

# 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
<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
30770	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
30767	ULTRASOUND	J-STD-020	4	1	DYS	0
		TOTAL:				0
30768	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
30769	PRECONDITION U/S	J-STD-020	4	1	DYS	0
		TOTAL:				0
30771	TEMP CYCLE	-55C TO 125C	40	500	CYS	0
			40	1000	CYS	0
		TOTAL:				0
30772	BIASED MOISTURE	85/85, 5.5 VOLTS	77	500	HRS	0
			77	1000	HRS	0
		TOTAL:				0

PROJECT NO: 25544

# 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
<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
30773	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	40	168	HRS	0
<b>TOTAL:</b>						<b>0</b>

# RELIABILITY MONITOR

## DS1100Z-25 APR '03 MONITOR

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1100	A3	0312	DK242100AHC	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
31254	HIGH TEMP OP LIFE	125C, 5.5 VOLTS	80	500	HRS	0
		125C, 5.5 VOLTS	80	1000	HRS	0
		TOTAL:			FAIL RATE (Fits): 12	DEVICE HRS: 7.55E+07
31251	ULTRASOUND	J-STD-020	4	1	DYS	0
		TOTAL:				0
31252	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
31253	PRECONDITION U/S	J-STD-020	4	1	DYS	0
		TOTAL:				0
31255	TEMP CYCLE	-55C TO 125C	40	500	CYS	0
			40	1000	CYS	0
		TOTAL:				0
31256	BIASED MOISTURE	85/85, 5.5 VOLTS	77	500	HRS	0
			77	1000	HRS	0
		TOTAL:				0

PROJECT NO: 26479

# RELIABILITY MONITOR

## DS1100Z-25 APR '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>
DS1100	A3	0312	DK242100AHC	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.

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	NO OF FAILS
31257	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	39	168	HRS	0
<b>TOTAL:</b>						<b>0</b>

PROJECT NO: 26479

# RELIABILITY MONITOR

## DS1100Z-25 JUL '03 MONITOR

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1100	A3	0323	DJ330003ACC	8	SOIC	150x1.4	NSEB
<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
31899	HIGH TEMP OP LIFE	125C, 5.5 VOLTS	80	500	HRS	0
		125C, 5.5 VOLTS	80	1000	HRS	0
		TOTAL:			FAIL RATE (Fits): 12	DEVICE HRS: 7.55E+07
31896	ULTRASOUND	J-STD-020	4	1	DYS	0
		TOTAL:				0
31897	STORAGE LIFE MOISTURE SOAK CONVECTION REFLOW	125C	241	24	HRS	0
		85 C/85% R.H.	241	168	HRS	0
		235C	241	3	PASS	0
		TOTAL:				0
31898	PRECONDITION U/S	J-STD-020	4	1	DYS	0
		TOTAL:				0
31900	TEMP CYCLE	-55C TO 125C	40	500	CYS	0
			40	1000	CYS	0
		TOTAL:				0
31901	BIASED MOISTURE	85/85, 5.5 VOLTS	77	500	HRS	0
			77	1000	HRS	0
		TOTAL:				0

PROJECT NO: 27782

# RELIABILITY MONITOR

**DS1100Z-25 JUL '03 MONITOR**

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1100	A3	0323	DJ330003ACC	8	SOIC	150x1.4	NSEB
<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
31902	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	40	168	HRS	0
<b>TOTAL:</b>						<b>0</b>

# RELIABILITY MONITOR

## DS1232L 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>
DS1232	C2-L	0111	DE049638ADB	8	SOIC	150x1.4	OSEP
<b>PROCESS</b> 1P, 1M, 0.8um, PdplDiode, Low 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
30185	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS	79	500	HRS	0
		125C, 7.0 VOLTS	79	1000	HRS	0
		TOTAL:	12	DEVICE HRS: 7.45E+07		0
30182	ULTRASOUND	J-STD-020	4	1	DYS	0
		TOTAL:				0
30183	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
30184	PRECONDITION U/S	J-STD-020	4	7	DYS	0
		TOTAL:				0
30186	TEMP CYCLE	-55C TO 125C	40	500	CYS	0
			40	1000	CYS	0
		TOTAL:				0
30187	HAST	130C, 85%R.H.,5.5V	77	96	HRS	0
		TOTAL:				0
30188	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	40	168	HRS	0

**PROJECT NO:** 24602

# RELIABILITY MONITOR

**DS1232L 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>
DS1232	C2-L	0111	DE049638ADB	8	SOIC	150x1.4	OSEP
<b>PROCESS</b> 1P, 1M, 0.8um, PdplDiode, Low Vts , Passivation w/Nov TEOS Oxide-Nitride							

Summary Data with Chi-Square Distribution Assumed.	Cf:	60%	Tuse:	25 °C
Stress Ambient Temperature and Voltage to	Ea:	0.7	Vuse:	5.5 Volts
Field Ambient Temperature And Voltage	β:	0		

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
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)
<b>PROCESS</b> 1P, 1M, 0.8um, PdplDiode, Low 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:  °C  
 Vuse:  Volts

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
30758	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS	80	500	HRS	0
		125C, 7.0 VOLTS	80	1000	HRS	0
		TOTAL:			FAIL RATE (Fits): 12	DEVICE HRS: 7.55E+07
30755	ULTRASOUND	J-STD-020	4	1	DYS	0
		TOTAL:				0
30756	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
30757	PRECONDITION U/S	J-STD-020	4	7	DYS	0
		TOTAL:				0
30759	TEMP CYCLE	-55C TO 125C	40	500	CYS	0
			40	1000	CYS	0
		TOTAL:				0
30760	HAST	130C, 85%R.H.,5.5V	77	96	HRS	0

PROJECT NO: 25545

# 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)
<b>PROCESS</b> 1P, 1M, 0.8um, PdplDiode, Low Vts , Passivation w/Nov TEOS Oxide-Nitride							

Summary Data with Chi-Square Distribution Assumed.	Cf: <input style="width: 50px;" type="text" value="60%"/>	Tuse: <input style="width: 50px;" type="text" value="25 °C"/>
Stress Ambient Temperature and Voltage to	Ea: <input style="width: 50px;" type="text" value="0.7"/>	Vuse: <input style="width: 50px;" type="text" value="5.5 Volts"/>
Field Ambient Temperature And Voltage	β: <input style="width: 50px;" type="text" value="0"/>	

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
<b>TOTAL:</b>						<b>0</b>
<b>FAILURE MODE</b>	<b>VERIFICATION</b>	<b>FA NUMBER</b>	<b>FAILURE MECHANISM</b>			
PB_RESIST	(#1) FA did not find any anomalies, 9/11/03.	30014717				
LEVELS	(#2) FA did not find any anomalies, 9/11/03.	30014719				
30761	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	40	168	HRS	0
<b>TOTAL:</b>						<b>0</b>

PROJECT NO: 25545

# RELIABILITY MONITOR

<b>DS1232L APR '03 MONITOR</b>						
<b>DEVICE</b>	<b>REVISION</b>	<b>DATE CD</b>	<b>LOT NUMBER</b>	<b>PINS</b>	<b>PACKAGE</b>	<b>WIDTH ASSEMBLY SITE</b>
DS1232	C2-L	0310	DM304031AHB	8	SOIC	150x1.4 Carsem
<b>PROCESS</b> 1P, 1M, 0.8um, PdplDiode, Low Vts , Passivation w/Nov TEOS Oxide-Nitride						

Summary Data with Chi-Square Distribution Assumed.	Cf: <input style="width: 50px;" type="text" value="60%"/>	Tuse: <input style="width: 50px;" type="text" value="25 °C"/>
Stress Ambient Temperature and Voltage to	Ea: <input style="width: 50px;" type="text" value="0.7"/>	Vuse: <input style="width: 50px;" type="text" value="5.5 Volts"/>
Field Ambient Temperature And Voltage	β: <input style="width: 50px;" type="text" value="0"/>	

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
31302	HIGH TEMP OP LIFE	125C, 5.5 VOLTS	80	500	HRS	0
		125C, 5.5 VOLTS	80	1000	HRS	0
		TOTAL:			FAIL RATE (Fits): 12	DEVICE HRS: 7.55E+07
31299	ULTRASOUND	J-STD-020	4	1	DYS	0
		TOTAL:				0
31300	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
31301	PRECONDITION U/S	J-STD-020	4	7	DYS	0
		TOTAL:				0
31303	TEMP CYCLE	-55C TO 125C	40	500	CYS	0
			40	1000	CYS	0
		TOTAL:				0
31304	HAST	130C, 85%R.H.,5.5V	77	96	HRS	0
		TOTAL:				0
31305	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	40	168	HRS	0

**PROJECT NO:** 26499

# RELIABILITY MONITOR

## DS1232L APR '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>
DS1232	C2-L	0310	DM304031AHB	8	SOIC	150x1.4	Carsem
<b>PROCESS</b> 1P, 1M, 0.8um, PdplDiode, Low Vts , 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  
FAILS**

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
<b>TOTAL:</b>						<b>0</b>

## RELIABILITY MONITOR

### DS1232L JUL '03 MONITOR

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1232	C2-L	0327	DK343027AAB	8	SOIC	150x1.4	ATP (Amkor, PI)
<b>PROCESS</b> 1P, 1M, 0.8um, PdplDiode, Low 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
31906	HIGH TEMP OP LIFE	125C, 5.5 VOLTS	80	500	HRS	0
		125C, 5.5 VOLTS	80	1000	HRS	0
		TOTAL:			FAIL RATE (Fits): 12	DEVICE HRS: 7.55E+07
31903	ULTRASOUND	J-STD-020	4	1	DYS	0
		TOTAL:				0
31904	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
31905	PRECONDITION U/S	J-STD-020	4	7	DYS	0
		TOTAL:				0
31907	TEMP CYCLE	-55C TO 125C	40	500	CYS	0
			40	1000	CYS	0
		TOTAL:				0
31909	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	40	168	HRS	0
		TOTAL:				0

PROJECT NO: 27781

# RELIABILITY MONITOR

## DS1233Z-010 APR '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>
DS1233	A5-500	0311	DU321432DC	3	SOT223	140x1.7	Hana
<b>PROCESS</b> 1P, 1M, 1.2um, ZTC P1, Ndepletion ,L Passivation w/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
31309	HIGH TEMP OP LIFE	125C, 5.5 VOLTS	80	500	HRS	0
		125C, 5.5 VOLTS	79	1000	HRS	0
		TOTAL:				FAIL RATE (Fits): 12
31306	ULTRASOUND	J-STD-020	4	1	DYS	0
		TOTAL:				
31307	STORAGE LIFE MOISTURE SOAK CONVECTION REFLOW	125C	241	24	HRS	
		85 C/85% R.H.	241	168	HRS	
		235C	241	3	PASS	0
		TOTAL:				
31308	PRECONDITION U/S	J-STD-020	4	2	DYS	0
		TOTAL:				
31310	TEMP CYCLE	-55C TO 125C	40	500	CYS	
			40	1000	CYS	0
		TOTAL:				
31311	HAST	130C, 85%R.H.,5.5V	77	96	HRS	0
		TOTAL:				
31312	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	40	168	HRS	0

**PROJECT NO:** 21798

# RELIABILITY MONITOR

**DS1233Z-010 APR '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>
DS1233	A5-500	0311	DU321432DC	3	SOT223	140x1.7	Hana
<b>PROCESS</b> 1P, 1M, 1.2um, ZTC P1, Ndepletion ,L Passivation w/Nitride							

Summary Data with Chi-Square Distribution Assumed.	Cf:	60%	Tuse:	25 °C
Stress Ambient Temperature and Voltage to	Ea:	0.7	Vuse:	5.5 Volts
Field Ambient Temperature And Voltage	β:	0		

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

# RELIABILITY MONITOR

## DS1233Z-010 JUL '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>
DS1233	A5-500	0326	DU338107AKA	3	SOT223	140x1.7	Hana
<b>PROCESS</b> 1P, 1M, 1.2um, ZTC P1, Ndepletion ,L Passivation w/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
31913	HIGH TEMP OP LIFE	125C, 5.5 VOLTS	80	500	HRS	0
		125C, 5.5 VOLTS	80	1000	HRS	0
		TOTAL:			FAIL RATE (Fits): 12	DEVICE HRS: 7.55E+07
31910	ULTRASOUND	J-STD-020	4	1	DYS	0
		TOTAL:				0
31911	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
31912	PRECONDITION U/S	J-STD-020	4	2	DYS	0
		TOTAL:				0
31914	TEMP CYCLE	-55C TO 125C	40	700	CYS	0
			40	1000	CYS	0
		TOTAL:				0
31915	HAST	130C, 85%R.H.,5.5V	77	96	HRS	0
		TOTAL:				0
31916	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	40	168	HRS	0

PROJECT NO: 26501

# RELIABILITY MONITOR

## DS1267-010 APR '03 MONITOR

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1267	A1-50	0309	DK236020AFA	20	TSSOP	4.4x0.9	ATP (Amkor, PI)
<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:	60%	Tuse:	25 °C
Ea:	0.7	Vuse:	5.5 Volts
β:	0		

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
31316	HIGH TEMP OP LIFE	125C, 5.5 V, -4.0V	80	500	HRS	0
		125C, 5.5 V, -4.0V	80	1000	HRS	0
		<b>TOTAL:</b>				FAIL RATE (Fits): 12
31313	ULTRASOUND	J-STD-020	4	5	DYS	0
		<b>TOTAL:</b>				
31314	STORAGE LIFE	125C	241	24	HRS	
	MOISTURE SOAK	85 C/85% R.H.	241	168	HRS	
	CONVECTION REFLOW	235C	241	3	PASS	0
	<b>TOTAL:</b>					0
31315	PRECONDITION U/S	J-STD-020	4	2	DYS	0
		<b>TOTAL:</b>				0
31317	TEMP CYCLE	-55C TO 125C	40	500	CYS	0
			40	1000	CYS	0
		<b>TOTAL:</b>				0
31318	BIASED MOISTURE	85/85, 5.5 VOLTS	77	500	HRS	0
			77	1000	HRS	0
		<b>TOTAL:</b>				0

**PROJECT NO:** 18887

# RELIABILITY MONITOR

**DS1267-010 APR '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>
DS1267	A1-50	0309	DK236020AFA	20	TSSOP	4.4x0.9	ATP (Amkor, PI)
<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 style="width: 50px;" type="text" value="60%"/>	Tuse: <input style="width: 50px;" type="text" value="25 °C"/>
Ea: <input style="width: 50px;" type="text" value="0.7"/>	Vuse: <input style="width: 50px;" type="text" value="5.5 Volts"/>
β: <input style="width: 50px;" type="text" value="0"/>	

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
31319	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	40	168	HRS	0
<b>TOTAL:</b>						<b>0</b>

**PROJECT NO: 18887**

## RELIABILITY MONITOR

### DS1302 JUN '03 MONITOR

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1302	A4	0321	DE117012AA	8	PDIP	300	OSEP
<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
31640	HIGH TEMP OP LIFE	125C, 5.5 VOLTS	80	500	HRS	0
		125C, 5.5 VOLTS	80	1000	HRS	0
		TOTAL:				FAIL RATE (Fits): 12
31641	TEMP CYCLE	-55C TO 125C	45	500	CYS	0
			45	1000	CYS	0
		TOTAL:				
31642	BIASED MOISTURE	85/85, 5.5 VOLTS	77	500	HRS	0
			77	1000	HRS	0
		TOTAL:				
31643	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	45	168	HRS	0
		TOTAL:				

PROJECT NO: 27260

# RELIABILITY MONITOR

## DS1620 APR '03 MONITOR

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1620	D1	0310	DJ232810AAB	8	SOIC	150x1.4	NSEB
<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
31323	HIGH TEMP OP LIFE	125C, 5.5 VOLTS	80	500	HRS	0
		125C, 5.5 VOLTS	80	1000	HRS	0
		TOTAL:			FAIL RATE (Fits): 12	DEVICE HRS: 7.55E+07
31321	STORAGE LIFE MOISTURE SOAK CONVECTION REFLOW	125C	244	24	HRS	
		85 C/85% R.H.	244	168	HRS	
		235C	244	3	PASS	0
		TOTAL:				
31322	PRECONDITION U/S	J-STD-020	4	7	DYS	0
		TOTAL:				0
31324	TEMP CYCLE	-55C TO 125C	40	500	CYS	0
			40	1000	CYS	0
		TOTAL:				0
31325	BIASED MOISTURE	85/85, 5.5 VOLTS	70	500	HRS	0
			70	1000	HRS	0
		TOTAL:				0
31326	WRITE CYCLE STRESS	85 C, 5.5 VOLTS	50	50	KCYS	0
		TOTAL:				0

PROJECT NO: 26500

# RELIABILITY MONITOR

## DS1620 APR '03 MONITOR

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1620	D1	0310	DJ232810AAB	8	SOIC	150x1.4	NSEB
<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:	60%	Tuse:	25 °C
Ea:	0.7	Vuse:	5.5 Volts
β:	0		

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
31327	STORAGE LIFE	150C	50	500	HRS	0
			50	1000	HRS	0
<b>TOTAL:</b>						<b>0</b>

# 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
<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:   
 $\beta$ :

Tuse:  °C  
 Vuse:  Volts

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
30966	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS	75	500	HRS	0
		125C, 7.0 VOLTS	75	1000	HRS	0
		TOTAL:			FAIL RATE (Fits): 13	DEVICE HRS: 7.07E+07
30963	ULTRASOUND	J-STD-020	4	7	DYS	0
		TOTAL:				0
30964	STORAGE LIFE MOISTURE SOAK CONVECTION REFLOW	125C	240	24	HRS	
		85 C/85% R.H.	240	168	HRS	
		235C	240	3	PASS	0
		TOTAL:				0
30965	PRECONDITION U/S	J-STD-020	4	7	DYS	0
		TOTAL:				0
30967	TEMP CYCLE	-55C TO 125C	40	500	CYS	0
			40	1000	CYS	0
		TOTAL:				0
30968	BIASED MOISTURE	85/85, 5.5 VOLTS	70	500	HRS	0
			70	1000	HRS	0
		TOTAL:				0

PROJECT NO: 25960

# RELIABILITY MONITOR

## DS1621 MAR '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>
DS1621	A7	0237	DE106688AAB	8	SOIC	150x1.4	OSEP
<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
30969	WRITE CYCLE STRESS	85 C, 7.0 VOLTS	50	50	KCYS	0
		TOTAL:				0
30970	STORAGE LIFE	150C	50	500	HRS	0
			50	1000	HRS	0
		TOTAL:				0

PROJECT NO: 25960

# RELIABILITY MONITOR

## DS1621 JUN '03 MONITOR

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1621	A7	0247	DK104614AAB	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
31729	HIGH TEMP OP LIFE	125C, 5.5 VOLTS	77	500	HRS	0
		125C, 5.5 VOLTS	77	1000	HRS	0
		TOTAL:			FAIL RATE (Fits): 13	DEVICE HRS: 7.26E+07
31726	ULTRASOUND	J-STD-020	4	7	DYS	0
		TOTAL:				0
31727	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
31728	PRECONDITION U/S	J-STD-020	4	7	DYS	0
		TOTAL:				0
31730	TEMP CYCLE	-55C TO 125C	40	500	CYS	0
			40	1000	CYS	0
		TOTAL:				0
31731	BIASED MOISTURE	85/85, 5.5 VOLTS	70	500	HRS	0
			70	1000	HRS	0
		TOTAL:				0

PROJECT NO: 27259

# RELIABILITY MONITOR

## DS1621 JUN '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>
DS1621	A7	0247	DK104614AAB	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
31732	WRITE CYCLE STRESS	85 C, 5.5 VOLTS	50	50	KCYS	0
TOTAL:						0
31733	STORAGE LIFE	150C	50	500	HRS	0
TOTAL:						0

PROJECT NO: 27259

# 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)
<b>PROCESS</b> 1P, 2M, 0.8um, PdplDiode, WJ 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
30229	HIGH VOLTAGE LIFE	125C, 7.0 VOLTS	80	500	HRS	0
		125C, 7.0 VOLTS	80	500	HRS	0
		125C, 7.0 VOLTS	80	500	HRS	0
		125C, 7.0 VOLTS	80	1000	HRS	0
		125C, 7.0 VOLTS	80	1000	HRS	0
		125C, 7.0 VOLTS	80	1000	HRS	0
		TOTAL:		FAIL RATE (Fits):	4	DEVICE HRS: 2.26E+08
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	0
	TOTAL:					0
30228	PRECONDITION U/S	J-STD-020	4	2	DYS	0
		TOTAL:			0	
30230	TEMP CYCLE	-55C TO 125C	40	500	CYS	0
			40	1000	CYS	0

PROJECT NO: 24620

# 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)
<b>PROCESS</b> 1P, 2M, 0.8um, PdplDiode, WJ 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

β:

**NO OF**

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
TOTAL:						0
30231	BIASED MOISTURE	85/85, 5.5 VOLTS	77	500	HRS	0
			77	1000	HRS	0
TOTAL:						0
30232	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	40	168	HRS	0
TOTAL:						0

PROJECT NO: 24620

# RELIABILITY MONITOR

## DS1803-010 APR '03 MONITOR

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS1803	A2	0304	DE322628AAB	16	SOIC	150x1.4	OSEP
<b>PROCESS</b> 1P, 2M, 0.8um, PdplDiode, WJ 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
31261	HIGH TEMP OP LIFE	125C, 5.25 VOLTS	80	500	HRS	0
		125C, 5.25 VOLTS	80	500	HRS	0
		125C, 5.25 VOLTS	80	500	HRS	0
		125C, 5.25 VOLTS	80	1000	HRS	0
		125C, 5.25 VOLTS	80	1000	HRS	0
		125C, 5.25 VOLTS	80	1000	HRS	0
		TOTAL:		FAIL RATE (Fits):	4	DEVICE HRS: 2.26E+08
31258	ULTRASOUND	J-STD-020	4	2	DYS	0
		TOTAL:			0	
31259	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	
31260	PRECONDITION U/S	J-STD-020	4	2	DYS	0
		TOTAL:			0	
31262	TEMP CYCLE	-55C TO 125C	40	500	CYS	0
			40	1000	CYS	0

PROJECT NO: 26480

# RELIABILITY MONITOR

## DS1803-010 APR '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>
DS1803	A2	0304	DE322628AAB	16	SOIC	150x1.4	OSEP
<b>PROCESS</b> 1P, 2M, 0.8um, PdplDiode, WJ 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
TOTAL:						0
31263	BIASED MOISTURE	85/85, 5.5 VOLTS	77	500	HRS	0
			77	1000	HRS	0
TOTAL:						0
31264	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	40	168	HRS	0
			TOTAL:			

PROJECT NO: 26480

# RELIABILITY MONITOR

## DS2118M JUN '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>
DS2118M	C1-6"	0303	DM316629ABA	36	SSOP	7.5x2.4	Carsem
<b>PROCESS</b> D6S-1P1M,HPVt,N+ESD,TCN3 ALOCO Laser/Nit - Pass/Nit - General 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
31737	HIGH TEMP OP LIFE	125C, 5.5 VOLTS	80	500	HRS	0
		125C, 5.5 VOLTS	80	1000	HRS	0
		TOTAL:				FAIL RATE (Fits): 12
31734	ULTRASOUND	J-STD-020	4	6	DYS	0
		TOTAL:				
31735	STORAGE LIFE MOISTURE SOAK CONVECTION REFLOW	125C	238	48	HRS	
		85 C/85% R.H.	238	168	HRS	
		235C	238	3	PASS	0
		TOTAL:				
31736	PRECONDITION U/S	J-STD-020	4	6	DYS	0
		TOTAL:				
31738	TEMP CYCLE	-55C TO 125C	77	500	CYS	0
			77	1000	CYS	0
		TOTAL:				
31739	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	77	168	HRS	0
		TOTAL:				

PROJECT NO: 27359

# RELIABILITY MONITOR

**DS21352 FEB '03 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	0242	DK036653AAA	100	LQFP	14x14x	ATP (Amkor, PI)
<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: <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
31029	HIGH TEMP OP LIFE	125C, 3.3 VOLTS	77	500	HRS	0
		125C, 3.3 VOLTS	63	1000	HRS	0
<b>TOTAL:</b>			<b>FAIL RATE (Fits):</b>	<b>14</b>	<b>DEVICE HRS: 6.60E+07</b>	<b>0</b>

FAILURE MODE	VERIFICATION	FA NUMBER	FAILURE MECHANISM
SHORT	(#5,6)		
RCV_MM	(#1,3,7,8,11,12)		
OPEN	(#9,10)		
LB00	(#2,4)		

31026	ULTRASOUND	J-STD-020	4	2	DYS	0
<b>TOTAL:</b>						<b>0</b>

31027	STORAGE LIFE	125C	241	24	HRS	
	MOISTURE SOAK	30C/60% R.H.	241	192	HRS	
	CONVECTION REFLOW	235C	241	3	PASS	0
<b>TOTAL:</b>						<b>0</b>

FAILURE MODE	VERIFICATION	FA NUMBER	FAILURE MECHANISM
JIT_TOL	(#1)		
IBO4_3V	(#2)		

31028	PRECONDITION U/S	J-STD-020	4	5	DYS	0
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**PROJECT NO: 26120**

# RELIABILITY MONITOR

**DS21352 FEB '03 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	0242	DK036653AAA	100	LQFP	14x14x	ATP (Amkor, PI)
<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: <input type="text" value="60%"/>	Tuse: <input type="text" value="25 °C"/>
Stress Ambient Temperature and Voltage to	Ea: <input type="text" value="0.7"/>	Vuse: <input type="text" value="5.5 Volts"/>
Field Ambient Temperature And Voltage	β: <input type="text" value="0"/>	

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
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TOTAL:	0
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FAILURE MODE	VERIFICATION	FA NUMBER	FAILURE MECHANISM
CRACK	THERE IS A 100% INCREASE OF DELAMINATION IN THE DIE ATTACH AREA OF ALL PKGS.		
31030	TEMP CYCLE	-55C TO 125C	
		80	500 CYS
		69	1000 CYS

TOTAL:	0
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FAILURE MODE	VERIFICATION	FA NUMBER	FAILURE MECHANISM
RCV_MM	(#1-9)		
31031	HAST, NO BIAS	130C, 85% R.H.	
		78	96 HRS

TOTAL:	0
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FAILURE MODE	VERIFICATION	FA NUMBER	FAILURE MECHANISM
RCV_MM	(#4,5,6,7,8,9)		
OSC	(#1,2,3)		

**PROJECT NO: 26120**

# RELIABILITY MONITOR

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

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS21352	A4	0312	DC043465AAA	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:	60%	Tuse:	25 °C
Ea:	0.7	Vuse:	5.5 Volts
β:	0		

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
31401	HIGH TEMP OP LIFE	125C, 3.3 VOLTS	77	500	HRS	0
		125C, 3.3 VOLTS	70	1000	HRS	0
<b>TOTAL:</b>			<b>FAIL RATE (Fits):</b>	<b>13</b>	<b>DEVICE HRS: 6.93E+07</b>	<b>0</b>

FAILURE MODE	VERIFICATION	FA NUMBER	FAILURE MECHANISM
XB LUE	(#5)		
RCV_MM	(#2,4)		
RCV_MM	(# 2,3,5,6,7,8,9)		
OSC	(#1,4,10) (These parts returned to stess. PM)		

31398	ULTRASOUND	J-STD-020	4	2	DYS	0
<b>TOTAL:</b>						<b>0</b>

31399	STORAGE LIFE	125C	241	24	HRS	
	MOISTURE SOAK	30C/60% R.H.	241	192	HRS	
	CONVECTION REFLOW	235C	241	3	PASS	0
<b>TOTAL:</b>						<b>0</b>

FAILURE MODE	VERIFICATION	FA NUMBER	FAILURE MECHANISM
XRBS	(#2)		
JIT_TOL	(#1,3)		

31400	PRECONDITION U/S	J-STD-020	4	5	DYS	0
<b>TOTAL:</b>						<b>0</b>

**PROJECT NO: 26759**

# RELIABILITY MONITOR

**DS21352 MAY '03 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	0312	DC043465AAA	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: <input style="width: 50px;" type="text" value="60%"/>	Tuse: <input style="width: 50px;" type="text" value="25 °C"/>
Stress Ambient Temperature and Voltage to	Ea: <input style="width: 50px;" type="text" value="0.7"/>	Vuse: <input style="width: 50px;" type="text" value="5.5 Volts"/>
Field Ambient Temperature And Voltage	β: <input style="width: 50px;" type="text" value="0"/>	

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
31402	TEMP CYCLE	-55C TO 125C	80	500	CYS	0
			73	1000	CYS	0
<b>TOTAL:</b>						0

FAILURE MODE	VERIFICATION	FA NUMBER	FAILURE MECHANISM
RCV_MM	(#5-8)		
OSC	(#1-4)(#1 Returned to stress.PM)		

31403	HAST, NO BIAS	130C, 85% R.H.	77	96	HRS	0
<b>TOTAL:</b>						0

FAILURE MODE	VERIFICATION	FA NUMBER	FAILURE MECHANISM
RCV_MM	(#2,3,4,5,8,9,10)		
OSE	(#1,6,7)		

**PROJECT NO: 26759**

# RELIABILITY MONITOR

**DS21Q43A FEB '03 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>
DS21Q43	A3-A	0305	DN039537AAA	128	LQFP	14x20x	ATK (Amkor, K)
<b>PROCESS</b> 1P, 1M, 0.6um, Pdepletion, Low 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: <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
30958	HIGH VOLTAGE LIFE	125C, 6.0 VOLTS	77	500	HRS	0
		125C, 6.0 VOLTS	77	1000	HRS	
		TOTAL:		FAIL RATE (Fits): 13	DEVICE HRS: 7.26E+07	
30955	ULTRASOUND	J-STD-020	4	1	DYS	0
		TOTAL:				0
30956	STORAGE LIFE MOISTURE SOAK CONVECTION REFLOW	125C	241	24	HRS	
		30C/60% R.H.	241	192	HRS	
		235C	241	3	PASS	0
		TOTAL:				0
30957	PRECONDITION U/S	J-STD-020	4	1	DYS	0
		TOTAL:				0
30959	TEMP CYCLE	-55C TO 125C	70	500	CYS	0
			70	1000	CYS	
		TOTAL:				0
30960	BIASED MOISTURE	85/85, 5.5 VOLTS	50	500	HRS	
		TOTAL:				
30961	HAST, NO BIAS	130C, 85% R.H.	40	100	HRS	

**PROJECT NO:** 24641

# RELIABILITY MONITOR

**DS21Q43A FEB '03 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>
DS21Q43	A3-A	0305	DN039537AAA	128	LQFP	14x20x	ATK (Amkor, K)
<b>PROCESS</b> 1P, 1M, 0.6um, Pdepletion, Low Vts , Passivation w/Nov TEOS Oxide-Nitride							

Summary Data with Chi-Square Distribution Assumed.	Cf:	60%	Tuse:	25 °C
Stress Ambient Temperature and Voltage to	Ea:	0.7	Vuse:	5.5 Volts
Field Ambient Temperature And Voltage	β:	0		

**NO OF  
FAILS**

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

# RELIABILITY MONITOR

## DS2401 MAY '03 MONITOR

DEVICE	REVISION	DATE CD	LOT NUMBER	PINS	PACKAGE	WIDTH	ASSEMBLY SITE
DS2401	C2	0323	DM330002AA	3	TO92	150	Carsem
<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:   
 Ea:   
 β:

Tuse:   
 Vuse:

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
31647	HIGH TEMP OP 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
31648	TEMP CYCLE	-55C TO 125C	45	500	CYS	0
			45	1000	CYS	0
		TOTAL:				
31649	HAST	130C, 85%R.H.,5.5V	77	96	HRS	0
		TOTAL:				
31650	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	45	168	HRS	0
		TOTAL:				

PROJECT NO: 27319

# RELIABILITY MONITOR

## DS2401 AUG '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>
DS2401	C2	0331	DU342603AB	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:   
 Ea:   
 β:

Tuse:   
 Vuse:

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
32237	HIGH TEMP OP 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		0
32238	TEMP CYCLE	-55C TO 125C	45	500	CYS	0
			45	1000	CYS	0
		TOTAL:				0
32240	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	45	168	HRS	0
		TOTAL:				0

PROJECT NO: 28159

## RELIABILITY MONITOR

### DS80C320 SEP '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>
DS80C320	C5	0323	DQ338181AAA	40	PDIP	600	ATEC
<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
32413	HIGH TEMP OP LIFE	125C, 5.5 VOLTS	77	500	HRS	0
		125C, 5.5 VOLTS	77	1000	HRS	
		TOTAL:	13	DEVICE HRS: 7.26E+07		0
32414	TEMP CYCLE	-55C TO 125C	45	500	CYS	0
			45	1000	CYS	0
		TOTAL:				0
32415	BIASED MOISTURE	85/85, 5.5 VOLTS	77	500	HRS	0
			77	1000	HRS	
		TOTAL:				0
32416	AUTOCLAVE	121C, 2 ATM STEAM, UNBIASED	45	96	HRS	
		TOTAL:				

PROJECT NO: 28609