

# R-AOP8120WT Reliability Prediction Report (MTBF)

Report NO : 05P070008

**08-15-2005**

Issue Date

**Wenyuan Yang**

Manager

**Jessica Chou**

Test Engineer

## Reliability Prediction (MTBF)

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### I . Model Name:

- R-AOP8120WT-0001 (Operator Panel. Celeron ULV 650MHz Processor. 12.1" 350nit TFT. DC48V. R-TS. 256MB RAM)

### II . Prediction Date: Aug. 15, 2005

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

### IV . Predicted by : Jessica Chou

### V . Equipment: Relx Ver.7.3 Visual Reliability Software

### VI . Simulation Environment:

- Temperature: 24.5 degrees C
- Standard: Telcordia (Bellcore) Standard

### VII . Term and Definition:

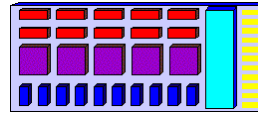
- Unit : An assembly of device.
- Duty Cycle : Used to specify the percentage of time that the element is in an on state, and it is equal to the percentage of total time the item is in the active environment.
- Quantity : The quantity of the selected item.
- Failure Rate : Used to specify that the failure 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:

1. 969768000G (ASS'Y.MPC-6800.W/650MHz CPU.W/8100BL W/TFT W/CFD W/Touch.for AOP-8120)
  - Not include DDR, Touch Screen, DC power, TFT LCD, Inverter
  - 1-1. Failure Rate: 12.623930 ppm
  - 1-2. MTBF: 79,215 Hours
2. TS45070701 (Touch screen) – Punching Life 1,000,000 times
  - Punching 1,000,000 Times with Ø2mm Manuscript Pen, Force: 250g, Speed: 2times/sec.
3. LLTD121C30 (TFT LCD)
  - 3-1.MTBF : 50,000 h

### AAEON Reliability Prediction Report

**Part Number** 969768000G  
**Reference Des**  
**Date** 08. 15, 2005  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temperature** 24.50

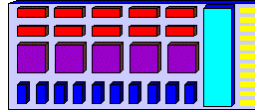


**Description** Top-level assembly  
**File Name** MPC-6800-A03-650MHZ.R-  
**Time** 3:28 下午  
**Failure Rate** 12.623930  
**MTBF** 79,215

Assembly Name	Part Number	Model	Method	Environment	Duty Cycle	Qty	Failure Rate	MTBF
MPC-6800-A10-650MHz	969768000G	Bellcore	Method I Case 3	GF, GU - Ground Fixed,	100.00	1.00	12.623930	79,215

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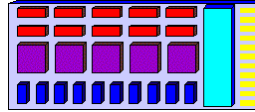


**Description** Top-level assembly  
**File Name** MPC-6800-A03-650MHZ.R-  
**Time** 3:28 下午  
**Failure Rate** 12.623930  
**MTBF** 79,215

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1654530300	Connection	CRTAUD1	Bellcore Issue 6	Level I		0.016628	1.00	.1317	0.016628	60138824.98
1189682191	Capacitor	EC13,EC16	Bellcore Issue 6	Level I		0.014008	2.00	.2219	0.028015	71389660.42
1653003101	Connection	JP8	Bellcore Issue 6	Level I		0.001663	1.00	.0132	0.001663	601388249.85
1654612304	Connection	KBMS1	Bellcore Issue 6	Level I		0.003326	1.00	.0263	0.003326	300694124.92
121110276B	Inductor	L91	Bellcore Issue 6	Level I		0.001600	1.00	.0127	0.001600	625064331.11
121110276B	Inductor	L90	Bellcore Issue 6	Level I		0.001555	1.00	.0123	0.001555	643290266.74
1654543500	Connection	PCON1	Bellcore Issue 6	Level I		0.023834	1.00	.1888	0.023834	41957319.76
1652522200	Connection	RJUSB1,RJUSB2	Bellcore Issue 6	Level I		0.012194	2.00	.1932	0.024388	82007488.62
1653220208	Connection	CN1	Bellcore Issue 6	Level I		0.022171	1.00	.1756	0.022171	45104118.74
1653900034	Connection	CN5	Bellcore Issue 6	Level I		0.013303	1.00	.1054	0.013303	75173531.23
1655004020	Connection	CN7	Bellcore Issue 6	Level I		0.002217	1.00	.0176	0.002217	451041187.39
1653213220	Connection	CN10	Bellcore Issue 6	Level I		0.014411	1.00	.1142	0.014411	69390951.91
1655003000	Connection	CN20,CN22	Bellcore Issue 6	Level I		0.001663	2.00	.0263	0.003326	601388249.85
1653005200	Connection	CN21,CN24	Bellcore Issue 6	Level I		0.005543	2.00	.0878	0.011085	180416474.95
1655417020	Connection	CN23	Bellcore Issue 6	Level I		0.011085	1.00	.0878	0.011085	90208237.48
1651592490	Connection	DIMM1	Bellcore Issue 6	Level I		0.101986	1.00	.8079	0.101986	9805243.20
1653003100	Connection	JP1	Bellcore Issue 6	Level I		0.001663	1.00	.0132	0.001663	601388249.85
1653002101	Connection	JP10	Bellcore Issue 6	Level I		0.001109	1.00	.0088	0.001109	902082374.77
1653002101	Connection	JP9	Bellcore Issue 6	Level I		0.001109	1.00	.0088	0.001109	902082374.77
1654260201	Connection	PCI1	Bellcore Issue 6	Level I		0.066513	1.00	.5269	0.066513	15034706.25
1750119011	Miscellaneous	BT1	Bellcore Issue 6	Level I		0.900000	1.00	7.1293	0.900000	1111111.11
1759100008	Miscellaneous	BUZZ1	Bellcore Issue 6	Level I		0.150000	1.00	1.1882	0.150000	6666666.67
1653222200	Connection	CN2	Bellcore Issue 6	Level I		0.024388	1.00	.1932	0.024388	41003744.31
1655305020	Connection	CN8	Bellcore Issue 6	Level I		0.004434	1.00	.0351	0.004434	225520593.69
1653005100	Connection	CN11	Bellcore Issue 6	Level I		0.002771	1.00	.0220	0.002771	360832949.91
1211104767	Inductor	L93	Bellcore Issue 6	Level I		0.001723	1.00	.0136	0.001723	580520970.29
1211104767	Inductor	L94	Bellcore Issue 6	Level I		0.001607	1.00	.0127	0.001607	622321215.08
1653209203	Connection	CN3	Bellcore Issue 6	Level I		0.009977	1.00	.0790	0.009977	100231374.97
1124410190	Capacitor	C310,C404,C445,C451,C458,C465	Bellcore Issue 6	Level I		0.001057	6.00	.0502	0.006341	946289191.99
1189615187	Capacitor	C162,EC15,EC8	Bellcore Issue 6	Level I		0.004885	3.00	.1161	0.014654	204722006.59
1189615187	Capacitor	C55	Bellcore Issue 6	Level I	13.80	0.006331	1.00	.0501	0.006331	157962285.88

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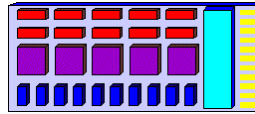


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**File Name** MPC-6800-A03-650MHZ.R-  
**Time** 3:28 下午  
**Failure Rate** 12.623930  
**MTBF** 79,215

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1189615187	Capacitor	EC20	Bellcore Issue 6	Level I	8.70	0.005768	1.00	.0457	0.005768	173375646.25
1189615187	Capacitor	C546	Bellcore Issue 6	Level I	13.40	0.006285	1.00	.0498	0.006285	159102424.60
1189615187	Capacitor	C547	Bellcore Issue 6	Level I	11.70	0.006095	1.00	.0483	0.006095	164074631.05
1189615187	Capacitor	C163	Bellcore Issue 6	Level I	9.40	0.005843	1.00	.0463	0.005843	171142810.15
1189615187	Capacitor	C186	Bellcore Issue 6	Level I	19.20	0.006964	1.00	.0552	0.006964	143601718.71
1121733380	Capacitor	C575	Bellcore Issue 6	Level I		0.002531	1.00	.0200	0.002531	395143208.91
1301005443	Semiconductor	D1,D17,D21,D24,D26,D39,D40	Bellcore Issue 6	Level I		0.023540	7.00	1.3053	0.164778	42481426.42
1301005443	Semiconductor	D25,D42	Bellcore Issue 6	Level I	9.60	0.030780	2.00	.4876	0.061560	32488657.40
105A507509	Resistor	R17,R39,R397,R398,R4,R402,R404-R495,R496,R497	Bellcore Issue 6	Level I		0.002246	10.00	.1779	0.022456	445323162.91
105A705609	Resistor	R188,R29,R35,R38,R9	Bellcore Issue 6	Level I		0.002246	5.00	.0889	0.011228	445323162.91
1124427080	Capacitor	C524,C526	Bellcore Issue 6	Level I		0.001057	2.00	.0167	0.002114	946289191.99
105A703903	Resistor	R11,R12	Bellcore Issue 6	Level I		0.002246	2.00	.0356	0.004491	445323162.91
105A501403	Resistor	R21	Bellcore Issue 6	Level I		0.002246	1.00	.0178	0.002246	445323162.91
1310390410	Semiconductor	Q10,Q15,Q27,Q7,Q9	Bellcore Issue 6	Level I		0.023540	5.00	.9323	0.117698	42481426.42
1124582280	Capacitor	C542,C553	Bellcore Issue 6	Level I		0.001057	2.00	.0167	0.002114	946289191.99
1124547190	Capacitor	C303,C304,C308,C309,C311,C312-C317-C319,C329	Bellcore Issue 6	Level I		0.001057	10.00	.0837	0.010568	946289191.99
1124547190	Capacitor	C330,C332,C334,C336,C339,C504-C540	Bellcore Issue 6	Level I		0.001057	7.00	.0586	0.007397	946289191.99
1129722091	Capacitor	C270,C291,C341,C342,C363,C364-C448,C450	Bellcore Issue 6	Level I		0.001057	8.00	.0670	0.008454	946289191.99
1653005202	Connection	CN9	Bellcore Issue 6	Level I		0.005543	1.00	.0439	0.005543	180416474.95
1653205201	Connection	CN12-CN15	Bellcore Issue 6	Level I		0.005543	4.00	.1756	0.022171	180416474.95
1653925216	Connection	CN5	Bellcore Issue 6	Level I		0.027714	1.00	.2195	0.027714	36083294.99
1653004202	Connection	CN16	Bellcore Issue 6	Level I		0.004434	1.00	.0351	0.004434	225520593.69
1654262300	Connection	CN19	Bellcore Issue 6	Level I		0.068730	1.00	.5444	0.068730	14549715.72
1174510380	Capacitor	CP18	Bellcore Issue 6	Level I		0.001057	1.00	.0084	0.001057	946289191.99
1129710390	Capacitor	C10,C208,C25,C253,C257,C262,C-282-C287,C32,C33,C333	Bellcore Issue 6	Level I		0.001057	15.00	.1256	0.015851	946289191.99
1129710390	Capacitor	C338,C37-C39,C41,C42,C53,C54,-C56,C57,C87,C89,C9	Bellcore Issue 6	Level I		0.001057	13.00	.1088	0.013738	946289191.99
1129610051	Capacitor	C11,C12,C137-C139,C158-C161,C-169,C170,C172,C175	Bellcore Issue 6	Level I		0.002713	13.00	.2794	0.035274	368539619.74

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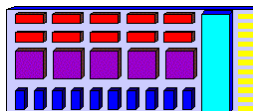


**Description** Top-level assembly  
**File Name** MPC-6800-A03-650MHZ.R-  
**Time** 3:28 下午  
**Failure Rate** 12.623930  
**MTBF** 79,215

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1129610051	Capacitor	C193,C20,C220,C227,C228,C234,- C235,C241,C243	Bellcore Issue 6	Level I		0.002713	9.00	.1934	0.024421	368539619.74
1129610051	Capacitor	C265	Bellcore Issue 6	Level I	15.90	0.002996	1.00	.0237	0.002996	333829551.53
1129610051	Capacitor	C266,C268,C275,C277,C34,C340,- C343,C355,C356,C372	Bellcore Issue 6	Level I		0.002713	10.00	.2149	0.027134	368539619.74
1129610051	Capacitor	C384,C390,C403,C452,C457,C460- C464,C468,C469,C473	Bellcore Issue 6	Level I		0.002713	10.00	.2149	0.027134	368539619.74
1129610051	Capacitor	C476,C486,C494,C545,C548-C551- C555,C572,C58,C581	Bellcore Issue 6	Level I		0.002713	12.00	.2579	0.032561	368539619.74
1129610051	Capacitor	C628,C629,C639,C640,C646,C636- C647,C660-C665	Bellcore Issue 6	Level I		0.002713	13.00	.2794	0.035274	368539619.74
1129710090	Capacitor	C206,C207,C502,C505,C525,C527	Bellcore Issue 6	Level I		0.001057	6.00	.0502	0.006341	946289191.99
1124433090	Capacitor	C224,C226,C443,C447	Bellcore Issue 6	Level I		0.001057	4.00	.0335	0.004227	946289191.99
1129701790	Capacitor	C236-C238,C244-C248,C279,C307- C365,C503,C506,C567	Bellcore Issue 6	Level I		0.001592	14.00	.1766	0.022293	628005058.96
1129701790	Capacitor	C568-C570,C573,C576,C584,C632- C633,C635,C668	Bellcore Issue 6	Level I		0.001592	10.00	.1261	0.015923	628005058.96
1311119710	Semiconductor	Q8,Q13	Bellcore Issue 6	Level I		0.023540	2.00	.3729	0.047079	42481426.42
1315993310	Semiconductor	Q14	Bellcore Issue 6	Level I		0.156931	1.00	1.2431	0.156931	6372213.96
1314101010	Integrated Circuit	Q16	Bellcore Issue 6	Level I		0.057230	1.00	.4533	0.057230	17473277.64
1314101010	Integrated Circuit	Q19	Bellcore Issue 6	Level I	13.50	0.147672	1.00	1.1698	0.147672	6771770.53
1311390610	Semiconductor	Q23,Q25	Bellcore Issue 6	Level I		0.023540	2.00	.3729	0.047079	42481426.42
1314108515	Integrated Circuit	Q32	Bellcore Issue 6	Level I	12.40	0.137119	1.00	1.0862	0.137119	7292957.20
1540710382	Resistor	RN1,RN56,RN58,RN60	Bellcore Issue 6	Level I		0.006105	4.00	.1934	0.024418	163811358.98
1540747285	Resistor	RN2,RN3,RN38,RN4,RN40,RN42,- RN46,RN48,RN50,RN52,RN54	Bellcore Issue 6	Level I		0.006105	11.00	.5319	0.067150	163811358.98
1540747285	Resistor	RN62,RN68-RN71,RN76,RN78	Bellcore Issue 6	Level I		0.006105	7.00	.3385	0.042732	163811358.98
1540733085	Resistor	RN11,RN14,RN16,RN18,RN20,RN- 22,RN24,RN26,RN28,RN31	Bellcore Issue 6	Level I		0.006105	10.00	.4836	0.061046	163811358.98
1540733085	Resistor	RN32,RN35,RN36,RN45,RN47,RN- 49,RN5,RN51,RN53,RN55	Bellcore Issue 6	Level I		0.006105	10.00	.4836	0.061046	163811358.98
1540733085	Resistor	RN57,RN59,RN61,RN63-RN67,RN7- RN9	Bellcore Issue 6	Level I		0.006105	10.00	.4836	0.061046	163811358.98
1540722085	Resistor	RN10,RN12,RN13,RN15,RN17,RN- 19,RN21,RN23,RN25,RN27	Bellcore Issue 6	Level I		0.006105	10.00	.4836	0.061046	163811358.98
1540722085	Resistor	RN29,RN30,RN33,RN34,RN6,RN8	Bellcore Issue 6	Level I		0.006105	6.00	.2901	0.036627	163811358.98
1540715381	Resistor	RN37,RN39,RN41	Bellcore Issue 6	Level I		0.006105	3.00	.1451	0.018314	163811358.98

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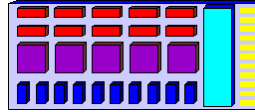


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**File Name** MPC-6800-A03-650MHZ.R-  
**Time** 3:28 下午  
**Failure Rate** 12.623930  
**MTBF** 79,215

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1540782280	Resistor	RN43,RN44	Bellcore Issue 6	Level I		0.006105	2.00	.0967	0.012209	163811358.98
1540700080	Resistor	NL13-NL15,RN86,NL16-NL22,RN72-RN87	Bellcore Issue 6	Level I		0.006105	13.00	.6286	0.079360	163811358.98
1540710080	Resistor	RN73-RN75,RN77	Bellcore Issue 6	Level I		0.006105	4.00	.1934	0.024418	163811358.98
105A513003	Resistor	R33	Bellcore Issue 6	Level I		0.002246	1.00	.0178	0.002246	445323162.91
105A733009	Resistor	R334,R339,R34,R360,R481,R580	Bellcore Issue 6	Level I		0.002246	6.00	.1067	0.013473	445323162.91
105A711003	Resistor	R281,R36	Bellcore Issue 6	Level I		0.002246	2.00	.0356	0.004491	445323162.91
105A582503	Resistor	R37	Bellcore Issue 6	Level I		0.002246	1.00	.0178	0.002246	445323162.91
105A704729	Resistor	R132,R136,R142-R144,R146,R151-R157,R158,R160,R165	Bellcore Issue 6	Level I		0.002246	11.00	.1957	0.024701	445323162.91
105A704729	Resistor	R167,R173-R177,R180,R183,R191-R192,R194,R195-R197	Bellcore Issue 6	Level I		0.002246	14.00	.2490	0.031438	445323162.91
105A704729	Resistor	R199,R200,R203,R204,R219,R226-R234,R235,R249,R251,R567	Bellcore Issue 6	Level I		0.002246	11.00	.1957	0.024701	445323162.91
105A704729	Resistor	R252,R254-R256,R260,R262,R287-R288,R297,R298,R301	Bellcore Issue 6	Level I		0.002246	11.00	.1957	0.024701	445323162.91
105A704729	Resistor	R302,R304,R307,R309,R311,R316-R319,R323,R325,R382	Bellcore Issue 6	Level I		0.002246	12.00	.2135	0.026947	445323162.91
105A704729	Resistor	R383-R390,R393,R413,R421-R422-R434,R435,R439,R440	Bellcore Issue 6	Level I		0.002246	16.00	.2846	0.035929	445323162.91
105A704729	Resistor	R45,R46,R465,R472,R473,R478,R485,R486,R492,R502	Bellcore Issue 6	Level I		0.002246	10.00	.1779	0.022456	445323162.91
105A704729	Resistor	R51,R519,R52,R521,R58-R60,R68-R70,R72,R74,R49,R631,R632,R635,R65	Bellcore Issue 6	Level I		0.002246	17.00	.3024	0.038175	445323162.91
105A571563	Resistor	R67	Bellcore Issue 6	Level I		0.002246	1.00	.0178	0.002246	445323162.91
105A516913	Resistor	R71	Bellcore Issue 6	Level I		0.002246	1.00	.0178	0.002246	445323162.91
105A549969	Resistor	R129,R130,R343-R346,R352-R359-R529	Bellcore Issue 6	Level I		0.002246	15.00	.2668	0.033683	445323162.91
105A510213	Resistor	R134	Bellcore Issue 6	Level I		0.002246	1.00	.0178	0.002246	445323162.91
105A708229	Resistor	R138-R141,R202,R215-R218,R225-R424,R425	Bellcore Issue 6	Level I		0.002246	12.00	.2135	0.026947	445323162.91
105A511313	Resistor	R147,R154	Bellcore Issue 6	Level I		0.002246	2.00	.0356	0.004491	445323162.91
105A702229	Resistor	R156,R299,R305,R310,R320,R322	Bellcore Issue 6	Level I		0.002246	6.00	.1067	0.013473	445323162.91
105A702263	Resistor	R208	Bellcore Issue 6	Level I		0.002246	1.00	.0178	0.002246	445323162.91
105A747009	Resistor	R220,R222,R227,R436,R437,R479-R206	Bellcore Issue 6	Level I		0.002246	7.00	.1245	0.015719	445323162.91

### AAEON Reliability Prediction Report

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**Temperature** 24.50



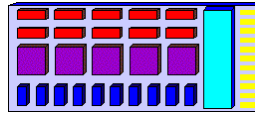
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**Failure Rate** 12.623930  
**MTBF** 79,215

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
105A551003	Resistor	R263,R290	Bellcore Issue 6	Level I		0.002246	2.00	.0356	0.004491	445323162.91
105A756033	Resistor	R267,R269,R272	Bellcore Issue 6	Level I		0.002246	3.00	.0534	0.006737	445323162.91
105A701009	Resistor	R273,R274,R291,R381,R505-R507-R509,R510,R513,R517	Bellcore Issue 6	Level I		0.002246	11.00	.1957	0.024701	445323162.91
105A701009	Resistor	R537,R539	Bellcore Issue 6	Level I		0.002246	2.00	.0356	0.004491	445323162.91
105A720033	Resistor	R278	Bellcore Issue 6	Level I		0.002246	1.00	.0178	0.002246	445323162.91
105A502833	Resistor	R306,R315	Bellcore Issue 6	Level I		0.002246	2.00	.0356	0.004491	445323162.91
105A502033	Resistor	R185,R312,R313,R541,R552,R607	Bellcore Issue 6	Level I		0.002246	6.00	.1067	0.013473	445323162.91
105A505623	Resistor	R333,R351,R550	Bellcore Issue 6	Level I		0.002246	3.00	.0534	0.006737	445323162.91
105A514003	Resistor	R401	Bellcore Issue 6	Level I		0.002246	1.00	.0178	0.002246	445323162.91
105A736033	Resistor	R409,R411,R415,R418,R420	Bellcore Issue 6	Level I		0.002246	5.00	.0889	0.011228	445323162.91
105A511503	Resistor	R442,R605	Bellcore Issue 6	Level I		0.002246	2.00	.0356	0.004491	445323162.91
105A500003	Resistor	L12,L17,L43,L44,L62,L64,L66,R258-R259,R452,R453	Bellcore Issue 6	Level I		0.002246	11.00	.1957	0.024701	445323162.91
105A500003	Resistor	R498,RR542,R562,R622,R623,R42-6,R427,R443,R444,R446,R448-R4-51,R454,R638,R641	Bellcore Issue 6	Level I		0.002246	17.00	.3024	0.038175	445323162.91
1301005442	Semiconductor	D22,D23,D36	Bellcore Issue 6	Level I		0.023540	3.00	.5594	0.070619	42481426.42
1315970110	Semiconductor	F1-F5	Bellcore Issue 6	Level I		0.156931	5.00	6.2156	0.784657	6372213.96
1653003202	Connection	JP2,JP3,JP5,JP6	Bellcore Issue 6	Level I		0.003326	4.00	.1054	0.013303	300694124.92
121230805L	Inductor	L1,L15,L20,L22-L25,L36,L37,L53,L-57,L65,L84,L92	Bellcore Issue 6	Level I		0.002246	14.00	.2490	0.031438	445323162.91
1212306030	Inductor	L10,L11,L13,L14,L16,L3L39,L4,L40-L42,L5,L54-L56,L6,L61	Bellcore Issue 6	Level I		0.002246	17.00	.3024	0.038175	445323162.91
1212306030	Inductor	L38	Bellcore Issue 6	Level I		0.001530	1.00	.0121	0.001530	653395816.85
1212306030	Inductor	L80,L81,L9	Bellcore Issue 6	Level I		0.002246	3.00	.0534	0.006737	445323162.91
1212306033	Inductor	L45-L52	Bellcore Issue 6	Level I		0.002246	8.00	.1423	0.017964	445323162.91
1212308054	Inductor	L69,L72,L75-L79	Bellcore Issue 6	Level I		0.002246	7.00	.1245	0.015719	445323162.91
121230603M	Inductor	L82,L83,L85-L89,L59,L60	Bellcore Issue 6	Level I		0.002246	9.00	.1601	0.020210	445323162.91
1315700212	Semiconductor	Q21,Q22,Q26,Q37-Q40	Bellcore Issue 6	Level I		0.023540	7.00	1.3053	0.164778	42481426.42
1315700212	Semiconductor	Q24	Bellcore Issue 6	Level I	8.40	0.029793	1.00	.2360	0.029793	33565287.62
105A701003	Resistor	R292	Bellcore Issue 6	Level I		0.002246	1.00	.0178	0.002246	445323162.91
105A501823	Resistor	R327	Bellcore Issue 6	Level I		0.002246	1.00	.0178	0.002246	445323162.91
105A702423	Resistor	R403	Bellcore Issue 6	Level I		0.002246	1.00	.0178	0.002246	445323162.91



**AAEON Reliability Prediction Report**

**Part Number** 969768000G  
**Reference Des**  
**Date** 08. 15, 2005  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temperature** 24.50

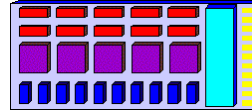


**Description** Top-level assembly  
**File Name** MPC-6800-A03-650MHZ.R-  
**Time** 3:28 下午  
**Failure Rate** 12.623930  
**MTBF** 79,215

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
105A556003	Resistor	R441	Bellcore Issue 6	Level I		0.002246	1.00	.0178	0.002246	445323162.91
105A510003	Resistor	R445,R447,R480,R524,R551	Bellcore Issue 6	Level I		0.002246	5.00	.0889	0.011228	445323162.91
1301005441	Semiconductor	D18-D20,D27-35,D41	Bellcore Issue 6	Level I		0.023540	13.00	2.4241	0.306016	42481426.42
1119622180	Capacitor	EC1,EC14,EC17,EC18,EC2,EC5,E-C6	Bellcore Issue 6	Level I		0.044035	7.00	2.4418	0.308247	22709080.60
1304001340	Semiconductor	LED1	Bellcore Issue 6	Level I		0.004658	1.00	.0369	0.004658	214673290.66
1211104760	Inductor	L2	Bellcore Issue 6	Level I		0.002246	1.00	.0178	0.002246	445323162.91
1212306031	Inductor	L63	Bellcore Issue 6	Level I		0.002246	1.00	.0178	0.002246	445323162.91
121230805A	Inductor	L67,L68,L70,L71,L73,L74	Bellcore Issue 6	Level I		0.002246	6.00	.1067	0.013473	445323162.91
105A512033	Resistor	R463	Bellcore Issue 6	Level I		0.002246	1.00	.0178	0.002246	445323162.91
105A504733	Resistor	R471,R475,R531,R574,R575-R577	Bellcore Issue 6	Level I		0.002246	7.00	.1245	0.015719	445323162.91
105A516513	Resistor	R534	Bellcore Issue 6	Level I		0.002246	1.00	.0178	0.002246	445323162.91
14S4823500	Integrated Circuit	U6	Bellcore Issue 6	Level I	18.80	0.108273	1.00	.8577	0.108273	9235902.50
1651203291	Connection	U20	Bellcore Issue 6	Level I		0.017737	1.00	.1405	0.017737	56380148.42
14S3031100	Integrated Circuit	U9	Bellcore Issue 6	Level I	16.80	0.097479	1.00	.7722	0.097479	10258668.85
14S1488000	Integrated Circuit	U14	Bellcore Issue 6	Level I	6.00	0.088128	1.00	.6981	0.088128	11347170.86
14S6334610	Integrated Circuit	U16,U17,U48	Bellcore Issue 6	Level I		0.029497	3.00	.7010	0.088492	33901490.55
14S4021310	Integrated Circuit	U28,U29,U30,U31	Bellcore Issue 6	Level I		0.057230	4.00	1.8134	0.228921	17473277.64
14S4021310	Integrated Circuit	U22	Bellcore Issue 6	Level I	2.20	0.067180	1.00	.5322	0.067180	14885298.78
14S4021310	Integrated Circuit	U23	Bellcore Issue 6	Level I	6.90	0.093885	1.00	.7437	0.093885	10651286.54
14S5A01400	Integrated Circuit	U25	Bellcore Issue 6	Level I		0.057230	1.00	.4533	0.057230	17473277.64
14S3020100	Integrated Circuit	U37	Bellcore Issue 6	Level I		0.057230	1.00	.4533	0.057230	17473277.64
14S5A00700	Integrated Circuit	U39	Bellcore Issue 6	Level I	6.90	0.054761	1.00	.4338	0.054761	18261129.55
14S2652000	Integrated Circuit	U44	Bellcore Issue 6	Level I		0.057230	1.00	.4533	0.057230	17473277.64
14S5A05300	Integrated Circuit	U49	Bellcore Issue 6	Level I		0.038156	1.00	.3022	0.038156	26208416.20
1231325050	Miscellaneous	Y5,Y6	Bellcore Issue 6	Level I		0.150000	2.00	2.3764	0.300000	6666666.67
105A701039	Resistor	R1,R131,R162-R164,R171,R314,R-326,R350,R399,R400,R405	Bellcore Issue 6	Level I		0.002246	12.00	.2135	0.026947	445323162.91
105A701039	Resistor	R406,R408,R410,R414,R417,R419-R457-R459,R466,R467	Bellcore Issue 6	Level I		0.002246	11.00	.1957	0.024701	445323162.91
105A701039	Resistor	R470,R482,R490,R491,R493,R501-R526,R532,R538,R548,R300,R303-R559	Bellcore Issue 6	Level I		0.002246	13.00	.2312	0.029192	445323162.91

### AAEON Reliability Prediction Report

**Part Number** 969768000G  
**Reference Des**  
**Date** 08. 15, 2005  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temperature** 24.50

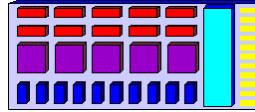


**Description** Top-level assembly  
**File Name** MPC-6800-A03-650MHZ.R-  
**Time** 3:28 下午  
**Failure Rate** 12.623930  
**MTBF** 79,215

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
105A701039	Resistor	R553,R557,R558,R602,R603,R609-R349	Bellcore Issue 6	Level I		0.002246	7.00	.1245	0.015719	445323162.91
1124405090	Capacitor	C239,C240,C579,C580	Bellcore Issue 6	Level I		0.001057	4.00	.0335	0.004227	946289191.99
1124527180	Capacitor	C292,C293,C444,C449,C459	Bellcore Issue 6	Level I		0.001057	5.00	.0419	0.005284	946289191.99
1121733780	Capacitor	C320,C322	Bellcore Issue 6	Level I		0.002531	2.00	.0401	0.005061	395143208.91
1124447080	Capacitor	C512-C521	Bellcore Issue 6	Level I		0.001057	10.00	.0837	0.010568	946289191.99
1124522880	Capacitor	C541,C552	Bellcore Issue 6	Level I		0.001057	2.00	.0167	0.002114	946289191.99
1189633080	Capacitor	C625	Bellcore Issue 6	Level I	10.30	0.005941	1.00	.0471	0.005941	168328814.46
1189633080	Capacitor	C622,C623,C624	Bellcore Issue 6	Level I		0.004885	3.00	.1161	0.014654	204722006.59
1189633080	Capacitor	C22	Bellcore Issue 6	Level I	12.90	0.006229	1.00	.0493	0.006229	160543370.31
105A702209	Resistor	R103,R104,R109,R110,R117,R118-R121,R122,R125,R126	Bellcore Issue 6	Level I		0.002246	10.00	.1779	0.022456	445323162.91
105A702209	Resistor	R149,R150,R152,R228-R233,R236-R250,R341,R370,R42,R53	Bellcore Issue 6	Level I		0.002246	27.00	.4803	0.060630	445323162.91
105A702209	Resistor	R55,R79,R81,R85,R88,R94,R96	Bellcore Issue 6	Level I		0.002246	7.00	.1245	0.015719	445323162.91
105A531613	Resistor	R211,R66	Bellcore Issue 6	Level I		0.002246	2.00	.0356	0.004491	445323162.91
105A716003	Resistor	R73	Bellcore Issue 6	Level I		0.002246	1.00	.0178	0.002246	445323162.91
105A551113	Resistor	R133	Bellcore Issue 6	Level I		0.002246	1.00	.0178	0.002246	445323162.91
105A536503	Resistor	R148,R155,R198	Bellcore Issue 6	Level I		0.002246	3.00	.0534	0.006737	445323162.91
105A711043	Resistor	R170,R190	Bellcore Issue 6	Level I		0.013473	2.00	.2135	0.026947	74220527.15
105A530003	Resistor	R221	Bellcore Issue 6	Level I		0.002246	1.00	.0178	0.002246	445323162.91
105A747033	Resistor	R266,R268,R270	Bellcore Issue 6	Level I		0.002246	3.00	.0534	0.006737	445323162.91
105A710039	Resistor	R277,R279,R280,R282,R283,R286-R601	Bellcore Issue 6	Level I		0.002246	7.00	.1245	0.015719	445323162.91
1653007204	Connection	CN6	Bellcore Issue 6	Level I		0.007760	1.00	.0615	0.007760	128868910.68
1174510180	Capacitor	CP1,CP10-CP17,CP2-CP9	Bellcore Issue 6	Level I		0.001057	17.00	.1423	0.017965	946289191.99
1129701690	Capacitor	C1,C100-C129,C13,C130-C136,C14-C140-C157,C15,C16,C164	Bellcore Issue 6	Level I		0.002531	61.00	1.2229	0.154374	395143208.91
1129701690	Capacitor	C165-C168,C17,C171,C173,C174,-C178-C182,C18,C19,C192	Bellcore Issue 6	Level I		0.002531	16.00	.3208	0.040492	395143208.91
1129701690	Capacitor	C194,C196-C199,C2,C200,C204,C-209,C21,C210-C213,C216	Bellcore Issue 6	Level I		0.002531	15.00	.3007	0.037961	395143208.91
1129701690	Capacitor	C218,C219,C221,C222,C229-C233-C242,C251,C252,C255,C256	Bellcore Issue 6	Level I		0.002531	14.00	.2807	0.035430	395143208.91
1129701690	Capacitor	C260,C261,C263,C264,C269,C27,-C272-C274,C276,C278,C28	Bellcore Issue 6	Level I		0.002531	12.00	.2406	0.030369	395143208.91

### AAEON Reliability Prediction Report

**Part Number** 969768000G  
**Reference Des**  
**Date** 08. 15, 2005  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temperature** 24.50

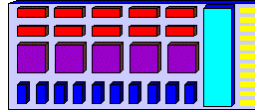


**Description** Top-level assembly  
**File Name** MPC-6800-A03-650MHZ.R-  
**Time** 3:28 下午  
**Failure Rate** 12.623930  
**MTBF** 79,215

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1129701690	Capacitor	C280,C289,C29,C291,C295,C3,C30-C300,C31,C324,C344,C345	Bellcore Issue 6	Level I		0.002531	12.00	.2406	0.030369	395143208.91
1129701690	Capacitor	C346,C347,C354,C357-C362,C366-C369,C373-C383,C385-C389	Bellcore Issue 6	Level I		0.002531	29.00	.5814	0.073391	395143208.91
1129701690	Capacitor	C391-C402,C4,C405-C415,C417-C429,C43,C430-C439,C44	Bellcore Issue 6	Level I		0.002531	49.00	.9823	0.124006	395143208.91
1129701690	Capacitor	C440-C442,C446,C45,C453,C455,-C456,C46,C461-C463,C466	Bellcore Issue 6	Level I		0.002531	13.00	.2606	0.032899	395143208.91
1129701690	Capacitor	C467,C47,C470-C472,C474,C475,-C477-C481,C48,C5,C507	Bellcore Issue 6	Level I		0.002531	15.00	.3007	0.037961	395143208.91
1129701690	Capacitor	C508-C511,C52,C522,C523,C528-C536,C538,C556-C566,C571	Bellcore Issue 6	Level I		0.002531	29.00	.5814	0.073391	395143208.91
1129701690	Capacitor	C574,C577,C578,C582,C583,C6,C60-C63,C630,C631,C634	Bellcore Issue 6	Level I		0.002531	13.00	.2606	0.032899	395143208.91
1129701690	Capacitor	C638,C67-C76,C7,C8,C91-C99	Bellcore Issue 6	Level I		0.002531	22.00	.4410	0.055676	395143208.91
1129701080	Capacitor	C183-C185,C201-C203,C205,C214-C215,C217,C26	Bellcore Issue 6	Level I		0.002713	11.00	.2364	0.029848	368539619.74
1129701080	Capacitor	C267,C288,C290,C296,C298,C299-C305,C306,C313,C315,C316	Bellcore Issue 6	Level I		0.002713	12.00	.2579	0.032561	368539619.74
1129701080	Capacitor	C325,C327,C328,C331,C335,C337-C36,C40,C416,C49-C51	Bellcore Issue 6	Level I		0.002713	12.00	.2579	0.032561	368539619.74
1129701080	Capacitor	C539,C543,C544,C554,C77-C86,C88,C90,C667	Bellcore Issue 6	Level I		0.002713	17.00	.3654	0.046128	368539619.74
1122747880	Capacitor	C223,C225,C297	Bellcore Issue 6	Level I		0.002713	3.00	.0645	0.008140	368539619.74
105A506823	Resistor	R460,R464	Bellcore Issue 6	Level I		0.002246	2.00	.0356	0.004491	445323162.91
105A503033	Resistor	R461	Bellcore Issue 6	Level I		0.002246	1.00	.0178	0.002246	445323162.91
105A523233	Resistor	R462,R637	Bellcore Issue 6	Level I		0.002246	2.00	.0356	0.004491	445323162.91
105A505633	Resistor	R468,R469,R597	Bellcore Issue 6	Level I		0.002246	3.00	.0534	0.006737	445323162.91
105A700303	Resistor	R533,R535	Bellcore Issue 6	Level I		0.002246	2.00	.0356	0.004491	445323162.91
14S4862300	Integrated Circuit	U4	Bellcore Issue 6	Level I	20.00	0.115242	1.00	.9129	0.115242	8677370.57
14S5A00401	Integrated Circuit	U5,U50	Bellcore Issue 6	Level I		0.038156	2.00	.6045	0.076311	26208416.20
1213103018	Inductor	NL1,NL10-NL12,NL2-NL9	Bellcore Issue 6	Level I		0.002246	12.00	.2135	0.026947	445323162.91
14S6204002	Integrated Circuit	U20	Bellcore Issue 6	Level I		0.153299	1.00	1.2144	0.153299	6523204.30
14S4025600	Integrated Circuit	U11	Bellcore Issue 6	Level I	19.70	0.222137	1.00	1.7596	0.222137	4501735.53
14S4810000	Integrated Circuit	U15	Bellcore Issue 6	Level I	7.10	0.057437	1.00	.4550	0.057437	17410239.51
14S3128420	Integrated Circuit	U21	Bellcore Issue 6	Level I	5.30	0.083873	1.00	.6644	0.083873	11922798.88
14S4048501	Integrated Circuit	U26	Bellcore Issue 6	Level I	6.20	0.089379	1.00	.7080	0.089379	11188338.46

**AAEON Reliability Prediction Report**

**Part Number** 969768000G  
**Reference Des**  
**Date** 08. 15, 2005  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temperature** 24.50



**Description** Top-level assembly  
**File Name** MPC-6800-A03-650MHZ.R-  
**Time** 3:28 下午  
**Failure Rate** 12.623930  
**MTBF** 79,215

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
14S4048501	Integrated Circuit	U24	Bellcore Issue 6	Level I	5.80	0.086893	1.00	.6883	0.086893	11508472.05
105A518223	Resistor	R599	Bellcore Issue 6	Level I		0.002246	1.00	.0178	0.002246	445323162.91
1315699010	Semiconductor	U34,U35	Bellcore Issue 6	Level I		0.156931	2.00	2.4863	0.313863	6372213.96
14S5900600	Integrated Circuit	U38	Bellcore Issue 6	Level I	13.60	0.124973	1.00	.9900	0.124973	8001730.74
14S4070610	Integrated Circuit	U42	Bellcore Issue 6	Level I		0.057230	1.00	.4533	0.057230	17473277.64
14S5812500	Integrated Circuit	U43	Bellcore Issue 6	Level I	7.90	0.057809	1.00	.4579	0.057809	17298491.15
14S2303700	Integrated Circuit	U45	Bellcore Issue 6	Level I	9.20	0.110181	1.00	.8728	0.110181	9075991.56
14S4050100	Integrated Circuit	U47	Bellcore Issue 6	Level I		0.038156	1.00	.3022	0.038156	26208416.20
1231332721	Miscellaneous	Y1	Bellcore Issue 6	Level I		0.150000	1.00	1.1882	0.150000	6666666.67
1231314350	Miscellaneous	Y2,Y7	Bellcore Issue 6	Level I		0.150000	2.00	2.3764	0.300000	6666666.67
14S4813000	Integrated Circuit	U12	Bellcore Issue 6	Level I		0.038156	1.00	.3022	0.038156	26208416.20
1540775080	Resistor	RN79	Bellcore Issue 6	Level I		0.006105	1.00	.0484	0.006105	163811358.98
106B501031	Resistor	RT2-RT3	Bellcore Issue 6	Level I		0.011085	2.00	.1756	0.022171	90208237.48
105A500139	Resistor	R178,R181,R184,R186,R193,R207-R213,R22,R23,R26	Bellcore Issue 6	Level I		0.002246	10.00	.1779	0.022456	445323162.91
105A500139	Resistor	R27,R28,R321,R324,R331,R476,R483,R488,R494,R503,R504	Bellcore Issue 6	Level I		0.002246	11.00	.1957	0.024701	445323162.91
105A500139	Resistor	R506,R511,R512,R515,R523,R530-R536,R546,R547,R629	Bellcore Issue 6	Level I		0.002246	10.00	.1779	0.022456	445323162.91
105A510053	Resistor	R549	Bellcore Issue 6	Level I		0.013473	1.00	.1067	0.013473	74220527.15
105A701523	Resistor	R289,R595,R7	Bellcore Issue 6	Level I		0.002246	3.00	.0534	0.006737	445323162.91
105A722003	Resistor	R10,R15	Bellcore Issue 6	Level I		0.002246	2.00	.0356	0.004491	445323162.91
105A549903	Resistor	R13	Bellcore Issue 6	Level I		0.002246	1.00	.0178	0.002246	445323162.91
105A700009	Resistor	C348,C351,C370,C371,R169,R19,-R20,R295,R296,R332,R336	Bellcore Issue 6	Level I		0.002246	11.00	.1957	0.024701	445323162.91
105A700009	Resistor	R338,R361,R364,R366,R369,R377-R379,R416,R428,R429	Bellcore Issue 6	Level I		0.002246	10.00	.1779	0.022456	445323162.91
105A700009	Resistor	R431,R432,R54,R554,R555,R560,-R578,R579,R380,R633	Bellcore Issue 6	Level I		0.002246	10.00	.1779	0.022456	445323162.91
105A703309	Resistor	R100-R102,R105-R108,R111-R116-R119,R120,R123,R124	Bellcore Issue 6	Level I		0.002246	17.00	.3024	0.038175	445323162.91
105A703309	Resistor	R127,R128,R214,R224,R261,R275-R276,R293,R294,R32,R477	Bellcore Issue 6	Level I		0.002246	11.00	.1957	0.024701	445323162.91
105A703309	Resistor	R489,R499,R500,R592,R75-R78,R80,R82-R84,R86	Bellcore Issue 6	Level I		0.002246	13.00	.2312	0.029192	445323162.91
105A703309	Resistor	R87,R89-R93,R95,R97-R99	Bellcore Issue 6	Level I		0.002246	10.00	.1779	0.022456	445323162.91



