RELIABILITY MONITOR

DS1000M-100 JAN '99 MONITOR-HYUNDAI,CHINA

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1000	E3	9847	DH833179ADA	8	DIP	300	CPS China

PROCESS Single Poly, Single Metal 1.2 µm Standard Process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
23057	INFANT LIFE	125C, 7.0 VOLTS		234	48	HOUR	0
23178	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS		77	336	HOUR	0
		125C, 7.0 VOLTS		77	1000	HOUR	0
		TOTAL:	FAIL RATE (Fits):	30	DEVICE HRS: 3.08E+07		0
23179	TEMP CYCLE	-55C TO 125C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
23180	BIASED MOISTURE	85/85, 5.5 VOLTS		77	274	HOUR	0
				77	959	HOUR	0
		TOTAL:					0
23181	AUTOCLAVE	121C STEAM, UNBIASED		40	96	HOUR	0
		TOTAL:					0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS1232L APR '99 MONITOR-CHIPPAC,KOREA

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1232L	C2	9848	DL829603AAC	8	SOIC	150	CPK Korea

PROCESS Single Poly, Single Metal 0.8 µm Standard Process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
24189	INFANT LIFE	125C, 7.0 VOLTS		230	48	HOUR	0
24190	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS		77	336	HOUR	0
		TOTAL:	FAIL RATE (Fits):	71	DEVICE HRS: 1.29E+07		0
23660	ULTRASOUND	J-STD-020		0	1	DAYS	
		TOTAL:					
23661	STORAGE LIFE	125C		238	24	HOUR	
	MOISTURE SOAK	85C/85% R.H.		238	144	HOUR	
	CONVECTION REFLOW	235C		238	3	PASS	0
		TOTAL:					0
24191	TEMP CYCLE	-55C TO 125C		39	300	CYCL	0
				39	1000	CYCL	
		TOTAL:					0
24192	HAST	130C, 85%R.H.,5.5V		77	100	HOUR	
		TOTAL:					
24193	AUTOCLAVE	121C STEAM, UNBIASED		36	96	HOUR	
		TOTAL:					

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS1233Z-10 APR '99 MONITOR-CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1233	A5	9911	DM837033ABA	3	SOT223	140	Carsem

PROCESS Single Poly, Single Metal 1.2 µm Zero tempco poly

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
23773	INFANT LIFE	125C, 7.0 VOLTS		229	48	HOUR	0
23939	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS		77	336	HOUR	0
		125C, 7.0 VOLTS		77	1000	HOUR	0
		TOTAL:	FAIL RATE (Fits):	30	DEVICE HRS: 3.07E+07		0
23662	ULTRASOUND	J-STD-020		0	1	DAYS	
	EXTERNAL VISUAL	MIL-STD-883-2009		0	1	DAYS	
		TOTAL:					
23663	STORAGE LIFE	125C		233	24	HOUR	
	MOISTURE SOAK	85C/85% R.H.		233	192	HOUR	
	CONVECTION REFLOW	235C		233	195	PASS	0
		TOTAL:					0
23772	PRECONDITION U/S	J-STD-020		0	2	DAYS	
		TOTAL:					
23940	TEMP CYCLE	-55C TO 125C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
23941	HAST	130C, 85%R.H.,5.5V		72	100	HOUR	0
		TOTAL:					0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS1233Z-10 APR '99 MONITOR-CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1233	A5	9911	DM837033ABA	3	SOT223	140	Carsem

PROCESS Single Poly, Single Metal 1.2 µm Zero tempco poly

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
23942	AUTOCLAVE	121C STEAM, UNBIASED	40	96	HOUR	0
		TOTAL:				0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS1267-010 FEB '99 MONITOR - ANAM,PI

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1267	A1	9823	DK807766AAH	20	TSSOP	170	Anam, PI (ATP)

PROCESS Single Poly, Single Metal 1.2 µm Poly1 Resistor

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
24044	INFANT LIFE	125C, 6.0 V, -4.0V		227	48	HOUR	2
24132	HIGH VOLTAGE LIFE	125C, 6.0 V, -4.0V		77	336	HOUR	0
		125C, 6.0 V, -4.0V		77	664	HOUR	
		TOTAL:	FAIL RATE (Fits):	275	DEVICE HRS: 1.13E+07		2
23262	ULTRASOUND	J-STD-020		0	1	DAYS	
		TOTAL:					
23263	STORAGE LIFE	125C		238	24	HOUR	
	MOISTURE SOAK	85C/85% R.H.		238	168	HOUR	
	SOLDER HEAT	HTC VAPOR PHASE		238	3	PASS	
		TOTAL:					
24043	PRECONDITION U/S	J-STD-020		0	2	DAYS	
		TOTAL:					
24133	TEMP CYCLE	-55C TO 125C		40	300	CYCL	0
				40	700	CYCL	
		TOTAL:					0
24134	BIASED MOISTURE	85/85, 5.5 VOLTS		77	274	HOUR	
		TOTAL:					
24135	AUTOCLAVE	121C STEAM, UNBIASED		33	96	HOUR	

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS1267-010 FEB '99 MONITOR - ANAM,PI

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1267	A1	9823	DK807766AAH	20	TSSOP	170	Anam, PI (ATP)

PROCESS Single Poly, Single Metal 1.2 µm Poly1 Resistor

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
		TOTAL:				

JOB NO	FAILURE MODE	FAILURE MECHANISM	CORRECTIVE ACTION
24044	CONTINUITY	IN VERIFICATION	NA

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS1267 NOV '98 MONITOR - ANAM,PI

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1267	A1	9823	DK803107AAE	20	TSSOP	170	Anam, PI (ATP)

PROCESS Single Poly, Single Metal 1.2 µm Poly1 Resistor

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
23026	INFANT LIFE	125C, 6.0 V, -4.0V		230	48	HOUR	0
23159	HIGH VOLTAGE LIFE	125C, 6.0 V, -4.0V		77	336	HOUR	0
		125C, 6.0 V, -4.0V		77	1000	HOUR	0
		TOTAL:	FAIL RATE (Fits):	81	DEVICE HRS: 1.13E+07		0
22790	ULTRASOUND	J-STD-020		3	1	DAYS	0
		TOTAL:					0
22791	STORAGE LIFE	125C		238	24	HOUR	
	MOISTURE SOAK	85C/85% R.H.		238	168	HOUR	
	SOLDER HEAT	HTC VAPOR PHASE		237	3	PASS	0
		TOTAL:					0
23025	PRECONDITION U/S	J-STD-020		4	1	DAYS	0
		TOTAL:					0
23160	TEMP CYCLE	-55C TO 125C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
23161	BIASED MOISTURE	85/85, 5.5 VOLTS		76	274	HOUR	0
				76	959	HOUR	0
		TOTAL:					0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS1267 NOV '98 MONITOR - ANAM,PI

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1267	A1	9823	DK803107AAE	20	TSSOP	170	Anam, PI (ATP)

PROCESS Single Poly, Single Metal 1.2 µm Poly1 Resistor

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
23162	AUTOCLAVE	121C STEAM, UNBIASED	37	96	HOUR	0
		TOTAL:				0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS1302 MAR '99 MONITOR - ANAM-PI

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1302	A3	9838	DK818104ADA	8	DIP	300	Anam, PI (ATP)

PROCESS Single Poly, Double Metal 0.8 µm Standard Process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
23359	INFANT LIFE	125C, 6.0 VOLTS	234	48	HOUR	

TOTAL: FAIL RATE (Fits): DEVICE HRS: 1.44E+06

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS1302 JUN '99 MONITOR-ANAM,PI

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1302	A3	9905	DK824165AAA	8	DIP	300	Anam, PI (ATP)

PROCESS Single Poly, Double Metal 0.8 µm Standard Process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
23938	INFANT LIFE	125C, 6.0 VOLTS		230	48	HOUR	0
		TOTAL:	FAIL RATE (Fits):	646	DEVICE HRS:	1.42E+06	0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS1621S JUN '99 MONITOR - ANAM,PI

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1621	A7	9915	DK815282AAB	8	SOIC	150	Anam, PI (ATP)

PROCESS Single Poly, Single Metal 0.8 µm E2PROM process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
24321	INFANT LIFE	125C, 7.0 VOLTS		234	48	HOUR	0
		TOTAL:	FAIL RATE (Fits):	233	DEVICE HRS: 3.92E+06		0
24315	STORAGE LIFE	125C		241	24	HOUR	
	MOISTURE SOAK	85C/85% R.H.		241	168	HOUR	
	CONVECTION REFLOW	235C		241	3	PASS	0
		TOTAL:					0
24325	WRITE CYCLE STRESS	+85C, 7.0 VOLTS		47	50	KCYC	
		TOTAL:					

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS1803-010 NOV '98 MONITOR - HYUNDAI,K.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1803	A2	9833	DL820412AAB	16	SOIC	150	CPK Korea

PROCESS Single Poly, Double Metal 0.8 µm Standard Process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
23173	INFANT LIFE	125C, 7.0 VOLTS		234	48	HOUR	0
23923	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS		77	336	HOUR	0
		125C, 7.0 VOLTS		77	1000	HOUR	
		TOTAL:	FAIL RATE (Fits):	30	DEVICE HRS: 3.08E+07		0
22797	ULTRASOUND	J-STD-020		4	1	DAYS	0
		TOTAL:					0
22798	STORAGE LIFE	125C		238	24	HOUR	
	MOISTURE SOAK	85C/85% R.H.		238	168	HOUR	
	SOLDER HEAT	HTC VAPOR PHASE		238	3	PASS	0
		TOTAL:					0
23172	PRECONDITION U/S	J-STD-020		4	1	DAYS	0
		TOTAL:					0
23924	TEMP CYCLE	-55C TO 125C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
23925	BIASED MOISTURE	85/85, 5.5 VOLTS		0	274	HOUR	
		TOTAL:					
23926	AUTOCLAVE	121C STEAM, UNBIASED		40	96	HOUR	0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS1803-010 FEB '99 MONITOR - HYUNDAI,K.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1803	A2	9835	DL818111AAB	16	SOIC	150	CPK Korea

PROCESS Single Poly, Double Metal 0.8 µm Standard Process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
23928	INFANT LIFE	125C, 7.0 VOLTS		232	48	HOUR	0
24003	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS		76	336	HOUR	1
		125C, 7.0 VOLTS		76	1000	HOUR	
		TOTAL:	FAIL RATE (Fits):	66	DEVICE HRS: 3.04E+07		1
23274	ULTRASOUND	J-STD-020		0	1	DAYS	
		TOTAL:					
23275	STORAGE LIFE	125C		238	24	HOUR	
	MOISTURE SOAK	85C/85% R.H.		238	168	HOUR	
	SOLDER HEAT	HTC VAPOR PHASE		238	3	PASS	0
		TOTAL:					0
23927	PRECONDITION U/S	J-STD-020		0	2	DAYS	
		TOTAL:					
24004	TEMP CYCLE	-55C TO 125C		40	300	CYCL	0
				40	1000	CYCL	
		TOTAL:					0
24005	BIASED MOISTURE	85/85, 5.5 VOLTS		0	274	HOUR	
		TOTAL:					
24006	AUTOCLAVE	121C STEAM, UNBIASED		36	96	HOUR	2

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS1803-010 FEB '99 MONITOR - HYUNDAI,K.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1803	A2	9835	DL818111AAB	16	SOIC	150	CPK Korea

PROCESS Single Poly, Double Metal 0.8 µm Standard Process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
		TOTAL:				2

JOB NO	FAILURE MODE	FAILURE MECHANISM	CORRECTIVE ACTION
24003	W1PUP3V	IN PROCESS	IN PROCESS
24006	CONTINUITY	IN PROCESS	IN PROCESS

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS1869 DEC '98 MONITOR-NSEB

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1869	A3	9829	DJ821533ABB	8	SOIC	208	NSEB

PROCESS Single Poly, Single Metal 1.2 µm E2PROM process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
23024	INFANT LIFE	125C, 7.0 VOLTS		236	48	HOUR	
		TOTAL:	FAIL RATE (Fits):		DEVICE HRS: 3.96E+06		
22899	ULTRASOUND	J-STD-020		4	1	DAYS	0
		TOTAL:					0
22900	STORAGE LIFE	125C		241	24	HOUR	
	MOISTURE SOAK	85C/85% R.H.		241	168	HOUR	
	SOLDER HEAT	HTC VAPOR PHASE		240	3	PASS	0
		TOTAL:					0
23023	PRECONDITION U/S	J-STD-020		4	1	DAYS	0
		TOTAL:					0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS1869S MAR '99 MONITOR - NSEB

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1869	A3	9829	DJ821534ABB	8	SOIC	208	NSEB

PROCESS Single Poly, Single Metal 1.2 µm E2PROM process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
23440	INFANT LIFE	125C, 7.0 VOLTS		237	48	HOUR	0
24022	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS		76	336	HOUR	1
		125C, 7.0 VOLTS		76	1000	HOUR	
		TOTAL:	FAIL RATE (Fits):	66	DEVICE HRS: 3.05E+07		1
23360	ULTRASOUND	J-STD-020		4	1	DAYS	0
		TOTAL:					0
23361	STORAGE LIFE	125C		241	24	HOUR	
	MOISTURE SOAK	85C/85% R.H.		241	168	HOUR	
	SOLDER HEAT	HTC VAPOR PHASE		241	3	PASS	0
		TOTAL:					0
23439	PRECONDITION U/S	J-STD-020		4	1	DAYS	0
		TOTAL:					0
24023	TEMP CYCLE	-55C TO 125C		40	300	CYCL	0
				40	1000	CYCL	
		TOTAL:					0
24024	BIASED MOISTURE	85/85, 5.5 VOLTS		0	274	HOUR	
		TOTAL:					
24025	WRITE CYCLE STRESS	+85C, 7.0 VOLTS		50	25	KCYC	0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS1869S MAR '99 MONITOR - NSEB

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1869	A3	9829	DJ821534ABB	8	SOIC	208	NSEB

PROCESS Single Poly, Single Metal 1.2 µm E2PROM process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
		TOTAL:				0
24288	STORAGE LIFE	150C	50	336	HOUR	
		TOTAL:				

JOB NO	FAILURE MODE	FAILURE MECHANISM	CORRECTIVE ACTION
24022	ABS LINEARITY	IN VERIFICATION	NA

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS1869 JUN '99 MONITOR - NSEB

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1869	A3	9836	DJ824252AAC	8	SOIC	208	NSEB

PROCESS Single Poly, Single Metal 1.2 µm E2PROM process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
24032	INFANT LIFE	125C, 7.0 VOLTS		230	48	HOUR	0
24228	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS		70	336	HOUR	
		TOTAL:	FAIL RATE (Fits):	76	DEVICE HRS: 1.21E+07		0
23944	ULTRASOUND	J-STD-020		0	2	DAYS	
		TOTAL:					
23945	STORAGE LIFE	125C		241	24	HOUR	
	MOISTURE SOAK	85C/85% R.H.		241	168	HOUR	
	SOLDER HEAT	HTC VAPOR PHASE		234	3	PASS	7
		TOTAL:					7
24031	PRECONDITION U/S	J-STD-020		0	2	DAYS	
		TOTAL:					
24229	TEMP CYCLE	-55C TO 125C		39	300	CYCL	0
		TOTAL:					0
24231	WRITE CYCLE STRESS	+85C, 7.0 VOLTS		50	25	KCYC	
		TOTAL:					

JOB NO	FAILURE MODE	FAILURE MECHANISM	CORRECTIVE ACTION
23945	CONTINUITY	IN VERIFICATION	NA

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS2108 AUG '99 MONITOR,D.P-ANAM,PI.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2108	B7	9922	DK913650AAF	24	SOIC	300	Anam, PI (ATP)

PROCESS Single Poly, Single Metal 5.0 µm Negative zero tempco poly

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
24386	INFANT LIFE	125C, 6.0 VOLTS		234	48	HOUR	0
		TOTAL:	FAIL RATE (Fits):	635	DEVICE HRS: 1.44E+06		0
24384	STORAGE LIFE	125C		238	24	HOUR	
	MOISTURE SOAK	30C/60% R.H.		238	144	HOUR	
	CONVECTION REFLOW	235C		238	3	PASS	0
		TOTAL:					0
24388	TEMP CYCLE	-55C TO 125C		40	300	CYCL	0
		TOTAL:					0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS2109S JUN '99 MONITOR - CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2109	A7	9839	DM811523AAA	28	SOIC	300	Carsem

PROCESS Single Poly, Single Metal 0.8 µm Negative zero tempco poly

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
24040	INFANT LIFE	125C, 7.0 VOLTS		233	48	HOUR	0
24327	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS		77	336	HOUR	
		TOTAL:	FAIL RATE (Fits):	71	DEVICE HRS: 1.29E+07		0
23947	ULTRASOUND	J-STD-020		4	2	DAYS	0
		TOTAL:					0
23948	STORAGE LIFE	125C		237	24	HOUR	
	MOISTURE SOAK	85C/85% R.H.		237	168	HOUR	
	CONVECTION REFLOW	235C		237	195	PASS	0
		TOTAL:					0
24039	PRECONDITION U/S	J-STD-020		0	2	DAYS	
		TOTAL:					
24328	TEMP CYCLE	-55C TO 125C		50	300	CYCL	
		TOTAL:					
24329	HAST	130C, 85%R.H.,5.5V		66	100	HOUR	
		TOTAL:					
24330	AUTOCLAVE	121C STEAM, UNBIASED		40	96	HOUR	0
		TOTAL:					0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS2109S MAR '99 MONITOR-CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2109	A7	9839	DM812688AAA	28	SOIC	300	Carsem

PROCESS Single Poly, Single Metal 0.8 µm Negative zero tempco poly

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
23723	INFANT LIFE	125C, 7.0 VOLTS		228	48	HOUR	5
23832	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS		77	336	HOUR	0
		125C, 7.0 VOLTS		74	1000	HOUR	3
		TOTAL:	FAIL RATE (Fits):	314	DEVICE HRS: 3.00E+07		8
23363	ULTRASOUND	J-STD-020		0	1	DAYS	
		TOTAL:					
23364	STORAGE LIFE	125C		237	24	HOUR	
	MOISTURE SOAK	85C/85% R.H.		237	192	HOUR	
	CONVECTION REFLOW	235C		237	195	PASS	0
		TOTAL:					0
23722	PRECONDITION U/S	J-STD-020		0	1	DAYS	
		TOTAL:					
23833	TEMP CYCLE	-55C TO 125C		50	300	CYCL	0
				50	1000	CYCL	0
		TOTAL:					0
23834	HAST	130C, 85%R.H.,5.5V		66	100	HOUR	0
		TOTAL:					0
23835	AUTOCLAVE	121C STEAM, UNBIASED		31	96	HOUR	4

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS2109S MAR '99 MONITOR-CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2109	A7	9839	DM812688AAA	28	SOIC	300	Carsem

PROCESS Single Poly, Single Metal 0.8 µm Negative zero tempco poly

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
		TOTAL:				4

JOB NO	FAILURE MODE	FAILURE MECHANISM	CORRECTIVE ACTION
23723	GND_SENSE	IN PROCESS (4 UNITS)	IN PROCESS
23723	TERM RESIST	IN PROCESS (1 UNIT)	IN PROCESS

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS2118M JUN '99 MONITOR,D.P. ANAM,K.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2118M	A4	9912	DN848138AAA	36	SSOP	300	Anam, K (ASI)

PROCESS Single Poly, Double Metal 0.8 µm Negative zero tempco poly

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
24038	INFANT LIFE	125C, 6.0 VOLTS		234	48	HOUR	0
24070	HIGH VOLTAGE LIFE	125C, 6.0 VOLTS		76	336	HOUR	1
		TOTAL:	FAIL RATE (Fits):	428	DEVICE HRS: 4.72E+06		1
23949	ULTRASOUND	J-STD-020		0	2	DAYS	
		TOTAL:					
23950	STORAGE LIFE	125C		238	24	HOUR	
	MOISTURE SOAK	30C/60% R.H.		238	264	HOUR	
	CONVECTION REFLOW	235C		238	267	PASS	0
		TOTAL:					0
24037	PRECONDITION U/S	J-STD-020		0	2	DAYS	
		TOTAL:					
24071	TEMP CYCLE	-55C TO 125C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
24072	HAST	130C, 85%R.H.,5.5V		77	100	HOUR	0
		TOTAL:					0
24073	AUTOCLAVE	121C STEAM, UNBIASED		40	96	HOUR	0
		TOTAL:					0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS2118M JUN '99 MONITOR,D.P. ANAM,K.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2118M	A4	9912	DN848138AAA	36	SSOP	300	Anam, K (ASI)

PROCESS Single Poly, Double Metal 0.8 µm Negative zero tempco poly

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS

JOB NO	FAILURE MODE	FAILURE MECHANISM	CORRECTIVE ACTION
24070	CONTINUITY	IN VERIFICATION (2 UNITS)	NA
24070	RDM-HD	IN VERIFICATION (2 UNITS)	NA
24070	RDM-HD	IN VERIFICATION (1 UNIT)	NA

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS2118M SEP '99 MONITOR, D.P. Carsem

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2118M	A4	9919	DM905555AAD	36	SSOP	300	Carsem

PROCESS Single Poly, Double Metal 0.8 µm Negative zero tempco poly

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
24453	INFANT LIFE	125C, 6.0 VOLTS		231	48	HOUR	0
		TOTAL:	FAIL RATE (Fits):	643	DEVICE HRS: 1.42E+06		0
24451	STORAGE LIFE	125C		238	24	HOUR	
	MOISTURE SOAK	30C/60% R.H.		238	240	HOUR	
	CONVECTION REFLOW	235C		236	3	PASS	0
		TOTAL:					0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS2154 JUN '99 MONITOR,D.P.-ANAM,K.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2154	A2	9914	DN901043AAC	100	LQFP	550	Anam, K (ASI)

PROCESS Double Poly, Double Met 0.8 µm N Depletion Capacitor

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
24426	INFANT LIFE	125C, 7.0 VOLTS		231	48	HOUR	
		TOTAL:	FAIL RATE (Fits):		DEVICE HRS: 3.87E+06		
23951	ULTRASOUND	J-STD-020		0	2	DAYS	
		TOTAL:					
23952	STORAGE LIFE	125C		238	24	HOUR	
	MOISTURE SOAK	30C/60% R.H.		238	144	HOUR	
	CONVECTION REFLOW	235C		235	3	PASS	0
		TOTAL:					0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS2165Q OCT '98 MONITOR - ANAM,K.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2165	B1	9837	DN811583AAB	28	LCC	450	Anam, K (ASI)

PROCESS Single Poly, Single Metal 1.2 µm Standard Process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
22757	INFANT LIFE	125C, 7.0 VOLTS		235	48	HOUR	0
23168	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS		77	336	HOUR	0
		125C, 7.0 VOLTS		76	1000	HOUR	1
		TOTAL:	FAIL RATE (Fits):	66	DEVICE HRS: 3.06E+07		1
22680	ULTRASOUND	J-STD-020		4	1	DAYS	0
		TOTAL:					0
22681	TEMP CYCLE	-55C TO 125C		241	10	CYCL	
	STORAGE LIFE	125C		241	24	HOUR	
	MOISTURE SOAK	30C/60% R.H.		241	144	HOUR	
	SOLDER HEAT	HTC VAPOR PHASE		240		PASS	0
		TOTAL:					0
22756	PRECONDITION U/S	J-STD-020		4	1	DAYS	0
		TOTAL:					0
23169	TEMP CYCLE	-55C TO 125C		60	300	CYCL	0
				60	1000	CYCL	0
		TOTAL:					0
23170	HAST	130C, 85%R.H.,5.5V		60	100	HOUR	0
		TOTAL:					0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS2165Q OCT '98 MONITOR - ANAM,K.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2165	B1	9837	DN811583AAB	28	LCC	450	Anam, K (ASI)

PROCESS Single Poly, Single Metal 1.2 µm Standard Process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
23171	AUTOCLAVE	121C STEAM, UNBIASED	38	96	HOUR	0
		TOTAL:				0

JOB NO	FAILURE MODE	FAILURE MECHANISM	CORRECTIVE ACTION
23168	SHORT XOUT	IN VERIFICATION	NA

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS2180A APR '99 MONITOR - ANAM,K.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2180A	B3	9850	DN839402AAC	44	LCC	650	Anam, K (ASI)

PROCESS Single Poly, Single Metal 2.0 µm Pfield

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
23775	INFANT LIFE	125C, 7.0 VOLTS		235	48	HOUR	0
23879	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS		77	336	HOUR	0
		125C, 7.0 VOLTS		77	1000	HOUR	0
		TOTAL:	FAIL RATE (Fits):	30	DEVICE HRS: 3.08E+07		0
23667	ULTRASOUND	J-STD-020		0	1	DAYS	
		TOTAL:					
23668	TEMP CYCLE	-55C TO 125C		241	10	CYCL	
	STORAGE LIFE	125C		241	34	HOUR	
	MOISTURE SOAK	30C/60% R.H.		241	178	HOUR	
	SOLDER HEAT	HTC VAPOR PHASE		241	181	PASS	0
		TOTAL:					0
23774	PRECONDITION U/S	J-STD-020		0	2	DAYS	
		TOTAL:					
23880	TEMP CYCLE	-55C TO 125C		60	300	CYCL	0
				60	1000	CYCL	0
		TOTAL:					0
23881	HAST	130C, 85%R.H.,5.5V		60	100	HOUR	0
		TOTAL:					0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS2180A APR '99 MONITOR - ANAM,K.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2180A	B3	9850	DN839402AAC	44	LCC	650	Anam, K (ASI)

PROCESS Single Poly, Single Metal 2.0 µm Pfield

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
23882	AUTOCLAVE	121C STEAM, UNBIASED	37	96	HOUR	1
		TOTAL:				1

JOB NO	FAILURE MODE	FAILURE MECHANISM	CORRECTIVE ACTION
23882	VECTOR	IN PROCESS	IN PROCESS

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS2401 JUN '99 TO92 MONITOR-CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2401	C2	9910	DM840523AHA	3	TO92	180	Carsem

PROCESS Single Poly, Single Metal 0.6 µm Standard Process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
23956	INFANT LIFE	125C, 6.0 VOLTS		231	48	HOUR	3
24411	HIGH VOLTAGE LIFE	125C, 6.0 VOLTS		77	336	HOUR	0
		TOTAL:	FAIL RATE (Fits):	879	DEVICE HRS: 4.75E+06		3
24412	TEMP CYCLE	-55C TO 125C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
24413	HAST	130C, 85%R.H.,5.5V		74	100	HOUR	0
		TOTAL:					0
24414	AUTOCLAVE	121C STEAM, UNBIASED		40	96	HOUR	0
		TOTAL:					0

JOB NO	FAILURE MODE	FAILURE MECHANISM	CORRECTIVE ACTION
23956	PREFUNCTIONAL	IN VERIFICATION (2 UNITS)	NA
23956	DQ RESISTANCE	IN VERIFICATION (1 UNIT)	NA

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS2401 SEP '99 MONITOR - CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2401	C2	9926	DM912460AAA	3	TO92	180	Carsem

PROCESS Single Poly, Single Metal 0.6 µm Standard Process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
24472	INFANT LIFE	125C, 6.0 VOLTS		234	48	HOUR	0
24473	HIGH VOLTAGE LIFE	125C, 6.0 VOLTS		77	336	HOUR	
		TOTAL:	FAIL RATE (Fits):	192	DEVICE HRS: 4.77E+06		0
24474	TEMP CYCLE	-55C TO 125C		40	300	CYCL	0
		TOTAL:					0
24476	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED		40	96	HOUR	0
		TOTAL:					0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS2434 NOV '98 MONITOR - CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2434	D1	9827	DM809170AAA	3	TO226 (PR35)	350	Carsem

PROCESS Single Poly, Single Metal 0.8 µm E2PROM process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
22801	INFANT LIFE	125C, 7.0 VOLTS		237	48	HOUR	0
22857	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS		77	336	HOUR	0
		125C, 7.0 VOLTS		77	1000	HOUR	0
		TOTAL:	FAIL RATE (Fits):	30	DEVICE HRS: 3.09E+07		0
22858	TEMP CYCLE	-55C TO 125C		50	300	CYCL	0
				50	1000	CYCL	0
		TOTAL:					0
22859	HAST	120C, 85%R.H.,5.5V		70	100	HOUR	0
		TOTAL:					0
22860	AUTOCLAVE	121C STEAM, UNBIASED		40	96	HOUR	0
		TOTAL:					0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS2434 FEB '99 MONITOR - CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2434	D1	9828	DM809174AAB	3	TO226 (PR35)	350	Carsem

PROCESS Single Poly, Single Metal 0.8 µm E2PROM process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
23278	INFANT LIFE	125C, 7.0 VOLTS		237	48	HOUR	0
24066	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS		76	336	HOUR	0
		125C, 7.0 VOLTS		76	1000	HOUR	0
		TOTAL:	FAIL RATE (Fits):	30	DEVICE HRS: 3.05E+07		0
24067	TEMP CYCLE	-55C TO 125C		50	300	CYCL	0
				50	1000	CYCL	
		TOTAL:					0
24068	HAST	130C, 85%R.H.,5.5V		70	100	HOUR	0
		TOTAL:					0
24069	AUTOCLAVE	121C STEAM, UNBIASED		40	96	HOUR	0
		TOTAL:					0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS2434 AUG '99 MONITOR - CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2434	D1	9837	DM811482AAA	3	TO226 (PR35)	350	Carsem

PROCESS Single Poly, Single Metal 0.8 µm E2PROM process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
24391	INFANT LIFE	125C, 7.0 VOLTS		234	48	HOUR	0
24392	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS		77	336	HOUR	
		TOTAL:	FAIL RATE (Fits):	71	DEVICE HRS: 1.30E+07		0
24393	TEMP CYCLE	-55C TO 125C		50	300	CYCL	0
		TOTAL:					0
24395	AUTOCLAVE	121C STEAM, UNBIASED		37	96	HOUR	
		TOTAL:					

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS2502 MAR '99 MONITOR-CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2502	C2	9913	DM842206ALB	8	SOIC	150	Carsem S

PROCESS Double Poly, Single Metal 0.6 µm EPROM process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
24153	INFANT LIFE	125C, 6.0 VOLTS		222	48	HOUR	0
24261	HIGH VOLTAGE LIFE	125C, 6.0 VOLTS		77	336	HOUR	0
		125C, 6.0 VOLTS		77	1000	HOUR	0
		TOTAL:	FAIL RATE (Fits):	81	DEVICE HRS: 1.13E+07		0
23635	ULTRASOUND	J-STD-020		0	0	DAYS	
		TOTAL:					
23636	STORAGE LIFE	125C		238	24	HOUR	
	MOISTURE SOAK	85C/85% R.H.		238	168	HOUR	
	VAPOR PHASE REFLOW	217C		238	3	PASS	
		TOTAL:					
24152	PRECONDITION U/S	J-STD-020		0	1	DAYS	
		TOTAL:					
24262	TEMP CYCLE	-55C TO 125C		34	300	CYCL	0
				34	1000	CYCL	0
		TOTAL:					0
24263	BIASED MOISTURE	85/85, 5.5 VOLTS		76	274	HOUR	0
		TOTAL:					0
24264	STORAGE LIFE	150C		34	336	HOUR	0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS2502 MAR '99 MONITOR-CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2502	C2	9913	DM842206ALB	8	SOIC	150	Carsem S

PROCESS Double Poly, Single Metal 0.6 µm EPROM process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
			34	1000	HOUR	
		TOTAL:				0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS2502P APR '99 MONITOR - CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2502	C2	9845	DM821484AAC	6	TSOC	150	Carsem

JOB_NO	DESCRIPTION	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
23669	ULTRASOUND	J-STD-020	4	1	DAYS	0
		TOTAL:				0
23670	STORAGE LIFE	125C	151	24	HOUR	
	MOISTURE SOAK	85C/85% R.H.	151	168	HOUR	
	VAPOR PHASE REFLOW	217C	150	3	PASS	0
		TOTAL:				0
24266	TEMP CYCLE	-55C TO 125C	77	300	CYCL	0
		-55C TO 125C	75	1000	CYCL	2
		TOTAL:				2
24267	AUTOCLAVE	121C STEAM, UNBIASED	69	96	HOUR	0
		TOTAL:				0

JOB NO	FAILURE MODE	FAILURE MECHANISM	CORRECTIVE ACTION
24266	PRESENT MATRIX	IN VERIFICATION	NA

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS2502 JUN '99 MONITOR - CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2502	C2	9915	DM846764AAA	8	SOIC	150	Carsem S

PROCESS Double Poly, Single Metal 0.6 µm EPROM process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
24169	INFANT LIFE	125C, 6.0 VOLTS		229	48	HOUR	0
24174	HIGH VOLTAGE LIFE	125C, 6.0 VOLTS		77	336	HOUR	0
		125C, 6.0 VOLTS		77	1000	HOUR	
		TOTAL:	FAIL RATE (Fits):	81	DEVICE HRS: 1.13E+07		0
23957	ULTRASOUND	J-STD-020		0	2	DAYS	
		TOTAL:					
23958	STORAGE LIFE	125C		238	24	HOUR	
	MOISTURE SOAK	85C/85% R.H.		238	168	HOUR	
	VAPOR PHASE REFLOW	217C		238	3	PASS	
		TOTAL:					
24175	TEMP CYCLE	-55C TO 125C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
24176	BIASED MOISTURE	85/85, 5.5 VOLTS		75	274	HOUR	0
		TOTAL:					0
24177	STORAGE LIFE	150C		37	336	HOUR	0
				37	1000	HOUR	
		TOTAL:					0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS2502 SEP '99 MONITOR-CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2502	C2	9918	DM849359ACA	8	SOIC	150	Carsem S

PROCESS Double Poly, Single Metal 0.6 µm EPROM process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
24480	INFANT LIFE	125C, 6.0 VOLTS		231	48	HOUR	0
		TOTAL:	FAIL RATE (Fits):	643	DEVICE HRS: 1.42E+06		0
24478	STORAGE LIFE	125C		238	24	HOUR	
	MOISTURE SOAK	85C/85% R.H.		238	168	HOUR	
	CONVECTION REFLOW	235C		236	3	PASS	1
		TOTAL:					1

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS5002 APR '99 MONITOR,D.P.-CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS5002	B3	9905	DM831680AAC	80	PQFP	550	Carsem

PROCESS Single Poly, Single Metal 1.2 µm Buried contacts w/silicided poly

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
23852	INFANT LIFE	125C, 7.0 VOLTS		199	48	HOUR	0
23973	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS		77	336	HOUR	0
		125C, 7.0 VOLTS		77	1000	HOUR	0
		TOTAL:	FAIL RATE (Fits):	30	DEVICE HRS: 3.02E+07		0
23671	ULTRASOUND	J-STD-020		0	1	DAYS	
		TOTAL:					
23672	STORAGE LIFE	125C		203	24	HOUR	
	MOISTURE SOAK	30C/60% R.H.		203	168	HOUR	
	SOLDER HEAT	HTC VAPOR PHASE		203	171	PASS	0
		TOTAL:					0
23851	PRECONDITION U/S	J-STD-020		0	2	DAYS	
		TOTAL:					
23974	TEMP CYCLE	-55C TO 125C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
23975	BIASED MOISTURE	85/85, 5.5 VOLTS		42	274	HOUR	0
				42	959	HOUR	0
		TOTAL:					0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS5002 APR '99 MONITOR,D.P.-CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS5002	B3	9905	DM831680AAC	80	PQFP	550	Carsem

PROCESS Single Poly, Single Metal 1.2 µm Buried contacts w/silicided poly

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
23976	AUTOCLAVE	121C STEAM, UNBIASED	40	96	HOUR	0
		TOTAL:				0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS87520 NOV '98 MONITOR,D.P.- ANAM,K.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS87C520	A13	9832	DN821500AAB	44	LCC	650	Anam, K (ASI)

PROCESS Double Poly, Single Metal 0.8 µm EPROM w/silicided poly(s)

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
23309	INFANT LIFE	125C, 7.0 VOLTS		236	48	HOUR	0
23593	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS		77	336	HOUR	0
		125C, 7.0 VOLTS		76	1000	HOUR	0
		TOTAL:	FAIL RATE (Fits):	30	DEVICE HRS: 3.06E+07		0
22843	ULTRASOUND	J-STD-020		4	1	DAYS	0
		TOTAL:					0
22844	STORAGE LIFE	125C		241	24	HOUR	
	MOISTURE SOAK	30C/60% R.H.		241	264	HOUR	
	SOLDER HEAT	HTC VAPOR PHASE		240	267	PASS	0
		TOTAL:					0
23308	PRECONDITION U/S	J-STD-020		4	1	DAYS	0
		TOTAL:					0
23594	TEMP CYCLE	-55C TO 125C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
23595	HAST	130C, 85%R.H.,5.5V		59	100	HOUR	0
		TOTAL:					0
23596	STORAGE LIFE	150C		59	336	HOUR	0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS87520 NOV '98 MONITOR,D.P.- ANAM,K.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS87C520	A13	9832	DN821500AAB	44	LCC	650	Anam, K (ASI)

PROCESS Double Poly, Single Metal 0.8 µm EPROM w/silicided poly(s)

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
			58	1000	HOUR	1
		TOTAL:				1

JOB NO	FAILURE MODE	FAILURE MECHANISM	CORRECTIVE ACTION
23596	OP40	PROCESS/DESIGN INTERACTION	REV 15 WAS RELEASED TO CORRECT THIS PROBLEM

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS80320 APR '99 MONITOR,ANAM-PI

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS80C320	C4	9903	DK826547AAD	40	DIP	600	Anam, PI (ATP)

PROCESS Single Poly, Single Metal 0.6 µm Poly 1 Silicide

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
23673	INFANT LIFE	125C, 7.0 VOLTS		234	48	HOUR	0
23690	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS		77	336	HOUR	0
		125C, 7.0 VOLTS		77	1000	HOUR	0
		TOTAL:	FAIL RATE (Fits):	30	DEVICE HRS: 3.08E+07		0
23691	TEMP CYCLE	-55C TO 125C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
23692	BIASED MOISTURE	85/85, 5.5 VOLTS		72	274	HOUR	0
				72	959	HOUR	
		TOTAL:					0
23693	AUTOCLAVE	121C STEAM, UNBIASED		40	96	HOUR	0
		TOTAL:					0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS87520 NOV '98 MONITOR,D.P.- ANAM,K.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS87C520	A13	9832	DN821500AAB	44	LCC	650	Anam, K (ASI)

PROCESS Double Poly, Single Metal 0.8 µm EPROM w/silicided poly(s)

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
23309	INFANT LIFE	125C, 7.0 VOLTS		236	48	HOUR	0
23593	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS		77	336	HOUR	0
		125C, 7.0 VOLTS		76	1000	HOUR	0
		TOTAL:	FAIL RATE (Fits):	30	DEVICE HRS: 3.06E+07		0
22843	ULTRASOUND	J-STD-020		4	1	DAYS	0
		TOTAL:					0
22844	STORAGE LIFE	125C		241	24	HOUR	
	MOISTURE SOAK	30C/60% R.H.		241	264	HOUR	
	SOLDER HEAT	HTC VAPOR PHASE		240	267	PASS	0
		TOTAL:					0
23308	PRECONDITION U/S	J-STD-020		4	1	DAYS	0
		TOTAL:					0
23594	TEMP CYCLE	-55C TO 125C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
23595	HAST	130C, 85%R.H.,5.5V		59	100	HOUR	0
		TOTAL:					0
23596	STORAGE LIFE	150C		59	336	HOUR	0

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS87520 NOV '98 MONITOR,D.P.- ANAM,K.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS87C520	A13	9832	DN821500AAB	44	LCC	650	Anam, K (ASI)

PROCESS Double Poly, Single Metal 0.8 µm EPROM w/silicided poly(s)

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
			58	1000	HOUR	1
		TOTAL:				1

JOB NO	FAILURE MODE	FAILURE MECHANISM	CORRECTIVE ACTION
23596	OP40	PROCESS/DESIGN INTERACTION	REV 15 WAS RELEASED TO CORRECT THIS PROBLEM

Empty "No of Fails" TOTAL implies that Material is still in stess

RELIABILITY MONITOR

DS87520 FEB '99 MONITOR,D.P.-ANAM,K

DEVICE	REVISION	DATE CODE	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS87C520	A11	9838	DN825394AAB	44	LCC	650	Anam, K (ASI)

JOB_NO	DESCRIPTION	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
23306	ULTRASOUND	J-STD-020	4	1	DAYS	0
		TOTAL:				0
23307	STORAGE LIFE	125C	239	24	HOUR	
	MOISTURE SOAK	30C/60% R.H.	239	240	HOUR	
	SOLDER HEAT	HTC VAPOR PHASE	239	3	PASS	0
		TOTAL:				0
23414	PRECONDITION U/S	J-STD-020	4	1	DAYS	0
		TOTAL:				0
23854	TEMP CYCLE	-55C TO 125C	40	300	CYCL	0
		-55C TO 125C	40	1000	CYCL	0
		TOTAL:				0
23855	HAST	130C, 85%R.H.,5.5V	59	100	HOUR	0
		TOTAL:				0
23856	STORAGE LIFE	150C	59	336	HOUR	0
		150C	58	1000	HOUR	0
		TOTAL:				0

Empty "No of Fails" TOTAL implies that Material is still in stess