

# **AEC-6841**

## **Reliability Prediction Report**

### **(MTBF)**

Report NO : 10P070006

**03-04-2010**

Issue Date

**Jansin Lee**

Sr. Manager

**Jessica Chou**

Test Engineer

## Reliability Prediction (MTBF)

---

I . **Model Name:** TF-AEC-6841-A1-1010

II . **Prediction Date:** Mar. 4<sup>th</sup>, 2010

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: 24.8 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:

- TF-AEC-6841-A1-1010  
Failure Rate: 18.468349 ppm  
MTBF: 54,147 Hours

### AAEON Reliability Prediction Report

**Part Number** System  
**Reference Des**  
**Date** 03. 4, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 24.80



**Description** Top-level assembly  
**File Name** AEC-6841.RPJ  
**Time** 4:36 下午  
**Failure Rate** 18.468349  
**MTBF** 54,147

Assembly Name	Part Number	Model	Method	Environment	Duty Cycle	Qty	Failure Rate	MTBF
TF-AEC-6841-A1-1010	System	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled	100.00	1.00	18.47	54146.69
ASS'Y XTX-945GSE-A11	9697X9451E-D	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	11.07	90325.29
ASS'Y Power Board E102-A11	9697E10206	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	.78	1278820.10
ASS'Y I/O Board T141-A10	9697T14102-D	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	6.61	151190.87

### AAEON Reliability Prediction Report

**Part Number** System  
**Reference Des**  
**Date** 03. 4, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 24.80



**Description** Top-level assembly  
**File Name** AEC-6841.RPJ  
**Time** 4:36 下午  
**Failure Rate** 18.468349  
**MTBF** 54,147

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1602606A00	Connection	POCKER SWITCH	Telcordia Issue 1	Level I		1.00	0.001126	100.0000	888018667.20

### AAEON Reliability Prediction Report

**Part Number** 9697X9451E-D  
**Reference Des**  
**Date** 03. 4, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 24.80



**Description**  
**File Name** AEC-6841.RPJ  
**Time** 4:36 下午  
**Failure Rate** 11.071096  
**MTBF** 90,325

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
16515A0997	Connection	CN1	Telcordia Issue 1	Level I		1.00	0.112610	1.0172	8880186.67
1653930130	Connection	CN2	Telcordia Issue 1	Level I		1.00	0.016892	.1526	59201244.48
165300420L	Connection	CN3	Telcordia Issue 1	Level I		1.00	0.004504	.0407	222004666.80
1129610051	Capacitor	C10,C102,C11,C12, C13,C14,C148,C15, C16,C175,C184,C191, C192,C231,C241, C248,C252,C259, C263,C284,C303, C304,C305,C324, C336,C343,C349, C359,C364,C368, C371,C375,C380, C384,C390,C395,C49, C5,C50,C57,C59,C6, C67,C68,C7,C70,	Telcordia Issue 1	Level I		52.00	0.004518	2.1219	221353427.43
11E9501090	Capacitor	C113,C131,C132, C166,C17,C18,C190, C283,C289,C291, C297,C298,C325, C337,C340,C341, C347,C398,C399, C400,C60,C61,C65, C66,C69,C72,C73	Telcordia Issue 1	Level I		27.00	0.004518	1.1018	221353427.43
11E1522680	Capacitor	C193,C194,C195, C197,C198,C242, C243,C244,C251, C255,C44	Telcordia Issue 1	Level I		11.00	0.004518	.4489	221353427.43
1122522890	Capacitor	C103,C105,C107, C109,C47,C82,C91	Telcordia Issue 1	Level I		7.00	0.004518	.2856	221353427.43
11E9647680	Capacitor	C143,C196,C51,C52, C63,C64,C76,C77, C83	Telcordia Issue 1	Level I		9.00	0.004518	.3673	221353427.43
11E9547490	Capacitor	C100,C101,C78,C98, C99	Telcordia Issue 1	Level I		5.00	0.004518	.2040	221353427.43
1129701790	Capacitor	C147,C165,C240, C288,C317,C95	Telcordia Issue 1	Level I		6.00	0.004518	.2448	221353427.43
1129710090	Capacitor	C111,C112,C217, C218,C268,C281	Telcordia Issue 1	Level I		6.00	0.004518	.2448	221353427.43
1124405090	Capacitor	C185,C186,C333	Telcordia Issue 1	Level I		3.00	0.004518	.1224	221353427.43
118961018A	Capacitor	C189,C222,C225	Telcordia Issue 1	Level I		3.00	0.004518	.1224	221353427.43
1129722091	Capacitor	C236,C239,C361, C362,C363,C378, C379	Telcordia Issue 1	Level I		7.00	0.004518	.2856	221353427.43
11E1622060	Capacitor	C238	Telcordia Issue 1	Level I		1.00	0.004518	.0408	221353427.43

### AAEON Reliability Prediction Report

**Part Number** 9697X9451E-D  
**Reference Des**  
**Date** 03. 4, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 24.80



**Description**  
**File Name** AEC-6841.RPJ  
**Time** 4:36 下午  
**Failure Rate** 11.071096  
**MTBF** 90,325

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
11E1501080	Capacitor	C257,C269,C271, C272,C279,C280, C300,C306,C315, C353,C354,C355	Telcordia Issue 1	Level I		12.00	0.004518	.4897	221353427.43
1129710390	Capacitor	C266,C270,C290, C316,C319,C338, C339,C356,C357	Telcordia Issue 1	Level I		9.00	0.004518	.3673	221353427.43
1129610080	Capacitor	C293,C294,C295, C296,C408	Telcordia Issue 1	Level I		5.00	0.004518	.2040	221353427.43
1129747090	Capacitor	C308,C309,C310, C311	Telcordia Issue 1	Level I		4.00	0.004518	.1632	221353427.43
1124410190	Capacitor	C312,C313,C314, C318,C345,C346, C351,C352,C391, C411	Telcordia Issue 1	Level I		10.00	0.004518	.4081	221353427.43
1129715090	Capacitor	C321	Telcordia Issue 1	Level I		1.00	0.004518	.0408	221353427.43
1124447180	Capacitor	C322	Telcordia Issue 1	Level I		1.00	0.004518	.0408	221353427.43
1122539980	Capacitor	C392	Telcordia Issue 1	Level I		1.00	0.004518	.0408	221353427.43
1124522190	Capacitor	C397	Telcordia Issue 1	Level I		1.00	0.004518	.0408	221353427.43
1301053040	Semiconductor	D1,D10,D11,D14,D17, D18,D2,D7,D8,D9	Telcordia Issue 1	Level I		10.00	0.023744	2.1447	42115875.63
1301005443	Semiconductor	D16,D3,D4	Telcordia Issue 1	Level I		3.00	0.027106	.7345	36892237.91
1301005442	Semiconductor	D13,D22	Telcordia Issue 1	Level I		2.00	0.023744	.4289	42115875.63
1301003240	Semiconductor	D15	Telcordia Issue 1	Level I		1.00	0.023744	.2145	42115875.63
1301005441	Semiconductor	D19	Telcordia Issue 1	Level I		1.00	0.027106	.2448	36892237.91
1305099140	Semiconductor	D20,D21	Telcordia Issue 1	Level I		2.00	0.079147	1.4298	12634762.69
12123C0007	Inductor	FB1,FB2,FB5	Telcordia Issue 1	Level I		3.00	0.002259	.0612	442706854.87
12123C0006	Inductor	FB3,FB4,FB8	Telcordia Issue 1	Level I		3.00	0.002259	.0612	442706854.87
121230805Z	Inductor	FB6,R405	Telcordia Issue 1	Level I		2.00	0.002259	.0408	442706854.87
1212306030	Inductor	FB12,FB15,FB7,L8, L9	Telcordia Issue 1	Level I		5.00	0.002259	.1020	442706854.87
105A700003	Resistor	FB10,FB11,FB9,R353, R354,R369,R373, R383,R386,R458, R459,R467,R598	Telcordia Issue 1	Level I		13.00	0.002259	.2652	442706854.87
1212306035	Inductor	FB13,FB14,FB21	Telcordia Issue 1	Level I		3.00	0.002259	.0612	442706854.87
1304101340	Semiconductor	LED1	Telcordia Issue 1	Level I		1.00	0.004788	.0432	208850651.61
1212308054	Inductor	L1	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
1211100102	Inductor	L2,L5	Telcordia Issue 1	Level I		2.00	0.085836	1.5506	11650180.39
121110100F	Inductor	L3,L4	Telcordia Issue 1	Level I		2.00	0.085836	1.5506	11650180.39
121230805L	Inductor	L6,L7	Telcordia Issue 1	Level I		2.00	0.002259	.0408	442706854.87
1211000180	Inductor	L10,L11,L12,L14	Telcordia Issue 1	Level I		4.00	0.002259	.0816	442706854.87

**AAEON Reliability Prediction Report**

**Part Number** 9697X9451E-D  
**Reference Des**  
**Date** 03. 4, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 24.80



**Description**  
**File Name** AEC-6841.RPJ  
**Time** 4:36 下午  
**Failure Rate** 11.071096  
**MTBF** 90,325

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
1211103370	Inductor	L13	Telcordia Issue 1	Level I	31.10	1.00	0.003925	.0355	254774246.54
1315030110	Semiconductor	Q1,Q2	Telcordia Issue 1	Level I		2.00	0.000000	.0000	.00
1314108610	Integrated Circuit	Q3	Telcordia Issue 1	Level I		1.00	0.058503	.5284	17093092.17
1310390411	Semiconductor	Q6	Telcordia Issue 1	Level I		1.00	0.023744	.2145	42115875.63
1315662210	Semiconductor	Q10	Telcordia Issue 1	Level I		1.00	0.079147	.7149	12634762.69
1315662810	Semiconductor	Q11,Q12	Telcordia Issue 1	Level I		2.00	0.079147	1.4298	12634762.69
1315662810	Semiconductor	Q13	Telcordia Issue 1	Level I	29.60	1.00	0.171765	1.5515	5821899.97
1315667910	Semiconductor	Q39,Q40	Telcordia Issue 1	Level I		2.00	0.158293	2.8596	6317381.35
1315700211	Semiconductor	Q41,Q42,Q44,Q45, Q46,Q47,Q48,Q49, Q51,Q53,Q54	Telcordia Issue 1	Level I		11.00	0.079147	7.8638	12634762.69
1311390610	Semiconductor	Q43	Telcordia Issue 1	Level I		1.00	0.023744	.2145	42115875.63
1540782282	Resistor	RP1,RP2,RP3,RP4, RP5	Telcordia Issue 1	Level I		5.00	0.012378	.5590	80787269.19
105A733009	Resistor	R1,R280	Telcordia Issue 1	Level I		2.00	0.002259	.0408	442706854.87
105A705609	Resistor	R100,R107,R15,R16, R17,R195,R2,R209, R210,R211,R212, R213,R214,R215, R216,R218,R219, R220,R222,R223, R224,R225,R226, R227,R228,R229, R230,R231,R232, R233,R234,R235, R236,R26,R28	Telcordia Issue 1	Level I		35.00	0.002259	.7141	442706854.87
105A500139	Resistor	R18,R19,R20,R21, R23,R24,R25,R3, R357,R359	Telcordia Issue 1	Level I		10.00	0.002259	.2040	442706854.87
105A706809	Resistor	R4	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
1050502204	Resistor	R545,R546,R547, R548,R549,R550,R8	Telcordia Issue 1	Level I		7.00	0.002259	.1428	442706854.87
105A527463	Resistor	R13,R9	Telcordia Issue 1	Level I		2.00	0.002259	.0408	442706854.87
105A554969	Resistor	R11,R14,R42,R43	Telcordia Issue 1	Level I		4.00	0.002259	.0816	442706854.87
105A500239	Resistor	R27,R29,R30	Telcordia Issue 1	Level I		3.00	0.002259	.0612	442706854.87
105A510009	Resistor	R158,R173,R392, R396,R40,R41,R47, R49,R50,R65	Telcordia Issue 1	Level I		10.00	0.002259	.2040	442706854.87
1050524904	Resistor	R101,R112,R113,R44, R45,R56	Telcordia Issue 1	Level I		6.00	0.002259	.1224	442706854.87
105A522103	Resistor	R46,R48	Telcordia Issue 1	Level I		2.00	0.002259	.0408	442706854.87
1050520004	Resistor	R51	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
105A515009	Resistor	R52,R53,R54,R75, R76,R77	Telcordia Issue 1	Level I		6.00	0.002259	.1224	442706854.87





**AAEON Reliability Prediction Report**

**Part Number** 9697X9451E-D  
**Reference Des**  
**Date** 03. 4, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 24.80



**Description**  
**File Name** AEC-6841.RPJ  
**Time** 4:36 下午  
**Failure Rate** 11.071096  
**MTBF** 90,325

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A701039	Resistor	R102,R103,R104, R105,R106,R119, R120,R121,R138, R141,R142,R143, R144,R145,R146, R147,R157,R159, R170,R186,R188, R189,R207,R208, R237,R238,R275, R278,R279,R282, R363,R442,R443, R447,R449,R462, R527,R529,R531,	Telcordia Issue 1	Level I		53.00	0.002259	1.0814	442706854.87
105A701009	Resistor	R174,R272,R362, R364,R367,R368, R372,R398,R399,R88, R90	Telcordia Issue 1	Level I		11.00	0.002259	.2244	442706854.87
105A700103	Resistor	R175,R89,R91,R92, R93	Telcordia Issue 1	Level I		5.00	0.002259	.1020	442706854.87
105A510053	Resistor	R422,R94	Telcordia Issue 1	Level I		2.00	0.013553	.2448	73784475.81
105A502033	Resistor	R337,R98	Telcordia Issue 1	Level I		2.00	0.002259	.0408	442706854.87
105A701053	Resistor	R108,R342	Telcordia Issue 1	Level I		2.00	0.002259	.0408	442706854.87
105A733033	Resistor	R109	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
105A704729	Resistor	R111,R125,R126, R287,R414,R420, R421,R445,R446, R450,R451,R468, R521,R552,R553, R595	Telcordia Issue 1	Level I		16.00	0.002259	.3264	442706854.87
105A708229	Resistor	R114,R115,R116, R130,R131,R135, R136,R137,R139, R152,R153,R154, R471,R565,R566	Telcordia Issue 1	Level I		15.00	0.002259	.3060	442706854.87
105A703309	Resistor	R117,R118,R124, R176,R177,R178, R179,R180,R185, R262,R263,R438, R439,R452,R456, R537,R538	Telcordia Issue 1	Level I		17.00	0.002259	.3469	442706854.87
105A522663	Resistor	R122	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
105A700139	Resistor	R129,R140,R197, R199,R201,R256, R261,R265,R266, R277,R389,R453, R455,R544,R555, R578,R583	Telcordia Issue 1	Level I		17.00	0.002259	.3469	442706854.87

### AAEON Reliability Prediction Report

**Part Number** 9697X9451E-D  
**Reference Des**  
**Date** 03. 4, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 24.80



**Description**  
**File Name** AEC-6841.RPJ  
**Time** 4:36 下午  
**Failure Rate** 11.071096  
**MTBF** 90,325

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1050512164	Resistor	R181,R182,R183, R184	Telcordia Issue 1	Level I		4.00	0.002259	.0816	442706854.87
105A701059	Resistor	R192	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
105A511503	Resistor	R217	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
105A518703	Resistor	R221	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
105A511103	Resistor	R270,R271	Telcordia Issue 1	Level I		2.00	0.002259	.0408	442706854.87
105A561903	Resistor	R273	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
105A554903	Resistor	R274	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
105A701003	Resistor	R334,R335,R382	Telcordia Issue 1	Level I		3.00	0.002259	.0612	442706854.87
105A501033	Resistor	R336	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
105A702263	Resistor	R338,R341,R346, R350	Telcordia Issue 1	Level I		4.00	0.002259	.0816	442706854.87
105A502233	Resistor	R339	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
105A571533	Resistor	R345	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
105A507523	Resistor	R348	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
105A503033	Resistor	R351	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
105A501533	Resistor	R352	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
1050547004	Resistor	R360	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
105A575033	Resistor	R361	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
105A700109	Resistor	R366	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
105A535713	Resistor	R371	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
105A518223	Resistor	R387	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
105A501633	Resistor	R388	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
105A702039	Resistor	R393,R394	Telcordia Issue 1	Level I		2.00	0.002259	.0408	442706854.87
105A549903	Resistor	R397	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
1050530124	Resistor	R400	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
1050513034	Resistor	R401,R403	Telcordia Issue 1	Level I		2.00	0.002259	.0408	442706854.87
105A506823	Resistor	R409,R410	Telcordia Issue 1	Level I		2.00	0.002259	.0408	442706854.87
106B501031	Resistor	R417	Telcordia Issue 1	Level I		1.00	0.011261	.1017	88801866.72
105A702429	Resistor	R448	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
105A551119	Resistor	R460	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
1050501234	Resistor	R461	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
105A704739	Resistor	R516,R517,R519, R582	Telcordia Issue 1	Level I		4.00	0.002259	.0816	442706854.87
1189647180	Capacitor	TC1,TC10,TC5,TC8, TC9	Telcordia Issue 1	Level I		5.00	0.004518	.2040	221353427.43
1189633160	Capacitor	TC13,TC15,TC2,TC4, TC6	Telcordia Issue 1	Level I		5.00	0.004518	.2040	221353427.43
1189615150	Capacitor	TC14,TC16,TC17, TC18,TC19,TC3	Telcordia Issue 1	Level I		6.00	0.004518	.2448	221353427.43
1189922180	Capacitor	TC11,TC12,TC7	Telcordia Issue 1	Level I		3.00	0.004518	.1224	221353427.43

### AAEON Reliability Prediction Report

**Part Number** 9697X9451E-D  
**Reference Des**  
**Date** 03. 4, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 24.80



**Description**  
**File Name** AEC-6841.RPJ  
**Time** 4:36 下午  
**Failure Rate** 11.071096  
**MTBF** 90,325

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
106B503331	Resistor	TH1	Telcordia Issue 1	Level I		1.00	0.011261	.1017	88801866.72
14S4160020	Integrated Circuit	U1	Telcordia Issue 1	Level I		1.00	0.025876	.2337	38645358.49
14S4294503	Integrated Circuit	U3	Telcordia Issue 1	Level I	30.80	1.00	0.133811	1.2087	7473233.57
14S428010D	Integrated Circuit	U4	Telcordia Issue 1	Level I	26.80	1.00	0.110019	.9938	9089311.33
14S5A00700	Integrated Circuit	U8	Telcordia Issue 1	Level I		1.00	0.024950	.2254	40080193.24
14S3050100	Integrated Circuit	U9	Telcordia Issue 1	Level I	42.10	1.00	0.872263	7.8787	1146443.35
14S9811500	Integrated Circuit	U11	Telcordia Issue 1	Level I		1.00	0.058503	.5284	17093092.17
14S4081110	Integrated Circuit	U21	Telcordia Issue 1	Level I		1.00	0.058503	.5284	17093092.17
14S2362400	Integrated Circuit	U12	Telcordia Issue 1	Level I		1.00	0.058503	.5284	17093092.17
14S4256200	Inductor	U13	Telcordia Issue 1	Level I	28.20	1.00	0.224675	2.0294	4450865.51
14S6334610	Integrated Circuit	U14	Telcordia Issue 1	Level I		1.00	0.022609	.2042	44229199.89
1315992601	Semiconductor	U15	Telcordia Issue 1	Level I	34.00	1.00	0.380943	3.4409	2625063.61
14S4148500	Integrated Circuit	U16	Telcordia Issue 1	Level I	29.70	1.00	0.423021	3.8210	2363947.95
14S2591200	Integrated Circuit	U19	Telcordia Issue 1	Level I		1.00	0.058503	.5284	17093092.17
14S2048600	Integrated Circuit	U20	Telcordia Issue 1	Level I		1.00	0.058503	.5284	17093092.17
14S2045400	Integrated Circuit	U23	Telcordia Issue 1	Level I		1.00	0.058503	.5284	17093092.17
14S4362704	Integrated Circuit	U24	Telcordia Issue 1	Level I	33.20	1.00	0.150148	1.3562	6660110.47
14S5500400	Integrated Circuit	U25	Telcordia Issue 1	Level I	31.60	1.00	0.139075	1.2562	7190379.22
14S3065500	Integrated Circuit	U26	Telcordia Issue 1	Level I	34.30	1.00	0.556788	5.0292	1796014.54
1653150221	Connection	X1A,X1B,X1C,X1D	Telcordia Issue 1	Level I		4.00	0.056305	2.0343	17760373.34
1231332721	Miscellaneous	Y1	Telcordia Issue 1	Level I		1.00	0.150000	1.3549	6666666.67
123131435B	Miscellaneous	Y2	Telcordia Issue 1	Level I		1.00	0.150000	1.3549	6666666.67
1231325058	Miscellaneous	Y3	Telcordia Issue 1	Level I		1.00	0.150000	1.3549	6666666.67
1231324555	Miscellaneous	Y4	Telcordia Issue 1	Level I		1.00	0.150000	1.3549	6666666.67
14S5A00821	Integrated Circuit	U7	Telcordia Issue 1	Level I		1.00	0.025876	.2337	38645358.49
14S4195710	Integrated Circuit	U29	Telcordia Issue 1	Level I		1.00	0.058503	.5284	17093092.17
14S5912300	Integrated Circuit	U30	Telcordia Issue 1	Level I		1.00	0.025876	.2337	38645358.49
14S5A12503	Integrated Circuit	U32	Telcordia Issue 1	Level I		1.00	0.058503	.5284	17093092.17
14S5A73200	Integrated Circuit	U33	Telcordia Issue 1	Level I		1.00	0.025876	.2337	38645358.49
105A747039	Resistor	R554	Telcordia Issue 1	Level I		1.00	0.002259	.0204	442706854.87
1129622690	Capacitor	C406	Telcordia Issue 1	Level I		1.00	0.004518	.0408	221353427.43
11E9522650	Capacitor	C413	Telcordia Issue 1	Level I		1.00	0.004518	.0408	221353427.43
1124547290	Capacitor	C114,C115,C116, C117,C401,C402, C403,C404	Telcordia Issue 1	Level I		8.00	0.004518	.3264	221353427.43
1300001440	Semiconductor	D5,D6	Telcordia Issue 1	Level I		2.00	0.023744	.4289	42115875.63
1653003202	Connection	JP1	Telcordia Issue 1	Level I		1.00	0.003378	.0305	296006222.40





### AAEON Reliability Prediction Report

**Part Number** 9697T14102-D  
**Reference Des**  
**Date** 03. 4, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 24.80



**Description**  
**File Name** AEC-6841.RPJ  
**Time** 4:36 下午  
**Failure Rate** 6.614156  
**MTBF** 151,191

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1759100006	Miscellaneous	BZ1	Telcordia Issue 1	Level I		1.00	0.150000	2.2679	6666666.67
1214309000	Inductor	CH1,CH2,CH3,CH4	Telcordia Issue 1	Level I		4.00	0.002259	.1366	442706854.87
1654020100	Connection	CN1A,CN1B,CN1C, CN1D	Telcordia Issue 1	Level I		4.00	0.001126	.0681	888018667.20
1654030003	Connection	CN5	Telcordia Issue 1	Level I		1.00	0.016892	.2554	59201244.48
165392521F	Connection	CN6	Telcordia Issue 1	Level I		1.00	0.028153	.4256	35520746.69
1654926900	Connection	CN9A	Telcordia Issue 1	Level I		1.00	0.029279	.4427	34154564.12
1654226300	Connection	CN9B	Telcordia Issue 1	Level I		1.00	0.029279	.4427	34154564.12
1653002206	Connection	CN10	Telcordia Issue 1	Level I		1.00	0.002252	.0341	444009333.60
1653213207	Connection	CN12	Telcordia Issue 1	Level I		1.00	0.014639	.2213	68309128.25
165320520G	Connection	COM4	Telcordia Issue 1	Level I		1.00	0.005631	.0851	177603733.44
1174510180	Capacitor	CP1,CP2,CP3,CP4, CP5,CP6,CP7,CP8	Telcordia Issue 1	Level I		8.00	0.005458	.6602	183201032.40
1174522180	Capacitor	CP9	Telcordia Issue 1	Level I		1.00	0.005458	.0825	183201032.40
1129710050	Capacitor	C1,C123,C125,C126, C25,C306,C307,C333, C350,C354,C377, C383,C68,C7,C73, C77,C84,C85	Telcordia Issue 1	Level I		18.00	0.005458	1.4855	183201032.40
1124701680	Capacitor	C10,C122,C127,C128, C129,C130,C131, C133,C134,C136, C137,C146,C148, C149,C152,C153,C2, C3,C4,C5,C56,C58, C59,C6,C61,C62,C69, C70,C71,C72,C74, C75,C78,C79,C8,C80, C81,C82,C83,C86,C9	Telcordia Issue 1	Level I		41.00	0.004518	2.8004	221353427.43
1122710080	Capacitor	C11,C158,C159,C162, C163,C36,C63,C76	Telcordia Issue 1	Level I		8.00	0.005458	.6602	183201032.40
1124415080	Capacitor	C12,C160,C64,C67	Telcordia Issue 1	Level I		4.00	0.004518	.2732	221353427.43
1121701080	Capacitor	C16,C19	Telcordia Issue 1	Level I		2.00	0.004518	.1366	221353427.43
1124447180	Capacitor	C138,C139,C140, C141,C142,C147,C17, C20,C34,C41	Telcordia Issue 1	Level I		10.00	0.004518	.6830	221353427.43
1124510280	Capacitor	C18,C21	Telcordia Issue 1	Level I		2.00	0.005458	.1651	183201032.40

### AAEON Reliability Prediction Report

**Part Number** 9697T14102-D  
**Reference Des**  
**Date** 03. 4, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 24.80

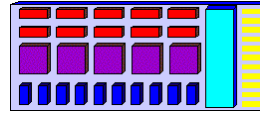


**Description**  
**File Name** AEC-6841.RPJ  
**Time** 4:36 下午  
**Failure Rate** 6.614156  
**MTBF** 151,191

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1129701690	Capacitor	C100,C101,C102, C103,C104,C105, C106,C107,C108, C164,C169,C22,C23, C24,C336,C337,C338, C345,C346,C347, C348,C349,C351, C352,C353,C356, C360,C362,C363, C364,C366,C367, C368,C369,C378, C379,C380,C381, C385,C386,C387,	Telcordia Issue 1	Level I		56.00	0.004518	3.8250	221353427.43
1121610180	Capacitor	C26	Telcordia Issue 1	Level I		1.00	0.004518	.0683	221353427.43
1124547190	Capacitor	C35,C37,C39	Telcordia Issue 1	Level I		3.00	0.004518	.2049	221353427.43
1124547280	Capacitor	C114,C115,C116, C117,C118,C119, C120,C121	Telcordia Issue 1	Level I		8.00	0.005458	.6602	183201032.40
1124447080	Capacitor	C143,C144,C145	Telcordia Issue 1	Level I		3.00	0.005458	.2476	183201032.40
11A4456680	Capacitor	C150,C151,C154, C155,C156,C157	Telcordia Issue 1	Level I		6.00	0.004518	.4098	221353427.43
1144647680	Capacitor	C166	Telcordia Issue 1	Level I		1.00	0.004518	.0683	221353427.43
1124533180	Capacitor	C167	Telcordia Issue 1	Level I		1.00	0.004518	.0683	221353427.43
1121710090	Capacitor	C168	Telcordia Issue 1	Level I		1.00	0.004518	.0683	221353427.43
1129622050	Capacitor	C339,C355,C384	Telcordia Issue 1	Level I		3.00	0.004518	.2049	221353427.43
11E9647680	Capacitor	C342,C395	Telcordia Issue 1	Level I		2.00	0.004518	.1366	221353427.43
1124427090	Capacitor	C389,C390	Telcordia Issue 1	Level I		2.00	0.004518	.1366	221353427.43
1305000140	Semiconductor	D1,D2,D3,D4,D5,D6, D7,D8	Telcordia Issue 1	Level I		8.00	0.023744	2.8719	42115875.63
1301005441	Semiconductor	D10,D11,D9	Telcordia Issue 1	Level I		3.00	0.027106	1.2295	36892237.91
1301005442	Semiconductor	D13,D15	Telcordia Issue 1	Level I		2.00	0.023744	.7180	42115875.63
1301005440	Semiconductor	D14,D16	Telcordia Issue 1	Level I		2.00	0.023744	.7180	42115875.63
1181647080	Capacitor	EC1	Telcordia Issue 1	Level I		1.00	0.004518	.0683	221353427.43
1212306030	Inductor	FB1,FB2,FB20,FB21, FB22,FB23,FB24, FB25,FB34	Telcordia Issue 1	Level I		9.00	0.002259	.3074	442706854.87
121230603T	Inductor	FB26,FB28,FB30, FB31,L1	Telcordia Issue 1	Level I		5.00	0.002259	.1708	442706854.87
121230603U	Inductor	FB27,FB32,L13,L14, L15,L16,L17,L18, L19,L20,L21,L22, L23,L24,L25,L26, L27,L28,L29,L34, L35,L36,L37,L39, L40	Telcordia Issue 1	Level I		25.00	0.002259	.8538	442706854.87

**AAEON Reliability Prediction Report**

**Part Number** 9697T14102-D  
**Reference Des**  
**Date** 03. 4, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 24.80



**Description**  
**File Name** AEC-6841.RPJ  
**Time** 4:36 下午  
**Failure Rate** 6.614156  
**MTBF** 151,191

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A700003	Resistor	FB29,FB44,L38,R116, R118,R119,R148, R149,R151,R152, R153,R211,R223,R28, R35,R61,R80,R99	Telcordia Issue 1	Level I		18.00	0.002259	.6147	442706854.87
1752001601	Miscellaneous	FS1,FS2,FS3	Telcordia Issue 1	Level I		3.00	0.003000	.1361	333333333.33
1752340000	Miscellaneous	F1,F2	Telcordia Issue 1	Level I		2.00	0.003000	.0907	333333333.33
1653222208	Connection	IDE1	Telcordia Issue 1	Level I		1.00	0.024774	.3746	40364484.87
1212306031	Inductor	L11,L33	Telcordia Issue 1	Level I		2.00	0.002259	.0683	442706854.87
1174547180	Capacitor	NC1,NC2,NC3,NC4	Telcordia Issue 1	Level I		4.00	0.005458	.3301	183201032.40
1314111712	Integrated Circuit	Q1	Telcordia Issue 1	Level I		1.00	0.058503	.8845	17093092.17
1315002010	Semiconductor	Q2	Telcordia Issue 1	Level I		1.00	0.079147	1.1966	12634762.69
1315230300	Semiconductor	Q3	Telcordia Issue 1	Level I		1.00	0.079147	1.1966	12634762.69
1310390410	Semiconductor	Q12,Q4	Telcordia Issue 1	Level I		2.00	0.023744	.7180	42115875.63
1315700211	Semiconductor	Q5,Q6,Q7	Telcordia Issue 1	Level I		3.00	0.079147	3.5899	12634762.69
1315230111	Semiconductor	Q8,Q9	Telcordia Issue 1	Level I		2.00	0.000000	.0000	.00
1311138610	Semiconductor	Q19,Q20	Telcordia Issue 1	Level I		2.00	0.023744	.7180	42115875.63
1540782280	Resistor	RP1,RP2	Telcordia Issue 1	Level I		2.00	0.006189	.1871	161574538.37
1540710080	Resistor	RP10,RP3,RP4,RP5, RP6,RP7,RP8,RP9	Telcordia Issue 1	Level I		8.00	0.006189	.7486	161574538.37
105A501039	Resistor	R128,R371,R389, R391	Telcordia Issue 1	Level I		4.00	0.002259	.1366	442706854.87
1540710382	Resistor	RP11	Telcordia Issue 1	Level I		1.00	0.006189	.0936	161574538.37
105A503309	Resistor	R366	Telcordia Issue 1	Level I		1.00	0.002259	.0342	442706854.87
1540733085	Resistor	RP12	Telcordia Issue 1	Level I		1.00	0.006189	.0936	161574538.37
105A700009	Resistor	R370,R5	Telcordia Issue 1	Level I		2.00	0.002259	.0683	442706854.87
105A703903	Resistor	R10,R12,R6,R8	Telcordia Issue 1	Level I		4.00	0.002259	.1366	442706854.87
105A515009	Resistor	R11,R7,R9	Telcordia Issue 1	Level I		3.00	0.002259	.1025	442706854.87
105A500133	Resistor	R105,R13,R14,R144, R145,R147,R15,R150, R203,R205,R212,R38	Telcordia Issue 1	Level I		12.00	0.002259	.4098	442706854.87
105A501033	Resistor	R111,R113,R140, R142,R16,R17,R20, R23,R40,R41,R42, R45,R48,R51,R52, R53,R54,R56,R60, R89,R90,R91,R92, R98	Telcordia Issue 1	Level I		24.00	0.002259	.8196	442706854.87
105A505133	Resistor	R19	Telcordia Issue 1	Level I		1.00	0.002259	.0342	442706854.87
105A701053	Resistor	R21	Telcordia Issue 1	Level I		1.00	0.002259	.0342	442706854.87



**AAEON Reliability Prediction Report**

**Part Number** 9697T14102-D  
**Reference Des**  
**Date** 03. 4, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 24.80



**Description**  
**File Name** AEC-6841.RPJ  
**Time** 4:36 下午  
**Failure Rate** 6.614156  
**MTBF** 151,191

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A503300	Resistor	R34,R36,R37,R39, R43,R44,R46,R49, R84,R93	Telcordia Issue 1	Level I		10.00	0.002259	.3415	442706854.87
105A549963	Resistor	R47,R50,R94,R95	Telcordia Issue 1	Level I		4.00	0.002259	.1366	442706854.87
105A547503	Resistor	R55	Telcordia Issue 1	Level I		1.00	0.002259	.0342	442706854.87
105A510033	Resistor	R108,R57,R58	Telcordia Issue 1	Level I		3.00	0.002259	.1025	442706854.87
105A508223	Resistor	R76,R78,R87	Telcordia Issue 1	Level I		3.00	0.002259	.1025	442706854.87
105A504723	Resistor	R82,R86,R88	Telcordia Issue 1	Level I		3.00	0.002259	.1025	442706854.87
105A533003	Resistor	R156,R157,R202,R83, R85	Telcordia Issue 1	Level I		5.00	0.002259	.1708	442706854.87
1059710003	Resistor	R104	Telcordia Issue 1	Level I		1.00	0.002259	.0342	442706854.87
105A502200	Resistor	R106,R200	Telcordia Issue 1	Level I		2.00	0.002259	.0683	442706854.87
105A511503	Resistor	R107,R201	Telcordia Issue 1	Level I		2.00	0.002259	.0683	442706854.87
105A503033	Resistor	R109,R110	Telcordia Issue 1	Level I		2.00	0.002259	.0683	442706854.87
105A505633	Resistor	R112,R114	Telcordia Issue 1	Level I		2.00	0.002259	.0683	442706854.87
105A501533	Resistor	R120,R121	Telcordia Issue 1	Level I		2.00	0.002259	.0683	442706854.87
105A515003	Resistor	R129,R131,R133, R138,R139	Telcordia Issue 1	Level I		5.00	0.002259	.1708	442706854.87
105A704733	Resistor	R130,R204,R208, R209	Telcordia Issue 1	Level I		4.00	0.002259	.1366	442706854.87
105A512103	Resistor	R154	Telcordia Issue 1	Level I		1.00	0.002259	.0342	442706854.87
105A521003	Resistor	R155	Telcordia Issue 1	Level I		1.00	0.002259	.0342	442706854.87
105A510003	Resistor	R206,R213	Telcordia Issue 1	Level I		2.00	0.002259	.0683	442706854.87
105A502223	Resistor	R207	Telcordia Issue 1	Level I		1.00	0.002259	.0342	442706854.87
105A549969	Resistor	R365,R400	Telcordia Issue 1	Level I		2.00	0.002259	.0683	442706854.87
105A500139	Resistor	R369,R381,R382, R390,R392,R401	Telcordia Issue 1	Level I		6.00	0.002259	.2049	442706854.87
105A705129	Resistor	R393	Telcordia Issue 1	Level I		1.00	0.002259	.0342	442706854.87
14S4871204	Integrated Circuit	U1	Telcordia Issue 1	Level I		1.00	0.025876	.3912	38645358.49
14S4825740	Integrated Circuit	U2	Telcordia Issue 1	Level I	40.00	1.00	0.206254	3.1184	4848398.83
14S4911216	Integrated Circuit	U3	Telcordia Issue 1	Level I		1.00	0.058503	.8845	17093092.17
14S4910400	Integrated Circuit	U4	Telcordia Issue 1	Level I		1.00	0.025876	.3912	38645358.49
14S4021301	Integrated Circuit	U16,U17,U5,U6	Telcordia Issue 1	Level I		4.00	0.058503	3.5381	17093092.17
14S7140100	Integrated Circuit	U7,U9	Telcordia Issue 1	Level I		2.00	0.058503	1.7690	17093092.17
14S7140200	Integrated Circuit	U8	Telcordia Issue 1	Level I		1.00	0.058503	.8845	17093092.17
14S5A12503	Integrated Circuit	U10	Telcordia Issue 1	Level I		1.00	0.058503	.8845	17093092.17
14S5A01400	Integrated Circuit	U11	Telcordia Issue 1	Level I		1.00	0.058503	.8845	17093092.17
14S4048501	Integrated Circuit	U12,U15	Telcordia Issue 1	Level I		2.00	0.058503	1.7690	17093092.17
14S5A12506	Integrated Circuit	U14	Telcordia Issue 1	Level I		1.00	0.025876	.3912	38645358.49
14S3115001	Integrated Circuit	U19,U30	Telcordia Issue 1	Level I		2.00	0.058503	1.7690	17093092.17
1315970211	Semiconductor	U20,U21	Telcordia Issue 1	Level I		2.00	0.158293	4.7865	6317381.35

