

EMB-QM77

Reliability Prediction Report

(MTBF)

Summary	Failure Rate: 16.617535 ppm MTBF: 60,177 Hours
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Issue date	Approval	Test Engineer
2012/05/14	Vincent Chen	Jessica Chou

Reliability Prediction (MTBF)

I . Model Name: EMB-QM77 (9697QM7723-D)

II . Prediction Date: May 14, 2012

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 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:

EMB-QM77 (9697QM7723-D):

- Failure Rate: 16.617535ppm

- MTBF: 60,177 (hour)

AAEON Reliability Prediction Report

Part Number 9697QM7723-D
Reference Des
Date 05. 14, 2012
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00

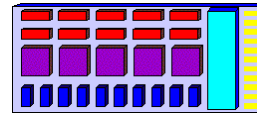


Description Top-level assembly
File Name EMB-QM77.RPJ
Time 10:59
Failure Rate 16.617535
MTBF 60,177

Assembly Name	Part Number	Model	Method	Environment	Duty Cycle	Qty	Failure Rate	MTBF
EMB-QM77	9697QM7723-D	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled	100.00	1.00	16.62	60177.40

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Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description Top-level assembly
File Name EMB-QM77.RPJ
Time 10:59
Failure Rate 16.617535
MTBF 60,177

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
11E9501091	Capacitor	C115,C116,C118, C131,C138,C140, C147,C155,C158, C159,C162,C169,C17, C175,C186,C194, C201,C204,C219, C220,C221,C222, C227,C229,C230, C231,C246,C248, C249,C250,C251, C252,C253,C254, C265,C266,C267, C268,C269,C270,	Telcordia Issue 1	Level I		84.00	0.004535	2.2926	220487045.01
1124533280	Capacitor	C20,C34	Telcordia Issue 1	Level I		2.00	0.004535	.0546	220487045.01
11C1533890	Capacitor	C23	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
1189933180	Capacitor	C26	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
1189633162	Capacitor	C215,C224,C233,C32	Telcordia Issue 1	Level I		4.00	0.004535	.1092	220487045.01
1121747890	Capacitor	C33	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
11E9622050	Capacitor	C101,C126,C127, C128,C129,C130, C232,C255,C256, C257,C258,C259, C260,C261,C262, C263,C277,C282, C283,C286,C287, C289,C290,C295, C297,C299,C301, C302,C305,C306, C307,C308,C309, C310,C311,C312, C313,C314,C333,	Telcordia Issue 1	Level I		62.00	0.004535	1.6922	220487045.01
1121415090	Capacitor	C40	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01

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File Name EMB-QM77.RPJ
Time 10:59
Failure Rate 16.617535
MTBF 60,177

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
11E9522790	Capacitor	C102,C103,C105, C107,C110,C111, C113,C114,C117, C121,C123,C133, C134,C135,C136, C141,C142,C145, C146,C149,C150, C151,C153,C166, C329,C43,C45,C52, C54,C56,C57,C58, C60,C64,C75,C76, C78,C82,C87,C89, C93,C95	Telcordia Issue 1	Level I		42.00	0.004535	1.1463	220487045.01
11E9547680	Capacitor	C211,C213,C357, C358,C384,C385,C59	Telcordia Issue 1	Level I		7.00	0.004535	.1911	220487045.01
1124418090	Capacitor	C106,C108,C79,C85	Telcordia Issue 1	Level I		4.00	0.004535	.1092	220487045.01
1124468090	Capacitor	C100	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
11C4515190	Capacitor	C104,C143	Telcordia Issue 1	Level I		2.00	0.004535	.0546	220487045.01
1129710390	Capacitor	C119,C120,C152, C164,C193,C244, C319,C348,C352, C353,C355,C356, C360	Telcordia Issue 1	Level I		13.00	0.004535	.3548	220487045.01
11C2522650	Capacitor	C124,C125	Telcordia Issue 1	Level I		2.00	0.004535	.0546	220487045.01
1129747091	Capacitor	C132,C160,C322	Telcordia Issue 1	Level I		3.00	0.004535	.0819	220487045.01
1122522890	Capacitor	C144,C235,C344	Telcordia Issue 1	Level I		3.00	0.004535	.0819	220487045.01
11C2568880	Capacitor	C154	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
11E2647650	Capacitor	C234	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
1124518280	Capacitor	C161,C349,C362	Telcordia Issue 1	Level I		3.00	0.004535	.0819	220487045.01
11C1501080	Capacitor	C165,C364,C365, C368	Telcordia Issue 1	Level I		4.00	0.004535	.1092	220487045.01
1124433090	Capacitor	C167,C171,C375, C376	Telcordia Issue 1	Level I		4.00	0.004535	.1092	220487045.01
1124427091	Capacitor	C168,C170,C180, C181	Telcordia Issue 1	Level I		4.00	0.004535	.1092	220487045.01
1129710090	Capacitor	C172,C173,C174, C182,C183,C188, C190,C192,C373, C374	Telcordia Issue 1	Level I		10.00	0.004535	.2729	220487045.01
11E9722090	Capacitor	C187,C189,C191, C371	Telcordia Issue 1	Level I		4.00	0.004535	.1092	220487045.01
1124522190	Capacitor	C200,C203,C205, C207	Telcordia Issue 1	Level I		4.00	0.004535	.1092	220487045.01
1124410191	Capacitor	C208,C209,C210, C212,C379,C380	Telcordia Issue 1	Level I		6.00	0.004535	.1638	220487045.01
11E9522680	Capacitor	C214,C216,C217, C223,C225,C226, C236	Telcordia Issue 1	Level I		7.00	0.004535	.1911	220487045.01
1124433190	Capacitor	C218,C328	Telcordia Issue 1	Level I		2.00	0.004535	.0546	220487045.01

AAEON Reliability Prediction Report

Part Number 9697QM7723-D
Reference Des
Date 05. 14, 2012
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description Top-level assembly
File Name EMB-QM77.RPJ
Time 10:59
Failure Rate 16.617535
MTBF 60,177

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
1124547190	Capacitor	C327,C337	Telcordia Issue 1	Level I		2.00	0.004535	.0546	220487045.01
1124582880	Capacitor	C330,C350,C363	Telcordia Issue 1	Level I		3.00	0.004535	.0819	220487045.01
11C1522480	Capacitor	C332,C345,C361	Telcordia Issue 1	Level I		3.00	0.004535	.0819	220487045.01
1121647480	Capacitor	C339	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
11C4568190	Capacitor	C343	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
16515A0982	Connection	DIMM1,DIMM2	Telcordia Issue 1	Level I		2.00	0.001138	.0137	878780270.71
1305040241	Semiconductor	D1,D10,D2,D22,D23, D24,D3,D30,D31,D32, D33,D34,D35,D36, D37,D38,D39,D4,D40, D41,D42,D43,D44, D45,D47,D48,D49,D5, D50,D51,D52,D53, D54,D55,D56,D57, D58,D59,D6,D60,D61, D62,D7,D8,D9	Telcordia Issue 1	Level I		45.00	0.023881	6.4669	41874327.58
1301005442	Semiconductor	D11,D12,D13	Telcordia Issue 1	Level I		3.00	0.023881	.4311	41874327.58
1301005440	Semiconductor	D17,D20,D21,D25, D26,D27,D46,D63, Q86	Telcordia Issue 1	Level I		9.00	0.023881	1.2934	41874327.58
1301003440	Semiconductor	D28,D29	Telcordia Issue 1	Level I		2.00	0.023881	.2874	41874327.58
1212306030	Resistor	FB1,FB17,FB18,FB19, FB20,FB23,FB24, FB31	Telcordia Issue 1	Level I		8.00	0.011379	.5478	87878027.07
1212308054	Resistor	FB16,FB2,FB29,FB3, FB30,FB32,FB34,FB4, FB5,FB6,FB8,FB9	Telcordia Issue 1	Level I		12.00	0.011379	.8217	87878027.07
12123C0005	Resistor	FB10,FB11,FB12, FB13,FB14,FB15	Telcordia Issue 1	Level I		6.00	0.011379	.4109	87878027.07
121230603Z	Inductor	FB21,FB22,FB25, FB26,FB27,FB28	Telcordia Issue 1	Level I		6.00	0.002268	.0819	440974090.03
1752300000	Miscellaneous	FS4,FS5	Telcordia Issue 1	Level I		2.00	0.003000	.0361	333333333.33
1752011000	Miscellaneous	FS10	Telcordia Issue 1	Level I		1.00	0.003000	.0181	333333333.33
1304101340	Semiconductor	LED1,LED2	Telcordia Issue 1	Level I		2.00	0.004877	.0587	205063180.81
1214309006	Inductor	L1,L2,L24,L25,L26, L27,L28,L29,L30, L31,L32,L33,L34, L35,L36,L4,L5,L6	Telcordia Issue 1	Level I		18.00	0.002268	.2456	440974090.03
1211105673	Inductor	L3	Telcordia Issue 1	Level I		1.00	0.086173	.5186	11604581.32
1211000180	Inductor	L7	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1211103671	Inductor	L13,L17,L18,L9	Telcordia Issue 1	Level I		4.00	0.086173	2.0743	11604581.32
1211103671	Inductor	L19	Telcordia Issue 1	Level I	22.20	1.00	0.129180	.7774	7741109.86

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Reference Des
Date 05. 14, 2012
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description Top-level assembly
File Name EMB-QM77.RPJ
Time 10:59
Failure Rate 16.617535
MTBF 60,177

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1211106872	Inductor	L10,L16	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
1211100114	Inductor	L11,L12,L15,L38, L39	Telcordia Issue 1	Level I		5.00	0.002268	.0682	440974090.03
1211103370	Inductor	L20,L22	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
121110476P	Inductor	L23,L40	Telcordia Issue 1			2.00	0.000756	.0091	1322922270.09
1211100160	Inductor	L37	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1315700216	Semiconductor	Q1,Q10,Q12,Q13,Q15, Q16,Q17,Q18,Q19,Q2, Q34,Q4,Q53,Q54,Q55, Q56,Q57,Q58,Q59, Q60,Q61,Q62,Q63, Q68,Q69,Q70,Q71, Q72,Q76,Q8,Q81,Q9, Q90	Telcordia Issue 1	Level I		33.00	0.079603	15.8080	12562298.27
1310390410	Semiconductor	Q32,Q6,Q77,Q83	Telcordia Issue 1	Level I		4.00	0.023881	.5748	41874327.58
1315R30310	Integrated Circuit	Q11,Q21,Q24,Q28, Q40,Q44,Q45,Q46, Q47,Q73,Q74,Q78, Q79,Q80	Telcordia Issue 1	Level I		14.00	0.059366	5.0015	16844654.92
1315050311	Integrated Circuit	Q14,Q22,Q25,Q29, Q39,Q41,Q49, Q50,Q51,Q52	Telcordia Issue 1	Level I		10.00	0.059366	3.5725	16844654.92
1315050311	Integrated Circuit	Q48	Telcordia Issue 1	Level I	20.50	1.00	0.241504	1.4533	4140712.25
1315230511	Semiconductor	Q31	Telcordia Issue 1	Level I		1.00	0.079603	.4790	12562298.27
1315230111	Semiconductor	Q33	Telcordia Issue 1	Level I		1.00	0.000000	.0000	.00
1311390610	Semiconductor	Q64,Q65,Q66,Q67, Q84	Telcordia Issue 1	Level I		5.00	0.023881	.7185	41874327.58
14S3524700	Integrated Circuit	Q75	Telcordia Issue 1	Level I		1.00	0.059366	.3572	16844654.92
1540710280	Resistor	RP1,RP2,RP3	Telcordia Issue 1	Level I		3.00	0.006246	.1128	160102772.00
1540733082	Resistor	RP4	Telcordia Issue 1	Level I		1.00	0.006246	.0376	160102772.00
1540722280	Resistor	RP5	Telcordia Issue 1	Level I		1.00	0.006246	.0376	160102772.00
106B701032	Resistor	RT1,RT2,RT5,RT7	Telcordia Issue 1	Level I		4.00	0.011379	.2739	87878027.07
106B701031	Resistor	RT3	Telcordia Issue 1	Level I		1.00	0.011379	.0685	87878027.07
106B747030	Resistor	RT4,RT6	Telcordia Issue 1	Level I		2.00	0.011379	.1370	87878027.07
105A702229	Resistor	R1,R110,R123,R124, R125,R128,R142, R144,R151,R158,R16, R162,R27,R270,R302, R516,R526,R558, R559,R574,R577,R63, R705,R710,R723, R730,R795,R796, R797,R798,R799, R800,R801,R802, R803,R804,R805, R909,R910	Telcordia Issue 1	Level I		39.00	0.002268	.5322	440974090.03

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Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description Top-level assembly
File Name EMB-QM77.RPJ
Time 10:59
Failure Rate 16.617535
MTBF 60,177

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A708229	Resistor	R153,R187,R194, R557,R595,R661, R693,R727,R763, R764,R765,R767, R783	Telcordia Issue 1	Level I		13.00	0.002268	.1774	440974090.03
1050504734	Resistor	R157,R469,R704	Telcordia Issue 1	Level I		3.00	0.002268	.0409	440974090.03
105A539003	Resistor	R170,R540	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A525563	Resistor	R183	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1050533034	Resistor	R191,R197	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
1050524904	Resistor	R193,R205	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A549969	Resistor	R195	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A701069	Resistor	R204	Telcordia Issue 1	Level I		1.00	0.013606	.0819	73495681.67
105A502039	Resistor	R214,R218,R244, R368,R860	Telcordia Issue 1	Level I		5.00	0.002268	.0682	440974090.03
105A701053	Resistor	R216,R262	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A522663	Resistor	R220	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A511823	Resistor	R221	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A505109	Resistor	R222,R225,R230, R235,R770	Telcordia Issue 1	Level I		5.00	0.002268	.0682	440974090.03
105A503309	Resistor	R224,R483,R751, R753,R754	Telcordia Issue 1	Level I		5.00	0.002268	.0682	440974090.03
105A501539	Resistor	R229,R239,R856	Telcordia Issue 1	Level I		3.00	0.002268	.0409	440974090.03
105A501529	Resistor	R231	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A701059	Resistor	R233	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1050540224	Resistor	R238,R246	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
1050505633	Resistor	R240	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A503039	Resistor	R242,R857,R859	Telcordia Issue 1	Level I		3.00	0.002268	.0409	440974090.03
1050533214	Resistor	R245	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A535713	Resistor	R425,R426	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A526733	Resistor	R258,R837	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A507509	Resistor	R263,R320	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A590963	Resistor	R265	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1050519114	Resistor	R266,R339	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A515009	Resistor	R267,R268,R269, R491,R493,R495	Telcordia Issue 1	Level I		6.00	0.002268	.0819	440974090.03
1050704304	Resistor	R271,R831	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
1050536514	Resistor	R274,R347,R348, R349,R774	Telcordia Issue 1	Level I		5.00	0.002268	.0682	440974090.03
105A700239	Resistor	R275,R325,R738	Telcordia Issue 1	Level I		3.00	0.002268	.0409	440974090.03
105A526114	Resistor	R277,R338	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
1059701001	Resistor	R296	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A700109	Resistor	R313	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03

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Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description Top-level assembly
File Name EMB-QM77.RPJ
Time 10:59
Failure Rate 16.617535
MTBF 60,177

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1050527424	Resistor	R314,R336	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
1050505604	Resistor	R318,R823	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
1050557604	Resistor	R324	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A501033	Resistor	R351,R354	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A566519	Resistor	R367,R864	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A522123	Resistor	R383	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A566513	Resistor	R385,R386	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A503333	Resistor	R387,R427	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A544213	Resistor	R388	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A701003	Resistor	R394,R410	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A702263	Resistor	R398,R399,R643, R711,R713,R867, R872,R876,R877, R880	Telcordia Issue 1	Level I		10.00	0.002268	.1365	440974090.03
1050505124	Resistor	R407	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1059702261	Resistor	R408,R719,R769, R870,R882	Telcordia Issue 1	Level I		5.00	0.002268	.0682	440974090.03
105A502833	Resistor	R409	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1050510534	Resistor	R411	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A505629	Resistor	R412	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A518223	Resistor	R413	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A571513	Resistor	R418	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A500133	Resistor	R428,R634,R826, R894	Telcordia Issue 1	Level I		4.00	0.002268	.0546	440974090.03
1050504724	Resistor	R441,R445	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A524913	Resistor	R457	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A534813	Resistor	R462	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A715003	Resistor	R473,R478	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A707509	Resistor	R490,R492,R494	Telcordia Issue 1	Level I		3.00	0.002268	.0409	440974090.03
105A733003	Resistor	R514,R527,R594, R599	Telcordia Issue 1	Level I		4.00	0.002268	.0546	440974090.03
105A705139	Resistor	R541,R542	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A707503	Resistor	R548,R550,R569, R571,R572,R575	Telcordia Issue 1	Level I		6.00	0.002268	.0819	440974090.03
105A502033	Resistor	R553,R917	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A702233	Resistor	R568,R570	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A730009	Resistor	R578,R579,R596, R597	Telcordia Issue 1	Level I		4.00	0.002268	.0546	440974090.03
105A747009	Resistor	R580,R590,R591, R592	Telcordia Issue 1	Level I		4.00	0.002268	.0546	440974090.03
1054700289	Resistor	R620	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A506823	Resistor	R627	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A503033	Resistor	R628	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03

AAEON Reliability Prediction Report

Part Number 9697QM7723-D
Reference Des
Date 05. 14, 2012
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00

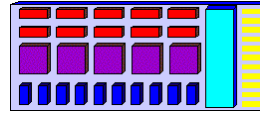


Description Top-level assembly
File Name EMB-QM77.RPJ
Time 10:59
Failure Rate 16.617535
MTBF 60,177

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A747033	Resistor	R646	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1050548714	Resistor	R652	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A704334	Resistor	R688	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1051501582	Resistor	R724	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A549963	Resistor	R725	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A537463	Resistor	R732	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1052500171	Resistor	R737,R744	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A523713	Resistor	R758	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A516933	Resistor	R785	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A549903	Resistor	R793	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A539203	Resistor	R822	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A706209	Resistor	R827	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1050538314	Resistor	R829,R843	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A588703	Resistor	R836	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1050557614	Resistor	R848	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A575003	Resistor	R869	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A501533	Resistor	R889	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A503423	Resistor	R912,R913	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A505123	Resistor	R924	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1050702734	Resistor	R935	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1129610051	Capacitor	TC1,TC17,TC18,TC19,TC2,TC20,TC21,TC22,TC23,TC24,TC26,TC27,TC28,TC29,TC3,TC30,TC31,TC32,TC33,TC34,TC35,TC36,TC37,TC38,TC39,TC4,TC40,TC45,TC46,TC47,TC48,TC5,TC50,TC51,TC52,TC54,TC56,TC57,TC58,TC59,TC60,TC61,TC62,TC63,	Telcordia Issue 1	Level I		75.00	0.004535	2.0470	220487045.01
1121610060	Capacitor	TC10,TC11,TC12,TC13,TC14,TC15,TC16,TC41,TC42,TC43,TC44,TC49,TC6,TC75,TC89,TC9,TC90,TC91,TC92	Telcordia Issue 1	Level I		19.00	0.004535	.5186	220487045.01
1059701031	Resistor	TC53	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03

AAEON Reliability Prediction Report

Part Number 9697QM7723-D
Reference Des
Date 05. 14, 2012
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description Top-level assembly
File Name EMB-QM77.RPJ
Time 10:59
Failure Rate 16.617535
MTBF 60,177

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
14S4021301	Integrated Circuit	U1,U40	Telcordia Issue 1	Level I		2.00	0.059366	.7145	16844654.92
14S5A00802	Integrated Circuit	U2,U26,U27,U3	Telcordia Issue 1	Level I		4.00	0.026183	.6302	38193355.79
14S5A00704	Integrated Circuit	U28,U4,U7	Telcordia Issue 1	Level I		3.00	0.026183	.4727	38193355.79
14S4872800	Semiconductor	U6	Telcordia Issue 1	Level I		1.00	0.159207	.9581	6281149.14
14S3121800	Integrated Circuit	U8	Telcordia Issue 1	Level I		1.00	0.059366	.3572	16844654.92
14S5A00702	Integrated Circuit	U12,U21,U9	Telcordia Issue 1	Level I		3.00	0.059366	1.0717	16844654.92
14S3587000	Integrated Circuit	U10,U33	Telcordia Issue 1	Level I		2.00	0.059366	.7145	16844654.92
14S3111600	Integrated Circuit	U11	Telcordia Issue 1	Level I		1.00	0.032000	.1926	31250122.20
14S5A00821	Integrated Circuit	U13,U25,U30,U56	Telcordia Issue 1	Level I		4.00	0.026183	.6302	38193355.79
14S9620800	Integrated Circuit	U14,U37	Telcordia Issue 1	Level I		2.00	0.026183	.3151	38193355.79
1651609883	Connection	U15	Telcordia Issue 1	Level I		1.00	0.001138	.0068	878780270.71
14S4QM7700	Integrated Circuit	U16	Telcordia Issue 1	Level I	13.80	1.00	0.056851	.3421	17589849.82
14S3917900	Integrated Circuit	U19	Telcordia Issue 1	Level I		1.00	0.059366	.3572	16844654.92
1314895510	Integrated Circuit	U20	Telcordia Issue 1	Level I	25.70	1.00	0.335142	2.0168	2983810.94
14S9108500	Integrated Circuit	U22,U31	Telcordia Issue 1	Level I		2.00	0.059366	.7145	16844654.92
14S2083600	Integrated Circuit	U24	Telcordia Issue 1	Level I		1.00	0.026183	.1576	38193355.79
14S5A73200	Integrated Circuit	U32	Telcordia Issue 1	Level I		1.00	0.026183	.1576	38193355.79
14S9301200	Integrated Circuit	U34	Telcordia Issue 1	Level I		1.00	0.059366	.3572	16844654.92
14S4622800	Integrated Circuit	U36	Telcordia Issue 1	Level I		1.00	0.059366	.3572	16844654.92
02043-000901MI	Integrated Circuit	U38	Telcordia Issue 1	Level I		1.00	0.026183	.1576	38193355.79
14S4257900	Integrated Circuit	U39	Telcordia Issue 1	Level I		1.00	0.026183	.1576	38193355.79
14S2200900	Integrated Circuit	U41	Telcordia Issue 1	Level I		1.00	0.059366	.3572	16844654.92
14S9144200	Integrated Circuit	U42	Telcordia Issue 1	Level I	17.30	1.00	0.068463	.4120	14606512.11
14S3052400	Integrated Circuit	U45,U50,U51,U52, U53,U54	Telcordia Issue 1	Level I		6.00	0.059366	2.1435	16844654.92
14S3066200	Integrated Circuit	U46	Telcordia Issue 1	Level I	18.40	1.00	0.210926	1.2693	4740997.72
14S5A01400	Integrated Circuit	U47	Telcordia Issue 1	Level I		1.00	0.059366	.3572	16844654.92
14S5812502	Integrated Circuit	U48	Telcordia Issue 1	Level I		1.00	0.026183	.1576	38193355.79
14S4963501	Integrated Circuit	U55	Telcordia Issue 1	Level I		1.00	0.059366	.3572	16844654.92
14S4195710	Integrated Circuit	U57	Telcordia Issue 1	Level I		1.00	0.059366	.3572	16844654.92
14S5912300	Integrated Circuit	U58	Telcordia Issue 1	Level I		1.00	0.026183	.1576	38193355.79
14S6334610	Integrated Circuit	U59	Telcordia Issue 1	Level I		1.00	0.022943	.1381	43586356.53
14S3102000	Integrated Circuit	U60	Telcordia Issue 1	Level I		1.00	0.059366	.3572	16844654.92
14S5A12506	Integrated Circuit	U62	Telcordia Issue 1	Level I		1.00	0.026183	.1576	38193355.79
14S4048501	Integrated Circuit	U64	Telcordia Issue 1	Level I		1.00	0.059366	.3572	16844654.92
14S4048501	Integrated Circuit	U63	Telcordia Issue 1	Level I	18.20	1.00	0.208204	1.2529	4802971.35
1231332721	Miscellaneous	Y1	Telcordia Issue 1	Level I		1.00	0.150000	.9027	6666666.67

AAEON Reliability Prediction Report

Part Number 9697QM7723-D
Reference Des
Date 05. 14, 2012
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description Top-level assembly
File Name EMB-QM77.RPJ
Time 10:59
Failure Rate 16.617535
MTBF 60,177

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
123132505D	Miscellaneous	Y2,Y3,Y4	Telcordia Issue 1	Level I		3.00	0.150000	2.7080	6666666.67
105A703953	Resistor	R380	Telcordia Issue 1	Level I		1.00	0.013606	.0819	73495681.67
14S6201280	Integrated Circuit	U5	Telcordia Issue 1	Level I		1.00	0.026183	.1576	38193355.79
105270000A	Resistor	R372	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1654920305	Connection	CN10	Telcordia Issue 1	Level I		1.00	0.001138	.0068	878780270.71
1050513334	Resistor	R78	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A506829	Resistor	R77	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1050512734	Resistor	R73	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1050539214	Resistor	R948,R950	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A539213	Resistor	R257	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A503323	Resistor	R839	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1654226307	Connection	CN13	Telcordia Issue 1	Level I		1.00	0.001138	.0068	878780270.71
1653005202	Connection	DIO1,USB1,USB2, USB3	Telcordia Issue 1	Level I		4.00	0.001138	.0274	878780270.71
1653004202	Connection	CN17	Telcordia Issue 1	Level I		1.00	0.004552	.0274	219695067.68
105A501223	Resistor	R921,R926	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
1300581740	Semiconductor	D67,D70	Telcordia Issue 1	Level I		2.00	0.023881	.2874	41874327.58
131411171G	Integrated Circuit	Q89	Telcordia Issue 1	Level I		1.00	0.059366	.3572	16844654.92
1050512104	Resistor	R955	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A597603	Resistor	R814	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1752002700	Miscellaneous	FS1,FS11,FS2,FS3, FS6,FS7,FS8,FS9	Telcordia Issue 1	Level I		8.00	0.003000	.1444	33333333.33
1315200312	Semiconductor	Q20,Q23,Q26,Q27, Q35,Q36,Q38,Q5,Q7	Telcordia Issue 1	Level I		9.00	0.000000	.0000	.00
165300520V	Connection	CN3	Telcordia Issue 1	Level I		1.00	0.001138	.0068	878780270.71
1301053040	Semiconductor	D14,D15,D16	Telcordia Issue 1	Level I		3.00	0.023881	.4311	41874327.58
1314780510	Integrated Circuit	U61	Telcordia Issue 1	Level I		1.00	0.059366	.3572	16844654.92
165320520W	Connection	COM1	Telcordia Issue 1	Level I		1.00	0.001138	.0068	878780270.71
1655404020	Connection	ATX1	Telcordia Issue 1	Level I		1.00	0.002276	.0137	439390135.35
11031-0001F0MI	Semiconductor	EC25,EC26,EC27, EC28,EC4,EC9	Telcordia Issue 1	Level I		6.00	0.023881	.8623	41874327.58
1750220323	Connection	BAT1	Telcordia Issue 1	Level I		1.00	0.001138	.0068	878780270.71
175910000B	Miscellaneous	BZ1	Telcordia Issue 1	Level I		1.00	0.150000	.9027	6666666.67
1653003101	Connection	CMOS1,JP1,JP2,JP4	Telcordia Issue 1	Level I		4.00	0.001707	.0411	585853513.81
1653300108	Connection	CMOS1(1-2),CN17(1), CN17(3),CN17(5-6), CN17(7-8),JP2(1-2)	Telcordia Issue 1	Level I		6.00	0.001138	.0411	878780270.71
1655305020	Connection	CN6	Telcordia Issue 1	Level I		1.00	0.002845	.0171	351512108.28

