

RELIABILITY PARTS COUNT FAILURE RATE DATA

System: SAM Power Supply

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Assembly: Encoder

Parts List: 55-12300

Environment: Space, Flight (SF)

Description/ Generic Part Type	Specification/ Quality Level	Quantity	Quality Factor (Pi Q)	Failure Rate in Parts Per Million Hours	
				Generic	Total
Integrated Circuit/ Bipolar, Digital 30001-60000 Gates	Mil-M-38510/ B	16	1.00	0.07500	1.20000
Integrated Circuit/ Bipolar, Linear 101-300 Transistors	Mil-M-38510/ B	8	1.00	0.01700	0.13600
Diode/ Switching	Mil-S-19500/ JAN	2	2.40	0.00047	0.00226
Diode/ Voltage Ref./Reg. (Avalanche & Zener)	Mil-S-19500/ JAN	4	2.40	0.00160	0.01536
Transistor/ NPN/PNP (f < 200MHz)	Mil-S-19500/ JAN	4	2.40	0.00007	0.00067
Resistor/ RCR Insulated Fixed Composition	Mil-R-39008/ Mil-Spec	22	3.00	0.00025	0.01650
Resistor/ RLR Insulated Fixed Film	Mil-R-39017/ Mil-Spec	8	3.00	0.00025	0.00600
Capacitor/ CKR Ceramic General Purpose	Mil-C-39014/ Mil-Spec	12	3.00	0.00140	0.05040
Transformer/ Low Power Pulse	Mil-T-21038/ Mil-Spec	1	1.00	0.00180	0.00180
Filter/	Mil-T-27/ Mil-Spec	1	1.00	0.01100	0.01100

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Description/ Generic Part Type	Specification/ Quality Level	Quantity	Quality Factor (Pi Q)	Failure Rate in Parts Per Million Hours	
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Connector/ Circular, Rack or Panel	Mil-Spec	2	1.00	0.00540	0.01080
Interconnect Assy./ Printed Circuit Board (PCB)	Mil-Spec	88	1.00	0.02700	2.37600
Single Connections/ Hand Solder, Without Wrapping	Mil-Spec	4	1.00	0.00130	0.00520

Total Assembly Quantity of Parts = 172

Total Assembly Failure Rate = 3.83199 Parts Per Million Hours.