amkor, K)	DN126044AA	MQFP	500	42	0
DS5002	C6	NOV '03	32962	0220	ATK (Amkor, K)	DN126044AA	MQFP	1000	42	0
DS80C320	C5	SEP '03	32415	0323	ATEC	DQ338181AA	PDIP	500	77	0
DS80C320	C5	SEP '03	32415	0323	ATEC	DQ338181AA	PDIP	1000	77	0

## RELIABILITY MONITOR

STRESS: AUTOCLAVE

CONDITIONS: 121C, 2 ATM STEAM, UNBIASED

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAIL
DS1100	A3	JUL '03	31902	0323	NSEB	DJ330003ACC	SOIC	168	40	0
DS1232	C2-L	JUL '03	31909	0327	ATP (Amkor, PI)	DK343027AA	SOIC	168	40	0
DS1267	A1-5	OCT '03	32765	0340	ATP (Amkor, PI)	DK230310AC	TSSOP	168	40	0
DS1803	A2-	OCT '02	30232	0234	ATP (Amkor, PI)	DK236047AA	SOIC	168	40	0
DS2118M	C1-6	SEP '03	32422	0309	ATK (Amkor, K)	DN319658AA	SSOP	168	77	0
DS2401	C2	AUG '03	32240	0331	Hana	DU342603AB	TO92	168	45	0
DS2401	C2	NOV '03	32950	0345	Hana	DU346103AF	TO92	168	45	0
DS2401	C2	FEB '04	33399	0403	Hana	DU349304AC	TO92	168	45	0
DS5002	C6	NOV '03	32963	0220	ATK (Amkor, K)	DN126044AA	MQFP	96	40	0
DS80C320	C5	SEP '03	32416	0323	A TEC	DQ338181AA	PDIP	96	45	0