

# HSB-965P Reliability Prediction Report (MTBF)

Report NO : 08I070010

**9-25-2008**

Issue Date

**Wenyuan Yang**

Manager

**Jessica Chou**

Test Engineer

## Reliability Prediction (MTBF)

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I . **Model Name:** HSB-965P

II . **Prediction Date:** Sep. 25, 2008

III . **Prediction Site:** AAEON Q.E. Dept.

IV . **Predicted by :** Jessica Chou

V . **Equipment:** Relex Ver.7.3 Visual Reliability Software

### VI. **Simulation Environment:**

- Temperature: 28.6 degree C
- Standard: Telcordia (Bellcore Issue 6) Standard
- Quality Level: Level II

### VII. **Term and Definition:**

- Unit : An assembly of device.
- Duty Cycle : Used to specify the percentage of time that the element is in an on state, and it is equal to the percentage of total time the item is in the active environment.
- Quantity : The quantity of the selected item.
- Failure Rate : Used to specify that the failure rate is to be calculated based the selected Calculation models. The multiplier is 1,000,000.
- MTBF : MTBF is always specified in hours.

### VIII. **Prediction Result:**

- HSB-965P
  - Failure Rate: 6.706631 ppm
  - MTBF: 149,106 Hours

### AAEON Reliability Prediction Report

**Part Number** 9697965P02-DIP  
**Reference Des**  
**Date** 09. 25, 2008  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 28.60



**Description** Top-level assembly  
**File Name** HSB-965P\_L2.RPJ  
**Time** 3:39 下午  
**Failure Rate** 6.706631  
**MTBF** 149,106

Assembly Name	Part Number	Model	Method	Environment	Duty Cycle	Qty	Failure Rate	MTBF
HSB-965P	9697965P02-DIP	Belcore	Method I Case 3	GF, GU - Ground Fixed,	100.00	1.00	6.706631	149,106

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**Time** 3:39 下午  
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**MTBF** 149,106

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1653003100	Connection	CMOS1	Bellcore Issue 6	Level II		0.000685	1.00	.0102	0.000685	1459446841.91
1653003101	Connection	JP1,JP4,JP5	Bellcore Issue 6	Level II		0.000685	3.00	.0306	0.002056	1459446841.91
1653004200	Connection	FP1,FP2	Bellcore Issue 6	Level II		0.001827	2.00	.0545	0.003654	547292565.72
1653005201	Connection	CN4-CN7	Bellcore Issue 6	Level II		0.002284	4.00	.1362	0.009136	437834052.57
1654606200	Connection	CN12	Bellcore Issue 6	Level II		0.009136	1.00	.1362	0.009136	109458513.14
1655305020	Connection	CN13	Bellcore Issue 6	Level II		0.009136	1.00	.1362	0.009136	109458513.14
1655420020	Connection	ATX2	Bellcore Issue 6	Level II		0.009136	1.00	.1362	0.009136	109458513.14
1655005021	Connection	CN11	Bellcore Issue 6	Level II		0.009136	1.00	.1362	0.009136	109458513.14
1653006101	Connection	CN3	Bellcore Issue 6	Level II		0.009136	1.00	.1362	0.009136	109458513.14
1653213203	Connection	LPT1	Bellcore Issue 6	Level II		0.005938	1.00	.0885	0.005938	168397712.53
1653205203	Connection	COM1-COM4	Bellcore Issue 6	Level II		0.002284	4.00	.1362	0.009136	437834052.57
1653217205	Connection	FDD1	Bellcore Issue 6	Level II		0.009136	1.00	.1362	0.009136	109458513.14
1655003010	Connection	CN9	Bellcore Issue 6	Level II		0.000685	1.00	.0102	0.000685	1459446841.91
1653220208	Connection	IDE1	Bellcore Issue 6	Level II		0.009136	1.00	.1362	0.009136	109458513.14
1655404020	Connection	ATX1	Bellcore Issue 6	Level II		0.009136	1.00	.1362	0.009136	109458513.14
1655003022	Connection	CN2	Bellcore Issue 6	Level II		0.000685	1.00	.0102	0.000685	1459446841.91
1750220323	Connection	BAT1	Bellcore Issue 6	Level II		0.000457	1.00	.0068	0.000457	2189170262.87
1654804100	Connection	USB1	Bellcore Issue 6	Level II		0.009136	1.00	.1362	0.009136	109458513.14
1653005205	Connection	CN10	Bellcore Issue 6	Level II		0.002284	1.00	.0341	0.002284	437834052.57
1652510202	Connection	LAN1,LAN2	Bellcore Issue 6	Level II		0.009136	2.00	.2724	0.018272	109458513.14
1654515308	Connection	VGA1	Bellcore Issue 6	Level II		0.009136	1.00	.1362	0.009136	109458513.14
1654907002	Connection	SATA1-SATA3	Bellcore Issue 6	Level II		0.001599	3.00	.0715	0.004796	625477217.96
175910000B	Miscellaneous	BUZZ1	Bellcore Issue 6	Level II		0.050000	1.00	.7455	0.050000	20000000.00
175011901H	Miscellaneous	BAT1	Bellcore Issue 6	Level II		0.300000	1.00	4.4732	0.300000	3333333.33
1112610190	Capacitor	EC1	Bellcore Issue 6	Level II		0.017130	1.00	.2554	0.017130	58377873.68
1119647191	Capacitor	EC2,EC3	Bellcore Issue 6	Level II		0.028550	2.00	.8514	0.057099	35026724.21
1124410080	Capacitor	C101,C120,C133,C135,C136,C275-C58,C59,C69,C70	Bellcore Issue 6	Level II		0.001621	10.00	.2417	0.016209	616926714.94
105A500233	Resistor	R252,R539,R545	Bellcore Issue 6	Level II		0.000810	3.00	.0363	0.002431	1233853429.88
105A501033	Resistor	R1,R101,R102,R117,R200,R201,R-339,R345,R364,R382,R393,R412,R-43,R536	Bellcore Issue 6	Level II		0.000810	14.00	.1692	0.011347	1233853429.88

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**Reference Des**  
**Date** 09. 25, 2008  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 28.60



**Description** Top-level assembly  
**File Name** HSB-965P\_L2.RPJ  
**Time** 3:39 下午  
**Failure Rate** 6.706631  
**MTBF** 149,106

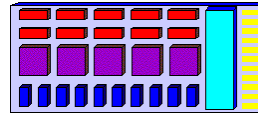
Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
105A512103	Resistor	R184	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
105A700003	Resistor	FB1,FB2,R100,R107,R109,R110,R-114,R120,R123,R139,R154,R161,R-185,R190,R196,R20,R219,R221,R2-25,R233,R236,R240,R241,R243	Bellcore Issue 6	Level II		0.000810	24.00	.2900	0.019451	1233853429.88
105A700003	Resistor	R246,R247,R249,R251,R253-R259-,R272,R273,R281,R30-R32,R346,R-347,R350,R359,R361,R368,R37,R3-70,R377-R379,R381,R384,R391	Bellcore Issue 6	Level II		0.000810	31.00	.3746	0.025125	1233853429.88
105A700003	Resistor	R397,R40,R402,R406,R409,R423,-R426,R471,R472,R515,R521,R523-,R524,R527,R54,R542,R548,R558,-R56,R561,R562,R578,R61,R63	Bellcore Issue 6	Level II		0.000810	24.00	.2900	0.019451	1233853429.88
105A700003	Resistor	R638,R65,R651,R66,R664,R667,R-67,R675,R678,R8,R92,R95	Bellcore Issue 6	Level II		0.000810	12.00	.1450	0.009726	1233853429.88
105A701003	Resistor	R104,R111,R116,R21,R27,R372,R-546,R547,R556,R70-R72,R91	Bellcore Issue 6	Level II		0.000810	13.00	.1571	0.010536	1233853429.88
105A701053	Resistor	R19,R396,R500,R606	Bellcore Issue 6	Level II		0.000810	4.00	.0483	0.003242	1233853429.88
105A702203	Resistor	R342,R416	Bellcore Issue 6	Level II		0.000810	2.00	.0242	0.001621	1233853429.88
105A702223	Resistor	R193,R267,R285,R39,R413,R538,-R543,R605	Bellcore Issue 6	Level II		0.000810	8.00	.0967	0.006484	1233853429.88
105A703303	Resistor	R14,R262,R263,R275,R276,R371,-R528,R532,R58,R581,R589,R645,-R660	Bellcore Issue 6	Level II		0.000810	13.00	.1571	0.010536	1233853429.88
105A704703	Resistor	R454,R457,R525	Bellcore Issue 6	Level II		0.000810	3.00	.0363	0.002431	1233853429.88
105A704723	Resistor	R113,R144-R151,R217,R26,R28,R-287,R343,R353,R385-R388,R42,R-489,R541,R6,R634,R635,R639,R64-6,R670,R671,R673,R7	Bellcore Issue 6	Level II		0.000810	31.00	.3746	0.025125	1233853429.88
105A708223	Resistor	R22,R62	Bellcore Issue 6	Level II		0.000810	2.00	.0242	0.001621	1233853429.88
105A700133	Resistor	R105,R12,R159,R186,R341,R365,-R399,R448,R526,R636,R648,R679	Bellcore Issue 6	Level II		0.000810	12.00	.1450	0.009726	1233853429.88
105A733003	Resistor	R340,R363,R447,R5	Bellcore Issue 6	Level II		0.000810	4.00	.0483	0.003242	1233853429.88
105A701033	Resistor	R106,R108,R112,R118,R187,R188-,R192,R194,R197,R216,R220,R223-,R226,R244,R34,R35,R358,R376,R-414,R419-R422,R549-R552,R574	Bellcore Issue 6	Level II		0.000810	28.00	.3384	0.022693	1233853429.88
105A701033	Resistor	R600,R624-R628,R69,R89	Bellcore Issue 6	Level II		0.000810	7.00	.0846	0.005673	1233853429.88
105A715003	Resistor	R115,R121,R189,R314,R655,R657	Bellcore Issue 6	Level II		0.000810	6.00	.0725	0.004863	1233853429.88





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**Temp. (°C)** 28.60



**Description** Top-level assembly  
**File Name** HSB-965P\_L2.RPJ  
**Time** 3:39 下午  
**Failure Rate** 6.706631  
**MTBF** 149,106

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1315700211	Semiconductor	Q15-Q17,Q2,Q20,Q22,Q23,Q35,Q40-Q43,Q45,Q46,Q50,Q51,Q55-Q57-Q6-Q8	Bellcore Issue 6	Level II		0.029390	22.00	9.6411	0.646591	34024617.26
14S5A01400	Integrated Circuit	U6	Bellcore Issue 6	Level II		0.025670	1.00	.3828	0.025670	38955838.38
105A556223	Resistor	R366,R367	Bellcore Issue 6	Level II		0.000810	2.00	.0242	0.001621	1233853429.88
14S5A01430	Integrated Circuit	U20	Bellcore Issue 6	Level II		0.025670	1.00	.3828	0.025670	38955838.38
14S5A00700	Integrated Circuit	U40	Bellcore Issue 6	Level II		0.016145	1.00	.2407	0.016145	61938848.98
105A520003	Resistor	R183,R230,R234,R415,R449,R456	Bellcore Issue 6	Level II		0.000810	6.00	.0725	0.004863	1233853429.88
105A512033	Resistor	R357	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
105A523233	Resistor	R356	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
105A733033	Resistor	R499,R503	Bellcore Issue 6	Level II		0.000810	2.00	.0242	0.001621	1233853429.88
1124533180	Capacitor	C1,C145,C206,C4,C9	Bellcore Issue 6	Level II		0.001621	5.00	.1208	0.008105	616926714.94
105A549933	Resistor	R490	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
105A545303	Resistor	R218,R586	Bellcore Issue 6	Level II		0.000810	2.00	.0242	0.001621	1233853429.88
105A527463	Resistor	R264,R529	Bellcore Issue 6	Level II		0.000810	2.00	.0242	0.001621	1233853429.88
1300414843	Semiconductor	D12	Bellcore Issue 6	Level II		0.008817	1.00	.1315	0.008817	113415390.88
14S5A23200	Integrated Circuit	U32	Bellcore Issue 6	Level II	30.10	0.077658	1.00	1.1579	0.077658	12876983.09
14S5A23200	Integrated Circuit	U30-U31	Bellcore Issue 6	Level II		0.016145	2.00	.4815	0.032290	61938848.98
105A700103	Resistor	R156,R157,R266,R277-R279,R362-R404,R430,R64,R90	Bellcore Issue 6	Level II		0.000810	11.00	.1329	0.008915	1233853429.88
105A507523	Resistor	R36	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
105A501123	Resistor	R395,R473,R488	Bellcore Issue 6	Level II		0.000810	3.00	.0363	0.002431	1233853429.88
1174518180	Capacitor	CP1-CP8	Bellcore Issue 6	Level II		0.001865	8.00	.2224	0.014918	536279499.30
105A502003	Resistor	R429,R451	Bellcore Issue 6	Level II		0.000810	2.00	.0242	0.001621	1233853429.88
105A516513	Resistor	R475	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
105A506823	Resistor	R13,R394,R49	Bellcore Issue 6	Level II		0.000810	3.00	.0363	0.002431	1233853429.88
105A708229	Resistor	R439,R478,R681-R684	Bellcore Issue 6	Level II		0.000810	6.00	.0725	0.004863	1233853429.88
105A700139	Resistor	R479	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
105A704729	Resistor	R322,R506,R507,R595,R598,R661-R669,R672	Bellcore Issue 6	Level II		0.000810	8.00	.0967	0.006484	1233853429.88
105A700009	Resistor	R177,R178,R227,R228,R332,R333-R417,R461,R481,R494,R513,R563-R577,R690,R692,R695,R73,R74	Bellcore Issue 6	Level II		0.000810	18.00	.2175	0.014588	1233853429.88





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**Temp. (°C)** 28.60



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**File Name** HSB-965P\_L2.RPJ  
**Time** 3:39 下午  
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Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1129710050	Capacitor	C142,C144,C151,C157,C165,C169-,C174-C176,C183,C184,C191,C192-,C194,C195,C298,C310,C311,C41,-C45,C56,C57,TC1,TC11-TC17	Bellcore Issue 6	Level II		0.001621	30.00	.7251	0.048628	616926714.94
1129710050	Capacitor	TC2,TC20,TC22,TC24,TC26,TC27,-TC3,TC35,TC4,TC48-TC51,TC8	Bellcore Issue 6	Level II		0.001621	14.00	.3384	0.022693	616926714.94
105A575033	Resistor	R16	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
1311006910	Semiconductor	Q10,Q14,Q48,Q54	Bellcore Issue 6	Level II		0.008817	4.00	.5259	0.035269	113415390.88
105A522663	Resistor	R579	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
1304001340	Semiconductor	LED1	Bellcore Issue 6	Level II		0.002250	1.00	.0336	0.002250	444370706.69
105A710039	Resistor	R446	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
105A507509	Resistor	R700-R702	Bellcore Issue 6	Level II		0.000810	3.00	.0363	0.002431	1233853429.88
105A702209	Resistor	R237,R242,R245,R248	Bellcore Issue 6	Level II		0.000810	4.00	.0483	0.003242	1233853429.88
1124427090	Capacitor	C51,C53-C55	Bellcore Issue 6	Level II		0.001621	4.00	.0967	0.006484	616926714.94
105A549969	Resistor	R268-R271,R274,R288-R290	Bellcore Issue 6	Level II		0.000810	8.00	.0967	0.006484	1233853429.88
105A500139	Resistor	R445,R455,R463,R516,R559,R587-,R618	Bellcore Issue 6	Level II		0.000810	7.00	.0846	0.005673	1233853429.88
105A501039	Resistor	R535	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
121230603G	Inductor	FB21	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
1653925216	Connection	CFD1	Bellcore Issue 6	Level II		0.011420	1.00	.1703	0.011420	87566810.51
1121701080	Capacitor	C100,C115,C118,C12,C131,C14,C-143,C146,C152,C159,C161,C163,C-166,C167,C170,C171,C177-C179,-C193,C2,C204,C210,C214,C227	Bellcore Issue 6	Level II		0.001621	26.00	.6284	0.042144	616926714.94
1121701080	Capacitor	C229,C258,C3,C303-C306,C43,C48-,C50,C62,C84,C88,C94,C96	Bellcore Issue 6	Level II		0.001621	14.00	.3384	0.022693	616926714.94
105A705609	Resistor	R126-R138,R163-R176,R202-R214-,R502,R514,R75-R88	Bellcore Issue 6	Level II		0.000810	56.00	.6767	0.045386	1233853429.88
105A515009	Resistor	R531,R540,R557,R593,R594,R610	Bellcore Issue 6	Level II		0.000810	6.00	.0725	0.004863	1233853429.88
105A510009	Resistor	R465,R468,R470,R508	Bellcore Issue 6	Level II		0.000810	4.00	.0483	0.003242	1233853429.88
105A522669	Resistor	R304,R306,R608,R311	Bellcore Issue 6	Level II		0.000810	4.00	.0483	0.003242	1233853429.88
105A554969	Resistor	R553,R554	Bellcore Issue 6	Level II		0.000810	2.00	.0242	0.001621	1233853429.88
105A707509	Resistor	R566,R592,R609	Bellcore Issue 6	Level II		0.000810	3.00	.0363	0.002431	1233853429.88
1129722060	Capacitor	C103,C299,C300,C75	Bellcore Issue 6	Level II		0.001621	4.00	.0967	0.006484	616926714.94
105A554963	Resistor	R260,R509,R510,R522,R530,R533	Bellcore Issue 6	Level II		0.000810	6.00	.0725	0.004863	1233853429.88

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**Description** Top-level assembly  
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**Time** 3:39 下午  
**Failure Rate** 6.706631  
**MTBF** 149,106

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
105A532413	Resistor	R195,R585	Bellcore Issue 6	Level II		0.000810	2.00	.0242	0.001621	1233853429.88
105A501133	Resistor	R411	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
105A525503	Resistor	R373	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
14S2200900	Integrated Circuit	U22	Bellcore Issue 6	Level II		0.025670	1.00	.3828	0.025670	38955838.38
121110010F	Inductor	L17,L21,L27,L28	Bellcore Issue 6	Level II		0.030798	4.00	1.8369	0.123191	32469827.10
14S9080900	Integrated Circuit	U42	Bellcore Issue 6	Level II		0.016145	1.00	.2407	0.016145	61938848.98
14S5812502	Integrated Circuit	U5	Bellcore Issue 6	Level II		0.016145	1.00	.2407	0.016145	61938848.98
105A586603	Resistor	R487	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
1315230111	Semiconductor	Q19,Q47	Bellcore Issue 6	Level II		0.029390	2.00	.8765	0.058781	34024617.26
14S4081110	Integrated Circuit	U15	Bellcore Issue 6	Level II		0.025670	1.00	.3828	0.025670	38955838.38
105A535713	Resistor	R360	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
11E9647680	Capacitor	C156,C172,C180,C235,C247,C251- C256,C282,C285,C292,C293,C296- C297,C31	Bellcore Issue 6	Level II		0.001621	14.00	.3384	0.022693	616926714.94
16515A0996	Connection	DIMM2	Bellcore Issue 6	Level II		0.045679	1.00	.6811	0.045679	21891702.63
16515A0997	Connection	DIMM1	Bellcore Issue 6	Level II		0.045679	1.00	.6811	0.045679	21891702.63
1315446310	Semiconductor	Q25,Q9	Bellcore Issue 6	Level II		0.029390	2.00	.8765	0.058781	34024617.26
105A522103	Resistor	R617	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
1129522790	Capacitor	C150,C158,C181,C182,C211,C212	Bellcore Issue 6	Level II		0.001621	6.00	.1450	0.009726	616926714.94
123131435B	Miscellaneous	Y4	Bellcore Issue 6	Level II		0.050000	1.00	.7455	0.050000	20000000.00
1231325058	Miscellaneous	Y1,Y3	Bellcore Issue 6	Level II		0.050000	2.00	1.4911	0.100000	20000000.00
1050597623	Resistor	R48	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
14S4121601	Integrated Circuit	U2	Bellcore Issue 6	Level II		0.025670	1.00	.3828	0.025670	38955838.38
1315731310	Semiconductor	Q26	Bellcore Issue 6	Level II	28.60	0.122335	1.00	1.8241	0.122335	8174252.85
1315731310	Semiconductor	Q38	Bellcore Issue 6	Level II	23.80	0.109153	1.00	1.6275	0.109153	9161448.60
105A536513	Resistor	R155,R410	Bellcore Issue 6	Level II		0.000810	2.00	.0242	0.001621	1233853429.88
106B501032	Resistor	RT1,RT2,RT4,RT5	Bellcore Issue 6	Level II		0.004568	4.00	.2724	0.018272	218917026.29
106B747030	Resistor	RT3	Bellcore Issue 6	Level II		0.004568	1.00	.0681	0.004568	218917026.29
1189633160	Capacitor	TC10,TC28,TC30-TC34,TC38,TC41- TC42,TC45-TC47	Bellcore Issue 6	Level II		0.001621	13.00	.3142	0.021072	616926714.94
1121647480	Capacitor	C148,C248	Bellcore Issue 6	Level II		0.001621	2.00	.0483	0.003242	616926714.94
1315970211	Semiconductor	U11,U36,U37,U39	Bellcore Issue 6	Level II		0.029390	4.00	1.7529	0.117562	34024617.26

### AAEON Reliability Prediction Report

**Part Number** 9697965P02-DIP  
**Reference Des**  
**Date** 09. 25, 2008  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 28.60



**Description** Top-level assembly  
**File Name** HSB-965P\_L2.RPJ  
**Time** 3:39 下午  
**Failure Rate** 6.706631  
**MTBF** 149,106

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
105A540213	Resistor	R103,R52	Bellcore Issue 6	Level II		0.000810	2.00	.0242	0.001621	1233853429.88
105A514733	Resistor	R51	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
105A526113	Resistor	R408	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
121230603Z	Inductor	FB23,FB24,FB6	Bellcore Issue 6	Level II		0.000810	3.00	.0363	0.002431	1233853429.88
14S3128421	Integrated Circuit	U27	Bellcore Issue 6	Level II		0.025670	1.00	.3828	0.025670	38955838.38
14S4195710	Integrated Circuit	U1	Bellcore Issue 6	Level II		0.016145	1.00	.2407	0.016145	61938848.98
1124515880	Capacitor	C114	Bellcore Issue 6	Level II		0.001621	1.00	.0242	0.001621	616926714.94
1122522890	Capacitor	C213,C231	Bellcore Issue 6	Level II		0.001621	2.00	.0483	0.003242	616926714.94
1211105673	Inductor	L6	Bellcore Issue 6	Level II	38.00	0.058736	1.00	.8758	0.058736	17025356.39
1211105673	Inductor	L7	Bellcore Issue 6	Level II		0.030798	1.00	.4592	0.030798	32469827.10
1050524904	Resistor	R505,R520	Bellcore Issue 6	Level II		0.000810	2.00	.0242	0.001621	1233853429.88
105A511523	Resistor	R50	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
105A501413	Resistor	R352,R632,R640	Bellcore Issue 6	Level II		0.000810	3.00	.0363	0.002431	1233853429.88
14S4871204	Integrated Circuit	U7	Bellcore Issue 6	Level II		0.016145	1.00	.2407	0.016145	61938848.98
14S5A12506	Integrated Circuit	U10	Bellcore Issue 6	Level II		0.016145	1.00	.2407	0.016145	61938848.98
121110336L	Inductor	L12,L4	Bellcore Issue 6	Level II		0.030798	2.00	.9184	0.061596	32469827.10
1129610080	Capacitor	C123,C126,C129,C132,C137,C154- C186-C190,C197-C199,C201-C203- C207-C209,C217,C219-C221,C224- C226,C232-C234,C237-C245	Bellcore Issue 6	Level II		0.001621	39.00	.9426	0.063217	616926714.94
1129610080	Capacitor	C249,C252,C253,C257,C271,C272- C274,C283,C288-C290,C30,C312,- C313,C49,C61,C66,C76,C85-C87,- C92,C98	Bellcore Issue 6	Level II		0.001621	23.00	.5559	0.037282	616926714.94
1315888010	Semiconductor	Q27	Bellcore Issue 6	Level II	34.90	0.070692	1.00	1.0541	0.070692	14145946.10
1315888010	Semiconductor	Q29	Bellcore Issue 6	Level II		0.029390	1.00	.4382	0.029390	34024617.26
105A556213	Resistor	R392	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
1050502224	Resistor	R619	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
14S6308001	Integrated Circuit	U38	Bellcore Issue 6	Level II		0.020693	1.00	.3085	0.020693	48326468.34
1142522080	Capacitor	TC21	Bellcore Issue 6	Level II	28.90	0.002685	1.00	.0400	0.002685	372497190.32
1142522080	Capacitor	TC23,TC7	Bellcore Issue 6	Level II		0.001621	2.00	.0483	0.003242	616926714.94
11E1647650	Capacitor	C79,C80	Bellcore Issue 6	Level II		0.001621	2.00	.0483	0.003242	616926714.94
14S5A00821	Integrated Circuit	U14,U28,U33,U8	Bellcore Issue 6	Level II		0.016145	4.00	.9629	0.064580	61938848.98

**AAEON Reliability Prediction Report**

**Part Number** 9697965P02-DIP  
**Reference Des**  
**Date** 09. 25, 2008  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 28.60



**Description** Top-level assembly  
**File Name** HSB-965P\_L2.RPJ  
**Time** 3:39 下午  
**Failure Rate** 6.706631  
**MTBF** 149,106

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1121533480	Capacitor	C130,C6,C8	Bellcore Issue 6	Level II		0.001621	3.00	.0725	0.004863	616926714.94
1211000180	Inductor	L1	Bellcore Issue 6	Level II		0.030798	1.00	.4592	0.030798	32469827.10
14S3524700	Integrated Circuit	Q53	Bellcore Issue 6	Level II		0.025670	1.00	.3828	0.025670	38955838.38
105A530113	Resistor	R431	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
1315662210	Semiconductor	Q3,Q4	Bellcore Issue 6	Level II		0.029390	2.00	.8765	0.058781	34024617.26
1315662810	Semiconductor	Q1,Q5	Bellcore Issue 6	Level II		0.029390	2.00	.8765	0.058781	34024617.26
11B9747490	Capacitor	1C96,C215,C216,C254	Bellcore Issue 6	Level II		0.001621	4.00	.0967	0.006484	616926714.94
1752001601	Miscellaneous	FS1,FS2	Bellcore Issue 6	Level II		0.010000	2.00	.2982	0.020000	10000000.00
1651611993	Connection	U21	Bellcore Issue 6	Level II		0.109174	1.00	1.6278	0.109174	9159708.21
105A523713	Resistor	R572	Bellcore Issue 6	Level II		0.000810	1.00	.0121	0.000810	1233853429.88
1315998410	Semiconductor	Q18,Q39	Bellcore Issue 6	Level II		0.029390	2.00	.8765	0.058781	34024617.26
1315270210	Semiconductor	Q12,Q13	Bellcore Issue 6	Level II		0.029390	2.00	.8765	0.058781	34024617.26
14S2041500	Integrated Circuit	U9	Bellcore Issue 6	Level II		0.025670	1.00	.3828	0.025670	38955838.38
14S2048600	Integrated Circuit	U3	Bellcore Issue 6	Level II		0.025670	1.00	.3828	0.025670	38955838.38
14S2262100	Integrated Circuit	U16	Bellcore Issue 6	Level II	24.90	0.132695	1.00	1.9786	0.132695	7536071.03
14S2951600	Integrated Circuit	U41	Bellcore Issue 6	Level II		0.025670	1.00	.3828	0.025670	38955838.38
1211100164	Inductor	L24	Bellcore Issue 6	Level II		0.030798	1.00	.4592	0.030798	32469827.10
121110100P	Inductor	L25,L26,L8	Bellcore Issue 6	Level II		0.030798	3.00	1.3776	0.092393	32469827.10
1211101064	Inductor	L5	Bellcore Issue 6	Level II	30.60	0.052400	1.00	.7813	0.052400	19083928.08
1315889612	Semiconductor	Q30	Bellcore Issue 6	Level II	35.00	0.070851	1.00	1.0564	0.070851	14114107.61
1315889612	Semiconductor	Q28	Bellcore Issue 6	Level II		0.029390	1.00	.4382	0.029390	34024617.26
1654030003	Connection	CN8	Bellcore Issue 6	Level II		0.006852	1.00	.1022	0.006852	145944684.19
14S4296501	Integrated Circuit	U18	Bellcore Issue 6	Level II	20.20	0.047853	1.00	.7135	0.047853	20897377.41
11C2539290	Capacitor	C263-C265,C268-C270,C273,C277-C278,C280,C286,C287	Bellcore Issue 6	Level II		0.001621	12.00	.2900	0.019451	616926714.94
11B2710060	Capacitor	C102,C89,C93,C97	Bellcore Issue 6	Level II		0.001621	4.00	.0967	0.006484	616926714.94
14S4280118	Integrated Circuit	U17	Bellcore Issue 6	Level II	34.70	0.096311	1.00	1.4361	0.096311	10382978.40
14S4256610	Inductor	U24	Bellcore Issue 6	Level II		0.048628	1.00	.7251	0.048628	20564223.83
14S4825740	Integrated Circuit	U13	Bellcore Issue 6	Level II		0.016145	1.00	.2407	0.016145	61938848.98
14S3626201	Integrated Circuit	U12	Bellcore Issue 6	Level II		0.025670	1.00	.3828	0.025670	38955838.38
14S6201601	Integrated Circuit	U19	Bellcore Issue 6	Level II		0.240290	1.00	3.5829	0.240290	4161631.00

