

# **AEC-6831**

## **Reliability Prediction Report**

### **(MTBF)**

Report NO : 09P070009

**05-26-2009**

Issue Date

**Wenyuan Yang**

Manager

**Jessica Chou**

Test Engineer

## Reliability Prediction (MTBF)

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I . **Model Name:** TF-AEC-6831-A1-1010

II . **Prediction Date:** May 26, 2009

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:

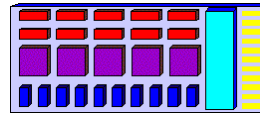
- Unit : An assembly of device.
- Duty Cycle : Used to specify the percentage of time that the element is in an on state, and it is equal to the percentage of total time the item is in the active environment.
- Quantity : The quantity of the selected item.
- Failure Rate : Used to specify that the failure 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-6831-A1-1010:  
Failure Rate: 16.318877 ppm  
MTBF: 61,279 Hours

### AAEON Reliability Prediction Report

**Part Number** System  
**Reference Des**  
**Date** 05. 26, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 24.80



**Description** Top-level assembly  
**File Name** TF-AEC-6831-A1-1010.RPJ  
**Time** 12:00 下午  
**Failure Rate** 16.318877  
**MTBF** 61,279

Assembly Name	Part Number	Model	Method	Environment	Duty Cycle	Qty	Failure Rate	MTBF
TF-AEC-6831-A1-1010	System	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled	100.00	1.00	16.32	61278.73
Power Board	9697E10206	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	.76	1319480.39
GENE-9455-A10	969794550D-D	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	15.56	64267.86

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**Description** Top-level assembly  
**File Name** TF-AEC-6831-A1-1010.RPJ  
**Time** 12:00 下午  
**Failure Rate** 16.318877  
**MTBF** 61,279

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



### AAEON Reliability Prediction Report

**Part Number** 969794550D-D  
**Reference Des**  
**Date** 05. 26, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 24.80



**Description**  
**File Name** TF-AEC-6831-A1-1010.RPJ  
**Time** 12:00 下午  
**Failure Rate** 15.559877  
**MTBF** 64,268

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A510733	Resistor	R411	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
165392521G	Connection	CFD1	Telcordia Issue 1	Level I		1.00	0.028153	.1809	35520746.69
1214309000	Inductor	CH1,CH2,CH3,CH4	Telcordia Issue 1	Level I		4.00	0.002259	.0581	442706854.87
14S6268310	Integrated Circuit	U3	Telcordia Issue 1	Level I	35.90	1.00	0.170584	1.0963	5862206.13
14S6201601	Integrated Circuit		Telcordia Issue 1	Level I		1.00	0.164105	1.0547	6093675.56
165322220J	Connection	CN6	Telcordia Issue 1	Level I		1.00	0.022522	.1447	44400933.36
1653204208	Connection	CN10	Telcordia Issue 1	Level I		1.00	0.004504	.0289	222004666.80
1654030003	Connection	CN13	Telcordia Issue 1	Level I		1.00	0.016892	.1086	59201244.48
165320520G	Connection	CN16,CN17,CN18, CN20,CN9	Telcordia Issue 1	Level I		5.00	0.005631	.1809	177603733.44
1174522180	Capacitor	CP1,CP2,CP3,CP4, CP5,CP6,CP7,CP8, CP9	Telcordia Issue 1	Level I		9.00	0.005458	.3157	183201032.40
1124410190	Capacitor	C1,C4,C5,C6,C7,C9	Telcordia Issue 1	Level I		6.00	0.004518	.1742	221353427.43
11B2701690	Capacitor	C104,C105,C106, C107,C111,C112, C113,C114,C115, C119,C12,C121,C122, C123,C124,C125, C126,C130,C132, C137,C139,C142, C146,C148,C149,C15, C150,C151,C152, C158,C16,C160,C161, C166,C169,C17,C176, C18,C181,C185,C188, C19,C191,C192,C	Telcordia Issue 1	Level I		256.00	0.004518	7.4327	221353427.43
11E9501091	Capacitor	C11,C163,C164,C168, C177,C178,C182, C189,C205,C206, C207,C208,C209, C213,C214,C218, C229,C230,C231, C232,C233,C234, C235,C242,C243, C244,C245,C268, C269,C292,C293, C432,C443,C461,C48, C511,C513,C517, C519,C521,C523,	Telcordia Issue 1	Level I		52.00	0.004518	1.5098	221353427.43
1124522880	Capacitor	C14,C265	Telcordia Issue 1	Level I		2.00	0.005458	.0702	183201032.40
1124568280	Capacitor	C22	Telcordia Issue 1	Level I		1.00	0.004518	.0290	221353427.43

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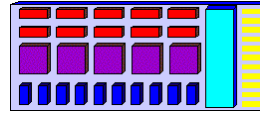


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Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1124547190	Capacitor	C25,C26,C27,C35, C36,C38,C73	Telcordia Issue 1	Level I		7.00	0.004518	.2032	221353427.43
1129701790	Capacitor	C154,C156,C28,C284, C29,C338,C374,C385, C388,C392,C429, C467,C490,C78	Telcordia Issue 1	Level I		14.00	0.004518	.4065	221353427.43
1129710090	Capacitor	C157,C180,C186, C197,C32,C37,C502	Telcordia Issue 1	Level I		7.00	0.004518	.2032	221353427.43
1124405090	Capacitor	C344,C45,C47,C55, C59,C61	Telcordia Issue 1	Level I		6.00	0.004518	.1742	221353427.43
1124427090	Capacitor	C389,C390,C458, C459,C46,C51,C69, C95,C96,C97,C98	Telcordia Issue 1	Level I		11.00	0.004518	.3194	221353427.43
1121610060	Capacitor	C60	Telcordia Issue 1	Level I		1.00	0.004518	.0290	221353427.43
1129715090	Capacitor	C72	Telcordia Issue 1	Level I		1.00	0.004518	.0290	221353427.43
1129710390	Capacitor	C118,C131,C524, C526,C548,C549,C77, C82	Telcordia Issue 1	Level I		8.00	0.004518	.2323	221353427.43
1129747090	Capacitor	C311,C414,C84,C86, C89	Telcordia Issue 1	Level I		5.00	0.005458	.1754	183201032.40
11E9647680	Capacitor	C100,C117,C145, C159,C165,C167, C211,C212,C258, C259,C277,C342, C395,C442,C470, C474	Telcordia Issue 1	Level I		16.00	0.004518	.4645	221353427.43
1129722680	Capacitor	C101,C102,C116, C134,C135,C136, C196	Telcordia Issue 1	Level I		7.00	0.004518	.2032	221353427.43
11E1547090	Capacitor	C140	Telcordia Issue 1	Level I		1.00	0.004518	.0290	221353427.43
1129722091	Capacitor	C184,C190,C198, C507,C508,C509	Telcordia Issue 1	Level I		6.00	0.004518	.1742	221353427.43
1129622050	Capacitor	C183,C194,C339, C355,C384,C424, C463	Telcordia Issue 1	Level I		7.00	0.004518	.2032	221353427.43
11B9747490	Capacitor	C226,C264,C274, C306	Telcordia Issue 1	Level I		4.00	0.004518	.1161	221353427.43
1122722890	Capacitor	C254,C272,C291, C298,C301,C303, C304	Telcordia Issue 1	Level I		7.00	0.005458	.2456	183201032.40
1124547290	Capacitor	C316,C318,C322, C323,C370,C371, C400,C401	Telcordia Issue 1	Level I		8.00	0.004518	.2323	221353427.43
1124518280	Capacitor	C404	Telcordia Issue 1	Level I		1.00	0.004518	.0290	221353427.43
16515A0996	Connection	DI1MM1	Telcordia Issue 1	Level I		1.00	0.112610	.7237	8880186.67
1304101340	Semiconductor	D1,D19	Telcordia Issue 1	Level I		2.00	0.004788	.0615	208850651.61
1304001340	Semiconductor	D20	Telcordia Issue 1	Level I		1.00	0.004788	.0308	208850651.61
1301005443	Semiconductor	D18,D26,D3,D33,D35, D37,D40	Telcordia Issue 1	Level I		7.00	0.027106	1.2194	36892237.91
1305000140	Semiconductor	D10,D11,D12,D29, D30,D31,D32,D9	Telcordia Issue 1	Level I		8.00	0.023744	1.2208	42115875.63
1301005441	Semiconductor	D13,D14,D24,D25, D27,D28	Telcordia Issue 1	Level I		6.00	0.027106	1.0452	36892237.91

**AAEON Reliability Prediction Report**

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**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 24.80



**Description**  
**File Name** TF-AEC-6831-A1-1010.RPJ  
**Time** 12:00 下午  
**Failure Rate** 15.559877  
**MTBF** 64,268

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
1300581940	Semiconductor	D15	Telcordia Issue 1	Level I		1.00	0.079147	.5087	12634762.69
1301053040	Semiconductor	D16,D17,D22,D23, D41,D42	Telcordia Issue 1	Level I		6.00	0.023744	.9156	42115875.63
1301002240	Semiconductor	D34	Telcordia Issue 1	Level I		1.00	0.023744	.1526	42115875.63
1301005442	Semiconductor	D36,D45,D46,D47	Telcordia Issue 1	Level I		4.00	0.023744	.6104	42115875.63
1305099140	Semiconductor	D38,D39	Telcordia Issue 1	Level I		2.00	0.079147	1.0173	12634762.69
1300001440	Semiconductor	D43,D44	Telcordia Issue 1	Level I		2.00	0.023744	.3052	42115875.63
1212306035	Inductor	FB1,FB2,FB4,FB5, FB6,FB7,FB8,FB9	Telcordia Issue 1	Level I		8.00	0.002259	.1161	442706854.87
1212306030	Inductor	FB10,FB13,FB14, FB15,FB16,FB24, FB26,FB27,FB28, FB29,FB3,FB30,FB31, FB33,FB34,FB35, FB37,FB41,FB42, FB43	Telcordia Issue 1	Level I		20.00	0.002259	.2903	442706854.87
121230603Z	Inductor	FB11,FB12,FB32	Telcordia Issue 1	Level I		3.00	0.002259	.0436	442706854.87
121230603D	Inductor	FB17,FB19,FB21	Telcordia Issue 1	Level I		3.00	0.002259	.0436	442706854.87
12123C0006	Inductor	FB18,FB20	Telcordia Issue 1	Level I		2.00	0.002259	.0290	442706854.87
12123C0007	Inductor	FB22,FB23	Telcordia Issue 1	Level I		2.00	0.002259	.0290	442706854.87
12123B0006	Inductor	FB36	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
1752001601	Miscellaneous	FS1,FS3	Telcordia Issue 1	Level I		2.00	0.003000	.0386	33333333.33
121110336L	Inductor	L1,L11	Telcordia Issue 1	Level I		2.00	0.085836	1.1033	11650180.39
121110100P	Inductor	L2,L3	Telcordia Issue 1	Level I		2.00	0.085836	1.1033	11650180.39
1212308054	Inductor	L5	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
121110226C	Inductor	L8	Telcordia Issue 1	Level I	51.10	1.00	0.201996	1.2982	4950596.35
121110156A	Inductor	L7	Telcordia Issue 1	Level I	38.20	1.00	0.166795	1.0720	5995399.25
121110156A	Inductor	L4	Telcordia Issue 1	Level I		1.00	0.085836	.5516	11650180.39
1211100102	Inductor	L10,L9	Telcordia Issue 1	Level I		2.00	0.085836	1.1033	11650180.39
1654262300	Connection	MPC11	Telcordia Issue 1	Level I		1.00	0.069818	.4487	14322881.73
1315700212	Semiconductor	Q1,Q10,Q12,Q15,Q23, Q24,Q25,Q26,Q27,Q3, Q32,Q33,Q35,Q4,Q5, Q6,Q7,Q8,Q9	Telcordia Issue 1	Level I		19.00	0.079147	9.6645	12634762.69
1315230300	Semiconductor	Q2	Telcordia Issue 1	Level I		1.00	0.079147	.5087	12634762.69
1310390410	Semiconductor	Q11,Q13,Q16,Q17, Q28	Telcordia Issue 1	Level I		5.00	0.023744	.7630	42115875.63
1311390610	Semiconductor	Q14,Q31	Telcordia Issue 1	Level I		2.00	0.023744	.3052	42115875.63
1315230114	Semiconductor	Q18	Telcordia Issue 1	Level I		1.00	0.000000	.0000	.00
1311138610	Semiconductor	Q19,Q20,Q21,Q22	Telcordia Issue 1	Level I		4.00	0.023744	.6104	42115875.63
1315030110	Semiconductor	Q29,Q30,Q34	Telcordia Issue 1	Level I		3.00	0.000000	.0000	.00
1540782282	Resistor	RP1,RP10,RP2,RP8, RP9	Telcordia Issue 1	Level I		5.00	0.012378	.3978	80787269.19



### AAEON Reliability Prediction Report

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**Reference Des**  
**Date** 05. 26, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 24.80

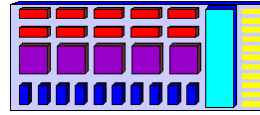


**Description**  
**File Name** TF-AEC-6831-A1-1010.RPJ  
**Time** 12:00 下午  
**Failure Rate** 15.559877  
**MTBF** 64,268

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1540710280	Resistor	RP3,RP4	Telcordia Issue 1	Level I		2.00	0.006189	.0796	161574538.37
1540733085	Resistor	RP11,RP5,RP6	Telcordia Issue 1	Level I		3.00	0.006189	.1193	161574538.37
106B501032	Resistor	RT1,RT2,RT5	Telcordia Issue 1	Level I		3.00	0.002259	.0436	442706854.87
106B503331	Resistor	RT3	Telcordia Issue 1	Level I		1.00	0.011261	.0724	88801866.72
105A710039	Resistor	R1,R11,R117,R12, R121,R122,R123,R3, R4,R419,R504,R506, R514,R522,R535,R6, R7,R9	Telcordia Issue 1	Level I		18.00	0.002259	.2613	442706854.87
105A702223	Resistor	R8	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A700139	Resistor	R10,R229,R232,R335, R338,R344,R348, R352,R361,R369,R37, R381,R382,R39,R390, R392,R399,R40,R401, R409,R410,R415, R416,R425,R427, R442,R47,R482,R487, R502,R512,R537, R538,R543,R56,R94	Telcordia Issue 1	Level I		36.00	0.002259	.5226	442706854.87
105A701003	Resistor	R13	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A516513	Resistor	R14	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A500139	Resistor	R15,R237,R258,R261, R263,R276,R279, R288,R292,R300, R318,R331,R542	Telcordia Issue 1	Level I		13.00	0.002259	.1887	442706854.87
105A701039	Resistor	R113,R156,R16,R220, R23,R24,R242,R243, R25,R294,R295,R298, R30,R303,R304,R307, R310,R325,R329,R33, R330,R342,R353, R354,R355,R371, R375,R377,R383, R388,R389,R391, R394,R395,R407, R424,R426,R431, R439,R443,R448, R453,R457,R469,	Telcordia Issue 1	Level I		63.00	0.002259	.9146	442706854.87
105A700103	Resistor	R17,R18,R441	Telcordia Issue 1	Level I		3.00	0.002259	.0436	442706854.87

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105A705609	Resistor	R141,R142,R144, R148,R149,R150, R183,R184,R185, R186,R187,R188, R189,R19,R190,R191, R192,R193,R194, R198,R199,R200, R201,R202,R203, R204,R205,R206, R207,R208,R209, R210,R211,R473	Telcordia Issue 1	Level I		34.00	0.002259	.4936	442706854.87
1050524904	Resistor	R20,R268,R280,R315, R403,R445	Telcordia Issue 1	Level I		6.00	0.002259	.0871	442706854.87
105A700009	Resistor	R105,R106,R119, R137,R153,R159,R21, R216,R217,R22,R277, R296,R309,R31,R311, R32,R34,R35,R356, R363,R370,R384, R408,R44,R45,R46, R467,R474,R478, R513,R515,R517, R521,R530,R66,R95	Telcordia Issue 1	Level I		36.00	0.002259	.5226	442706854.87
105A515009	Resistor	R103,R128,R129, R130,R131,R132, R133,R250,R259,R26, R264,R28,R367,R417, R49,R51,R88,R89	Telcordia Issue 1	Level I		18.00	0.002259	.2613	442706854.87
105A704729	Resistor	R101,R107,R124, R125,R218,R223, R230,R236,R27,R327, R328,R334,R336, R337,R339,R340, R345,R346,R364, R412,R433,R464, R483,R484,R493, R499,R503,R511, R523,R524,R534, R539,R541,R60,R86	Telcordia Issue 1	Level I		35.00	0.002259	.5081	442706854.87
1059700001	Resistor	R118,R373	Telcordia Issue 1	Level I		2.00	0.002259	.0290	442706854.87

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105A703309	Resistor	R231,R36,R366,R374, R376,R38,R402,R461, R489,R505,R509, R516,R529,R71,R74, R78,R81,R82,R83, R97	Telcordia Issue 1	Level I		20.00	0.002259	.2903	442706854.87
105A708229	Resistor	R42,R434,R437,R440, R444,R447,R451, R456,R477,R52,R72, R73,R75	Telcordia Issue 1	Level I		13.00	0.002259	.1887	442706854.87
105A710053	Resistor	R387,R43,R87	Telcordia Issue 1	Level I		3.00	0.013553	.2613	73784475.81
105A522663	Resistor	R58	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A703909	Resistor	R126,R127,R62,R63, R65,R67,R68,R69, R70	Telcordia Issue 1	Level I		9.00	0.002259	.1307	442706854.87
105A701053	Resistor	R418,R76	Telcordia Issue 1	Level I		2.00	0.002259	.0290	442706854.87
105A733033	Resistor	R77	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A701009	Resistor	R112,R161,R162, R267,R287,R378, R379,R385,R397, R460,R84	Telcordia Issue 1	Level I		11.00	0.002259	.1597	442706854.87
105A501039	Resistor	R108,R109,R110, R195,R196,R248, R253,R260,R272, R526,R545,R91,R92, R93	Telcordia Issue 1	Level I		14.00	0.002259	.2032	442706854.87
105A549903	Resistor	R102,R154	Telcordia Issue 1	Level I		2.00	0.002259	.0290	442706854.87
105A513033	Resistor	R116,R139	Telcordia Issue 1	Level I		2.00	0.002259	.0290	442706854.87
105A530123	Resistor	R136	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A510009	Resistor	R140,R147,R266, R273,R274,R291, R317,R333,R358, R396,R429,R449, R450,R527	Telcordia Issue 1	Level I		14.00	0.002259	.2032	442706854.87
105A706809	Resistor	R143	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A701539	Resistor	R146	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A702209	Resistor	R151,R494,R495	Telcordia Issue 1	Level I		3.00	0.002259	.0436	442706854.87
105A554969	Resistor	R152,R180,R281, R316	Telcordia Issue 1	Level I		4.00	0.002259	.0581	442706854.87
105A702033	Resistor	R155,R507	Telcordia Issue 1	Level I		2.00	0.002259	.0290	442706854.87
105A703903	Resistor	R157,R158	Telcordia Issue 1	Level I		2.00	0.002259	.0290	442706854.87
105A702229	Resistor	R163,R164,R299, R305,R306,R380, R462,R481,R491, R492,R500,R501, R508	Telcordia Issue 1	Level I		13.00	0.002259	.1887	442706854.87
105A580663	Resistor	R174,R175	Telcordia Issue 1	Level I		2.00	0.002259	.0290	442706854.87
105A527463	Resistor	R181,R289	Telcordia Issue 1	Level I		2.00	0.002259	.0290	442706854.87

### AAEON Reliability Prediction Report

**Part Number** 969794550D-D  
**Reference Des**  
**Date** 05. 26, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 24.80



**Description**  
**File Name** TF-AEC-6831-A1-1010.RPJ  
**Time** 12:00 下午  
**Failure Rate** 15.559877  
**MTBF** 64,268

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
105A502033	Resistor	R212	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A702263	Resistor	R213,R235	Telcordia Issue 1	Level I		2.00	0.002259	.0290	442706854.87
105A700003	Resistor	R214,R215,R219, R238,R241,R313, R314,R368,R423	Telcordia Issue 1	Level I		9.00	0.002259	.1307	442706854.87
105A500239	Resistor	R221,R254,R257, R265	Telcordia Issue 1	Level I		4.00	0.002259	.0581	442706854.87
105A532413	Resistor	R222	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A501623	Resistor	R224	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A510213	Resistor	R226	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A733009	Resistor	R227,R228,R269, R432,R528	Telcordia Issue 1	Level I		5.00	0.002259	.0726	442706854.87
105A705133	Resistor	R233	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A511313	Resistor	R234	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A705139	Resistor	R246,R247,R255, R256	Telcordia Issue 1	Level I		4.00	0.002259	.0581	442706854.87
105A507509	Resistor	R249,R252,R262	Telcordia Issue 1	Level I		3.00	0.002259	.0436	442706854.87
105A501523	Resistor	R282	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A525503	Resistor	R283	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A522103	Resistor	R293,R319,R525	Telcordia Issue 1	Level I		3.00	0.002259	.0436	442706854.87
105A549919	Resistor	R297,R365,R393, R400,R422,R428, R446	Telcordia Issue 1	Level I		7.00	0.002259	.1016	442706854.87
105A501633	Resistor	R301	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A518223	Resistor	R302	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A520003	Resistor	R320	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
1050547004	Resistor	R332,R341,R347, R468	Telcordia Issue 1	Level I		4.00	0.002259	.0581	442706854.87
105A501223	Resistor	R343	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A503033	Resistor	R349	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A506823	Resistor	R350,R351	Telcordia Issue 1	Level I		2.00	0.002259	.0290	442706854.87
105A551113	Resistor	R398	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A502833	Resistor	R404	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A501233	Resistor	R406	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A512033	Resistor	R430	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A568123	Resistor	R436	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
1189615151	Capacitor	TC1,TC12,TC15,TC19, TC22,TC24,TC26, TC29,TC4	Telcordia Issue 1	Level I		9.00	0.004518	.2613	221353427.43
1189922180	Capacitor	TC18,TC2,TC25,TC7, TC8	Telcordia Issue 1	Level I		5.00	0.004518	.1452	221353427.43
1189647180	Capacitor	TC14,TC3,TC5,TC6	Telcordia Issue 1	Level I		4.00	0.004518	.1161	221353427.43
1189633160	Capacitor	TC11,TC13,TC16, TC20,TC21,TC9	Telcordia Issue 1	Level I		6.00	0.004518	.1742	221353427.43

### AAEON Reliability Prediction Report

**Part Number** 969794550D-D  
**Reference Des**  
**Date** 05. 26, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 24.80



**Description**  
**File Name** TF-AEC-6831-A1-1010.RPJ  
**Time** 12:00 下午  
**Failure Rate** 15.559877  
**MTBF** 64,268

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1189633181	Capacitor	TC27,TC28	Telcordia Issue 1	Level I		2.00	0.004518	.0581	221353427.43
1315992601	Semiconductor	U1	Telcordia Issue 1	Level I		1.00	0.158293	1.0173	6317381.35
14S2303700	Integrated Circuit	U2	Telcordia Issue 1	Level I		1.00	0.058503	.3760	17093092.17
14S428010D	Integrated Circuit	U4	Telcordia Issue 1	Level I	33.60	1.00	0.153033	.9835	6534525.82
14S4825740	Integrated Circuit	U5	Telcordia Issue 1	Level I		1.00	0.025876	.1663	38645358.49
14S4825740	Integrated Circuit	U7	Telcordia Issue 1	Level I	33.70	1.00	0.153762	.9882	6503547.22
14S5A00700	Integrated Circuit	U6	Telcordia Issue 1	Level I		1.00	0.024950	.1603	40080193.24
14S3050100	Integrated Circuit	U8	Telcordia Issue 1	Level I		1.00	0.058503	.3760	17093092.17
14S4878100	Integrated Circuit	U9	Telcordia Issue 1	Level I	27.50	1.00	0.113893	.7320	8780133.11
14S3524700	Integrated Circuit	U10	Telcordia Issue 1	Level I		1.00	0.058503	.3760	17093092.17
14S2045400	Integrated Circuit	U11	Telcordia Issue 1	Level I		1.00	0.058503	.3760	17093092.17
1315889611	Semiconductor	U12,U37	Telcordia Issue 1	Level I		2.00	0.079147	1.0173	12634762.69
14S4294503	Integrated Circuit	U13	Telcordia Issue 1	Level I	22.00	1.00	0.086424	.5554	11570852.71
14S4160020	Integrated Circuit	U14	Telcordia Issue 1	Level I		1.00	0.025876	.1663	38645358.49
14S2200900	Integrated Circuit	U15	Telcordia Issue 1	Level I		1.00	0.058503	.3760	17093092.17
1315441014	Semiconductor	U17	Telcordia Issue 1	Level I	41.90	1.00	0.227781	1.4639	4390173.46
14S4653700	Integrated Circuit	U18	Telcordia Issue 1	Level I		1.00	0.058503	.3760	17093092.17
14S4021301	Integrated Circuit	U22,U27,U32,U33	Telcordia Issue 1	Level I		4.00	0.058503	1.5039	17093092.17
1315668012	Semiconductor	U23	Telcordia Issue 1	Level I		1.00	0.023744	.1526	42115875.63
14S2591200	Integrated Circuit	U24	Telcordia Issue 1	Level I		1.00	0.058503	.3760	17093092.17
14S5A12503	Integrated Circuit	U25	Telcordia Issue 1	Level I		1.00	0.058503	.3760	17093092.17
14S4730701	Integrated Circuit	U26	Telcordia Issue 1	Level I	35.60	1.00	0.600920	3.8620	1664115.59
14S4048502	Integrated Circuit	U28,U29	Telcordia Issue 1	Level I		2.00	0.058503	.7520	17093092.17
14S5A00600	Integrated Circuit	U30	Telcordia Issue 1	Level I		1.00	0.024950	.1603	40080193.24
14S5A12506	Integrated Circuit	U31,U51	Telcordia Issue 1	Level I		2.00	0.025876	.3326	38645358.49
1315970211	Semiconductor	U34,U44	Telcordia Issue 1	Level I		2.00	0.158293	2.0346	6317381.35
14S6308001	Integrated Circuit	U35,U39	Telcordia Issue 1	Level I		2.00	0.035361	.4545	28279854.47
14S3387201	Integrated Circuit	U36	Telcordia Issue 1	Level I		1.00	0.058503	.3760	17093092.17
14S5A00821	Integrated Circuit	U38,U54	Telcordia Issue 1	Level I		2.00	0.025876	.3326	38645358.49
14S3156500	Semiconductor	U40	Telcordia Issue 1	Level I	36.80	1.00	0.121881	.7833	8204721.54
14S3065500	Integrated Circuit	U46	Telcordia Issue 1	Level I	36.10	1.00	0.618712	3.9763	1616260.13
1315993311	Semiconductor	U47	Telcordia Issue 1	Level I		1.00	0.158293	1.0173	6317381.35
14S4081110	Integrated Circuit	U48,U49	Telcordia Issue 1	Level I		2.00	0.058503	.7520	17093092.17
1231332721	Miscellaneous	Y1	Telcordia Issue 1	Level I		1.00	0.150000	.9640	6666666.67
123131435B	Miscellaneous	Y2	Telcordia Issue 1	Level I		1.00	0.150000	.9640	6666666.67
1231325058	Miscellaneous	Y3,Y4	Telcordia Issue 1	Level I		2.00	0.150000	1.9280	6666666.67

### AAEON Reliability Prediction Report

**Part Number** 969794550D-D  
**Reference Des**  
**Date** 05. 26, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 24.80



**Description**  
**File Name** TF-AEC-6831-A1-1010.RPJ  
**Time** 12:00 下午  
**Failure Rate** 15.559877  
**MTBF** 64,268

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1231324555	Miscellaneous	Y5	Telcordia Issue 1	Level I		1.00	0.150000	.9640	6666666.67
11B9710050	Capacitor	C10,C13,C133,C138, C2,C204,C225,C227, C256,C270,C275, C276,C279,C280, C281,C285,C3,C30, C308,C313,C332, C333,C343,C350, C354,C377,C383, C391,C415,C423, C425,C43,C446,C462, C464,C486,C49,C492, C531,C532,C538,C80, C92	Telcordia Issue 1	Level I		43.00	0.004518	1.2485	221353427.43
11E9510050	Capacitor	C109,C110,C144, C153,C155,C187, C199,C200,C201, C202,C203,C210, C236,C237,C238, C239,C240,C247, C248,C527	Telcordia Issue 1	Level I		20.00	0.004518	.5807	221353427.43
1315662810	Semiconductor	U19	Telcordia Issue 1	Level I	53.80	1.00	0.293733	1.8878	3404456.57
1315662810	Semiconductor	U50	Telcordia Issue 1	Level I	48.10	1.00	0.260617	1.6749	3837042.40
1315662810	Semiconductor	U20	Telcordia Issue 1	Level I	55.90	1.00	0.306668	1.9709	3260850.30
1315662210	Semiconductor	U21	Telcordia Issue 1	Level I		1.00	0.079147	.5087	12634762.69
165300420L	Connection	CN21	Telcordia Issue 1	Level I		1.00	0.004504	.0289	222004666.80
11E9610190	Capacitor	C278	Telcordia Issue 1	Level I		1.00	0.004518	.0290	221353427.43
1075502570	Resistor	R285	Telcordia Issue 1	Level II		1.00	0.000753	.0048	1328120564.61
11E1622060	Capacitor	C397,C481	Telcordia Issue 1	Level I		2.00	0.004518	.0581	221353427.43
105A501129	Resistor	R540	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
14S4195710	Integrated Circuit	U52,U53	Telcordia Issue 1	Level I		2.00	0.058503	.7520	17093092.17
105A542213	Resistor	R544	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
1121733780	Capacitor	C563	Telcordia Issue 1	Level I		1.00	0.005458	.0351	183201032.40
1121747780	Capacitor	C564	Telcordia Issue 1	Level I		1.00	0.004518	.0290	221353427.43
1129522790	Capacitor	C91	Telcordia Issue 1	Level I		1.00	0.004518	.0290	221353427.43
105A701529	Resistor	R270	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A703329	Resistor	R271	Telcordia Issue 1	Level I		1.00	0.002259	.0145	442706854.87
105A700109	Resistor	R321,R322,R323, R324	Telcordia Issue 1	Level I		4.00	0.002259	.0581	442706854.87
1752000501	Miscellaneous	FS5	Telcordia Issue 1	Level I		1.00	0.003000	.0193	33333333.33
1189633192	Capacitor	TC10	Telcordia Issue 1	Level I		1.00	0.004518	.0290	221353427.43
1655902030	Connection	BAT1	Telcordia Issue 1	Level I		1.00	0.001126	.0072	888018667.20

