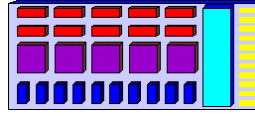


Standard Reliability Prediction Report

Part Number System
Reference Des
Date October 31, 2005
Environment GB, GC - Ground Benign, Controlled
Temperature 30.00

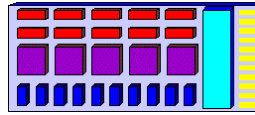


Description Top-level assembly
File Name HESC104+.RPJ
Time 2:21 PM
Failure Rate 5.627510
MTBF 177,698

Assembly Name	Part Number	Ref Des	Qty	Failure Rate	MTBF
HESC104+	System		1.00	5.627510	177,698

Standard Reliability Prediction Report

Part Number System
Reference Des
Date October 31, 2005
Environment GB, GC - Ground Benign, Controlled
Temperature 30.00

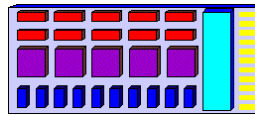


Description Top-level assembly
File Name HESC104+.RPJ
Time 2:21 PM
Failure Rate 5.627510
MTBF 177,698

Part Number	Category	Ref Des	Failure Rate, Unit	Quantity	Failure Rate
CAP-0603-100N	Capacitor	C3,C13,C17,C20,C-35,C39,C43,C44,C4-8,C49,C50,C55,C56-,C57,C58,C59,C60,-C61,C62,C63,C64,-C65,C66,C69,C70,-C74,C82,C83,C84,-C87,C88,C89,C92	0.013062	33.00	0.431056
CAP-0603-100P	Capacitor	C2,C8,C10,C14	0.007015	4.00	0.028059
CAP-0603-1N	Capacitor	C4,C11	0.008630	2.00	0.017260
CAP-0603-220N	Capacitor	C15	0.014023	1.00	0.014023
CAP-0603-270N	Capacitor	C18	0.014284	1.00	0.014284
CAP-0603-20P	Capacitor	C72,C73	0.006069	2.00	0.012138
CAP-0603-270P	Capacitor	C1,C7	0.007671	2.00	0.015342
CAP-0603-2N2	Capacitor	C5,C6,C54	0.009265	3.00	0.027795
CAP-0603-8P	Capacitor	C9,C12	0.005589	2.00	0.011177
CAP-0805-100N	Capacitor	C16,C21,C22,C23,-C24,C25	0.013062	6.00	0.078374
CAP-0805-1U	Capacitor	C34,C36,C37	0.016070	3.00	0.048210
CAP-0603-330P	Capacitor	C90	0.007811	1.00	0.007811
CAP-B-TANT-22U	Capacitor	C26,C27,C28,C29,-C38,C40,C41,C68,-C77	0.008977	9.00	0.080791
CAP-D-4U7	Capacitor	C19	0.008183	1.00	0.008183
CAP-MULTI4-100N	Capacitor	C75	0.026388	1.00	0.026388
CAP-MULTI4-220P	Capacitor	C79,C80	0.015214	2.00	0.030427
CAP-POSCAP_D-330U/6-V3	Capacitor	C45,C46,C47	0.045184	3.00	0.135552
DIODE-SI-UMELF	Semiconductor	D7,D10,D12,D38	0.020765	4.00	0.083059
DIODE-SMB-60V	Semiconductor	D14,D15,D16,D17,-D18,D19,D20,D21,-D22,D23,D24,D25,-D26,D27,D28,D29,-D30,D31,D33,D34,-D35,D37	0.001895	22.00	0.041699
DIODE-SOD323	Semiconductor	D13,D32	0.009600	2.00	0.019200
DIODE-SOD323-70V	Semiconductor	D8,D9,D11	0.009600	3.00	0.028800
FET-SO8-0.01R	Semiconductor	Q12	0.435187	1.00	0.435187
FET-SO8-P	Semiconductor	Q7	0.435187	1.00	0.435187
FET-SO8-PPAK-N-60V	Semiconductor	Q5,Q6,Q8,Q9,Q10,-Q11	0.000293	6.00	0.001758
FET-SOT23-J-PCH	Semiconductor	Q2	0.057118	1.00	0.057118
FET-SOT363-N	Semiconductor	Q14,Q15,Q16,Q17	0.152315	4.00	0.609262
FUSE-SMF-10A	Miscellaneous	F1,F2	0.010000	2.00	0.020000
IC-CRNT-MIRR2	Integrated Circuit	CM1,CM2	0.023100	2.00	0.046200
IC-HIN213CA	Integrated Circuit	IC4	0.084869	1.00	0.084869
IC-LT1620CSM8	Integrated Circuit	IC6	0.051008	1.00	0.051008
IC-LTC1694CS5	Integrated Circuit	IC1	0.000310	1.00	0.000310
IC-LTC3703-5	Integrated Circuit	Q1,Q3,Q4	0.003460	3.00	0.010380
IC-LTC6902	Integrated Circuit	Q13	0.038550	1.00	0.038550
IC-NLASB3157DFT2	Integrated Circuit	Q21,Q22	0.048490	2.00	0.096979

Standard Reliability Prediction Report

Part Number System
Reference Des
Date October 31, 2005
Environment GB, GC - Ground Benign, Controlled
Temperature 30.00

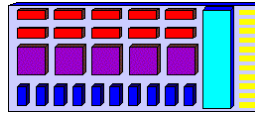


Description Top-level assembly
File Name HESC104+.RPJ
Time 2:21 PM
Failure Rate 5.627510
MTBF 177,698

Part Number	Category	Ref Des	Failure Rate, Unit	Quantity	Failure Rate
IC-PIC18F6720-04/PT	Integrated Circuit	IC2	0.300280	1.00	0.300280
IC-XR17C152	Integrated Circuit	Q19	0.008973	1.00	0.008973
LED-SV-GRN	Semiconductor	LED1,LED2,LED3,LED4,LED5,LED6	0.001476	6.00	0.008858
OPTO-SO8-DUAL	Semiconductor	IC3	0.109121	1.00	0.109121
OSC-SMD-4.0RES	Miscellaneous	XTAL1	0.038000	1.00	0.038000
OSC-SMD-CS10-14.3181-8MHZ	Miscellaneous	XTAL2	0.050352	1.00	0.050352
PCB-HESC104+V4	Connection	~	0.068000	1.00	0.068000
RES-0603-100K	Resistor	R7,R8,R15,R81	0.014902	4.00	0.059608
RES-0603-100R	Resistor	R9	0.014902	1.00	0.014902
RES-0603-10K0	Resistor	R39,R44,R45,R48,-R49,R50,R51,R80	0.014902	8.00	0.119217
RES-0603-10R	Resistor	R6,R10,R12	0.014902	3.00	0.044706
RES-0603-110K	Resistor	R41,R42,R43	0.014902	3.00	0.044706
RES-0603-113K	Resistor	R3	0.014902	1.00	0.014902
RES-0603-120K	Resistor	R13,R19	0.014902	2.00	0.029804
RES-0603-130K	Resistor	R30,R33,R34,R36	0.014902	4.00	0.059608
RES-0603-13K0	Resistor	R18	0.014902	1.00	0.014902
RES-0603-14K7	Resistor	R38	0.014902	1.00	0.014902
RES-0603-187K	Resistor	R2	0.014902	1.00	0.014902
RES-0603-1K0	Resistor	R16	0.014902	1.00	0.014902
RES-0603-2K0	Resistor	R65	0.014902	1.00	0.014902
RES-0603-20K0	Resistor	R14,R17,R20,R54,-R56,R57,R58,R59,-R60,R61,R62,R63,-R64,R66,R67	0.014902	15.00	0.223531
RES-0603-24K9	Resistor	R25,R27,R28	0.014902	3.00	0.044706
RES-0603-2K4	Resistor	R76,R77	0.014902	2.00	0.029804
RES-0603-25K5	Resistor	R4	0.014902	1.00	0.014902
RES-0603-27K4	Resistor	R47	0.014902	1.00	0.014902
RES-0603-3K24	Resistor	R5,R11	0.014902	2.00	0.029804
RES-0603-3K32	Resistor	R35, R55	0.014902	2.00	0.029804
RES-0603-43K0	Resistor	R1	0.014902	1.00	0.014902
RES-0603-475R	Resistor	R73	0.014902	1.00	0.014902
RES-0603-40K2	Resistor	R31	0.014902	1.00	0.014902
RES-0603-47K5	Resistor	R32	0.014902	1.00	0.014902
RES-0603-49K9	Resistor	R22,R26,R53	0.014902	3.00	0.044706
RES-0603-56K2	Resistor	R52	0.014902	1.00	0.014902
RES-0603-680R	Resistor	R72,R74,R75	0.014902	3.00	0.044706
RES-0603-8K06	Resistor	R21,R23,R24	0.014902	3.00	0.044706
RES-0805-10K0	Resistor	R68,R69,R70,R71	0.016257	4.00	0.065028
RES-0805-1K21	Resistor	R40	0.016257	1.00	0.016257
RES-RL3720-010	Resistor	R29	0.003658	1.00	0.003658
RES-RL3720-018	Resistor	R37	0.003658	1.00	0.003658
RES-RL3720-050	Resistor	R78	0.003658	1.00	0.003658
TR-SOT223-NPN	Semiconductor	Q20	0.002893	1.00	0.002893
VR-LT3010-5	Integrated Circuit	Q18	0.002330	1.00	0.002330
VR-LTC1149CS	Integrated Circuit	IC5	0.003939	1.00	0.003939

Standard Reliability Prediction Report

Part Number System
Reference Des
Date October 31, 2005
Environment GB, GC - Ground Benign, Controlled
Temperature 30.00



Description Top-level assembly
File Name HESC104+.RPJ
Time 2:21 PM
Failure Rate 5.627510
MTBF 177,698

Part Number	Category	Ref Des	Failure Rate, Unit	Quantity	Failure Rate
XSORB-SMCJ-43V	Semiconductor	D1,D2,D3,D4,D5,D6	0.000096	6.00	0.000573
ZEN-SOD323-8V2	Semiconductor	Z1	0.043925	1.00	0.043925
CAP-OSCN-180U	Capacitor	C51,C52,C53,C67	0.005614	4.00	0.022457
CAP-OSCN-180U	Capacitor	C91	0.005614	1.00	0.005614
CAP-OSCN-33U	Capacitor	C30,C31,C32,C33,- C71,C81	0.003801	6.00	0.022803
CAP-RAD-330UF/63V	Capacitor	C42	0.006454	1.00	0.006454
CON-EDGE-10	Connection	CN9	0.013000	1.00	0.013000
CON-PC104PLUS-PF	Connection	CN8 * See Note C	0.031200	1.00	0.031200
CON-PCB-RA10-3.5	Connection	CN5,CN5	0.013000	2.00	0.026000
CON-PCB-RA2-0.156	Connection	CN2,CN3	0.002600	2.00	0.005200
CON-PIN-0.1-2X2LONG	Connection	CN6 * See Note B	0.005200	1.00	0.005200
CON-PIN-0.1-2X4LONG	Connection	CN7 * See Note B	0.010400	1.00	0.010400
CON-PIN-2MM-3POS	Connection	JP4	0.000045	1.00	0.000045
CON-PIN-2MM-6POS	Connection	JP1,JP2,JP3	0.212160	3.00	0.636480
TOR-15A-1.5U	Inductor	L2,L5	0.000097	2.00	0.000193
TOR-2.5A-2U	Inductor	L1,L4	0.000097	2.00	0.000193
TOR-5A-H-50U	Inductor	L3	0.000097	1.00	0.000097
CAP-D-4U7	Capacitor	* See Note A	0.008183	1.00	0.008183