

# RELIABILITY MONITOR

## DS1100Z-25 OCT '01 MONITOR

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1100	A3	0126	DK114601ADC	8	SOIC	150x1.4	ATP (Amkor, PI)
<b>PROCESS</b>		D6W-1P2M,HPVt,E2,TCZ PBL:GOI		Passivation w/Nov TEOS Oxide-Nitride			

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

Cf:   
 Ea:   
 β:

Tuse:   
 Vuse:

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
28535	HIGH VOLTAGE LIFE	125C, 6.0 VOLTS	77	336	HRS	0
		125C, 6.0 VOLTS	77	1000	HRS	0
		TOTAL:			FAIL RATE (Fits): 13	DEVICE HRS: 7.26E+07
28532	ULTRASOUND	J-STD-020	4	1	DYS	0
		TOTAL:				0
28533	STORAGE LIFE MOISTURE SOAK CONVECTION REFLOW	125C	238	24	HRS	
		85 C/85% R.H.	238	168	HRS	
		235C	238	3	PASS	0
		TOTAL:				0
28534	PRECONDITION U/S	J-STD-020	4	1	DYS	0
		TOTAL:				0
28536	TEMP CYCLE	-55C TO 125C	40	300	CYS	0
			40	1000	CYS	0
		TOTAL:				0
28537	BIASED MOISTURE	85/85, 5.5 VOLTS	77	500	HRS	
		TOTAL:				
28538	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	40	168	HRS	0

PROJECT NO: 19605

# RELIABILITY MONITOR

**DS1100Z-25 OCT '01 MONITOR**

<b>DEVICE</b>	<b>REVISION</b>	<b>DATE CD</b>	<b>LOT NUMBER</b>	<b>PINS</b>	<b>PACKAGE</b>	<b>WIDTH</b>	<b>ASSEMBLY SITE</b>
DS1100	A3	0126	DK114601ADC	8	SOIC	150x1.4	ATP (Amkor, PI)
<b>PROCESS</b>		D6W-1P2M,HPVt,E2,TCZ PBL:GOI		Passivation w/Nov TEOS Oxide-Nitride			

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

Cf:	<input type="text" value="60%"/>	Tuse:	<input type="text" value="25 °C"/>
Ea:	<input type="text" value="0.7"/>	Vuse:	<input type="text" value="5.5 Volts"/>
β:	<input type="text" value="0"/>		

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

PROJECT NO: 19605

# RELIABILITY MONITOR

## DS1100Z-25 JAN '02 MONITOR

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1100	A3	0132	DK115002AKC	8	SOIC	150x1.4	ATP (Amkor, PI)
<b>PROCESS</b>		D6W-1P2M,HPVt,E2,TCZ PBL:GOI		Passivation w/Nov TEOS Oxide-Nitride			

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

Cf:   
 Ea:   
 β:

Tuse:  °C  
 Vuse:  Volts

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
28614	HIGH VOLTAGE LIFE	125C, 6.0 VOLTS	77	336	HRS	0
		125C, 6.0 VOLTS	77	1000	HRS	0
	TOTAL:		FAIL RATE (Fits):	13	DEVICE HRS: 7.26E+07	
28611	ULTRASOUND	J-STD-020	4	1	DYS	0
		TOTAL:				0
28612	STORAGE LIFE	125C	238	24	HRS	
	MOISTURE SOAK	85 C/85% R.H.	238	168	HRS	
	CONVECTION REFLOW	235C	238	3	PASS	0
	TOTAL:					0
28613	PRECONDITION U/S	J-STD-020	4	1	DYS	0
		TOTAL:				0
28615	TEMP CYCLE	-55C TO 125C	40	300	CYS	0
			40	1000	CYS	0
		TOTAL:				0
28616	BIASED MOISTURE	85/85, 5.5 VOLTS	77	500	HRS	
		TOTAL:				
28617	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	39	168	HRS	0

**PROJECT NO:** 20890

# RELIABILITY MONITOR

**DS1100Z-25 JAN '02 MONITOR**

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1100	A3	0132	DK115002AKC	8	SOIC	150x1.4	ATP (Amkor, PI)
<b>PROCESS</b>		D6W-1P2M,HPVt,E2,TCZ PBL:GOI		Passivation w/Nov TEOS Oxide-Nitride			

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

Cf:	60%	Tuse:	25 °C
Ea:	0.7	Vuse:	5.5 Volts
β:	0		

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

# RELIABILITY MONITOR

## DS1100Z-25 JUL '02 MONITOR

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1100	A3	0230	DE120202AFB	8	SOIC	150x1.4	OSEP
<b>PROCESS</b>		D6W-1P2M,HPVt,E2,TCZ PBL:GOI		Passivation w/Nov TEOS Oxide-Nitride			

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

Cf:   
 Ea:   
 β:

Tuse:   
 Vuse:

**NO OF  
FAILS**

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
30192	HIGH VOLTAGE LIFE	125C, 6.0 VOLTS	80	500	HRS	
TOTAL:			FAIL RATE (Fits):		DEVICE HRS: 3.77E+07	
30189	ULTRASOUND	J-STD-020	4	1	DYS	0
TOTAL:			0			
30190	STORAGE LIFE	125C	241	24	HRS	
	MOISTURE SOAK	85 C/85% R.H.	241	168	HRS	
	CONVECTION REFLOW	235C	241	3	PASS	0
TOTAL:			0			
30191	PRECONDITION U/S	J-STD-020	4	1	DYS	0
TOTAL:			0			
30193	TEMP CYCLE	-55C TO 125C	40	500	CYS	
TOTAL:						
30194	BIASED MOISTURE	85/85, 5.5 VOLTS	77	500	HRS	
TOTAL:						
30195	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	40	168	HRS	
TOTAL:						

**PROJECT NO:** 24619

## RELIABILITY MONITOR

**DS1100Z-25 JAN '03 MONITOR**

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1100	A3	0243	DM242094AJC	8	SOIC	150x1.4	Carsem

JOB_NO	DESCRIPTION	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
30767	ULTRASOUND	J-STD-020	4	1	DYS	0
		TOTAL:				0
30768	STORAGE LIFE	125C	241	24	HRS	
	MOISTURE SOAK	85 C/85% R.H.	241	168	HRS	
	CONVECTION REFLOW	235C	241	3	PASS	
		TOTAL:				

**PROJECT NO: 25544**

## RELIABILITY MONITOR

**DS1232L JUL '02 MONITOR**

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1232	C2-L	0111	DE049638ADB	8	SOIC	150x1.4	OSEP

JOB_NO	DESCRIPTION	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
30182	ULTRASOUND	J-STD-020	4	1	DYS	0
		TOTAL:				0
30183	STORAGE LIFE	125C	241	24	HRS	
	MOISTURE SOAK	85 C/85% R.H.	241	168	HRS	
	CONVECTION REFLOW	235C	241	3	PASS	0
		TOTAL:				0
30184	PRECONDITION U/S	J-STD-020	4	7	DYS	0
		TOTAL:				0

**PROJECT NO: 24602**

## RELIABILITY MONITOR

**DS1232L JAN '03 MONITOR**

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1232	C2-L	0252	DK235629ABA	8	SOIC	150x1.4	ATP (Amkor, PI)

JOB_NO	DESCRIPTION	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
30756	STORAGE LIFE	125C	241	24	HRS	
	MOISTURE SOAK	85 C/85% R.H.	241	168	HRS	
	CONVECTION REFLOW	235C	241	3	PASS	0
		TOTAL:				0
30757	PRECONDITION U/S	J-STD-020	4	7	DYS	0
		TOTAL:				0

**PROJECT NO: 25545**

# RELIABILITY MONITOR

## DS1267-010 AUG '02 MONITOR

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1267	A1	0237	DM234023AFB	20	TSSOP	4.4x0.9	Carsem
<b>PROCESS</b>	1P, 1M, 1.2um, II Poly1		, TEOS	Passivation w/Nov TEOS Oxide-Nitride			

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

Cf:	<input type="text" value="60%"/>	Tuse:	<input type="text" value="25 °C"/>
Ea:	<input type="text" value="0.7"/>	Vuse:	<input type="text" value="5.5 Volts"/>
β:	<input type="text" value="0"/>		

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
30199	HIGH VOLTAGE LIFE	125C, 6.0 V, -4.0V	79	500	HRS	0
	TOTAL:	FAIL RATE (Fits):	25	DEVICE HRS: 3.73E+07		0
30196	ULTRASOUND	J-STD-020	4	5	DYS	0
	TOTAL:					0
30197	STORAGE LIFE	125C	241	24	HRS	
	MOISTURE SOAK	85 C/85% R.H.	241	168	HRS	
	CONVECTION REFLOW	235C	241	3	PASS	0
	TOTAL:					0
30198	PRECONDITION U/S	J-STD-020	4	2	DYS	0
	TOTAL:					0
30200	TEMP CYCLE	-55C TO 125C	40	500	CYS	0
			40	1000	CYS	
	TOTAL:					0
30201	BIASED MOISTURE	85/85, 5.5 VOLTS	77	500	HRS	0
	TOTAL:					0
30202	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	40	96	HRS	5

**PROJECT NO:** 24618

# RELIABILITY MONITOR

**DS1267-010 AUG '02 MONITOR**

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1267	A1	0237	DM234023AFB	20	TSSOP	4.4x0.9	Carsem
PROCESS		1P, 1M, 1.2um, II Poly1, TEOS Passivation w/Nov TEOS Oxide-Nitride					

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

Cf:	60%	Tuse:	25 °C
Ea:	0.7	Vuse:	5.5 Volts
β:	0		

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

5

FAILURE MODE	VERIFICATION	FA NUMBER	FAILURE MECHANISM
ICCSTANDBY	# 1, # 2, # 3, # 4		
CLKTOCUT	# 5		

## RELIABILITY MONITOR

### DS1302 SEP '02 MONITOR

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1302	A4	0226	DE244426AA	8	PDIP	300	CPS (ChipPac, China
<b>PROCESS</b> 1P, 2M, 0.8um, ESD Pdepletion,HP Vts, Passivation w/Nov TEOS Oxide-Nitride							

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

Cf:   
 Ea:   
 β:

Tuse:   
 Vuse:

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
30178	HIGH VOLTAGE LIFE	125C, 6.0 VOLTS	80	500	HRS	0
		125C, 6.0 VOLTS	80	1000	HRS	0
		TOTAL:			FAIL RATE (Fits): 12	DEVICE HRS: 7.55E+07
30179	TEMP CYCLE	-55C TO 125C	45	500	CYS	0
			45	1000	CYS	0
		TOTAL:				
30180	BIASED MOISTURE	85/85, 5.5 VOLTS	77	500	HRS	0
			77	1000	HRS	0
		TOTAL:				
30181	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	45	168	HRS	0
		TOTAL:				

PROJECT NO: 24638

# RELIABILITY MONITOR

## DS1620 JUL '02 MONITOR

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1620	D1	0114	DH052446AAF	8	SOIC	208x1.9	CPS (ChipPac, China
<b>PROCESS</b>	D8W-1P1M,HPVt,E2		LOCOS:GOI	Passivation w/Nov TEOS Oxide-Nitride			

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

Cf:   
 Ea:   
 β:

Tuse:   
 Vuse:

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
30102	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS	79	500	HRS	0
		125C, 7.0 VOLTS	79	1000	HRS	0
		<b>TOTAL:</b>			<b>FAIL RATE (Fits):</b>	12
30099	ULTRASOUND	J-STD-020	4	7	DYS	0
		<b>TOTAL:</b>				
30100	STORAGE LIFE MOISTURE SOAK CONVECTION REFLOW	125C	244	24	HRS	
		85 C/85% R.H.	244	168	HRS	
		235C	244	3	PASS	0
		<b>TOTAL:</b>				
30101	PRECONDITION U/S	J-STD-020	4	7	DYS	0
		<b>TOTAL:</b>				
30103	TEMP CYCLE	-55C TO 125C	40	500	CYS	2
			38	1000	CYS	0
		<b>TOTAL:</b>				

FAILURE MODE	VERIFICATION	FA NUMBER	FAILURE MECHANISM
ICC STANDBY	(#1) SUBMITTED TO FA BY RICHARD BYRD, 4/21/03	30011720	
ICC ACTIVE	(#2) SUBMITTED TO FA BY RICHARD BYRD, 4/21/03	30011720	

**PROJECT NO:** 24459

# RELIABILITY MONITOR

## DS1620 JUL '02 MONITOR

<b>DEVICE</b>	<b>REVISION</b>	<b>DATE CD</b>	<b>LOT NUMBER</b>	<b>PINS</b>	<b>PACKAGE</b>	<b>WIDTH</b>	<b>ASSEMBLY SITE</b>
DS1620	D1	0114	DH052446AAF	8	SOIC	208x1.9	CPS (ChipPac, China
<b>PROCESS</b>	D8W-1P1M,HPVt,E2		LOCOS:GOI	Passivation w/Nov TEOS Oxide-Nitride			

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

Cf:   
 Ea:   
 β:

Tuse:  °C  
 Vuse:  Volts

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
30104	BIASED MOISTURE	85/85, 5.5 VOLTS	70	500	HRS	0
			70	1000	HRS	0
		TOTAL:				
30105	WRITE CYCLE STRESS	85 C, 7.0 VOLTS	50	50	KCYS	0
			TOTAL:			
30106	STORAGE LIFE	150C	50	500	HRS	0
			50	1000	HRS	0
		TOTAL:				

PROJECT NO: 24459

# RELIABILITY MONITOR

## DS1620 JAN '03 MONITOR

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1620	D1	0249	DU218037AAA	8	SOIC	208x1.9	Hana
<b>PROCESS</b>		D8W-1P1M,HPVt,E2 LOCOS:GOI		Passivation w/Nov TEOS Oxide-Nitride			

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

Cf:   
 Ea:   
 β:

Tuse:  °C  
 Vuse:  Volts

**NO OF  
FAILS**

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
30750	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS	80	500	HRS	
TOTAL:			FAIL RATE (Fits):		DEVICE HRS: 3.77E+07	
30747	ULTRASOUND	J-STD-020	4	7	DYS	0
TOTAL:			0			
30748	STORAGE LIFE	125C	244	24	HRS	
	MOISTURE SOAK	85 C/85% R.H.	244	168	HRS	
	CONVECTION REFLOW	235C	244	3	PASS	0
TOTAL:			0			
30749	PRECONDITION U/S	J-STD-020	4	7	DYS	0
TOTAL:			0			
30751	TEMP CYCLE	-55C TO 125C	40	500	CYS	0
			40	1000	CYS	0
TOTAL:			0			
30752	BIASED MOISTURE	85/85, 5.5 VOLTS	70	500	HRS	0
TOTAL:			0			
30753	WRITE CYCLE STRESS	85 C, 7.0 VOLTS	50	50	KCYS	0
TOTAL:			0			

**PROJECT NO:** 25540

# RELIABILITY MONITOR

## DS1620 JAN '03 MONITOR

<b>DEVICE</b>	<b>REVISION</b>	<b>DATE CD</b>	<b>LOT NUMBER</b>	<b>PINS</b>	<b>PACKAGE</b>	<b>WIDTH</b>	<b>ASSEMBLY SITE</b>
DS1620	D1	0249	DU218037AAA	8	SOIC	208x1.9	Hana
<b>PROCESS</b>		D8W-1P1M,HPVt,E2 LOCOS:GOI		Passivation w/Nov TEOS Oxide-Nitride			

Summary Data with Chi-Square Distribution Assumed.

Cf:

Tuse:

Stress Ambient Temperature and Voltage to

Ea:

Vuse:

Field Ambient Temperature And Voltage

$\beta$ :

**NO OF**

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
30754	STORAGE LIFE	150C	50	500	HRS	0
TOTAL:						0

PROJECT NO: 25540

# RELIABILITY MONITOR

## DS1621 SEP '02 MONITOR

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1621	A7	0232	DK103506AAB	8	SOIC	150x1.4	ATP (Amkor, PI)
<b>PROCESS</b>		D8W-1P1M,HPVt,E2		LOCOS:GOI		Passivation w/Nov TEOS Oxide-Nitride	

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

Cf:   
 Ea:   
 β:

Tuse:  °C  
 Vuse:  Volts

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
30117	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS	77	500	HRS	0
		125C, 7.0 VOLTS	77	1000	HRS	0
		TOTAL:			FAIL RATE (Fits): 13	DEVICE HRS: 7.26E+07
30114	ULTRASOUND	J-STD-020	4	7	DYS	0
		TOTAL:				0
30115	STORAGE LIFE MOISTURE SOAK CONVECTION REFLOW	125C	241	24	HRS	
		85 C/85% R.H.	241	168	HRS	
		235C	241	3	PASS	0
		TOTAL:				0
30116	PRECONDITION U/S	J-STD-020	4	7	DYS	0
		TOTAL:				0
30118	TEMP CYCLE	-55C TO 125C	40	500	CYS	0
			40	1000	CYS	0
		TOTAL:				0
30119	BIASED MOISTURE	85/85, 5.5 VOLTS	70	500	HRS	0
			70	1000	HRS	0
		TOTAL:				0

PROJECT NO: 24460

# RELIABILITY MONITOR

## DS1621 SEP '02 MONITOR

<b>DEVICE</b>	<b>REVISION</b>	<b>DATE CD</b>	<b>LOT NUMBER</b>	<b>PINS</b>	<b>PACKAGE</b>	<b>WIDTH</b>	<b>ASSEMBLY SITE</b>
DS1621	A7	0232	DK103506AAB	8	SOIC	150x1.4	ATP (Amkor, PI)
<b>PROCESS</b>		D8W-1P1M,HPVt,E2 LOCOS:GOI		Passivation w/Nov TEOS Oxide-Nitride			

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

Cf:   
 Ea:   
 β:

Tuse:  °C  
 Vuse:  Volts

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
30120	WRITE CYCLE STRESS	85 C, 7.0 VOLTS	50	50	KCYS	0
TOTAL:						0
30121	STORAGE LIFE	150C	50	500	HRS	0
			50	1000	HRS	0
TOTAL:						0

PROJECT NO: 24460

## RELIABILITY MONITOR

**DS1621 MAR '03 MONITOR**

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1621	A7	0237	DE106688AAB	8	SOIC	150x1.4	OSEP

JOB_NO	DESCRIPTION	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
30963	ULTRASOUND	J-STD-020	4	7	DYS	0
		TOTAL:				0
30964	STORAGE LIFE	125C	240	24	HRS	
	MOISTURE SOAK	85 C/85% R.H.	240	168	HRS	
	CONVECTION REFLOW	235C	240	3	PASS	
		TOTAL:				

**PROJECT NO: 25960**

## RELIABILITY MONITOR

**DS1803-010 OCT '02 MONITOR**

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1803	A2	0234	DK236047AAB	16	SOIC	150x1.4	ATP (Amkor, PI)

JOB_NO	DESCRIPTION	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
30226	ULTRASOUND	J-STD-020	4	2	DYS	0
		TOTAL:				0
30227	STORAGE LIFE	125C	241	24	HRS	
	MOISTURE SOAK	85 C/85% R.H.	241	168	HRS	
	CONVECTION REFLOW	235C	241	3	PASS	
		TOTAL:				

**PROJECT NO: 24620**

## RELIABILITY MONITOR

**DS2118M MAR '03 MONITOR**

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2118M	C1	0233	DN108304ABC	36	SSOP	7.5x2.4	ATK (Amkor, K)

JOB_NO	DESCRIPTION	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
31033	STORAGE LIFE	125C	238	48	HRS	
	MOISTURE SOAK	85 C/85% R.H.	238	168	HRS	
	CONVECTION REFLOW	235C	238	3	PASS	

TOTAL:

FAILURE MODE	VERIFICATION	FA NUMBER	FAILURE MECHANISM
RSE-SE	(#1 UNIT PASSED RETEST - KENNY BUN 4/9/2003)		
ITPS ISO	(#2,3 BOTH PASSED RETEST)		

**PROJECT NO: 24899**

# RELIABILITY MONITOR

## DS21352 AUG '02 MONITOR, D.P.

<b>DEVICE</b>	<b>REVISION</b>	<b>DATE CD</b>	<b>LOT NUMBER</b>	<b>PINS</b>	<b>PACKAGE</b>	<b>WIDTH</b>	<b>ASSEMBLY SITE</b>
DS21352	A4	0240	DC039494AAA	100	LQFP	14x14x	Stats
<b>PROCESS</b> 2P, 2M, 0.6um, P2Cap, PdD, HP Vts, GO Laser/TEOS Ox - Pass/Nit - Gen.LaserPrb							

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

Cf:   
 Ea:   
 β:

Tuse:   
 Vuse:

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
30219	HIGH VOLTAGE LIFE	125C, 6.0 VOLTS	77	500	HRS	0
		125C, 6.0 VOLTS	77	1000	HRS	0
TOTAL:			13	DEVICE HRS: 7.26E+07		0
<b>FAILURE MODE</b>		<b>VERIFICATION</b>	<b>FA NUMBER</b>	<b>FAILURE MECHANISM</b>		
IBO2_3V		(#1,2)				
30216	ULTRASOUND	J-STD-020	4	2	DYS	0
		TOTAL:				
30217	STORAGE LIFE	125C	241	24	HRS	
	MOISTURE SOAK	30C/60% R.H.	241	192	HRS	
	CONVECTION REFLOW	235C	241	3	PASS	0
TOTAL:						0
30218	PRECONDITION U/S	J-STD-020	4	5	DYS	0
		TOTAL:				
30220	TEMP CYCLE	-55C TO 125C	77	500	CYS	0
			77	1000	CYS	0
		TOTAL:				
30221	HAST, NO BIAS	130C, 85% R.H.	72	96	HRS	0
		TOTAL:				

**PROJECT NO:** 24622

# RELIABILITY MONITOR

**DS21352 AUG '02 MONITOR, D.P.**

<b>DEVICE</b>	<b>REVISION</b>	<b>DATE CD</b>	<b>LOT NUMBER</b>	<b>PINS</b>	<b>PACKAGE</b>	<b>WIDTH</b>	<b>ASSEMBLY SITE</b>
DS21352	A4	0240	DC039494AAA	100	LQFP	14x14x	Stats
<b>PROCESS</b> 2P, 2M, 0.6um, P2Cap, PdD, HP Vts, GO Laser/TEOS Ox - Pass/Nit - Gen.LaserPrb							

Summary Data with Chi-Square Distribution Assumed.

Cf:

Tuse:

Stress Ambient Temperature and Voltage to

Ea:

Vuse:

Field Ambient Temperature And Voltage

$\beta$ :

**NO OF  
FAILS**

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
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**PROJECT NO: 24622**

## RELIABILITY MONITOR

**DS21352 FEB '03 MONITOR, D.P.**

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS21352	A4	0242	DK036653AAA	100	LQFP	14x14x	ATP (Amkor, PI)

JOB_NO	DESCRIPTION	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
31027	STORAGE LIFE	125C	241	24	HRS	
	MOISTURE SOAK	30C/60% R.H.	241	192	HRS	
	CONVECTION REFLOW	235C	241	3	PASS	
TOTAL:						

**PROJECT NO: 26120**

## RELIABILITY MONITOR

DS21Q43A FEB '03 MONITOR, D.P.

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS21Q43	A3-A	0305	DN039537AAA	128	LQFP	14x20x	ATK (Amkor, K)

JOB_NO	DESCRIPTION	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
30956	STORAGE LIFE	125C	241	24	HRS	
	MOISTURE SOAK	30C/60% R.H.	241	192	HRS	
	CONVECTION REFLOW	235C	241	3	PASS	
		TOTAL:				

PROJECT NO: 24641

# RELIABILITY MONITOR

## DS2154 NOV '02 MONITOR, D.P.

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2154	A2	0230	DC102671AAA	100	LQFP	14x14x	Stats
<b>PROCESS</b> D8R-2P2M,HPVt,NDROM,N+ESD,Laser				Laser/TEOS Ox - Pass/Nit - Gen.LaserPrb			

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

Cf:   
 Ea:   
 β:

Tuse:   
 Vuse:

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
30236	HIGH VOLTAGE LIFE	125C, 6.0 VOLTS	80	500	HRS	2
		125C, 6.0 VOLTS	77	1000	HRS	
TOTAL:			42	DEVICE HRS: 7.36E+07		2

FAILURE MODE	VERIFICATION	FA NUMBER	FAILURE MECHANISM
RCHANB	(#1,2) PARTS SUBMITTED TO FA BY RICHARD BYRD, 4/21/03	30011723	

30233	ULTRASOUND	J-STD-020	4	2	DYS	0
TOTAL:						0
30234	STORAGE LIFE	125C	241	24	HRS	
	MOISTURE SOAK	30C/60% R.H.	241	192	HRS	
	CONVECTION REFLOW	235C	241	3	PASS	0
TOTAL:						0
30235	PRECONDITION U/S	J-STD-020	4	5	DYS	0
TOTAL:						0
30237	TEMP CYCLE	-55C TO 125C	78	500	CYS	0
			78	1000	CYS	
TOTAL:						0
30238	HAST, NO BIAS	130C, 85% R.H.	77	200	HRS	0

**PROJECT NO:** 24658

# RELIABILITY MONITOR

**DS2154 NOV '02 MONITOR, D.P.**

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2154	A2	0230	DC102671AAA	100	LQFP	14x14x	Stats
<b>PROCESS</b> D8R-2P2M,HPVt,NDR0M,N+ESD,Laser Laser/TEOS Ox - Pass/Nit - Gen.LaserPrb							

Summary Data with Chi-Square Distribution Assumed.

Cf:

Tuse:

Stress Ambient Temperature and Voltage to

Ea:

Vuse:

Field Ambient Temperature And Voltage

β:

**NO OF**

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	FAILS
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TOTAL:

0

PROJECT NO: 24658

# RELIABILITY MONITOR

## DS2401 AUG '02 MONITOR

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2401	C2	0245	DU218017AG	3	TO92	150	Hana
<b>PROCESS</b> 1P, 1M, 0.6um, Pd, Ti/TiN M1, WJ Laser/TEOS Ox - Pass/Nit - Gen.LaserPrb							

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

Cf:	<input type="text" value="60%"/>	Tuse:	<input type="text" value="25 °C"/>
Ea:	<input type="text" value="0.7"/>	Vuse:	<input type="text" value="5.5 Volts"/>
β:	<input type="text" value="0"/>		

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
30203	HIGH VOLTAGE LIFE	125C, 6.0 VOLTS	80	500	HRS	0
		125C, 6.0 VOLTS	80	1000	HRS	0
		<b>TOTAL:</b>			<b>FAIL RATE (Fits):</b> 12	<b>DEVICE HRS:</b> 7.55E+07
30204	TEMP CYCLE	-55C TO 125C	45	500	CYS	1
			44	1000	CYS	0
		<b>TOTAL:</b>				
<b>FAILURE MODE</b>		<b>VERIFICATION</b>	<b>FA NUMBER</b>	<b>FAILURE MECHANISM</b>		
PD RESET		(#1) PARTS SUBMITTED TO FA BY RICHARD BYRD, 4/21/03	30011724			
30205	HAST	130C, 85%R.H.,5.5V	77	96	HRS	0
		<b>TOTAL:</b>				0
30206	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	45	168	HRS	0
		<b>TOTAL:</b>				0

PROJECT NO: 24621

## RELIABILITY MONITOR

### DS2502P JUL '02 MONITOR

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2502	C4	0238	DE252080AEB	6	TSOC	150x1.2	OSEP

JOB_NO	DESCRIPTION	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
30107	ULTRASOUND	J-STD-020	4	2	DYS	0
		TOTAL:				0
30108	STORAGE LIFE	125C	151	24	HRS	
	MOISTURE SOAK	85 C/85% R.H.	151	168	HRS	
	CONVECTION REFLOW	235C	151	3	PASS	0
		TOTAL:				0
30109	PRECONDITION U/S	J-STD-020	4	2	DYS	0
		TOTAL:				0
30110	TEMP CYCLE	-55C TO 125C	77	500	CYS	0
		-55C TO 125C	77	1000	CYS	
		TOTAL:				0
30111	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	70	96	HRS	0
		TOTAL:				0

PROJECT NO: 24463

## RELIABILITY MONITOR

**DS2502P JAN '03 MONITOR**

<b>DEVICE</b>	<b>REVISION</b>	<b>DATE CD</b>	<b>LOT NUMBER</b>	<b>PINS</b>	<b>PACKAGE</b>	<b>WIDTH</b>	<b>ASSEMBLY SITE</b>
DS2502	C4	0249	DE303581AAB	6	TSOC	150x1.2	OSEP

JOB_NO	DESCRIPTION	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
30762	ULTRASOUND	J-STD-020	4	2	DYS	0
		TOTAL:				0
30763	STORAGE LIFE	125C	151	24	HRS	
	MOISTURE SOAK	85 C/85% R.H.	151	168	HRS	
	CONVECTION REFLOW	235C	151	3	PASS	
		TOTAL:				

**PROJECT NO: 25543**

## RELIABILITY MONITOR

### DS80C320 DEC '02 MONITOR

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS80C320	C5	0230	DK240563AB	40	PDIP	600	ATP (Amkor, PI)
<b>PROCESS</b> D6RL-1P1M,SILP1,LLVt,N+ESD PBL:G Passivation w/Nov TEOS Oxide-Nitride							

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

Cf:   
 Ea:   
 β:

Tuse:   
 Vuse:

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
30259	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS	77	500	HRS	0
		125C, 7.0 VOLTS	77	1000	HRS	0
		<b>TOTAL:</b>			<b>FAIL RATE (Fits):</b> 13	<b>DEVICE HRS:</b> 7.26E+07
30260	TEMP CYCLE	-55C TO 125C	45	500	CYS	0
			45	1000	CYS	0
		<b>TOTAL:</b>				
30261	BIASED MOISTURE	85/85, 5.5 VOLTS	77	500	HRS	0
			77	1000	HRS	0
		<b>TOTAL:</b>				
30262	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	45	96	HRS	0
		<b>TOTAL:</b>				0

**PROJECT NO:** 24680

# RELIABILITY MONITOR

## DS87C520 DEC '02 MONITOR

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS87C520	A15-I	0232	DK241602AAA	44	PLCC	650x65	ATP (Amkor, PI)
<b>PROCESS</b> 2P, 1M, 0.8um,ThinEP/Sil,ThinOx NdPdD Passivation w/Nov TEOS Oxide-OxyNitride							

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

Cf:   
 Ea:   
 β:

Tuse:  °C  
 Vuse:  Volts

**NO OF  
FAILS**

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
30255	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS	75	500	HRS	
TOTAL:			FAIL RATE (Fits):		DEVICE HRS: 3.54E+07	
30253	STORAGE LIFE	125C	239	24	HRS	
	MOISTURE SOAK	30C/60% R.H.	239	192	HRS	
	CONVECTION REFLOW	220C	239	3	PASS	0
TOTAL:			0			
30256	TEMP CYCLE	-55C TO 125C	50	500	CYS	0
			50	1000	CYS	0
TOTAL:			0			
30257	HAST	130C, 85%R.H.,5.5V	59	96	HRS	
TOTAL:						
30258	STORAGE LIFE	150C	50	500	HRS	
TOTAL:						

PROJECT NO: 24681