

COM-U15 + ECB-951D Reliability Prediction Report (MTBF)

Report NO : 09E070028

04-23-2009

Issue Date

Wenyuan Yang

Manager

Jessica Chou

Test Engineer

Reliability Prediction (MTBF)

I . **Model Name:** COM-U15 with ECB-951D

II . **Prediction Date:** Apr. 23, 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: 25.1 degrees C
- Standard: Telcordia (Bellcore) Standard

VII. Term and Definition:

- Unit : An assembly of device.
- Duty Cycle : 100%
- 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:

- COM-U15 with ECB-951D :
Failure Rate: 20.467687 ppm
MTBF: 48,857 Hours

COM-U15:

Failure Rate: 10.121344 ppm
MTBF: 98,801 Hours

ECB-951D:

Failure Rate: 10.346343 ppm
MTBF: 96,653 Hours

AAEON Reliability Prediction Report

Part Number
Reference Des
Date 04. 23, 2009
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10

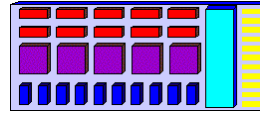


Description
File Name COM-U15+ECB-951D.RPJ
Time 3:35 下午
Failure Rate 20.467687
MTBF 48,857

Assembly Name	Part Number	Model	Method	Environment	Duty Cycle	Qty	Failure Rate	MTBF
COM-U15+ECB-951D		Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled	100.00	1.00	20.47	48857.50
COM-U15	9697MENL07-D	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled	100.00	1.00	10.12	98801.11
ECB-951D	9697951D04-D	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled	100.00	1.00	10.35	96652.51

AAEON Reliability Prediction Report

Part Number 9697MENL07-D
Reference Des
Date 04. 23, 2009
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name COM-U15+ECB-951D.RPJ
Time 3:35 下午
Failure Rate 10.121344
MTBF 98,801

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
11E9501091	Capacitor	C149,C159,C162, C165,C168,C198, C199,C200,C201, C202,C203,C204, C205,C206,C207, C211,C214,C217, C218,C219,C220, C221,C222,C229, C234,C236,C239, C240,C241,C242, C243,C244,C247, C248,C252,C254, C255,C256,C257,	Telcordia Issue 1	Level I		65.00	0.004544	2.9184	220055560.52
11C4512290	Capacitor	C29	Telcordia Issue 1	Level I		1.00	0.004544	.0449	220055560.52
1124518180	Capacitor	C31	Telcordia Issue 1	Level I		1.00	0.004544	.0449	220055560.52
1129710090	Capacitor	C161,C294,C304, C332,C54,C55	Telcordia Issue 1	Level I		6.00	0.004544	.2694	220055560.52
1122601680	Capacitor	C102,C59,C73,C74, C90,C94	Telcordia Issue 1	Level I		6.00	0.004544	.2694	220055560.52
1121747890	Capacitor	C297,C63	Telcordia Issue 1	Level I		2.00	0.004544	.0898	220055560.52
11E9647680	Capacitor	C173,C209,C210, C225,C281,C285, C366,C66,C67	Telcordia Issue 1	Level I		9.00	0.004544	.4041	220055560.52
11B2722650	Capacitor	C339,C72,C75,C82, C96	Telcordia Issue 1	Level I		5.00	0.004544	.2245	220055560.52
11B2710060	Capacitor	C110,C139,C169, C308,C310,C311, C312,C340,C341, C346,C92	Telcordia Issue 1	Level I		11.00	0.004544	.4939	220055560.52
1124427080	Capacitor	C109,C98	Telcordia Issue 1	Level I		2.00	0.004544	.0898	220055560.52
11B2701080	Capacitor	C113,C328	Telcordia Issue 1	Level I		2.00	0.004544	.0898	220055560.52
1129610051	Capacitor	C144,C367	Telcordia Issue 1	Level I		2.00	0.004544	.0898	220055560.52
1121501690	Capacitor	C148,C286,C305, C316	Telcordia Issue 1	Level I		4.00	0.004544	.1796	220055560.52
1121501680	Capacitor	C176	Telcordia Issue 1	Level I		1.00	0.005469	.0540	182842274.63
1129622050	Capacitor	C189	Telcordia Issue 1	Level I		1.00	0.004544	.0449	220055560.52
1124522880	Capacitor	C190	Telcordia Issue 1	Level I		1.00	0.005469	.0540	182842274.63
1124433080	Capacitor	C192,C193,C364	Telcordia Issue 1	Level I		3.00	0.004544	.1347	220055560.52
1124533280	Capacitor	C300	Telcordia Issue 1	Level I		1.00	0.005469	.0540	182842274.63
1124405080	Capacitor	C363	Telcordia Issue 1	Level I		1.00	0.005469	.0540	182842274.63
1301053040	Semiconductor	D1,D3,D8	Telcordia Issue 1	Level I		3.00	0.023950	.7099	41754194.40
1301005442	Semiconductor	D13,D19,D2	Telcordia Issue 1	Level I		3.00	0.023950	.7099	41754194.40
1300001440	Semiconductor	D10,D11,D23,D4,D5, D6	Telcordia Issue 1	Level I		6.00	0.023950	1.4198	41754194.40
1301005440	Semiconductor	D12,D15,D22	Telcordia Issue 1	Level I		3.00	0.023950	.7099	41754194.40
1305099140	Semiconductor	D16,D17	Telcordia Issue 1	Level I		2.00	0.079832	1.5775	12526258.32

AAEON Reliability Prediction Report

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Environment GF, GU - Ground Fixed, Uncontrolled
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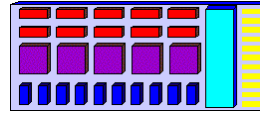


Description
File Name COM-U15+ECB-951D.RPJ
Time 3:35 下午
Failure Rate 10.121344
MTBF 98,801

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1212306033	Inductor	FB1,FB2,FB4	Telcordia Issue 1	Level I		3.00	0.002272	.0673	440111121.05
1212306031	Inductor	FB5,FB6	Telcordia Issue 1	Level I		2.00	0.002272	.0449	440111121.05
1653003202	Connection	JP1,JP2	Telcordia Issue 1	Level I		2.00	0.003432	.0678	291400592.32
1304001340	Semiconductor	LED1	Telcordia Issue 1	Level I		1.00	0.004921	.0486	203197151.95
1211000180	Inductor	L1	Telcordia Issue 1	Level I	21.90	1.00	0.003388	.0335	295163024.70
121110336L	Inductor	L2	Telcordia Issue 1	Level I	23.50	1.00	0.132273	1.3069	7560121.74
121110336L	Inductor	L4,L5	Telcordia Issue 1	Level I		2.00	0.086342	1.7061	11581871.61
121110336P	Inductor	L3	Telcordia Issue 1	Level I		1.00	0.086342	.8531	11581871.61
1315442011	Semiconductor	Q1	Telcordia Issue 1	Level I	21.20	1.00	0.140946	1.3926	7094923.40
1315442011	Semiconductor	Q6	Telcordia Issue 1	Level I	25.00	1.00	0.154839	1.5298	6458337.88
1315442011	Semiconductor	Q14,Q20,Q4	Telcordia Issue 1	Level I		3.00	0.079832	2.3663	12526258.32
1315700216	Semiconductor	Q17,Q2,Q24,Q26,Q27, Q3,Q36,Q37,Q42	Telcordia Issue 1	Level I		9.00	0.079832	7.0988	12526258.32
1311138610	Semiconductor	Q29,Q5	Telcordia Issue 1	Level I		2.00	0.023950	.4733	41754194.40
1315731310	Semiconductor	Q7,Q9	Telcordia Issue 1	Level I		2.00	0.159665	3.1550	6263129.16
1315033510	Semiconductor	Q32,Q40,Q8	Telcordia Issue 1	Level I		3.00	0.000000	.0000	.00
1310390413	Semiconductor	Q11,Q12,Q25,Q31, Q33,Q35,Q38	Telcordia Issue 1	Level I		7.00	0.023950	1.6564	41754194.40
131411171C	Integrated Circuit	Q13	Telcordia Issue 1	Level I	25.40	1.00	0.331009	3.2704	3021064.16
131411171C	Integrated Circuit	Q39	Telcordia Issue 1	Level I		1.00	0.059802	.5908	16721916.86
1315446310	Semiconductor	Q10,Q15,Q16,Q21	Telcordia Issue 1	Level I		4.00	0.079832	3.1550	12526258.32
1314108412	Integrated Circuit	Q18	Telcordia Issue 1	Level I	26.00	1.00	0.343547	3.3943	2910811.37
1311390612	Semiconductor	Q28	Telcordia Issue 1	Level I		1.00	0.023950	.2366	41754194.40
1315230511	Semiconductor	Q30	Telcordia Issue 1	Level I		1.00	0.079832	.7888	12526258.32
1314880010	Integrated Circuit	Q34	Telcordia Issue 1	Level I		1.00	0.059802	.5908	16721916.86
14S3880000	Integrated Circuit	Q41	Telcordia Issue 1	Level I		1.00	0.059802	.5908	16721916.86
1540782282	Resistor	RP1,RP2	Telcordia Issue 1	Level I		2.00	0.012549	.2480	79686328.81
1540722085	Resistor	RP3,RP4,RP5,RP6, RP7	Telcordia Issue 1	Level I		5.00	0.012549	.6199	79686328.81
106B747030	Resistor	RT1	Telcordia Issue 1	Level I		1.00	0.011439	.1130	87420177.69
106B501032	Resistor	RT2	Telcordia Issue 1	Level I		1.00	0.002272	.0224	440111121.05
105A703309	Resistor	R19,R207,R459,R57, R62,R64,R66,R68,R7, R70,R73,R75,R80, R81,R82,R83,R86	Telcordia Issue 1	Level I		17.00	0.002272	.3816	440111121.05
105A710039	Resistor	R164,R20,R352,R375, R8	Telcordia Issue 1	Level I		5.00	0.002272	.1122	440111121.05

AAEON Reliability Prediction Report

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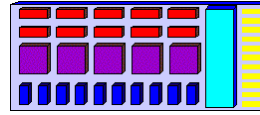


Description
File Name COM-U15+ECB-951D.RPJ
Time 3:35 下午
Failure Rate 10.121344
MTBF 98,801

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A500139	Resistor	R198,R303,R305, R320,R335,R36,R384, R391,R392,R401, R461,R87,R91,R95	Telcordia Issue 1	Level I		14.00	0.002272	.3143	440111121.05
105A526123	Resistor	R39	Telcordia Issue 1	Level I		1.00	0.002272	.0224	440111121.05
105A700003	Resistor	R248,R249,R278, R283,R286,R295, R299,R40,R429,R90	Telcordia Issue 1	Level I		10.00	0.002272	.2245	440111121.05
105A506823	Resistor	R41	Telcordia Issue 1	Level I		1.00	0.002272	.0224	440111121.05
105A500133	Resistor	R279,R280,R281,R43, R67	Telcordia Issue 1	Level I		5.00	0.002272	.1122	440111121.05
105A510003	Resistor	R44	Telcordia Issue 1	Level I		1.00	0.002272	.0224	440111121.05
105A536513	Resistor	R49	Telcordia Issue 1	Level I		1.00	0.002272	.0224	440111121.05
105A524963	Resistor	R53	Telcordia Issue 1	Level I		1.00	0.002272	.0224	440111121.05
105A501039	Resistor	R181,R261,R345, R373,R374,R412,R54	Telcordia Issue 1	Level I		7.00	0.002272	.1571	440111121.05
105A501523	Resistor	R61	Telcordia Issue 1	Level I		1.00	0.002272	.0224	440111121.05
105A510009	Resistor	R159,R175,R179, R321,R471,R65,R69	Telcordia Issue 1	Level I		7.00	0.002272	.1571	440111121.05
105A700103	Resistor	R71	Telcordia Issue 1	Level I		1.00	0.002272	.0224	440111121.05
105A705609	Resistor	R102,R103,R104, R105,R293,R309, R313,R316,R72,R74, R76,R79,R84,R85	Telcordia Issue 1	Level I		14.00	0.002272	.3143	440111121.05
105A704723	Resistor	R101,R227,R267, R338,R358,R398,R89, R96	Telcordia Issue 1	Level I		8.00	0.002272	.1796	440111121.05
105A527469	Resistor	R289,R323,R92	Telcordia Issue 1	Level I		3.00	0.002272	.0673	440111121.05
1059700001	Resistor	R277,R300,R337, R462,R93	Telcordia Issue 1	Level I		5.00	0.002272	.1122	440111121.05
105A702209	Resistor	R154,R348,R369, R370,R463,R465, R466,R468,R94	Telcordia Issue 1	Level I		9.00	0.002272	.2020	440111121.05
105A568003	Resistor	R97	Telcordia Issue 1	Level I		1.00	0.002272	.0224	440111121.05
105A703909	Resistor	R98	Telcordia Issue 1	Level I		1.00	0.002272	.0224	440111121.05
105A560469	Resistor	R285,R291,R294, R298,R99	Telcordia Issue 1	Level I		5.00	0.002272	.1122	440111121.05
105A715009	Resistor	R100,R243,R244	Telcordia Issue 1	Level I		3.00	0.002272	.0673	440111121.05
105A710053	Resistor	R106	Telcordia Issue 1	Level I		1.00	0.013633	.1347	73351853.51
105A502039	Resistor	R112	Telcordia Issue 1	Level I		1.00	0.002272	.0224	440111121.05
105A704729	Resistor	R122,R136,R183, R184,R399,R404, R428,R496,R500	Telcordia Issue 1	Level I		9.00	0.002272	.2020	440111121.05
1050540224	Resistor	R124,R127,R128	Telcordia Issue 1	Level I		3.00	0.002272	.0673	440111121.05

AAEON Reliability Prediction Report

Part Number 9697MENL07-D
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Date 04. 23, 2009
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name COM-U15+ECB-951D.RPJ
Time 3:35 下午
Failure Rate 10.121344
MTBF 98,801

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A702033	Resistor	R133	Telcordia Issue 1	Level I		1.00	0.002272	.0224	44011121.05
105A747003	Resistor	R152,R388	Telcordia Issue 1	Level I		2.00	0.002272	.0449	44011121.05
105A503333	Resistor	R160	Telcordia Issue 1	Level I		1.00	0.002272	.0224	44011121.05
105A708229	Resistor	R161,R415,R425, R501	Telcordia Issue 1	Level I		4.00	0.002272	.0898	44011121.05
105A708209	Resistor	R162,R166,R167, R171,R172,R177, R464,R467,R469	Telcordia Issue 1	Level I		9.00	0.002272	.2020	44011121.05
105A704733	Resistor	R163	Telcordia Issue 1	Level I		1.00	0.002272	.0224	44011121.05
105A549919	Resistor	R190	Telcordia Issue 1	Level I		1.00	0.002272	.0224	44011121.05
1050520004	Resistor	R194,R197,R259	Telcordia Issue 1	Level I		3.00	0.002272	.0673	44011121.05
105A700133	Resistor	R201,R203,R360, R405,R407,R421	Telcordia Issue 1	Level I		6.00	0.002272	.1347	44011121.05
1050512104	Resistor	R214,R216,R217, R218,R219,R220, R221,R222,R223, R224,R225,R226, R229,R230,R231, R232,R233,R234, R235,R236,R237, R238,R239,R240, R241	Telcordia Issue 1	Level I		25.00	0.002272	.5612	44011121.05
105A518703	Resistor	R242	Telcordia Issue 1	Level I		1.00	0.002272	.0224	44011121.05
105A511503	Resistor	R246	Telcordia Issue 1	Level I		1.00	0.002272	.0224	44011121.05
105A535713	Resistor	R251	Telcordia Issue 1	Level I		1.00	0.002272	.0224	44011121.05
105A575033	Resistor	R253	Telcordia Issue 1	Level I		1.00	0.002272	.0224	44011121.05
105A512103	Resistor	R255	Telcordia Issue 1	Level I		1.00	0.002272	.0224	44011121.05
105A702229	Resistor	R260,R390,R431, R432	Telcordia Issue 1	Level I		4.00	0.002272	.0898	44011121.05
105A514733	Resistor	R273	Telcordia Issue 1	Level I		1.00	0.002272	.0224	44011121.05
105A540213	Resistor	R274,R336	Telcordia Issue 1	Level I		2.00	0.002272	.0449	44011121.05
105A530163	Resistor	R276	Telcordia Issue 1	Level I		1.00	0.002272	.0224	44011121.05
105A554969	Resistor	R288,R324	Telcordia Issue 1	Level I		2.00	0.002272	.0449	44011121.05
105A526113	Resistor	R290	Telcordia Issue 1	Level I		1.00	0.002272	.0224	44011121.05
105A501133	Resistor	R292	Telcordia Issue 1	Level I		1.00	0.002272	.0224	44011121.05
1050524904	Resistor	R297,R306,R314	Telcordia Issue 1	Level I		3.00	0.002272	.0673	44011121.05
105A522663	Resistor	R307	Telcordia Issue 1	Level I		1.00	0.002272	.0224	44011121.05
105A701003	Resistor	R308	Telcordia Issue 1	Level I		1.00	0.002272	.0224	44011121.05
105A522103	Resistor	R328	Telcordia Issue 1	Level I		1.00	0.002272	.0224	44011121.05
105A701053	Resistor	R347	Telcordia Issue 1	Level I		1.00	0.002272	.0224	44011121.05
105A507523	Resistor	R356	Telcordia Issue 1	Level I		1.00	0.002272	.0224	44011121.05

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Time 3:35 下午
Failure Rate 10.121344
MTBF 98,801

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A733009	Resistor	R387,R403	Telcordia Issue 1	Level I		2.00	0.002272	.0449	440111121.05
105A501633	Resistor	R389	Telcordia Issue 1	Level I		1.00	0.002272	.0224	440111121.05
105A507533	Resistor	R411	Telcordia Issue 1	Level I		1.00	0.002272	.0224	440111121.05
105A501533	Resistor	R414	Telcordia Issue 1	Level I		1.00	0.002272	.0224	440111121.05
105A706829	Resistor	R422	Telcordia Issue 1	Level I		1.00	0.002272	.0224	440111121.05
105A701233	Resistor	R456	Telcordia Issue 1	Level I		1.00	0.002272	.0224	440111121.05
105A701059	Resistor	R457	Telcordia Issue 1	Level I		1.00	0.002272	.0224	440111121.05
105A704739	Resistor	R460	Telcordia Issue 1	Level I		1.00	0.002272	.0224	440111121.05
105A547003	Resistor	R470	Telcordia Issue 1	Level I		1.00	0.002272	.0224	440111121.05
1600000203	Connection	S1	Telcordia Issue 1	Level I		1.00	0.001144	.0113	874201776.95
1189622850	Capacitor	TC1,TC10	Telcordia Issue 1	Level I		2.00	0.004544	.0898	220055560.52
1189633160	Capacitor	TC11,TC2,TC9	Telcordia Issue 1	Level I		3.00	0.004544	.1347	220055560.52
1142522080	Capacitor	TC12,TC3,TC4	Telcordia Issue 1	Level I		3.00	0.004544	.1347	220055560.52
1189633192	Capacitor	TC5	Telcordia Issue 1	Level I		1.00	0.004544	.0449	220055560.52
118961018A	Capacitor	TC6,TC7	Telcordia Issue 1	Level I		2.00	0.004544	.0898	220055560.52
1189622183	Capacitor	TC8	Telcordia Issue 1	Level I		1.00	0.004544	.0449	220055560.52
14S4005000	Integrated Circuit	U1	Telcordia Issue 1	Level I	25.70	1.00	0.105733	1.0447	9457741.49
14S4821500	Integrated Circuit	U3	Telcordia Issue 1	Level I	26.10	1.00	0.107858	1.0656	9271469.28
14S3626201	Integrated Circuit	U4	Telcordia Issue 1	Level I	24.30	1.00	0.309089	3.0538	3235317.15
14S4900100	Integrated Circuit	U5	Telcordia Issue 1	Level I	24.90	1.00	0.320878	3.1703	3116453.93
14S4825740	Integrated Circuit	U12	Telcordia Issue 1	Level I	25.60	1.00	0.105208	1.0395	9504965.74
14S6200802	Integrated Circuit	U13	Telcordia Issue 1	Level I	26.30	1.00	0.433566	4.2837	2306455.39
14S4751100	Integrated Circuit	U16	Telcordia Issue 1	Level I	26.20	1.00	0.108395	1.0710	9225546.73
14S2048600	Integrated Circuit	U17	Telcordia Issue 1	Level I		1.00	0.059802	.5908	16721916.86
1315176100	Integrated Circuit	U19	Telcordia Issue 1	Level I		1.00	0.059802	.5908	16721916.86
14S2041500	Integrated Circuit	U25	Telcordia Issue 1	Level I	26.20	1.00	0.347820	3.4365	2875048.93
14S6308001	Integrated Circuit	U26	Telcordia Issue 1	Level I		1.00	0.036146	.3571	27665759.41
14S2041700	Integrated Circuit	U28	Telcordia Issue 1	Level I	26.30	1.00	0.108934	1.0763	9179881.48
1231332721	Miscellaneous	Y1	Telcordia Issue 1	Level I		1.00	0.150000	1.4820	6666666.67
1231325058	Miscellaneous	Y3,Y6	Telcordia Issue 1	Level I		2.00	0.150000	2.9640	6666666.67
123131435B	Miscellaneous	Y4	Telcordia Issue 1	Level I		1.00	0.150000	1.4820	6666666.67
1233310040	Miscellaneous	Y5	Telcordia Issue 1	Level I		1.00	0.360000	3.5568	2777777.78
105A705603	Resistor	R50	Telcordia Issue 1	Level I		1.00	0.002272	.0224	440111121.05
14S4033001	Integrated Circuit	U29	Telcordia Issue 1	Level I	30.00	1.00	0.130610	1.2904	7656371.31
1129622690	Capacitor	C349	Telcordia Issue 1	Level I		1.00	0.004544	.0449	220055560.52
1653300102	Connection	JP2(3-4)	Telcordia Issue 1	Level I		1.00	0.001144	.0113	874201776.95

AAEON Reliability Prediction Report

Part Number 9697951D04-D
Reference Des
Date 04. 23, 2009
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name COM-U15+ECB-951D.RPJ
Time 3:35 下午
Failure Rate 10.346343
MTBF 96,653

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
165392521F	Connection	CFD1	Telcordia Issue 1	Level I		1.00	0.028598	.2764	34968071.08
1214309000	Inductor	CH1,CH2,CH3,CH4	Telcordia Issue 1	Level I		4.00	0.002272	.0878	440111121.05
1655905130	Connection	CN1,CN28	Telcordia Issue 1	Level I		2.00	0.002860	.0553	349680710.78
1654920301	Connection	CN2	Telcordia Issue 1	Level I		1.00	0.011439	.1106	87420177.69
1654926901	Connection	CN3B	Telcordia Issue 1	Level I		1.00	0.029741	.2875	33623145.27
1654226301	Connection	CN3A	Telcordia Issue 1	Level I		1.00	0.029741	.2875	33623145.27
1654904301	Connection	CN4	Telcordia Issue 1	Level I		1.00	0.001144	.0111	874201776.95
1654909332	Connection	CN5	Telcordia Issue 1	Level I		1.00	0.005148	.0498	194267061.54
1654030003	Connection	CN6B	Telcordia Issue 1	Level I		1.00	0.017159	.1658	58280118.46
1655910130	Connection	CN7	Telcordia Issue 1	Level I		1.00	0.022878	.2211	43710088.85
165320520C	Connection	CN10B	Telcordia Issue 1	Level I		1.00	0.005720	.0553	174840355.39
16540M0203	Connection	CN19,CN23	Telcordia Issue 1	Level I		2.00	0.125829	2.4323	7947288.88
1654040003	Connection	CN22	Telcordia Issue 1	Level I		1.00	0.022878	.2211	43710088.85
1655902130	Connection	CN27	Telcordia Issue 1	Level I		1.00	0.001144	.0111	874201776.95
1654930305	Connection	CN29	Telcordia Issue 1	Level I		1.00	0.017159	.1658	58280118.46
1654907005	Connection	CN38	Telcordia Issue 1	Level I		1.00	0.004004	.0387	249771936.27
1653222208	Connection	CN40	Telcordia Issue 1	Level I		1.00	0.025166	.2432	39736444.41
1129710050	Capacitor	C1,C100,C102,C105, C107,C109,C132, C135,C179,C207, C213,C222,C223, C231,C232,C237, C238,C240,C35,C49, C55,C67,C81,C82, C89,C92,C94	Telcordia Issue 1	Level I		27.00	0.005469	1.4273	182842274.63
1121610060	Capacitor	C11,C165,C166,C2, C210,C236,C44,C51, C71	Telcordia Issue 1	Level I		9.00	0.004544	.3953	220055560.52
1129701690	Capacitor	C10,C101,C110,C114, C116,C117,C119,C12, C121,C122,C125, C126,C128,C129,C13, C131,C134,C139,C14, C152,C153,C154, C158,C159,C161, C170,C171,C183, C184,C186,C188, C191,C192,C193, C194,C195,C197, C198,C205,C206, C219,C224,C229,	Telcordia Issue 1	Level I		90.00	0.004544	3.9530	220055560.52

AAEON Reliability Prediction Report

Part Number 9697951D04-D
Reference Des
Date 04. 23, 2009
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name COM-U15+ECB-951D.RPJ
Time 3:35 下午
Failure Rate 10.346343
MTBF 96,653

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1124420080	Capacitor	C15	Telcordia Issue 1	Level I		1.00	0.004544	.0439	220055560.52
1129610080	Capacitor	C104,C120,C123, C124,C127,C148,C16, C17,C18,C187,C189, C190,C196,C20,C242, C243,C275,C276, C282,C53,C57,C59, C63,C86,C96,C97	Telcordia Issue 1	Level I		26.00	0.004544	1.1420	220055560.52
1129701790	Capacitor	C136,C137,C138,C19, C216,C221,C225,C37, C42,C56,C74	Telcordia Issue 1	Level I		11.00	0.004544	.4831	220055560.52
1124410190	Capacitor	C103,C106,C108, C113,C115,C143, C144,C145,C146, C147,C21,C22,C23, C24,C25,C26,C27, C28,C29,C31,C33, C99	Telcordia Issue 1	Level I		22.00	0.004544	.9663	220055560.52
1124510280	Capacitor	C246,C36,C45	Telcordia Issue 1	Level I		3.00	0.005469	.1586	182842274.63
11E1501080	Capacitor	C111,C180,C203, C204,C214,C269,C38, C39,C41,C43,C47, C50,C52,C58,C72, C73,C95,C98	Telcordia Issue 1	Level I		18.00	0.005469	.9515	182842274.63
1142610060	Capacitor	C200,C201,C46,C66, C70	Telcordia Issue 1	Level I		5.00	0.004544	.2196	220055560.52
1122601680	Capacitor	C199,C226,C228,C54, C91	Telcordia Issue 1	Level I		5.00	0.004544	.2196	220055560.52
11E9647680	Capacitor	C133,C61	Telcordia Issue 1	Level I		2.00	0.004544	.0878	220055560.52
11C4501060	Capacitor	C209,C62	Telcordia Issue 1	Level I		2.00	0.004544	.0878	220055560.52
1121722780	Capacitor	C212,C69	Telcordia Issue 1	Level I		2.00	0.004544	.0878	220055560.52
1124522880	Capacitor	C75	Telcordia Issue 1	Level I		1.00	0.005469	.0529	182842274.63
1124522280	Capacitor	C77	Telcordia Issue 1	Level I		1.00	0.004544	.0439	220055560.52
1121533480	Capacitor	C85,C87	Telcordia Issue 1	Level I		2.00	0.004544	.0878	220055560.52
1124547280	Capacitor	C88	Telcordia Issue 1	Level I		1.00	0.005469	.0529	182842274.63
1124533180	Capacitor	C112,C118	Telcordia Issue 1	Level I		2.00	0.004544	.0878	220055560.52
1122710080	Capacitor	C185,C251,C252, C262	Telcordia Issue 1	Level I		4.00	0.005469	.2114	182842274.63
11B2701080	Capacitor	C202,C211	Telcordia Issue 1	Level I		2.00	0.004544	.0878	220055560.52
1124515281	Capacitor	C217	Telcordia Issue 1	Level I		1.00	0.004544	.0439	220055560.52
11C9512780	Capacitor	C218	Telcordia Issue 1	Level I		1.00	0.004544	.0439	220055560.52
11C2568880	Capacitor	C227	Telcordia Issue 1	Level I		1.00	0.004544	.0439	220055560.52
1301005442	Semiconductor	D1,D12,D22,D23,D26	Telcordia Issue 1	Level I		5.00	0.023950	1.1574	41754194.40
1305100541	Semiconductor	D10,D15,D2,D3,D4, D5,D6,D7	Telcordia Issue 1	Level I		8.00	0.023950	1.8518	41754194.40
1302001841	Semiconductor	D8	Telcordia Issue 1	Level I		1.00	0.027266	.2635	36675926.75

AAEON Reliability Prediction Report

Part Number 9697951D04-D
Reference Des
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Description
File Name COM-U15+ECB-951D.RPJ
Time 3:35 下午
Failure Rate 10.346343
MTBF 96,653

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1301002240	Semiconductor	D13,D17	Telcordia Issue 1	Level I		2.00	0.023950	.4630	41754194.40
1301005440	Semiconductor	D14,D25,D27	Telcordia Issue 1	Level I		3.00	0.023950	.6944	41754194.40
1300001440	Semiconductor	D16,D18,D19	Telcordia Issue 1	Level I		3.00	0.023950	.6944	41754194.40
1301005441	Semiconductor	D28,D29	Telcordia Issue 1	Level I		2.00	0.027266	.5271	36675926.75
1302004740	Semiconductor	D30	Telcordia Issue 1	Level I		1.00	0.027266	.2635	36675926.75
1301053040	Semiconductor	D31,D32,D33,D34	Telcordia Issue 1	Level I		4.00	0.023950	.9259	41754194.40
1059700001	Resistor	FB1,FB13,FB16,FB18, R136,R179,R221, R351,R63,R69	Telcordia Issue 1	Level I		10.00	0.002272	.2196	440111121.05
1212306033	Inductor	FB11,FB12,FB14, FB15,FB17,FB2,FB25, FB26,FB3,FB4,FB5, FB6,FB7	Telcordia Issue 1	Level I		13.00	0.002272	.2855	440111121.05
121230603S	Inductor	FB10,FB19,FB22, FB23,FB24,FB27, FB28,FB29	Telcordia Issue 1	Level I		8.00	0.002272	.1757	440111121.05
1752001601	Miscellaneous	FS1,FS2,FS3	Telcordia Issue 1	Level I		3.00	0.003000	.0870	333333333.33
1304300140	Semiconductor	LED3,LED6	Telcordia Issue 1	Level I		2.00	0.004921	.0951	203197151.95
1304400140	Semiconductor	LED4	Telcordia Issue 1	Level I		1.00	0.004921	.0476	203197151.95
1304500240	Semiconductor	LED5	Telcordia Issue 1	Level I		1.00	0.004921	.0476	203197151.95
1211000180	Inductor	L1	Telcordia Issue 1	Level I		1.00	0.002272	.0220	440111121.05
121110336L	Inductor	L3	Telcordia Issue 1	Level I		1.00	0.086342	.8345	11581871.61
121110336L	Inductor	L6	Telcordia Issue 1	Level I	21.20	1.00	0.127217	1.2296	7860601.89
121110336H	Inductor	L4	Telcordia Issue 1	Level I	38.60	1.00	0.168600	1.6296	5931192.61
121110100R	Inductor	L5	Telcordia Issue 1	Level I	19.20	1.00	0.122921	1.1881	8135316.31
1315700216	Semiconductor	Q1,Q2,Q20,Q29,Q30, Q31,Q35,Q37,Q38, Q39,Q42,Q43,Q5,Q6, Q8	Telcordia Issue 1	Level I		15.00	0.079832	11.5740	12526258.32
1310390410	Semiconductor	Q28,Q3	Telcordia Issue 1	Level I		2.00	0.023950	.4630	41754194.40
1311390610	Semiconductor	Q4	Telcordia Issue 1	Level I		1.00	0.023950	.2315	41754194.40
1315230111	Semiconductor	Q21,Q36,Q41,Q7	Telcordia Issue 1	Level I		4.00	0.000000	.0000	.00
1315066810	Semiconductor	Q10	Telcordia Issue 1	Level I	17.10	1.00	0.000000	.0000	.00
1315066810	Semiconductor	Q9	Telcordia Issue 1	Level I		1.00	0.000000	.0000	.00
1315889611	Semiconductor	Q11,Q12,Q16,Q19	Telcordia Issue 1	Level I		4.00	0.079832	3.0864	12526258.32
1315442910	Semiconductor	Q13,Q34	Telcordia Issue 1	Level I		2.00	0.079832	1.5432	12526258.32
1315668510	Semiconductor	Q14	Telcordia Issue 1	Level I	14.90	1.00	0.120000	1.1598	8333333.33
1315481011	Semiconductor	Q15	Telcordia Issue 1	Level I	20.20	1.00	0.274901	2.6570	3637673.21
1315441012	Semiconductor	Q17	Telcordia Issue 1	Level I	31.50	1.00	0.180939	1.7488	5526720.12
1315441012	Semiconductor	Q18	Telcordia Issue 1	Level I		1.00	0.079832	.7716	12526258.32
1315441012	Semiconductor	Q32	Telcordia Issue 1	Level I	17.90	1.00	0.129658	1.2532	7712574.72
1315441012	Semiconductor	Q33	Telcordia Issue 1	Level I	24.10	1.00	0.151460	1.4639	6602421.68

AAEON Reliability Prediction Report

Part Number 9697951D04-D
Reference Des
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Environment GF, GU - Ground Fixed, Uncontrolled
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Description
File Name COM-U15+ECB-951D.RPJ
Time 3:35 下午
Failure Rate 10.346343
MTBF 96,653

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1540710084	Resistor	RN1,RN10,RN13,RN2	Telcordia Issue 1	Level I		4.00	0.006275	.2426	159372657.61
1540700081	Resistor	RN5,RN7,RN8	Telcordia Issue 1	Level I		3.00	0.000000	.0000	.00
1540782282	Resistor	RN11	Telcordia Issue 1	Level I		1.00	0.012549	.1213	79686328.81
1051701522	Resistor	R1	Telcordia Issue 1	Level I		1.00	0.002272	.0220	440111121.05
105A720003	Resistor	R2,R55,R98	Telcordia Issue 1	Level I		3.00	0.002272	.0659	440111121.05
105A700009	Resistor	R10,R106,R107,R108, R109,R111,R112, R113,R114,R115, R116,R122,R123, R130,R131,R132, R133,R14,R15,R16, R165,R166,R182, R192,R193,R197, R198,R199,R205, R217,R228,R234, R240,R242,R243, R246,R247,R264, R267,R270,R271,	Telcordia Issue 1	Level I		81.00	0.002272	1.7788	440111121.05
105A702229	Resistor	R11,R19,R24,R29	Telcordia Issue 1	Level I		4.00	0.002272	.0878	440111121.05
105A702239	Resistor	R12,R20,R25,R30, R35,R37	Telcordia Issue 1	Level I		6.00	0.002272	.1318	440111121.05
105A707509	Resistor	R13,R21,R26,R31, R34,R36	Telcordia Issue 1	Level I		6.00	0.002272	.1318	440111121.05
105A704729	Resistor	R17,R18,R181,R227, R295,R296,R312, R313,R314,R341, R342,R47,R62,R67, R68,R72,R73,R74, R83	Telcordia Issue 1	Level I		19.00	0.002272	.4173	440111121.05
105A500139	Resistor	R121,R190,R215, R216,R22,R23,R332, R38,R92,R99	Telcordia Issue 1	Level I		10.00	0.002272	.2196	440111121.05
105A705123	Resistor	R223,R27	Telcordia Issue 1	Level I		2.00	0.002272	.0439	440111121.05
105A702033	Resistor	R118,R134,R28,R86	Telcordia Issue 1	Level I		4.00	0.002272	.0878	440111121.05
105A747003	Resistor	R32,R33	Telcordia Issue 1	Level I		2.00	0.002272	.0439	440111121.05
105A540223	Resistor	R42	Telcordia Issue 1	Level I		1.00	0.002272	.0220	440111121.05

AAEON Reliability Prediction Report

Part Number 9697951D04-D
Reference Des
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Environment GF, GU - Ground Fixed, Uncontrolled
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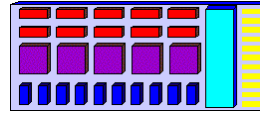


Description
File Name COM-U15+ECB-951D.RPJ
Time 3:35 下午
Failure Rate 10.346343
MTBF 96,653

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A701039	Resistor	R120,R139,R186, R189,R195,R196, R204,R206,R235, R236,R265,R266, R269,R274,R276, R277,R282,R284, R285,R298,R299, R306,R307,R308, R309,R310,R311, R315,R316,R317, R326,R327,R328, R329,R330,R331,R44, R79,R80	Telcordia Issue 1	Level I		39.00	0.002272	.8565	440111121.05
105A708223	Resistor	R46,R48	Telcordia Issue 1	Level I		2.00	0.002272	.0439	440111121.05
105A700003	Resistor	C130,C140,C141, C142,R167,R356,R52, R57	Telcordia Issue 1	Level I		8.00	0.002272	.1757	440111121.05
105A704739	Resistor	R184,R188,R200, R201,R207,R210, R220,R60	Telcordia Issue 1	Level I		8.00	0.002272	.1757	440111121.05
105A715003	Resistor	R144,R176,R54,R64	Telcordia Issue 1	Level I		4.00	0.002272	.0878	440111121.05
1059701001	Resistor	R213,R75,R76	Telcordia Issue 1	Level I		3.00	0.002272	.0659	440111121.05
105A710033	Resistor	R124,R279,R347, R357,R77	Telcordia Issue 1	Level I		5.00	0.002272	.1098	440111121.05
105A556003	Resistor	R78	Telcordia Issue 1	Level I		1.00	0.002272	.0220	440111121.05
105A703333	Resistor	R81	Telcordia Issue 1	Level I		1.00	0.002272	.0220	440111121.05
105A722033	Resistor	R87	Telcordia Issue 1	Level I		1.00	0.002272	.0220	440111121.05
105A518703	Resistor	R90	Telcordia Issue 1	Level I		1.00	0.002272	.0220	440111121.05
105A511503	Resistor	R208,R209,R91,R96	Telcordia Issue 1	Level I		4.00	0.002272	.0878	440111121.05
105A512413	Resistor	R93,R94	Telcordia Issue 1	Level I		2.00	0.002272	.0439	440111121.05
105A502200	Resistor	R110,R117,R97	Telcordia Issue 1	Level I		3.00	0.002272	.0659	440111121.05
105A501413	Resistor	R100	Telcordia Issue 1	Level I		1.00	0.002272	.0220	440111121.05
105A512113	Resistor	R101	Telcordia Issue 1	Level I		1.00	0.002272	.0220	440111121.05
105A512723	Resistor	R102	Telcordia Issue 1	Level I		1.00	0.002272	.0220	440111121.05
1059702261	Resistor	R103	Telcordia Issue 1	Level I		1.00	0.002272	.0220	440111121.05
105A710003	Resistor	R104,R105,R232, R237,R303	Telcordia Issue 1	Level I		5.00	0.002272	.1098	440111121.05
105A703309	Resistor	R127,R191,R256, R258,R259,R260, R261,R262,R263	Telcordia Issue 1	Level I		9.00	0.002272	.1976	440111121.05
105A503423	Resistor	R185,R202	Telcordia Issue 1	Level I		2.00	0.002272	.0439	440111121.05
105A503323	Resistor	R212	Telcordia Issue 1	Level I		1.00	0.002272	.0220	440111121.05
105A501333	Resistor	R218	Telcordia Issue 1	Level I		1.00	0.002272	.0220	440111121.05
105A500333	Resistor	R219	Telcordia Issue 1	Level I		1.00	0.002272	.0220	440111121.05

AAEON Reliability Prediction Report

Part Number 9697951D04-D
Reference Des
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Environment GF, GU - Ground Fixed, Uncontrolled
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Description
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Time 3:35 下午
Failure Rate 10.346343
MTBF 96,653

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A560413	Resistor	R222	Telcordia Issue 1	Level I		1.00	0.002272	.0220	440111121.05
105A534823	Resistor	R225	Telcordia Issue 1	Level I		1.00	0.002272	.0220	440111121.05
105A524913	Resistor	R226	Telcordia Issue 1	Level I		1.00	0.002272	.0220	440111121.05
105A554923	Resistor	R229	Telcordia Issue 1	Level I		1.00	0.002272	.0220	440111121.05
105A511313	Resistor	R230	Telcordia Issue 1	Level I		1.00	0.002272	.0220	440111121.05
105A701533	Resistor	R231	Telcordia Issue 1	Level I		1.00	0.002272	.0220	440111121.05
105A501033	Resistor	R239,R248,R249	Telcordia Issue 1	Level I		3.00	0.002272	.0659	440111121.05
105A501053	Resistor	R333	Telcordia Issue 1	Level I		1.00	0.002272	.0220	440111121.05
1053500279	Resistor	SR1,SR2,SR3	Telcordia Issue 1	Level I		3.00	0.002272	.0659	440111121.05
1053502579	Resistor	SR4	Telcordia Issue 1	Level I		1.00	0.002272	.0220	440111121.05
1603129000	Connection	SW2	Telcordia Issue 1	Level I		1.00	0.001716	.0166	582801184.63
1142522080	Capacitor	TC1,TC3,TC4,TC5, TC6,TC7,TC9	Telcordia Issue 1	Level I		7.00	0.004544	.3075	220055560.52
1189610151	Capacitor	TC11,TC12,TC13, TC14,TC15,TC16,TC2	Telcordia Issue 1	Level I		7.00	0.004544	.3075	220055560.52
1189615161	Capacitor	TC10,TC8	Telcordia Issue 1	Level I		2.00	0.042896	.8292	23312047.39
14S4348500	Integrated Circuit	U2	Telcordia Issue 1	Level I		1.00	0.059802	.5780	16721916.86
14S4348500	Integrated Circuit	U1	Telcordia Issue 1	Level I	13.40	1.00	0.152707	1.4760	6548478.11
14S5A12506	Integrated Circuit	U3	Telcordia Issue 1	Level I		1.00	0.026337	.2546	37969565.62
14S5A01400	Integrated Circuit	U4	Telcordia Issue 1	Level I		1.00	0.059802	.5780	16721916.86
14S5812502	Integrated Circuit	U6	Telcordia Issue 1	Level I		1.00	0.026337	.2546	37969565.62
14S4331101	Integrated Circuit	U26	Telcordia Issue 1	Level I	12.40	1.00	0.142787	1.3801	7003433.09
14S4331101	Integrated Circuit	U8	Telcordia Issue 1	Level I		1.00	0.059802	.5780	16721916.86
1315970211	Semiconductor	U22,U9	Telcordia Issue 1	Level I		2.00	0.159665	3.0864	6263129.16
1315176100	Integrated Circuit	U10	Telcordia Issue 1	Level I		1.00	0.059802	.5780	16721916.86
14S3378000	Integrated Circuit	U11	Telcordia Issue 1	Level I		1.00	0.059802	.5780	16721916.86
14S2921400	Integrated Circuit	U12,U30	Telcordia Issue 1	Level I		2.00	0.059802	1.1560	16721916.86
14S4195710	Integrated Circuit	U13	Telcordia Issue 1	Level I	7.30	1.00	0.100681	.9731	9932361.57
14S2410000	Integrated Circuit	U14	Telcordia Issue 1	Level I	21.60	1.00	0.260720	2.5199	3835525.12
131411171C	Integrated Circuit	U15	Telcordia Issue 1	Level I	15.70	1.00	0.177929	1.7197	5620223.34
14S3088800	Integrated Circuit	U18	Telcordia Issue 1	Level I	22.60	1.00	0.090475	.8745	11052737.13
14S1230400	Integrated Circuit	U19	Telcordia Issue 1	Level I		1.00	0.059802	.5780	16721916.86
14S3115001	Integrated Circuit	U27	Telcordia Issue 1	Level I	16.70	1.00	0.190024	1.8366	5262501.13
14S3115001	Integrated Circuit	U31	Telcordia Issue 1	Level I		1.00	0.059802	.5780	16721916.86
14S4851300	Integrated Circuit	U46	Telcordia Issue 1	Level I	15.40	1.00	0.062254	.6017	16063208.29
1651203291	Connection	U49A	Telcordia Issue 1	Level I		1.00	0.018302	.1769	54637611.06
1315155510	Semiconductor	U51,U53,U54	Telcordia Issue 1	Level I		3.00	0.000000	.0000	.00

