

Model Name: DGS-1004T Ver.A1

Environmental Factor (πE): Ground Benign

λg : Generic Failure Rate (Failure/ 10^6 hours)

πQ : Quality Factor

πL : Learning Factor

N: Quantity

λeq : Total Failure Rate (Failure/ 10^6 hours)

Note 1: Referring to MIL-HDBK-217F, Notice 2, Appendix A Count Reliability Prediction, Prediction the MTBF

Note 2: This MTBF Report doesn't include "Fan".

Note 3: Ambient : 25°C

No.	Part Name	Part Type	λg	πQ	πL	N	λeq
1	Capacitor, Aluminum Oxide	187	0.0013	10		22	0.286
2	Capacitor, Ceramic(Gen. Purpose)	178	0.0017	10		4	0.068
3	Diode, Schottky barrier & Point	73	0.047	2.5		2	0.235
4	Connector, PCB card Edge	124	0.044	2		1	0.088
5	Emitter	107	0.00047	5.5		2	0.00517
6	Coil, Fixed inductor or Choke	90	0.000032	3		21	0.002016
7	Resistor, Film, Insulated	141	0.0037	10		4	0.148
8	Connector, Telephone	129	0.0082	2		4	0.0656
9	Bipolar, 1-100 Transistors	7	0.0095	10	1	3	0.285
10	Quartz Crystals	103	0.032	2.1		1	0.0672
11	Capacitor, Ceramic Chip ,CDR	181	0.0035	10		241	8.435
12	Diode, Switching	63	0.00094	5.5		2	0.01034
13	Transistors, NPN/PNP($f < 200$ MHz)	76	0.00015	5.5		2	0.00165
14	Resistor, Film , Network	146	0.0016	10		16	0.256
15	Resistor, Film Chip	143	0.0037	10		176	6.512
16	Transformer, RF	89	0.14	3		4	1.68
17	MOS Technology, 30000-60000 Gates	19	0.13	10	1.8	1	2.34
18	MOS Technology, 1-100 Transistors	20	0.0095	10	1	7	0.665
19	MOS Technology, 3001-10000 Gates	17	0.049	10	1.7	4	3.332
20	Diode, Voltage Ref/Reg.(Avalanche & /Zer	67	0.0033	5.5		1	0.01815
21	Transistor,GaAs FET($P > -100$ mW)	81	0.42	5		2	4.2
22	Surface Mount Tech. Circuit Board	93	0.0025	1		1	0.0025
Total Failure Rate=							28.702626

Total Failure Rate= 28.702626 (Page 1) + 2.3459775 (Page 2-3)= 31.0486035

MTBF = 32208 Hours

Janice *Janice - 1. 2002*
Janice Liu/Engineer

UP0301S-05 MTBF PREDICTION

1. METHOD : MIL - HDBK -217F (NOTICE2)

2. AMBIENT : 25

3. INPUT VOLTAGE : 115 Vac

4. OUTPUT LOAD : 5V/ 5A

5. STEADY STATE FAILURE RATE :

RESISTOR :	0.607946
CAPACITOR :	0.134667
DIODE & FET :	0.562864
OTHER :	1.040501
+)	
TOTAL :	2.3459775

6. MTBF = $1000000 / 2.3459775 = 426261.555$ HRS

