

# **AEC-6810**

## **Reliability Prediction Report**

### **(MTBF)**

Report NO : 05P070013

**11-15-2005**

Issue Date

**Wenyuan Yang**

Manager

**Liping Hsieh**

Test Engineer

## Reliability Prediction (MTBF)

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**I . Model Name:** AEC-6810

**II . Prediction Date:** Nov.15, 2005

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

**IV . Predicted by:** Liping Hsieh

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

**VI. Simulation Environment:**

- Temperature: 25 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.

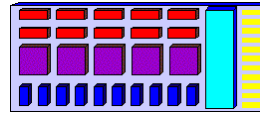
**VIII. Prediction Result:**

Failure Rate: 16.438851 ppm

MTBF: 60,832 Hours

### AAEON Reliability Prediction Report

**Part Number** System  
**Reference Des**  
**Date** 11. 16, 2005  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temperature** 25.00

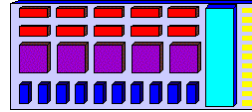


**Description** Embedded control PC  
**File Name** AEC-6810-A1-25degree.R-  
**Time** 9:50 上午  
**Failure Rate** 16.438851  
**MTBF** 60,832

Assembly Name	Part Number	Model	Method	Environment	Duty Cycle	Qty	Failure Rate	MTBF
AEC-6810-A1	System	Bellcore	Method I Case 3	GF, GU - Ground Fixed,	100.00	1.00	16.438851	60,832
9697Y20802		Bellcore	Method I Case 3	GF, GU - Ground Fixed,		1.00	3.669472	272,519
9697Y20803		Bellcore	Method I Case 3	GF, GU - Ground Fixed,		1.00	1.701892	587,581
9697E10202		Bellcore	Method I Case 3	GF, GU - Ground Fixed,		1.00	0.477174	2,095,673
9697E10203		Bellcore	Method I Case 3	GF, GU - Ground Fixed,		1.00	0.314942	3,175,191
969763102C		Bellcore	Method I Case 3	GF, GU - Ground Fixed,		1.00	12.292205	81,352

### AAEON Reliability Prediction Report

**Part Number**  
**Reference Des**  
**Date** 11. 16, 2005  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temperature** 25.00



**Description**  
**File Name** AEC-6810-A1-25degree.R-  
**Time** 9:50 上午  
**Failure Rate** 3.669472  
**MTBF** 272,519

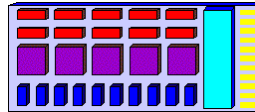
Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1653005221	Connection	CN1,CN3	Bellcore Issue 6	Level I		0.142243	2.00	14.4586	0.284485	7030242.17
1653003220	Connection	JP1-JP3	Bellcore Issue 6	Level I		0.085346	3.00	13.0128	0.256037	11717070.28
1653003201	Connection	JP4-JP6	Bellcore Issue 6	Level I		0.085346	3.00	13.0128	0.256037	11717070.28
1654609300	Connection	CN2	Bellcore Issue 6	Level I		0.128018	1.00	6.5064	0.128018	7811380.18
1653022205	Connection	CN4	Bellcore Issue 6	Level I		0.625867	1.00	31.8090	0.625867	1597782.31
1654409103	Connection	COM1,COM2	Bellcore Issue 6	Level I		0.128018	2.00	13.0128	0.256037	7811380.18
1654604300	Connection	J1	Bellcore Issue 6	Level I		0.056897	1.00	2.8917	0.056897	17575605.41
1652902200	Connection	J2	Bellcore Issue 6	Level I		0.028449	1.00	1.4459	0.028449	35151210.83
1601123600	Connection	SW1	Bellcore Issue 6	Level I		0.056897	1.00	2.8917	0.056897	17575605.41
1654808300	Connection	USB1,USB2	Bellcore Issue 6	Level I		0.004552	2.00	.4627	0.009104	219695067.68
1304100053	Semiconductor	LED2	Bellcore Issue 6	Level I		0.004877	1.00	.2478	0.004877	205063180.81
1304100052	Semiconductor	LED1	Bellcore Issue 6	Level I		0.004877	1.00	.2478	0.004877	205063180.81







**AAEON Reliability Prediction Report**



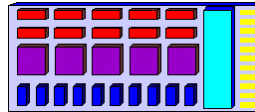
**Part Number**  
**Reference Des**  
**Date** 11. 16, 2005  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temperature** 25.00

**Description**  
**File Name** AEC-6810-A1-25degree.R-  
**Time** 9:50 上午  
**Failure Rate** 12.292205  
**MTBF** 81,352

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1653003100	Connection	JP5	Bellcore Issue 6	Level I		0.042673	1.00	.3472	0.042673	23434140.55
1653130424	Connection	PCI1	Bellcore Issue 6	Level I		0.068276	1.00	.5554	0.068276	14646337.85
1759100008	Miscellaneous	BUZZ1	Bellcore Issue 6	Level I		0.150000	1.00	1.2203	0.150000	6666666.67
1653003101	Connection	JP1,JP4,JP6	Bellcore Issue 6	Level I		0.042673	3.00	1.0415	0.128018	23434140.55
1654409103	Connection	CN18	Bellcore Issue 6	Level I		0.128018	1.00	1.0415	0.128018	7811380.18
1654606301	Connection	CN20	Bellcore Issue 6	Level I		0.085346	1.00	.6943	0.085346	11717070.28
1654515302	Connection	CN21	Bellcore Issue 6	Level I		0.213364	1.00	1.7358	0.213364	4686828.11
1653005101	Connection	CN23	Bellcore Issue 6	Level I		0.002845	1.00	.0231	0.002845	351512108.28
1653002101	Connection	JP7	Bellcore Issue 6	Level I		0.028449	1.00	.2314	0.028449	35151210.83
1750119014	Miscellaneous	BAT1	Bellcore Issue 6	Level I		0.900000	1.00	7.3217	0.900000	1111111.11
1653005201	Connection	CN16,CN17,CN7	Bellcore Issue 6	Level I		0.142243	3.00	3.4715	0.426728	7030242.17
1653005100	Connection	CN19	Bellcore Issue 6	Level I		0.071121	1.00	.5786	0.071121	14060484.33
1653900034	Connection	CN22	Bellcore Issue 6	Level I		0.001138	1.00	.0093	0.001138	878780270.71
1656304022	Connection	CN15	Bellcore Issue 6	Level I		0.056897	1.00	.4629	0.056897	17575605.41
1655003023	Connection	CN3	Bellcore Issue 6	Level I		0.042673	1.00	.3472	0.042673	23434140.55
1655306020	Connection	CN26	Bellcore Issue 6	Level I		0.085346	1.00	.6943	0.085346	11717070.28
1653003201	Connection	JP3	Bellcore Issue 6	Level I		0.085346	1.00	.6943	0.085346	11717070.28
1653004302	Connection	JP2	Bellcore Issue 6	Level I		0.170691	1.00	1.3886	0.170691	5858535.14
1652512206	Connection	CN14	Bellcore Issue 6	Level I		0.006828	1.00	.0555	0.006828	146463378.45
15407103A0	Resistor	RP1	Bellcore Issue 6	Level I		0.007807	1.00	.0635	0.007807	128082217.60
15407560A0	Resistor	RP10-RP17,RP2,RP5-RP9	Bellcore Issue 6	Level I		0.007807	14.00	.8892	0.109305	128082217.60
105A505103	Resistor	L52,R185,R186,R203,R204	Bellcore Issue 6	Level I		0.002268	5.00	.0922	0.011339	440974090.03
105A502233	Resistor	R197,R198	Bellcore Issue 6	Level I		0.002268	2.00	.0369	0.004535	440974090.03
1540715380	Resistor	RN1,RN2	Bellcore Issue 6	Level I		0.006246	2.00	.1016	0.012492	160102772.00
1540727080	Resistor	RN3,RN4	Bellcore Issue 6	Level I		0.006246	1.00	.0508	0.006246	160102772.00
1540747282	Resistor	RN11,RN12	Bellcore Issue 6	Level I		0.006246	2.00	.1016	0.012492	160102772.00
15407472A0	Resistor	RP18-RP20,RP23-RP29	Bellcore Issue 6	Level I		0.007807	10.00	.6352	0.078075	128082217.60
106B501031	Resistor	RT1	Bellcore Issue 6	Level I		0.011379	1.00	.0926	0.011379	87878027.07
105A700133	Resistor	R1,R126,R127,R146,R147,R17,R18-R199,R2,R23,R38,R252,R271,R36-R40	Bellcore Issue 6	Level I		0.002268	15.00	.2767	0.034016	440974090.03
105A700133	Resistor	R66,R68,R9	Bellcore Issue 6	Level I		0.002268	3.00	.0553	0.006803	440974090.03



**AAEON Reliability Prediction Report**

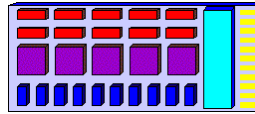


**Part Number**  
**Reference Des**  
**Date** 11. 16, 2005  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temperature** 25.00

**Description**  
**File Name** AEC-6810-A1-25degree.R-  
**Time** 9:50 上午  
**Failure Rate** 12.292205  
**MTBF** 81,352

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
105A501003	Resistor	R20,R21,R215,R222	Bellcore Issue 6	Level I		0.002268	4.00	.0738	0.009071	440974090.03
105A704723	Resistor	R109,R123,R124,R138,R139,R143-R145,R149,R150,R163,R176,R179-R180	Bellcore Issue 6	Level I		0.002268	14.00	.2583	0.031748	440974090.03
105A704723	Resistor	R181-R184,R187-R190,R200,R226-R227,R229,R233,R235,R248-R251-R274	Bellcore Issue 6	Level I		0.002268	19.00	.3505	0.043086	440974090.03
105A704723	Resistor	R275-R277,R28,R30,R32,R33,R42-R48,R49,R70,R95,R97,R98	Bellcore Issue 6	Level I		0.002268	14.00	.2583	0.031748	440974090.03
105A704733	Resistor	R191,R212,R254,R258,R261,R263-R266,R61	Bellcore Issue 6	Level I		0.002268	8.00	.1476	0.018142	440974090.03
105A547003	Resistor	R232,R63	Bellcore Issue 6	Level I		0.002268	2.00	.0369	0.004535	440974090.03
105A548713	Resistor	R73	Bellcore Issue 6	Level I		0.002268	1.00	.0184	0.002268	440974090.03
105A700233	Resistor	R79	Bellcore Issue 6	Level I		0.002268	1.00	.0184	0.002268	440974090.03
105A733003	Resistor	R136,R137,R195,R196,R84	Bellcore Issue 6	Level I		0.002268	5.00	.0922	0.011339	440974090.03
105A501823	Resistor	R103,R104,R241	Bellcore Issue 6	Level I		0.002268	3.00	.0553	0.006803	440974090.03
105A705603	Resistor	R107	Bellcore Issue 6	Level I		0.002268	1.00	.0184	0.002268	440974090.03
105A514003	Resistor	R129	Bellcore Issue 6	Level I		0.002268	1.00	.0184	0.002268	440974090.03
105A502833	Resistor	R135	Bellcore Issue 6	Level I		0.002268	1.00	.0184	0.002268	440974090.03
105A501033	Resistor	R140,R142,R161,R213,R221	Bellcore Issue 6	Level I		0.002268	5.00	.0922	0.011339	440974090.03
105A756033	Resistor	R152,R155,R156,R158	Bellcore Issue 6	Level I		0.002268	4.00	.0738	0.009071	440974090.03
105A501633	Resistor	R160	Bellcore Issue 6	Level I		0.002268	1.00	.0184	0.002268	440974090.03
105A549963	Resistor	R210	Bellcore Issue 6	Level I		0.002268	1.00	.0184	0.002268	440974090.03
105A500133	Resistor	R211,R220	Bellcore Issue 6	Level I		0.002268	2.00	.0369	0.004535	440974090.03
105A702263	Resistor	R214,R218	Bellcore Issue 6	Level I		0.002268	2.00	.0369	0.004535	440974090.03
105A512103	Resistor	R217,R223,R224	Bellcore Issue 6	Level I		0.002268	3.00	.0553	0.006803	440974090.03
105A511503	Resistor	R265	Bellcore Issue 6	Level I		0.002268	1.00	.0184	0.002268	440974090.03
105A518703	Resistor	R267	Bellcore Issue 6	Level I		0.002268	1.00	.0184	0.002268	440974090.03
105A501523	Resistor	R270	Bellcore Issue 6	Level I		0.002268	1.00	.0184	0.002268	440974090.03
14S3020200	Integrated Circuit	U3	Bellcore Issue 6	Level I	25.40	0.155556	1.00	1.2655	0.155556	6428565.73
1651203291	Connection	U4	Bellcore Issue 6	Level I		0.018207	1.00	.1481	0.018207	54923766.92
14S5A01400	Integrated Circuit	U17,U6	Bellcore Issue 6	Level I		0.059366	2.00	.9659	0.118732	16844654.92
14S5824500	Integrated Circuit	U22,U7	Bellcore Issue 6	Level I		0.038318	2.00	.6235	0.076636	26097332.06
14S4070610	Integrated Circuit	U10	Bellcore Issue 6	Level I		0.059366	1.00	.4830	0.059366	16844654.92

**AAEON Reliability Prediction Report**

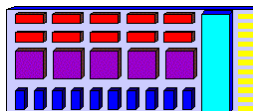


**Part Number**  
**Reference Des**  
**Date** 11. 16, 2005  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temperature** 25.00

**Description**  
**File Name** AEC-6810-A1-25degree.R-  
**Time** 9:50 上午  
**Failure Rate** 12.292205  
**MTBF** 81,352

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
14S4860600	Integrated Circuit	U12	Bellcore Issue 6	Level I	20.90	0.123868	1.00	1.0077	0.123868	8073083.13
14S3161200	Integrated Circuit	U14	Bellcore Issue 6	Level I	20.00	0.233882	1.00	1.9027	0.233882	4275661.99
14S4048501	Integrated Circuit	U15,U16	Bellcore Issue 6	Level I		0.059366	2.00	.9659	0.118732	16844654.92
14S4021310	Integrated Circuit	U19,U25,U31,U32	Bellcore Issue 6	Level I		0.059366	4.00	1.9318	0.237464	16844654.92
14S2652000	Integrated Circuit	U27	Bellcore Issue 6	Level I	31.00	0.463063	1.00	3.7671	0.463063	2159533.43
14S3115000	Integrated Circuit	U28	Bellcore Issue 6	Level I		0.059366	1.00	.4830	0.059366	16844654.92
1231314350	Miscellaneous	Y1,Y5	Bellcore Issue 6	Level I		0.150000	2.00	2.4406	0.300000	6666666.67
1231332721	Miscellaneous	Y2	Bellcore Issue 6	Level I		0.150000	1.00	1.2203	0.150000	6666666.67
1231324551	Miscellaneous	Y4	Bellcore Issue 6	Level I		0.150000	1.00	1.2203	0.150000	6666666.67
1149647050	Capacitor	C64	Bellcore Issue 6	Level I		0.004933	1.00	.0401	0.004933	202722669.92
1189622185	Capacitor	C104	Bellcore Issue 6	Level I	30.60	0.001358	1.00	.0110	0.001358	736611790.63
1189622185	Capacitor	C215	Bellcore Issue 6	Level I	28.30	0.001308	1.00	.0106	0.001308	764627167.13
1189622185	Capacitor	C93	Bellcore Issue 6	Level I	29.40	0.001331	1.00	.0108	0.001331	751048829.90
1141610050	Capacitor	TC1	Bellcore Issue 6	Level I		0.002357	1.00	.0192	0.002357	424256814.77
1124582280	Capacitor	C214,C225	Bellcore Issue 6	Level I		0.001060	2.00	.0173	0.002120	943198589.05
1651572990	Connection	DIMM1	Bellcore Issue 6	Level I		0.081932	1.00	.6665	0.081932	12205281.54
1301005443	Semiconductor	D1,D6,D8,D9	Bellcore Issue 6	Level I		0.023881	4.00	.7771	0.095524	41874327.58
1304100540	Semiconductor	D3,LED1	Bellcore Issue 6	Level I		0.004877	2.00	.0793	0.009753	205063180.81
1300581740	Semiconductor	D12	Bellcore Issue 6	Level I	30.50	0.052892	1.00	.4303	0.052892	18906320.54
1300581740	Semiconductor	D13	Bellcore Issue 6	Level I		0.023881	1.00	.1943	0.023881	41874327.58
1212308054	Inductor	FB1,FB2	Bellcore Issue 6	Level I		0.002268	2.00	.0369	0.004535	440974090.03
1315970110	Semiconductor	F1-F4	Bellcore Issue 6	Level I		0.159207	4.00	5.1807	0.636826	6281149.14
1212306032	Inductor	L10,L12-L15,L21,L22,L43-L45,L49-- L51,L59-L64,L7,L8	Bellcore Issue 6	Level I		0.002268	21.00	.3874	0.047622	440974090.03
121230603C	Inductor	L26,L42,L9	Bellcore Issue 6	Level I		0.002268	3.00	.0553	0.006803	440974090.03
105A702223	Resistor	L20,R194	Bellcore Issue 6	Level I		0.002268	2.00	.0369	0.004535	440974090.03
1211102200	Inductor	L25	Bellcore Issue 6	Level I		0.002268	1.00	.0184	0.002268	440974090.03
1211103362	Inductor	L66	Bellcore Issue 6	Level I		0.002459	1.00	.0200	0.002459	406599937.10
1211100102	Inductor	L67	Bellcore Issue 6	Level I		0.002268	1.00	.0184	0.002268	440974090.03
1174547080	Capacitor	NC1,NC10,NC2,NC8,NC9	Bellcore Issue 6	Level I		0.001060	5.00	.0431	0.005301	943198589.05
1174522180	Capacitor	NC11-NC14,NC3,NC4,NC6,NC7	Bellcore Issue 6	Level I		0.001060	8.00	.0690	0.008482	943198589.05

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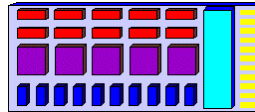


**Part Number**  
**Reference Des**  
**Date** 11. 16, 2005  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temperature** 25.00

**Description**  
**File Name** AEC-6810-A1-25degree.R-  
**Time** 9:50 上午  
**Failure Rate** 12.292205  
**MTBF** 81,352

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1174610280	Capacitor	NC5	Bellcore Issue 6	Level I		0.001060	1.00	.0086	0.001060	943198589.05
1213103008	Inductor	NL1,NL10,NL2-NL9	Bellcore Issue 6	Level I		0.002268	10.00	.1845	0.022677	440974090.03
1213160008	Inductor	NL11-NL14	Bellcore Issue 6	Level I		0.002268	4.00	.0738	0.009071	440974090.03
1310390410	Semiconductor	Q1,Q11,Q13,Q2,Q4,Q5	Bellcore Issue 6	Level I		0.023881	6.00	1.1657	0.143286	41874327.58
1315488010	Semiconductor	Q6	Bellcore Issue 6	Level I	34.10	0.191800	1.00	1.5603	0.191800	5213773.23
1315488010	Semiconductor	Q8	Bellcore Issue 6	Level I	34.50	0.193581	1.00	1.5748	0.193581	5165792.96
1315441011	Semiconductor	Q10	Bellcore Issue 6	Level I	35.50	0.198088	1.00	1.6115	0.198088	5048255.40
1315441011	Semiconductor	Q9	Bellcore Issue 6	Level I	36.20	0.201289	1.00	1.6375	0.201289	4967981.03
1314108412	Integrated Circuit	Q7	Bellcore Issue 6	Level I	34.40	0.566706	1.00	4.6103	0.566706	1764583.54
1315700211	Semiconductor	Q14-Q16,Q19,Q20	Bellcore Issue 6	Level I		0.079603	5.00	3.2380	0.398016	12562298.27
1314101010	Integrated Circuit	Q18	Bellcore Issue 6	Level I		0.059366	1.00	.4830	0.059366	16844654.92
1314043210	Integrated Circuit	Q21	Bellcore Issue 6	Level I		0.059366	1.00	.4830	0.059366	16844654.92
1311119710	Semiconductor	Q22	Bellcore Issue 6	Level I		0.023881	1.00	.1943	0.023881	41874327.58
1121501680	Capacitor	BC1,BC10,BC100,BC101,BC11-BC-80,BC2,BC7,BC8,BC82-BC91,BC9,-BC94-BC99	Bellcore Issue 6	Level I		0.002539	94.00	1.9416	0.238668	393852661.82
1121501680	Capacitor	C125,C128,C131,C133,C159,C172-,C173,C182,C19,C202,C208,C224,-C230	Bellcore Issue 6	Level I		0.002539	13.00	.2685	0.033007	393852661.82
1121501680	Capacitor	C231,C232,C234,C237,C240,C243-,C245,C247,C43,C70	Bellcore Issue 6	Level I		0.002539	10.00	.2066	0.025390	393852661.82
1129701080	Capacitor	BC81,BC92,BC93,C100,C101,C106-,C107,C110-C113,C119-C123,C12,-C129	Bellcore Issue 6	Level I		0.002722	18.00	.3986	0.049001	367335960.60
1129701080	Capacitor	C130,C135,C145-C148,C15,C150,-C167,C168,C175,C177,C179,C194-C196	Bellcore Issue 6	Level I		0.002722	16.00	.3543	0.043557	367335960.60
1129701080	Capacitor	C211,C218,C220,C226,C30,C31,C-33-C35,C4,C57-C59,C74-C77,C91,-C92,C94	Bellcore Issue 6	Level I		0.002722	20.00	.4429	0.054446	367335960.60
1129701080	Capacitor	C95,C98,C99,M1-M8	Bellcore Issue 6	Level I		0.002722	11.00	.2436	0.029945	367335960.60
1212306031	Inductor	B1-B3,L55-L58	Bellcore Issue 6	Level I		0.002268	7.00	.1291	0.015874	440974090.03
1653022202	Connection	CN1	Bellcore Issue 6	Level I		0.025035	1.00	.2037	0.025035	39944557.76
1653004202	Connection	CN2	Bellcore Issue 6	Level I		0.004552	1.00	.0370	0.004552	219695067.68
1654040000	Connection	CN4	Bellcore Issue 6	Level I		0.022759	1.00	.1851	0.022759	43939013.54

**AAEON Reliability Prediction Report**

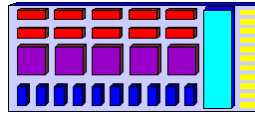


**Part Number**  
**Reference Des**  
**Date** 11. 16, 2005  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temperature** 25.00

**Description**  
**File Name** AEC-6810-A1-25degree.R-  
**Time** 9:50 上午  
**Failure Rate** 12.292205  
**MTBF** 81,352

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1654020000	Connection	CN5	Bellcore Issue 6	Level I		0.011379	1.00	.0926	0.011379	87878027.07
1653009201	Connection	CN8	Bellcore Issue 6	Level I		0.010241	1.00	.0833	0.010241	97642252.30
1653013202	Connection	CN10	Bellcore Issue 6	Level I		0.014793	1.00	.1203	0.014793	67598482.36
1653007204	Connection	CN13	Bellcore Issue 6	Level I		0.007966	1.00	.0648	0.007966	125540038.67
1653925216	Connection	CN22	Bellcore Issue 6	Level I		0.028449	1.00	.2314	0.028449	35151210.83
1129710050	Capacitor	C11,C126,C127,C132,C134,C141,- C144,C149,C164,C166,C169,C176- C191	Bellcore Issue 6	Level I		0.002722	13.00	.2879	0.035390	367335960.60
1129710050	Capacitor	C2,C20,C203,C217,C223,C239,C2- 41,C25,C38-C40,C44,C45,C52,C53- C69	Bellcore Issue 6	Level I		0.002722	16.00	.3543	0.043557	367335960.60
1129710050	Capacitor	C72,C73,C88	Bellcore Issue 6	Level I		0.002722	3.00	.0664	0.008167	367335960.60
1124510280	Capacitor	C13,C136,C16,C161-C163,C165,C- 174,C178,C180,C204-C206,C24	Bellcore Issue 6	Level I		0.001060	14.00	.1208	0.014843	943198589.05
1139710060	Capacitor	C14,C222,C236,C246,C248	Bellcore Issue 6	Level I		0.002722	5.00	.1107	0.013612	367335960.60
1124547180	Capacitor	C183,C185,C187,C197,C199,C201- C212,C26,C37	Bellcore Issue 6	Level I		0.001060	9.00	.0776	0.009542	943198589.05
1189615187	Capacitor	C137	Bellcore Issue 6	Level I	33.00	0.008829	1.00	.0718	0.008829	113257469.90
1189615187	Capacitor	C209	Bellcore Issue 6	Level I	28.00	0.008145	1.00	.0663	0.008145	122767939.41
1189615187	Capacitor	C216	Bellcore Issue 6	Level I	31.50	0.008621	1.00	.0701	0.008621	116000723.65
1189615187	Capacitor	C221	Bellcore Issue 6	Level I	30.30	0.008456	1.00	.0688	0.008456	118261712.33
1124527080	Capacitor	C41,C42	Bellcore Issue 6	Level I		0.001060	2.00	.0173	0.002120	943198589.05
1124447080	Capacitor	C47,C49,C80	Bellcore Issue 6	Level I		0.001060	3.00	.0259	0.003181	943198589.05
1124456080	Capacitor	C54,C55,C60,C61,C62,C65-C67	Bellcore Issue 6	Level I		0.001060	8.00	.0690	0.008482	943198589.05
1129747650	Capacitor	C102,C103,C105,C108,C109,C114- C118,C124,C56,C68,C90,C96,C97	Bellcore Issue 6	Level I		0.002722	13.00	.2879	0.035390	367335960.60
14S5824401	Integrated Circuit	U21	Bellcore Issue 6	Level I		0.038037	1.00	.3094	0.038037	26290417.95
14S2303700	Integrated Circuit	U29	Bellcore Issue 6	Level I		0.059366	1.00	.4830	0.059366	16844654.92
14S4810000	Integrated Circuit	U33	Bellcore Issue 6	Level I		0.039296	1.00	.3197	0.039296	25448028.36
1231325050	Miscellaneous	Y3	Bellcore Issue 6	Level I		0.150000	1.00	1.2203	0.150000	6666666.67
1124501780	Capacitor	C151,C152,C154-C158,C170	Bellcore Issue 6	Level I		0.001060	8.00	.0690	0.008482	943198589.05
1124522880	Capacitor	C213	Bellcore Issue 6	Level I		0.001060	1.00	.0086	0.001060	943198589.05
14S3006000	Integrated Circuit	DN1	Bellcore Issue 6	Level I		0.059366	1.00	.4830	0.059366	16844654.92
1301005442	Semiconductor	D10,D2	Bellcore Issue 6	Level I		0.023881	2.00	.3886	0.047762	41874327.58

**AAEON Reliability Prediction Report**



**Part Number**  
**Reference Des**  
**Date** 11. 16, 2005  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temperature** 25.00

**Description**  
**File Name** AEC-6810-A1-25degree.R-  
**Time** 9:50 上午  
**Failure Rate** 12.292205  
**MTBF** 81,352

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1301005441	Semiconductor	D4,D5,D7	Bellcore Issue 6	Level I		0.023881	3.00	.5828	0.071643	41874327.58
1212306033	Inductor	L1,L11,L17,L18,L2,L23,L24,L27-L41, L3,L4,L46,L48,L5,L6	Bellcore Issue 6	Level I		0.002268	28.00	.5166	0.063496	440974090.03
105A700003	Resistor	L16,L19,L47,L54,R105,R116,R117,- R118,R120-R122,R168,R207,R234- R240	Bellcore Issue 6	Level I		0.002268	15.00	.2767	0.034016	440974090.03
105A700003	Resistor	R246,R253,R255,R257,R259,R262- R264,R3,R69,R75,R78,R83,R88,R- 90,R91	Bellcore Issue 6	Level I		0.002268	15.00	.2767	0.034016	440974090.03
1653017201	Connection	CN6	Bellcore Issue 6	Level I		0.483625	1.00	3.9344	0.483625	2067718.28
1653005202	Connection	CN24,CN25,CN9	Bellcore Issue 6	Level I		0.142243	3.00	3.4715	0.426728	7030242.17
1653010203	Connection	CN11	Bellcore Issue 6	Level I		0.284485	1.00	2.3144	0.284485	3515121.08
1122710080	Capacitor	C1,C116,C142,C143,C171,C207,C- 210,C228,C3,C8,C82-C87	Bellcore Issue 6	Level I		0.001060	16.00	.1380	0.016964	943198589.05
1124412080	Capacitor	C10,C117,C89	Bellcore Issue 6	Level I		0.001060	3.00	.0259	0.003181	943198589.05
1124422080	Capacitor	C189,C190,C21,C22	Bellcore Issue 6	Level I		0.001060	4.00	.0345	0.004241	943198589.05
1121733780	Capacitor	C184,C186,C188,C198,C200,C27	Bellcore Issue 6	Level I		0.002539	6.00	.1239	0.015234	393852661.82
1124527180	Capacitor	C46,C50,C78	Bellcore Issue 6	Level I		0.001060	3.00	.0259	0.003181	943198589.05
1124515180	Capacitor	C48,C51,C81	Bellcore Issue 6	Level I		0.001060	3.00	.0259	0.003181	943198589.05
105A515003	Resistor	R112,R177	Bellcore Issue 6	Level I		0.002268	2.00	.0369	0.004535	440974090.03
105A560423	Resistor	R134	Bellcore Issue 6	Level I		0.002268	1.00	.0184	0.002268	440974090.03
105A553623	Resistor	R141	Bellcore Issue 6	Level I		0.002268	1.00	.0184	0.002268	440974090.03
105A747033	Resistor	R153,R154,R157,R159	Bellcore Issue 6	Level I		0.002268	4.00	.0738	0.009071	440974090.03
105A524363	Resistor	R216	Bellcore Issue 6	Level I		0.002268	1.00	.0184	0.002268	440974090.03
105A516513	Resistor	R219	Bellcore Issue 6	Level I		0.002268	1.00	.0184	0.002268	440974090.03
105A568003	Resistor	R269	Bellcore Issue 6	Level I		0.002268	1.00	.0184	0.002268	440974090.03
14S4162100	Integrated Circuit	U1	Bellcore Issue 6	Level I	24.50	0.148704	1.00	1.2097	0.148704	6724783.89
1189647080	Capacitor	C153,C32	Bellcore Issue 6	Level I		0.004933	2.00	.0803	0.009866	202722669.92
14S3128420	Integrated Circuit	U5	Bellcore Issue 6	Level I		0.059366	1.00	.4830	0.059366	16844654.92
14S5A00701	Integrated Circuit	U9	Bellcore Issue 6	Level I		0.039296	1.00	.3197	0.039296	25448028.36
14S4268601	Integrated Circuit	U11	Bellcore Issue 6	Level I	25.20	0.154010	1.00	1.2529	0.154010	6493102.99
14S6334603	Integrated Circuit	U13	Bellcore Issue 6	Level I		0.030598	1.00	.2489	0.030598	32681842.61
14S5A00401	Integrated Circuit	U18	Bellcore Issue 6	Level I		0.039296	1.00	.3197	0.039296	25448028.36
1540733082	Resistor	RN10,RN5-RN9	Bellcore Issue 6	Level I		0.006246	6.00	.3049	0.037476	160102772.00

