

# EPIC-8526

## Reliability Prediction Report (MTBF)

Report NO : 08E070022

**7-3-2008**

Issue Date

**Wenyuan Yang**

Manager

**Jessica Chou**

Test Engineer

## Reliability Prediction (MTBF)

---

I . **Model Name:** EPIC-8526

II . **Prediction Date:** Jul. 3<sup>rd</sup>, 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: 23.3 degree 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:

- EPIC-8526
  - Failure Rate: 16.767199 ppm
  - MTBF: 59,640 Hours

### AAEON Reliability Prediction Report

**Part Number** 9697852604-DIP  
**Reference Des**  
**Date** 07. 3, 2008  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 23.30

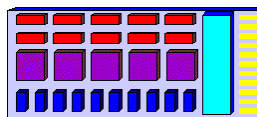


**Description** Top-level assembly  
**File Name** EPIC-8526.RPJ  
**Time** 2:19 下午  
**Failure Rate** 16.767199  
**MTBF** 59,640

Assembly Name	Part Number	Model	Method	Environment	Duty Cycle	Qty	Failure Rate	MTBF
EPIC-8526	9697852604-DIP	Bellcore	Method I Case 3	GF, GU - Ground Fixed,	100.00	1.00	16.767199	59,640

### AAEON Reliability Prediction Report

**Part Number** 9697852604-DIP  
**Reference Des**  
**Date** 07. 3, 2008  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 23.30



**Description** Top-level assembly  
**File Name** EPIC-8526.RPJ  
**Time** 2:19 下午  
**Failure Rate** 16.767199  
**MTBF** 59,640

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1653003101	Connection	JP1,JP17,JP19,JP4	Bellcore Issue 6	Level I		0.001561	4.00	.0372	0.006244	640603962.86
1653003201	Connection	JP14	Bellcore Issue 6	Level I		0.003122	1.00	.0186	0.003122	320301981.43
1653004201	Connection	CN15	Bellcore Issue 6	Level I		0.004163	1.00	.0248	0.004163	240226486.07
1653005201	Connection	CN19	Bellcore Issue 6	Level I		0.005203	1.00	.0310	0.005203	192181188.86
1653120225	Connection	CN3	Bellcore Issue 6	Level I		0.020814	1.00	.1241	0.020814	48045297.21
1653132220	Connection	CN3	Bellcore Issue 6	Level I		0.033302	1.00	.1986	0.033302	30028310.76
1654418100	Connection	CN5	Bellcore Issue 6	Level I		0.004683	1.00	.0279	0.004683	213534654.29
1655303020	Connection	CN18	Bellcore Issue 6	Level I		0.001561	1.00	.0093	0.001561	640603962.86
1655305020	Connection	CN16	Bellcore Issue 6	Level I		0.002602	1.00	.0155	0.002602	384362377.72
1653006101	Connection	CN11	Bellcore Issue 6	Level I		0.003122	1.00	.0186	0.003122	320301981.43
1655003010	Connection	CN14	Bellcore Issue 6	Level I		0.001561	1.00	.0093	0.001561	640603962.86
1655404020	Connection	CN6	Bellcore Issue 6	Level I		0.002081	1.00	.0124	0.002081	480452972.15
1653130424	Connection	CN4	Bellcore Issue 6	Level I		0.062441	1.00	.3724	0.062441	16015099.07
1655902030	Connection	BT1	Bellcore Issue 6	Level I		0.001041	1.00	.0062	0.001041	960905944.29
175011901C	Miscellaneous	BT1	Bellcore Issue 6	Level I		0.900000	1.00	5.3676	0.900000	11111111.11
14S6200404	Integrated Circuit	U30	Bellcore Issue 6	Level I	11.90	0.395462	1.00	2.3585	0.395462	2528688.38
1652522203	Connection	CN7,CN8	Bellcore Issue 6	Level I		0.011448	2.00	.1365	0.022895	87355085.84
175910000B	Miscellaneous	BUZZ1	Bellcore Issue 6	Level I		0.150000	1.00	.8946	0.150000	6666666.67
165320520E	Connection	CN12,CN13,USB1	Bellcore Issue 6	Level I		0.005203	3.00	.0931	0.015610	192181188.86
165322220F	Connection	IDE1	Bellcore Issue 6	Level I		0.022895	1.00	.1365	0.022895	43677542.92
1655306024	Connection	CN10	Bellcore Issue 6	Level I		0.003122	1.00	.0186	0.003122	320301981.43
105A500233	Resistor	R54,R655,R657,R677,R678	Bellcore Issue 6	Level I		0.002193	5.00	.0654	0.010965	455998370.70
105A700003	Resistor	R1,R352,R492,R563,R597,R645,R-649,R652,R653,R699,R71,R74,R75-1,R754,R76,R764,R775,R779,R786-R79	Bellcore Issue 6	Level I		0.002193	20.00	.2616	0.043860	455998370.70
105A701003	Resistor	R452	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
1059700001	Resistor	R496	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
105A710053	Resistor	R303,R304,R8	Bellcore Issue 6	Level I		0.013158	3.00	.2354	0.039474	75999728.45
1059722001	Resistor	R604	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
105A500133	Resistor	R103,R105,R50,R668,R676	Bellcore Issue 6	Level I		0.002193	5.00	.0654	0.010965	455998370.70
105A501223	Resistor	R455	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70

### AAEON Reliability Prediction Report

**Part Number** 9697852604-DIP  
**Reference Des**  
**Date** 07. 3, 2008  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 23.30



**Description** Top-level assembly  
**File Name** EPIC-8526.RPJ  
**Time** 2:19 下午  
**Failure Rate** 16.767199  
**MTBF** 59,640

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
105A501523	Resistor	R110	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
105A501633	Resistor	R198,R199	Bellcore Issue 6	Level I		0.002193	2.00	.0262	0.004386	455998370.70
105A502033	Resistor	R622,R633,R658,R669	Bellcore Issue 6	Level I		0.002193	4.00	.0523	0.008772	455998370.70
105A502423	Resistor	R215	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
105A503033	Resistor	R612	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
105A503333	Resistor	R632	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
105A505623	Resistor	R321,R359	Bellcore Issue 6	Level I		0.002193	2.00	.0262	0.004386	455998370.70
105A510003	Resistor	R84,R88,R89,R92,R96	Bellcore Issue 6	Level I		0.002193	5.00	.0654	0.010965	455998370.70
105A510033	Resistor	R454	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
105A512413	Resistor	R673	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
105A515003	Resistor	R104,R256,R259,R306,R60,R81,R-85,R97	Bellcore Issue 6	Level I		0.002193	8.00	.1046	0.017544	455998370.70
105A560423	Resistor	R624	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
105A700333	Resistor	R456	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
105A704763	Resistor	R497,R620,R627,R629	Bellcore Issue 6	Level I		0.002193	4.00	.0523	0.008772	455998370.70
105A747033	Resistor	R692	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
105A514003	Resistor	R214	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
1231332721	Miscellaneous	Y2	Bellcore Issue 6	Level I		0.150000	1.00	.8946	0.150000	6666666.67
1121733780	Capacitor	C470,C551,C553,C559,C560,C569-C727	Bellcore Issue 6	Level I		0.004386	7.00	.1831	0.030702	227999185.35
1122747880	Capacitor	C269	Bellcore Issue 6	Level I		0.004386	1.00	.0262	0.004386	227999185.35
1124515180	Capacitor	C218,C256,C261	Bellcore Issue 6	Level I		0.004386	3.00	.0785	0.013158	227999185.35
1124522280	Capacitor	C462,C475	Bellcore Issue 6	Level I		0.004386	2.00	.0523	0.008772	227999185.35
1124527180	Capacitor	C249,C257,C262	Bellcore Issue 6	Level I		0.004386	3.00	.0785	0.013158	227999185.35
1124556180	Capacitor	C467	Bellcore Issue 6	Level I		0.004386	1.00	.0262	0.004386	227999185.35
1301005440	Semiconductor	D14-D16,D2,D29,D31,D33,D34,D43-D44,D7-D9	Bellcore Issue 6	Level I		0.022736	13.00	1.7628	0.295566	43983336.00
1174510180	Capacitor	CP1,CP10-CP12,CP2-CP9	Bellcore Issue 6	Level I		0.004386	12.00	.3139	0.052632	227999185.35
1301005441	Semiconductor	D1,D4-D6	Bellcore Issue 6	Level I		0.022736	4.00	.5424	0.090944	43983336.00
1305099140	Semiconductor	D57,D58	Bellcore Issue 6	Level I		0.022736	2.00	.2712	0.045472	43983336.00
1310390410	Semiconductor	Q10,Q29,Q31,Q46,Q64,Q9	Bellcore Issue 6	Level I		0.022736	6.00	.8136	0.136415	43983336.00
1311290710	Semiconductor	Q37	Bellcore Issue 6	Level I		0.022736	1.00	.1356	0.022736	43983336.00

### AAEON Reliability Prediction Report

**Part Number** 9697852604-DIP  
**Reference Des**  
**Date** 07. 3, 2008  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 23.30

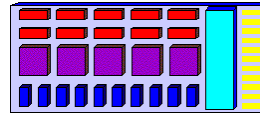


**Description** Top-level assembly  
**File Name** EPIC-8526.RPJ  
**Time** 2:19 下午  
**Failure Rate** 16.767199  
**MTBF** 59,640

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1311390610	Semiconductor	Q52,Q61	Bellcore Issue 6	Level I		0.022736	2.00	.2712	0.045472	43983336.00
1651203291	Connection	U30	Bellcore Issue 6	Level I		0.016651	1.00	.0993	0.016651	60056621.52
14S6334610	Integrated Circuit	U12,U14	Bellcore Issue 6	Level I		0.020977	2.00	.2502	0.041954	47671400.29
14S4048501	Integrated Circuit	U22,U24	Bellcore Issue 6	Level I		0.052386	2.00	.6249	0.104772	19088989.24
1301005442	Semiconductor	D10-D13,D35,D42	Bellcore Issue 6	Level I		0.022736	6.00	.8136	0.136415	43983336.00
1212306033	Inductor	L6-L8	Bellcore Issue 6	Level I		0.002193	3.00	.0392	0.006579	455998370.70
1129610260	Capacitor	C329,C374,C375	Bellcore Issue 6	Level I		0.004386	3.00	.0785	0.013158	227999185.35
1129610260	Capacitor	C330	Bellcore Issue 6	Level I	29.00	0.007404	1.00	.0442	0.007404	135068529.23
14S5A00600	Integrated Circuit	U7	Bellcore Issue 6	Level I	14.30	0.113336	1.00	.6759	0.113336	8823321.44
14S5A01400	Integrated Circuit	U10,U11	Bellcore Issue 6	Level I		0.060307	2.00	.7193	0.120614	16581754.74
14S5A00700	Integrated Circuit	U52	Bellcore Issue 6	Level I		0.060307	1.00	.3597	0.060307	16581754.74
105A560463	Resistor	R101,R98	Bellcore Issue 6	Level I		0.002193	2.00	.0262	0.004386	455998370.70
105A524303	Resistor	R82	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
105A540263	Resistor	R126,R64	Bellcore Issue 6	Level I		0.002193	2.00	.0262	0.004386	455998370.70
105A530103	Resistor	R80,R83	Bellcore Issue 6	Level I		0.002193	2.00	.0262	0.004386	455998370.70
105A527463	Resistor	R53,R61,R65,R91,R93,R95	Bellcore Issue 6	Level I		0.002193	6.00	.0785	0.013158	455998370.70
1059703623	Resistor	R317,R356	Bellcore Issue 6	Level I		0.002193	2.00	.0262	0.004386	455998370.70
1181633080	Capacitor	C636,C653,C666	Bellcore Issue 6	Level I		0.004386	3.00	.0785	0.013158	227999185.35
105A547003	Resistor	R782,R798,R799	Bellcore Issue 6	Level I		0.002193	3.00	.0392	0.006579	455998370.70
14S5812300	Integrated Circuit	U36	Bellcore Issue 6	Level I		0.061983	1.00	.3697	0.061983	16133330.40
1540710084	Resistor	RP10,RP14,RP15,RP2,RP20,RP22- RP25-RP28,RP30,RP31,RP33,RP- 35,RP37,RP39,RP4,RP41,RP43,R- P45,RP8	Bellcore Issue 6	Level I		0.005776	21.00	.7235	0.121303	173120843.90
1540710382	Resistor	RP63-RP77	Bellcore Issue 6	Level I		0.005776	15.00	.5168	0.086645	173120843.90
1540747285	Resistor	RP57	Bellcore Issue 6	Level I		0.005776	1.00	.0345	0.005776	173120843.90
1540733085	Resistor	RP58-RP61	Bellcore Issue 6	Level I		0.005776	4.00	.1378	0.023105	173120843.90
105A700103	Resistor	R134-R139,R141,R142,R315,R494	Bellcore Issue 6	Level I		0.002193	10.00	.1308	0.021930	455998370.70
105A551123	Resistor	R440,R441,R443,R444,R606	Bellcore Issue 6	Level I		0.002193	5.00	.0654	0.010965	455998370.70
105A590963	Resistor	R783	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
105A513003	Resistor	R257,R99	Bellcore Issue 6	Level I		0.002193	2.00	.0262	0.004386	455998370.70
105A506823	Resistor	R488,R611,R613	Bellcore Issue 6	Level I		0.002193	3.00	.0392	0.006579	455998370.70

### AAEON Reliability Prediction Report

**Part Number** 9697852604-DIP  
**Reference Des**  
**Date** 07. 3, 2008  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 23.30



**Description** Top-level assembly  
**File Name** EPIC-8526.RPJ  
**Time** 2:19 下午  
**Failure Rate** 16.767199  
**MTBF** 59,640

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
105A708229	Resistor	R133,R243,R247,R250,R252,R264-R268,R273,R274,R276,R277,R289-R292,R297,R298,R300,R301,R428-R431	Bellcore Issue 6	Level I		0.002193	24.00	.3139	0.052632	455998370.70
105A700139	Resistor	R117,R118,R129,R131,R206,R207-R209,R21,R24,R278,R281,R296,R309,R314,R33,R34,R340,R367,R46-3,R470,R5,R539,R578,R595	Bellcore Issue 6	Level I		0.002193	24.00	.3139	0.052632	455998370.70
105S700139	Resistor	R607,R679-R681,R384-R686,R690-R696,R700,R796,R800	Bellcore Issue 6	Level I		0.002193	12.00	.1569	0.026316	455998370.70
105A704729	Resistor	R228,R229,R279,R283,R284,R332-R341,R362,R368,R403-R405,R415-R420,R421,R423,R433,R51,R516,-R518,R520,R521,R524,R526	Bellcore Issue 6	Level I		0.002193	24.00	.3139	0.052632	455998370.70
105A704729	Resistor	R527,R528,R543,R547,R551,R562-R601,R602,R635,R643,R647,R664-R710,R758,R773,R794,R795	Bellcore Issue 6	Level I		0.002193	17.00	.2223	0.037281	455998370.70
105A700009	Resistor	R212,R213,R218,R237-R241,R244-R246,R248,R249,R251,R258,R260-R331,R333,R335,R338,R339,342,-R344,R348-R350,R361,R364	Bellcore Issue 6	Level I		0.002193	28.00	.3662	0.061404	455998370.70
105A700009	Resistor	R369,R372,R384,R386-R390,R407-R409,R414,R417,R425,R426,R434-R435,R477,R49,R493,R495,R502,-R507,R542,R568,R569,R571	Bellcore Issue 6	Level I		0.002193	27.00	.3531	0.059211	455998370.70
105A700009	Resistor	R572,R575,R576,R588,R665,R666-R682,R687-R689,R693,R694,R702-R703,R708,R749,R750,R752,R753-R770,R781,R791	Bellcore Issue 6	Level I		0.002193	22.00	.2877	0.048246	455998370.70
105A701039	Resistor	R197,R203,R208,R210,R261,R262-R269-R272,R275,R294,R295,R302-R307,R316,R358,R402,R406,R416-R418,R453,R481,R545,R546	Bellcore Issue 6	Level I		0.002193	25.00	.3270	0.054825	455998370.70
105A701039	Resistor	R549,R550,R553-R561,R573,R574-R587,R674,R683,R748,R756,R763-R785	Bellcore Issue 6	Level I		0.002193	20.00	.2616	0.043860	455998370.70
105A703309	Resistor	R432,R474,R498,R499-R501,R605	Bellcore Issue 6	Level I		0.002193	7.00	.0916	0.015351	455998370.70
105A701009	Resistor	R145,R146,R151,R152,R157,R158-R161,R162,R165-R168,R171,R172-R174,R175,R179,R180,R183,R184	Bellcore Issue 6	Level I		0.002193	20.00	.2616	0.043860	455998370.70
105A702239	Resistor	R308,R537,R793	Bellcore Issue 6	Level I		0.002193	3.00	.0392	0.006579	455998370.70





### AAEON Reliability Prediction Report

**Part Number** 9697852604-DIP  
**Reference Des**  
**Date** 07. 3, 2008  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 23.30

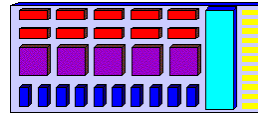


**Description** Top-level assembly  
**File Name** EPIC-8526.RPJ  
**Time** 2:19 下午  
**Failure Rate** 16.767199  
**MTBF** 59,640

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1129701790	Capacitor	C138,C142,C264,C266,C304,C476-,C626,C64,C684,C686,C70,C700,C-76,C78,C81	Bellcore Issue 6	Level I		0.004386	15.00	.3924	0.065790	227999185.35
1129747090	Capacitor	C451,C453-C455	Bellcore Issue 6	Level I		0.004386	4.00	.1046	0.017544	227999185.35
14S5A00401	Integrated Circuit	U21	Bellcore Issue 6	Level I		0.060307	1.00	.3597	0.060307	16581754.74
1129722680	Capacitor	C717,C718	Bellcore Issue 6	Level I		0.004386	2.00	.0523	0.008772	227999185.35
1315030110	Semiconductor	Q11,Q12,Q14,Q16,Q4,Q5	Bellcore Issue 6	Level I		0.075786	6.00	2.7119	0.454718	13195000.80
105A702263	Resistor	R458,R459,R619,R621,R628,R634-,R663,R670-R672	Bellcore Issue 6	Level I		0.002193	10.00	.1308	0.021930	455998370.70
1315970110	Semiconductor	F1	Bellcore Issue 6	Level I		0.037893	1.00	.2260	0.037893	26390001.60
105A560403	Resistor	R100,R102	Bellcore Issue 6	Level I		0.002193	2.00	.0262	0.004386	455998370.70
105A545323	Resistor	R489	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
105A547503	Resistor	R42	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
1121610060	Capacitor	C539,C641,C726	Bellcore Issue 6	Level I		0.004386	3.00	.0785	0.013158	227999185.35
106B501031	Resistor	RT1,RT2	Bellcore Issue 6	Level I		0.002193	2.00	.0262	0.004386	455998370.70
1311119710	Semiconductor	Q21	Bellcore Issue 6	Level I		0.022736	1.00	.1356	0.022736	43983336.00
1124518280	Capacitor	C466	Bellcore Issue 6	Level I		0.004386	1.00	.0262	0.004386	227999185.35
1214309000	Inductor	CH1-CH6	Bellcore Issue 6	Level I		0.083334	6.00	2.9820	0.500002	11999957.12
1301002240	Semiconductor	D30,D32	Bellcore Issue 6	Level I		0.022736	2.00	.2712	0.045472	43983336.00
105A522663	Resistor	R282	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
1304001340	Semiconductor	LED1-LED4	Bellcore Issue 6	Level I		0.004171	4.00	.0995	0.016683	239766612.73
105A710039	Resistor	R115,R116,R119,R120,R122-R124-,R305,R310,R594,R648,R709,R759-,R788,R789	Bellcore Issue 6	Level I		0.002193	15.00	.1962	0.032895	455998370.70
105A507509	Resistor	R190-R192,R194-R196,R211,R230-,R235,R236	Bellcore Issue 6	Level I		0.002193	10.00	.1308	0.021930	455998370.70
105A501539	Resistor	R343,R370	Bellcore Issue 6	Level I		0.002193	2.00	.0262	0.004386	455998370.70
1124405090	Capacitor	C576,C577,C579,C580	Bellcore Issue 6	Level I		0.004386	4.00	.1046	0.017544	227999185.35
1124427090	Capacitor	C13,C212-C215,C221,C222,C245,-C246,C7	Bellcore Issue 6	Level I		0.004386	10.00	.2616	0.043860	227999185.35
1124418090	Capacitor	C272,C273	Bellcore Issue 6	Level I		0.004386	2.00	.0523	0.008772	227999185.35
1124547190	Capacitor	C555,C556,C563,C564,C570,C728	Bellcore Issue 6	Level I		0.004386	6.00	.1569	0.026316	227999185.35
105A549969	Resistor	R11,R13,R16,R3,R322-R325,R376-,R379,R4,R7,R86,R87,R90,R94	Bellcore Issue 6	Level I		0.002193	18.00	.2354	0.039474	455998370.70

### AAEON Reliability Prediction Report

**Part Number** 9697852604-DIP  
**Reference Des**  
**Date** 07. 3, 2008  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 23.30



**Description** Top-level assembly  
**File Name** EPIC-8526.RPJ  
**Time** 2:19 下午  
**Failure Rate** 16.767199  
**MTBF** 59,640

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
105A500139	Resistor	R48,R695	Bellcore Issue 6	Level I		0.002193	2.00	.0262	0.004386	455998370.70
105A501039	Resistor	R132,R143,R144,R216,R217,R319- R357,R460,R47,R598,R599,R608-- R610,R614,R616,R617,R659-R662- R697,R698,R712	Bellcore Issue 6	Level I		0.002193	24.00	.3139	0.052632	455998370.70
121230603H	Inductor	L10-L13,L25,L26,L33,L9	Bellcore Issue 6	Level I		0.002193	8.00	.1046	0.017544	455998370.70
1653925216	Connection	CFD1	Bellcore Issue 6	Level I		0.026017	1.00	.1552	0.026017	38436237.77
1121701080	Capacitor	C297,C409,C410,C461,C468,C478- C523,C533,C640,C656,C670,C671- C712	Bellcore Issue 6	Level I		0.004386	13.00	.3401	0.057018	227999185.35
1124410190	Capacitor	C458	Bellcore Issue 6	Level I		0.004386	1.00	.0262	0.004386	227999185.35
105A705609	Resistor	R147-R150,R153-R156,R159,R160- R163,R164,R169,R170,R173,R176- R178,R181,R182,R242,R55,R66,R- 69,R70	Bellcore Issue 6	Level I		0.002193	25.00	.3270	0.054825	455998370.70
105A503309	Resistor	R10,R12,R14,R15,R17-R20,R2,R22- R23,R25,R27,R29,R31,R32,R35-R- 41,R43-R45,R6,R9	Bellcore Issue 6	Level I		0.002193	28.00	.3662	0.061404	455998370.70
105A521039	Resistor	R623	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
105A510009	Resistor	R464,R467-R469,R471-R473,R475- R476,R637	Bellcore Issue 6	Level I		0.002193	10.00	.1308	0.021930	455998370.70
1540756081	Resistor	RP11-RP13,RP16-RP19,RP21,RP2- 3,RP24,RP29,RP3,RP32,RP34,RP- 36,RP38,RP40,RP42,RP44,RP5-R- P7,RP9	Bellcore Issue 6	Level I		0.011553	23.00	1.5847	0.265710	86560421.95
14S3033800	Semiconductor	U51	Bellcore Issue 6	Level I		0.075786	1.00	.4520	0.075786	13195000.80
1124533190	Capacitor	C250,C614,C615,C621	Bellcore Issue 6	Level I		0.004386	4.00	.1046	0.017544	227999185.35
1301005444	Semiconductor	D26	Bellcore Issue 6	Level I		0.022736	1.00	.1356	0.022736	43983336.00
105A549919	Resistor	R766,R767	Bellcore Issue 6	Level I		0.002193	2.00	.0262	0.004386	455998370.70
1311118810	Semiconductor	Q20	Bellcore Issue 6	Level I		0.022736	1.00	.1356	0.022736	43983336.00
14S4810001	Integrated Circuit	U13	Bellcore Issue 6	Level I	15.10	0.083509	1.00	.4980	0.083509	11974808.32
14S4810001	Integrated Circuit	U15	Bellcore Issue 6	Level I		0.035538	1.00	.2120	0.035538	28138749.59
105A554963	Resistor	R254,R63,R67,R68	Bellcore Issue 6	Level I		0.002193	4.00	.0523	0.008772	455998370.70
1211103366	Inductor	L59	Bellcore Issue 6	Level I	14.40	0.109404	1.00	.6525	0.109404	9140473.87
1211103366	Inductor	L61	Bellcore Issue 6	Level I	12.90	0.106471	1.00	.6350	0.106471	9392227.97
105A548703	Resistor	R253	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70

### AAEON Reliability Prediction Report

**Part Number** 9697852604-DIP  
**Reference Des**  
**Date** 07. 3, 2008  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 23.30



**Description** Top-level assembly  
**File Name** EPIC-8526.RPJ  
**Time** 2:19 下午  
**Failure Rate** 16.767199  
**MTBF** 59,640

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
105A578703	Resistor	R56	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
1121722090	Capacitor	C463,C469,C471	Bellcore Issue 6	Level I		0.004386	3.00	.0785	0.013158	227999185.35
14S4280106	Integrated Circuit	U8	Bellcore Issue 6	Level I	20.60	0.111710	1.00	.6662	0.111710	8951752.22
105A548763	Resistor	R255	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
14S2200900	Integrated Circuit	U5	Bellcore Issue 6	Level I		0.052386	1.00	.3124	0.052386	19088989.24
14S3065500	Integrated Circuit	U31	Bellcore Issue 6	Level I	15.00	0.083060	1.00	.4954	0.083060	12039471.34
14S5A1250	Integrated Circuit	U23	Bellcore Issue 6	Level I		0.060054	1.00	.3582	0.060054	16651705.27
14S5812502	Integrated Circuit	U18	Bellcore Issue 6	Level I		0.034197	1.00	.2040	0.034197	29241919.44
1315231310	Semiconductor	Q18	Bellcore Issue 6	Level I		0.151573	1.00	.9040	0.151573	6597500.40
1315230111	Semiconductor	Q13,Q34	Bellcore Issue 6	Level I		0.075786	2.00	.9040	0.151573	13195000.80
16515A0993	Connection	CN1	Bellcore Issue 6	Level I		0.104068	1.00	.6207	0.104068	9609059.44
1301003440	Semiconductor	D17	Bellcore Issue 6	Level I		0.022736	1.00	.1356	0.022736	43983336.00
1050502204	Resistor	R186-R189	Bellcore Issue 6	Level I		0.002193	4.00	.0523	0.008772	455998370.70
14S4871203	Integrated Circuit	U16	Bellcore Issue 6	Level I	14.80	0.082169	1.00	.4901	0.082169	12169970.69
14S4653700	Integrated Circuit	U48	Bellcore Issue 6	Level I	18.70	0.192530	1.00	1.1483	0.192530	5193998.23
11E9610190	Capacitor	TC4	Bellcore Issue 6	Level I		0.004386	1.00	.0262	0.004386	227999185.35
105A507533	Resistor	R490	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
105A535713	Resistor	R486	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
105A520033	Resistor	R457	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
105A554923	Resistor	R461	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
105A510513	Resistor	R46	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
14S4621800	Integrated Circuit	U55	Bellcore Issue 6	Level I		0.052386	1.00	.3124	0.052386	19088989.24
11E9501090	Capacitor	C511-C518,C520-C522,C525,C527-C528	Bellcore Issue 6	Level I		0.004386	14.00	.3662	0.061404	227999185.35
11C1501080	Capacitor	C278,C84,C86	Bellcore Issue 6	Level I		0.004386	3.00	.0785	0.013158	227999185.35
11E9647680	Capacitor	C144,C251,C274,C596,C599,C645-C657,C665,C687,C688,C701,C715	Bellcore Issue 6	Level I		0.004386	12.00	.3139	0.052632	227999185.35
1213906008	Inductor	LN1-LN8	Bellcore Issue 6	Level I		0.002193	8.00	.1046	0.017544	455998370.70
121230603S	Inductor	L5,L50-L54,L56,L57,L65-L67,L69-L71	Bellcore Issue 6	Level I		0.002193	14.00	.1831	0.030702	455998370.70
121230603T	Inductor	L1,L14-L24,L2,L3,L39,L4,L41,L43,L44,L47,L55,L72	Bellcore Issue 6	Level I		0.002193	22.00	.2877	0.048246	455998370.70
121110010R	Inductor	L27	Bellcore Issue 6	Level I		0.083334	1.00	.4970	0.083334	11999957.12

### AAEON Reliability Prediction Report

**Part Number** 9697852604-DIP  
**Reference Des**  
**Date** 07. 3, 2008  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 23.30



**Description** Top-level assembly  
**File Name** EPIC-8526.RPJ  
**Time** 2:19 下午  
**Failure Rate** 16.767199  
**MTBF** 59,640

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1315442910	Semiconductor	U45,U47	Bellcore Issue 6	Level I		0.151573	2.00	1.8080	0.303145	6597500.40
1315442910	Semiconductor	U44	Bellcore Issue 6	Level I	20.30	0.263316	1.00	1.5704	0.263316	3797711.66
14S4888801	Integrated Circuit	U33	Bellcore Issue 6	Level I		0.035538	1.00	.2120	0.035538	28138749.59
1121501690	Capacitor	C80,C82,C83,C85,C87-C89	Bellcore Issue 6	Level I		0.004386	7.00	.1831	0.030702	227999185.35
1124501890	Capacitor	C658,C659	Bellcore Issue 6	Level I		0.004386	2.00	.0523	0.008772	227999185.35
123131435B	Miscellaneous	Y1	Bellcore Issue 6	Level I		0.150000	1.00	.8946	0.150000	6666666.67
1231325058	Miscellaneous	Y3,Y4	Bellcore Issue 6	Level I		0.150000	2.00	1.7892	0.300000	6666666.67
1121415090	Capacitor	C479,C633,C646,C647,C650	Bellcore Issue 6	Level I		0.004386	5.00	.1308	0.021930	227999185.35
14S4121601	Integrated Circuit	U17	Bellcore Issue 6	Level I		0.035538	1.00	.2120	0.035538	28138749.59
105A501333	Resistor	R618,R626,R654	Bellcore Issue 6	Level I		0.002193	3.00	.0392	0.006579	455998370.70
1314780512	Integrated Circuit	Q32	Bellcore Issue 6	Level I	14.10	0.141828	1.00	.8459	0.141828	7050799.05
14S4285202	Integrated Circuit	U4	Bellcore Issue 6	Level I		0.035538	1.00	.2120	0.035538	28138749.59
105A536513	Resistor	R704	Bellcore Issue 6	Level I		0.002193	1.00	.0131	0.002193	455998370.70
1315442011	Integrated Circuit	U56,U57,U59,U60	Bellcore Issue 6	Level I		0.052386	4.00	1.2497	0.209545	19088989.24
1315441014	Integrated Circuit	U58	Bellcore Issue 6	Level I		0.052386	1.00	.3124	0.052386	19088989.24
165301320B	Connection	LPT1	Bellcore Issue 6	Level I		0.013529	1.00	.0807	0.013529	73915841.87
1189615160	Capacitor	C339,C604,C609,C620,C667	Bellcore Issue 6	Level I		0.004386	5.00	.1308	0.021930	227999185.35
1189633160	Capacitor	C694,C698,C699,C703,C708	Bellcore Issue 6	Level I		0.004386	5.00	.1308	0.021930	227999185.35
1129622050	Capacitor	C165,C166,C203,C204	Bellcore Issue 6	Level I		0.004386	4.00	.1046	0.017544	227999185.35
1315970211	Miscellaneous	F2	Bellcore Issue 6	Level I		0.030000	1.00	.1789	0.030000	3333333.33
1315970211	Miscellaneous	F3-F4	Bellcore Issue 6	Level I		0.030000	2.00	.3578	0.060000	3333333.33
14S47009B0	Integrated Circuit	U6	Bellcore Issue 6	Level I	21.00	0.223575	1.00	1.3334	0.223575	4472772.10
1211100163	Inductor	R485A	Bellcore Issue 6	Level I		0.083334	1.00	.4970	0.083334	11999957.12
12123E0000	Inductor	L58	Bellcore Issue 6	Level I	10.00	0.002656	1.00	.0158	0.002656	376437673.95
131411171C	Integrated Circuit	U62	Bellcore Issue 6	Level I		0.052386	1.00	.3124	0.052386	19088989.24
14S3128421	Integrated Circuit	U27	Bellcore Issue 6	Level I		0.052386	1.00	.3124	0.052386	19088989.24
14S4195710	Integrated Circuit	U37,U54	Bellcore Issue 6	Level I		0.052386	2.00	.6249	0.104772	19088989.24
1189633192	Capacitor	C690,C695,TC1	Bellcore Issue 6	Level I		0.004386	3.00	.0785	0.013158	227999185.35
1189633192	Capacitor	C673	Bellcore Issue 6	Level I	12.60	0.005573	1.00	.0332	0.005573	179430358.40
1189622850	Capacitor	C106,C113,C131,C38-C39,C42,TC-11,TC12,TC18,TC19,TC2,TC8	Bellcore Issue 6	Level I		0.004386	12.00	.3139	0.052632	227999185.35



