Globtek Reliability Prediction Report

Model Name	GT-21097-3005	**Failure Rate**	2.201969
Description	Top-level assembly	**Reliability**	0.999780
Calculation Model	Telcordia Issue 1 Method 1 Case 3	**MTBF (Hrs)**	454,139
Environment	GB, GC - Ground Benign,	**Remark**	5V/6A
Temperature	25.00	**Date**	November 22, 2005

Assembly Name	Total Qty.	Failure Rate	MTBF (Hrs)
Top-level assembly	85.00	2.201969	454,139
Capacitor	21.00	0.826975	1,209,226
Resistor	40.00	0.023025	43,430,562
Diode	9.00	0.060401	16,555,949
Zener	2.00	0.033093	30,218,150
Transistor	3.00	0.011647	85,855,584
FET	1.00	0.019813	50,471,663
IC	3.00	0.635788	1,572,851
Inductor	4.00	0.128303	7,794,035
Optocoupler	2.00	0.462923	2,160,187

Globtek Reliability Prediction Report

Assembly Name	Capacitor	**Failure Rate**	0.826975
Environment	GB, GC - Ground Benign,	**MTBF (Hrs)**	1,209,226
Temperature	25.00	**Method**	Method I Case 3

Category	Circuit Code	Description	Failure Rate
Capacitor	C9	AL 1000UF M 10V KZE	0.202928
Capacitor	C2	AL 1000UF M 10V KZE	0.185701
Capacitor	C22	AL 68UF M 400V RK	0.157661
Capacitor	C10	AL 100UF M 25V	0.146473
Capacitor	C12	AL 1000UF M 10V KZE	0.131927
Capacitor	CY3	CER 222PF M 250V	0.000145
Capacitor	C24	F 474PF M 275V PCX2 335M	0.000145
Capacitor	CY1	CER 222PF M 250V	0.000144
Capacitor	CY2	CER 222PF M 250V	0.000144
Capacitor	C16	CER 104PF 50V X7R 0805	0.000143
Capacitor	C21	CER 104PF 50V X7R 0805	0.000143
Capacitor	C25	CER 105PF 25V X7R 1206	0.000143
Capacitor	C14	CER 101PF 50V NPO 0805	0.000142
Capacitor	C3	CER 103PF 50V X7R 0805	0.000142
Capacitor	C5	CER 151PF 50V X7R 0805	0.000142
Capacitor	C6	CER 222PF 50V X7R 0805	0.000142
Capacitor	C11	CER 332PF M 1KV Z5U	0.000142
Capacitor	C18	CER 474PF 16V X7R 0805	0.000142
Capacitor	C8	CER 331PF 50V X7R 0805	0.000142
Capacitor	C27	CER 101PF 50V NPO 0805	0.000142
Capacitor	C26	CER 104PF 50V X7R 0805	0.000142

Globtek Reliability Prediction Report

Assembly Name	Resistor	**Failure Rate**	0.023025
Environment	GB, GC - Ground Benign,	**MTBF (Hrs)**	43,430,562
Temperature	25.00	**Method**	Method I Case 3

Category	Circuit Code	Description	Failure Rate
Resistor	R5	SMD 1M8 OHM J 0805	0.002740
Resistor	R43	SMD 0 OHM 0805	0.000827
Resistor	R44	SMD 0 OHM 0805	0.000827
Resistor	R45	SMD 0 OHM 0805	0.000827
Resistor	R46	SMD 0 OHM 0805	0.000827
Resistor	R48	SMD 0 OHM 0805	0.000827
Resistor	D4	CF 13 OHM J 1/4W	0.000815
Resistor	R12	SMD 27 OHM J 0805	0.000661
Resistor	F2	SCK-053 THERMISTOR	0.000577
Resistor	R15	SMD 10 OHM J 1206	0.000565
Resistor	R18	SMD 10 OHM J 1206	0.000565
Resistor	R28	SMD 750 OHM J 1206	0.000524
Resistor	R29	SMD 750 OHM J 1206	0.000524
Resistor	R24	SMD 1K OHM J 0805	0.000481
Resistor	R10	MOF R43 OHM J 2W	0.000468
Resistor	R34	SMD 330K OHM J 0805	0.000466
Resistor	R3	SMD 330K OHM J 0805	0.000465
Resistor	R11	SMD 470K OHM J 1206	0.000448
Resistor	R13	SMD 5K6 OHM J 0805	0.000447
Resistor	R16	SMD 470K OHM J 1206	0.000447
Resistor	R36	SMD 2K2 OHM J 0805	0.000447
Resistor	R37	SMD 2K74 OHM F 0805	0.000444
Resistor	R35	SMD 2K49 OHM F 0805	0.000443
Resistor	R31	SMD 3K09 OHM F 0805	0.000440
Resistor	R7	SMD 1K OHM J 0805	0.000436
Resistor	R4	SMD 15K OHM J 0805	0.000434
Resistor	R8	SMD 7K5 OHM J 0805	0.000434
Resistor	R21	SMD 200 OHM J 0805	0.000433
Resistor	R6	SMD 10K OHM J 0805	0.000432
Resistor	R42	SMD 200 OHM J 0805	0.000432
Resistor	R14	SMD 20K OHM J 0805	0.000432
Resistor	R9	SMD 680 OHM J 0805	0.000432
Resistor	R39	SMD 470K OHM J 1206	0.000432
Resistor	R40	SMD 470K OHM J 1206	0.000432
Resistor	R51	SMD 100 OHM J 0805	0.000432
Resistor	R2	SMD 1M OHM J 0805	0.000432
Resistor	R20	SMD 750 OHM J 0805	0.000432

Globtek Reliability Prediction Report

Assembly Name	Resistor	**Failure Rate**	0.023025
Environment	GB, GC - Ground Benign,	**MTBF (Hrs)**	43,430,562
Temperature	25.00	**Method**	Method I Case 3

Category	Circuit Code	Description	Failure Rate
Resistor	R25	SMD 1K5 OHM F 0805	0.000432
Resistor	R33	SMD 5K1 OHM J 0805	0.000432
Resistor	R38	SMD 47K OHM J 0805	0.000432

Globtek Reliability Prediction Report

Assembly Name	Diode	**Failure Rate**	0.060401
Environment	GB, GC - Ground Benign,	**MTBF (Hrs)**	16,555,949
Temperature	25.00	**Method**	Method I Case 3

Category	Circuit Code	Description	Failure Rate
Semiconductor	D28	UF4006G DO-41	0.013191
Semiconductor	D7	SCHOTTKY SB2060CT	0.010180
Semiconductor	D1	LL4148 SOD-80	0.006595
Semiconductor	D2	LL4148 SOD-80	0.006595
Semiconductor	D3	LL4148 SOD-80	0.006595
Semiconductor	D9	LL4148 SOD-80	0.006595
Semiconductor	BD1	BRIDGE DIODE KBP06	0.005927
Semiconductor	D4	FR104 D0-41	0.003148
Semiconductor	D8	LL4148 SOD-80	0.001574

Globtek Reliability Prediction Report

Assembly Name	Zener	**Failure Rate**	0.033093
Environment	GB, GC - Ground Benign,	**MTBF (Hrs)**	30,218,150
Temperature	25.00	**Method**	Method I Case 3

Category	Circuit Code	Description	Failure Rate
Semiconductor	D6	P6KE180A DO-15	0.016546
Semiconductor	ZD2	ZMM6V2 SOD-80	0.016546

Globtek Reliability Prediction Report

Assembly Name	Transistor	**Failure Rate**	0.011647
Environment	GB, GC - Ground Benign,	**MTBF (Hrs)**	85,855,584
Temperature	25.00	**Method**	Method I Case 3

Category	Circuit Code	Description	Failure Rate
Semiconductor	Q1	KSP44TA TO-92	0.006769
Semiconductor	Q4	BT151-500R TO220	0.004079
Semiconductor	Q2	2SC1623-T1B SOT-23	0.000799

Globtek Reliability Prediction Report

Assembly Name	FET	**Failure Rate**	0.019813
Environment	GB, GC - Ground Benign,	**MTBF (Hrs)**	50,471,663
Temperature	25.00	**Method**	Method I Case 3

Category	Circuit Code	Description	Failure Rate
Semiconductor	Q3	2SK2761	0.019813

Globtek Reliability Prediction Report

Assembly Name	IC	**Failure Rate**	0.635788
Environment	GB, GC - Ground Benign,	**MTBF (Hrs)**	1,572,851
Temperature	25.00	**Method**	Method I Case 3

Category	Circuit Code	Description	Failure Rate
Integrated Circuit	U3	AZ431BZ-A TO-92	0.245852
Integrated Circuit	U1	UC3842BD1 SOP-8	0.236995
Integrated Circuit	U5	LM358 SOP-8	0.152941

Globtek Reliability Prediction Report

Assembly Name	Inductor	**Failure Rate**	0.128303
Environment	GB, GC - Ground Benign,	**MTBF (Hrs)**	7,794,035
Temperature	25.00	**Method**	Method I Case 3

Category	Circuit Code	Description	Failure Rate
Inductor	T1	MAIN TRANSFORMER RM-10	0.034911
Inductor	LF2	CHOKE T12.7X7.92X6.35-C	0.031438
Inductor	L2	CHOKE W5T	0.031438
Inductor	LF1	ET-24 LINE FILTER	0.030516

Globtek Reliability Prediction Report

Assembly Name	Optocoupler	**Failure Rate**	0.462923
Environment	GB, GC - Ground Benign,	**MTBF (Hrs)**	2,160,187
Temperature	25.00	**Method**	Method I Case 3

Category	Circuit Code	Description	Failure Rate
Semiconductor	U2	LVT817C DIP-4	0.231461
Semiconductor	LED	10103GDT HI-LIGHT	0.231461