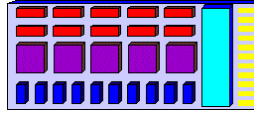


Standard Reliability Prediction Report

Part Number System
Reference Des
Date August 20, 2002
Environment GB, GC - Ground Benign, Controlled
Temperature 30.00

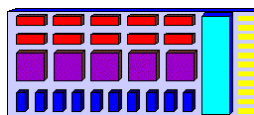


Description Top-level assembly
File Name HESC-ser.RPJ
Time 1:30 PM
Failure Rate 7.090760
MTBF 141,029

Assembly Name	Part Number	Ref Des	Qty	Failure Rate	MTBF
HESC-SER	System		1.00	7.090760	141,029

Standard Reliability Prediction Report

Part Number System
Reference Des
Date August 20, 2002
Environment GB, GC - Ground Benign, Controlled
Temperature 30.00

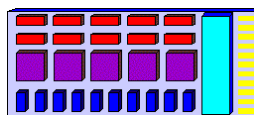


Description Top-level assembly
File Name HESC-ser.RPJ
Time 1:30 PM
Failure Rate 7.090760
MTBF 141,029

Part Number	Category	Ref Des	Failure Rate, Unit	Quantity	Failure Rate
CAP-0805-0.1U	Capacitor	C11,12,15,16,17,18,-19,31,39,40,41,42,43-,44,45,46,49,50,51,52,53,54,59,60,61	0.013062	26.00	0.339620
CAP-0805-1.0U	Capacitor	C48	0.016070	1.00	0.016070
CAP-0805-100P	Capacitor	C33,34,35,55	0.007015	4.00	0.028059
CAP-0805-1N	Capacitor	C24,25	0.008630	2.00	0.017260
CAP-0805-330P	Capacitor	C21,22,23	0.007811	3.00	0.023432
CAP-1206-1U	Capacitor	C20,27,29,30	0.032465	4.00	0.129860
CAP-D-4U7	Capacitor	C8,C28	0.008183	2.00	0.016365
CAP-D-4U7-35V	Capacitor	C13,26,38	0.008183	3.00	0.024548
DIODE-SI-UMELF	Semiconductor	D7,17,41,42,43,44,45,46	0.020765	8.00	0.166119
DIODE-SMB-60V	Semiconductor	D2,3,4,5,6,8,9,10,11-,12,13,14,15,16,39,40	0.001895	16.00	0.030327
FET-DPAK-N	Semiconductor	Q1,2,3	0.186219	3.00	0.558656
FET-DPAK-P	Semiconductor	Q14	0.151439	1.00	0.151439
FET-P-N-COMP	Semiconductor	Q7	0.434560	1.00	0.434560
FET-SO8-0.01R	Semiconductor	Q9,16	0.435187	2.00	0.870374
FET-SO8-P-.017	Semiconductor	Q17	0.435187	1.00	0.435187
FET-SOT23-J-PCH	Semiconductor	Q15	0.057118	1.00	0.057118
FET-SOT23-N	Semiconductor	Q5,6,21,22	0.152315	4.00	0.609262
FUSE-SMF-10A	Miscellaneous	F1	0.010000	1.00	0.010000
IC-CRNT-MIRR	Integrated Circuit	CM1,CM2	0.024900	2.00	0.049800
IC-LT1620CS8	Integrated Circuit	IC3	0.051008	1.00	0.051008
IC-LTC1694CS5	Integrated Circuit	IC6	0.000310	1.00	0.000310
IC-PIC16F877-20/PT	Integrated Circuit	IC5	0.258690	1.00	0.258690
IC-SP232AEN	Integrated Circuit	IC7	0.054568	1.00	0.054568
LED-SV-GRN	Semiconductor	LED,1,2,3,4,5,6	0.001476	6.00	0.008858
OPTO-SO8-DUAL	Semiconductor	IC8	0.109121	1.00	0.109121
OSC-SMD-4.0RES	Miscellaneous	XTAL1	0.038000	1.00	0.038000
PCB-HESC-SER	Connection	PCB1	0.068000	1.00	0.068000
RES-0805-100K	Resistor	R36,56,57	0.016257	3.00	0.048771
RES-0805-100R	Resistor	R11,14,15,16,34,44	0.016257	6.00	0.097542
RES-0805-10K0	Resistor	R17,26,42	0.016257	3.00	0.048771
RES-0805-110K	Resistor	R43	0.016257	1.00	0.016257
RES-0805-130K	Resistor	R24,28,32	0.016257	3.00	0.048771
RES-0805-15K0	Resistor	R18,29,30,52	0.016257	4.00	0.065028
RES-0805-18K0	Resistor	R23	0.016257	1.00	0.016257
RES-0805-1K00	Resistor	R8,9,10,22	0.016257	4.00	0.065028
RES-0805-1K21	Resistor	R20,21,27	0.016257	3.00	0.048771
RES-0805-200K	Resistor	R7,55	0.016257	2.00	0.032514
RES-0805-20K	Resistor	R39,41,71	0.016257	4.00	0.065028
RES-0805-243K	Resistor	R70	0.016257	1.00	0.016257
RES-0805-2K0	Resistor	R4	0.016257	1.00	0.016257
RES-0805-2K94	Resistor	R45,46	0.016257	2.00	0.032514
RES-0805-32K4	Resistor	R47,48	0.016257	2.00	0.032514
RES-0805-330K	Resistor	R31	0.016257	1.00	0.016257

Standard Reliability Prediction Report

Part Number System
Reference Des
Date August 20, 2002
Environment GB, GC - Ground Benign, Controlled
Temperature 30.00



Description Top-level assembly
File Name HESC-ser.RPJ
Time 1:30 PM
Failure Rate 7.090760
MTBF 141,029

Part Number	Category	Ref Des	Failure Rate, Unit	Quantity	Failure Rate
RES-0805-392R	Resistor	R2,13,19,25	0.016257	4.00	0.065028
RES-0805-3K32	Resistor	R6	0.016257	1.00	0.016257
RES-0805-47K5	Resistor	R53	0.016257	1.00	0.016257
RES-0805-49K9	Resistor	R33,35	0.016257	2.00	0.032514
RES-0805-4K99	Resistor	R12,38,40,49,50,51	0.016257	6.00	0.097542
RES-POT-1K-MULTI	Resistor	R54	0.002373	1.00	0.002373
RES-SL1-010	Resistor	R1, 3	0.003658	2.00	0.007316
RES-SL1-017	Resistor	R5,37	0.003658	2.00	0.007316
RES-SL1-050	Resistor	R12	0.003658	1.00	0.003658
TR-SOT23-NPN	Semiconductor	Q11	0.001289	1.00	0.001289
TR-SOT23-PNP	Semiconductor	Q10	0.000096	1.00	0.000096
VR-LTC1149CS	Integrated Circuit	IC2	0.003939	1.00	0.003939
VR-LTC1159CS	Integrated Circuit	IC1	0.003939	1.00	0.003939
VR-LTC1266CS	Integrated Circuit	IC4	0.003142	1.00	0.003142
VR-SO-78L05	Integrated Circuit	Q4	0.053343	1.00	0.053343
VR-SO-LM2936M-5	Integrated Circuit	Q28	0.028412	1.00	0.028412
CAP-OSCN-150U	Capacitor	C14,C47	0.005384	2.00	0.010768
CAP-OSCN-180U	Capacitor	C36,C37,C32,C56,C-57,C58	0.005614	6.00	0.033686
CAP-OSCN-33U	Capacitor	C2,C3,C4,C5,C6,C7	0.003801	6.00	0.022803
CAP-OSCN-680U	Capacitor	C9,C10	0.007622	2.00	0.015244
CAP-RAD-330U	Capacitor	C1	0.006454	1.00	0.006454
CON-DR/HDRS	Connection	CN5	0.004080	1.00	0.004080
CON-PCB-RA2-3.81	Connection	CN1	0.000993	1.00	0.000993
CON-PCB-RA5-3.5	Connection	CN7	0.002550	1.00	0.002550
CON-PCB-RA9-3.5	Connection	CN2,CN3,CN4	0.004590	1.00	0.004590
CON-PLUG2-3.81	Connection	CN1	0.124000	1.00	0.124000
CON-PLUG-5-3.5	Connection	CN7	0.310000	1.00	0.310000
CON-PLUG9-3.5	Connection	CN2,CN3,CN4	0.558000	1.00	0.558000
TOR-10A-H-50U	Inductor	L1	0.000097	1.00	0.000097
TOR-5A-H-10U	Inductor	L2	0.000097	1.00	0.000097
TOR-5A-H-50U	Inductor	L3,L4	0.000097	2.00	0.000193
VR-NML0505S	Integrated Circuit	VR1	0.429738	1.00	0.429738
XSORB-AXIAL-43V	Semiconductor	D1	0.001895	1.00	0.001895