

4/17/2012

## RELIABILITY MONITOR REPORT FOR

## MFN SiGe HBT 0.5µm CMOS (GST40)

## **MAXIM Integrated Products**

120 San Gabriel Dr. Sunnyvale, CA 94086

This Report was prepared by Maxim Reliability Engineering

## Summary:

The data in the tables that follow was generated as the result of an on-going Process Reliability Monitor. The specific products in this process monitor are:

MAX2042ETP+	MAX21	40ETH+ MAX3	3748HETE#						
The calculated failur	e rate f	or devices using th	is process is:						
FAILURE F	RATE:	MTTF (YRS):	4762 QU	ANTI	TY: 12	8 F/	AILS:	0 FITS:	24.0
The parameters use	d to ca	Iculate this failure ra	ate are as follow	/s:					
Cf: 60%		Ea: 0.7	Tu: 2	5 °(	C				
The reliability data follows and in this section is the detailed reliability data by stress. The reliability data section includes the latest data available. This report covers data between $4/1/2011$ and $3/31/2012$ .									
Process Informatio	n:								
Process Description	on:	MFN SiGe HBT	<sup>-</sup> 0.5µm CMOS (	GST4	10)				
OPERATING LIFE									
DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READ	OPOINT	QUANTITY	FAILS	LOT NO.	
HIGH TEMP OP LIFE	0906	MAX2042ETP+	135C	192	HRS	48	0	NHVWBQ002CQ	
HIGH TEMP OP LIFE	1153	MAX2140ETH+	135C	192	HRS	80	0	NEZ0E2864E	
					Tot	al:	0		
TEMPERATURE CYC	LE								
DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READ	OPOINT	QUANTITY	FAILS	LOT NO.	
TEMP CYCLE, 5' RAMP, 10' DWELL	1105	MAX3748HETE#G16	-65C TO 150C	1000	CYS	77	0	NCO1BA276Q1	
TEMP CYCLE, 5' RAMP, 10' DWELL	1105	MAX3748HETE#G16	-65C TO 150C	1000	CYS	77	0	NCO1BA276Q2	
TEMP CYCLE, 5' RAMP, 10' DWELL	1105	MAX3748HETE#G16	-65C TO 150C	1000	CYS	77	0	NCO1BA276Q3	
				Total:		0			
FAILURE RATE:	QUANTITY:	128	F	AILS: 0	F	ITS: 24.0			