

# IMBI-Q57

## Reliability Prediction Report

### (MTBF)

Summary	Failure Rate: 14.933342 ppm MTBF: 66,964 Hours
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Issue date

Approval

Test Engineer

2011/01/03

Jansin Lee

Jessica Chou

## Reliability Prediction (MTBF)

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**I . Model Name:** TF-IMBI-Q57-A10

**II . Prediction Date:** Jan. 3<sup>rd</sup>, 2011

**III . Prediction Site:** AAEON Q.E. Dept.

**IV . Predicted by:** Jessica Chou

**V . Equipment:** Relx Ver.7.3 Visual Reliability Software

**VI . Simulation Environment:**

- Temperature: 25.2 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-IMBI-Q57-A10:

- Failure Rate: 14.933342 ppm
- MTBF: 66,964 Hours

### AAEON Reliability Prediction Report

**Part Number** 9697IQ5702-D  
**Reference Des**  
**Date** 01. 3, 2011  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.20



**Description** Top-level assembly  
**File Name** IMBI-Q57.RPJ  
**Time** 14:45  
**Failure Rate** 14.933342  
**MTBF** 66,964

Assembly Name	Part Number	Model	Method	Environment	Duty Cycle	Qty	Failure Rate	MTBF
TF-IMBI-Q57-A10	9697IQ5702-D	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled	100.00	1.00	14.93	66964.25



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**Time** 14:45  
**Failure Rate** 14.933342  
**MTBF** 66,964

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1129701790	Capacitor	C113,C118,C120,C14, C176,C20,C21,C213, C22,C222,C225,C229, C23,C24,C25,C26, C27,C31,C32,C33, C34,C35,C36,C37, C38,C56	Telcordia Issue 1	Level I		26.00	0.004553	.7927	219625208.97
1121701080	Capacitor	C111,C15,C155,C182, C193,C209,C210, C215,C216,C242, C243,C244,C287,C45, C95	Telcordia Issue 1	Level I		15.00	0.004553	.4574	219625208.97
1124522880	Capacitor	C18	Telcordia Issue 1	Level I		1.00	0.004553	.0305	219625208.97
1124447180	Capacitor	C19,C4	Telcordia Issue 1	Level I		2.00	0.004553	.0610	219625208.97
1124410191	Capacitor	C115,C116,C117, C265,C266,C267,C28, C48,C91	Telcordia Issue 1	Level I		9.00	0.004553	.2744	219625208.97
1129722680	Capacitor	C39,C93	Telcordia Issue 1	Level I		2.00	0.004553	.0610	219625208.97
1124427091	Capacitor	C106,C112,C119, C196,C228,C231, C236,C241,C252, C253,C260,C261, C262,C263,C43,C44	Telcordia Issue 1	Level I		16.00	0.004553	.4878	219625208.97
1129622050	Capacitor	C165,C186,C50,C51, C52,C53,C54,C55, C57,C58,C59,C60, C61,C62,C63,C64, C65,C66,C68,C69, C70,C71,C72,C73, C74,C75,C76,C77, C78,C81,C82,C83, C84,C85,C86,C87	Telcordia Issue 1	Level I		36.00	0.004553	1.0976	219625208.97
1124468090	Capacitor	C183,C188,C79	Telcordia Issue 1	Level I		3.00	0.004553	.0915	219625208.97
1129722091	Capacitor	C101,C88	Telcordia Issue 1	Level I		2.00	0.004553	.0610	219625208.97
1124510280	Capacitor	C202,C89	Telcordia Issue 1	Level I		2.00	0.004553	.0610	219625208.97
1124568180	Capacitor	C90	Telcordia Issue 1	Level I		1.00	0.004553	.0305	219625208.97
11C4582190	Capacitor	C97	Telcordia Issue 1	Level I		1.00	0.004553	.0305	219625208.97
1124522190	Capacitor	C98,C99	Telcordia Issue 1	Level I		2.00	0.004553	.0610	219625208.97
1124501780	Capacitor	C100,C208,C234, C288	Telcordia Issue 1	Level I		4.00	0.004553	.1220	219625208.97
1124556180	Capacitor	C102	Telcordia Issue 1	Level I		1.00	0.004553	.0305	219625208.97
1124547190	Capacitor	C103,C104,C110, C245,C246,C247, C248,C249	Telcordia Issue 1	Level I		8.00	0.004553	.2439	219625208.97
1121501050	Capacitor	C107,C121	Telcordia Issue 1	Level I		2.00	0.004553	.0610	219625208.97

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**Description** Top-level assembly  
**File Name** IMBI-Q57.RPJ  
**Time** 14:45  
**Failure Rate** 14.933342  
**MTBF** 66,964

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
11E9547680	Capacitor	C109,C254,C256, C257	Telcordia Issue 1	Level I		4.00	0.004553	.1220	219625208.97
1189633193	Capacitor	C123,C126,C192, C258,C272	Telcordia Issue 1	Level I		5.00	0.004553	.1525	219625208.97
1124433190	Capacitor	C125,C127	Telcordia Issue 1	Level I		2.00	0.004553	.0610	219625208.97
118961018A	Capacitor	C128,C129,C134, C171,C195,C277, C278	Telcordia Issue 1	Level I		7.00	0.004553	.2134	219625208.97
11E9647680	Capacitor	C132,C147,C149, C167,C168,C190, C194,C197,C211, C212,C217,C221, C233,C237	Telcordia Issue 1	Level I		14.00	0.004553	.4269	219625208.97
1124515880	Capacitor	C156	Telcordia Issue 1	Level I		1.00	0.004553	.0305	219625208.97
1124433090	Capacitor	C162,C166	Telcordia Issue 1	Level I		2.00	0.004553	.0610	219625208.97
11C4401880	Capacitor	C163	Telcordia Issue 1	Level I		1.00	0.004553	.0305	219625208.97
1189622150	Capacitor	C175,C178	Telcordia Issue 1	Level I		2.00	0.004553	.0610	219625208.97
11B9747490	Capacitor	C177,C179,C180	Telcordia Issue 1	Level I		3.00	0.004553	.0915	219625208.97
1124418090	Capacitor	C200,C204	Telcordia Issue 1	Level I		2.00	0.004553	.0610	219625208.97
11B2701080	Capacitor	C223,C240,C280	Telcordia Issue 1	Level I		3.00	0.004553	.0915	219625208.97
1124501890	Capacitor	C282	Telcordia Issue 1	Level I		1.00	0.004553	.0305	219625208.97
1122710080	Capacitor	C283,C284	Telcordia Issue 1	Level I		2.00	0.005473	.0733	182723005.05
1300414844	Semiconductor	D1	Telcordia Issue 1	Level I		1.00	0.024019	.1608	41634486.10
1301005440	Semiconductor	D2	Telcordia Issue 1	Level I		1.00	0.024019	.1608	41634486.10
1300283540	Semiconductor	D3	Telcordia Issue 1	Level I		1.00	0.024019	.1608	41634486.10
1300581740	Semiconductor	D4	Telcordia Issue 1	Level I		1.00	0.024019	.1608	41634486.10
1300581940	Semiconductor	D5	Telcordia Issue 1	Level I		1.00	0.080062	.5361	12490345.83
1300001440	Semiconductor	D7,D8	Telcordia Issue 1	Level I		2.00	0.024019	.3217	41634486.10
1301005442	Semiconductor	D9	Telcordia Issue 1	Level I		1.00	0.024019	.1608	41634486.10
1301400642	Semiconductor	D10,D11	Telcordia Issue 1	Level I		2.00	0.024019	.3217	41634486.10
1212308054	Inductor	FB1,FB10,FB16,FB17, FB18,FB20,FB21, FB22,FB24,FB31, FB35,FB36,FB39, FB40,FB6	Telcordia Issue 1	Level I		15.00	0.002277	.2287	439250417.95
1212306030	Inductor	FB13,FB3,FB38,FB4	Telcordia Issue 1	Level I		4.00	0.002277	.0610	439250417.95
121230603Z	Inductor	FB23,FB25,FB26, FB27,FB28,FB29, FB30,FB37,FB5,FB7, FB8,FB9	Telcordia Issue 1	Level I		12.00	0.002277	.1829	439250417.95
1059700001	Resistor	FB14,FB15,R260, R375,R625,R641, R642,R669,R688	Telcordia Issue 1	Level I		9.00	0.002277	.1372	439250417.95
12123C0006	Inductor	FB19	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95

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**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.20



**Description** Top-level assembly  
**File Name** IMBI-Q57.RPJ  
**Time** 14:45  
**Failure Rate** 14.933342  
**MTBF** 66,964

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
1212306033	Inductor	FB32,FB33,FB34	Telcordia Issue 1	Level I		3.00	0.002277	.0457	439250417.95
1752001601	Miscellaneous	FS1,FS2,FS3,FS4, FS5	Telcordia Issue 1	Level I		5.00	0.003000	.1004	333333333.33
1752310000	Miscellaneous	FS6,FS7	Telcordia Issue 1	Level I		2.00	0.003000	.0402	333333333.33
1304101340	Semiconductor	LED1,LED2	Telcordia Issue 1	Level I		2.00	0.004966	.0665	201349338.03
1211102266	Inductor	L1	Telcordia Issue 1	Level I	10.50	1.00	0.002776	.0186	360172855.64
1211000180	Inductor	L2	Telcordia Issue 1	Level I	12.60	1.00	0.002884	.0193	346712619.44
1214309006	Inductor	L13,L14,L22,L23,L3, L4,L5,L6	Telcordia Issue 1	Level I		8.00	0.002277	.1220	439250417.95
1211101570	Inductor	L7	Telcordia Issue 1	Level I	13.30	1.00	0.110989	.7432	9009939.35
1211105673	Inductor	L12	Telcordia Issue 1	Level I	8.20	1.00	0.101134	.6772	9887903.35
121110100F	Inductor	L15,L17	Telcordia Issue 1	Level I		2.00	0.086511	1.1586	11559221.52
1310390411	Semiconductor	Q10,Q13,Q15,Q16, Q17,Q18,Q20,Q21, Q22,Q26,Q28,Q29,Q3, Q30,Q32,Q33,Q34, Q36,Q4,Q62,Q64,Q70, Q71,Q72,Q73,Q77,Q8, Q85,Q90,Q92,Q93, Q94	Telcordia Issue 1	Level I		32.00	0.024019	5.1468	41634486.10
1315700211	Semiconductor	Q19,Q23,Q25,Q45, Q46,Q49,Q5,Q51,Q59, Q6,Q60,Q7,Q81,Q82, Q83,Q84,Q86	Telcordia Issue 1	Level I		17.00	0.080062	9.1142	12490345.83
1315889612	Semiconductor	Q11	Telcordia Issue 1	Level I	10.80	1.00	0.107979	.7231	9261046.21
1315889612	Semiconductor	Q12,Q27,Q31, Q40,Q41,Q42,Q47, Q56,Q57,Q78	Telcordia Issue 1	Level I		10.00	0.080062	5.3613	12490345.83
1315888010	Semiconductor	Q14,Q39,Q43,Q44, Q48,Q58	Telcordia Issue 1	Level I		6.00	0.080062	3.2168	12490345.83
1315R30310	Integrated Circuit	Q24,Q35	Telcordia Issue 1	Level I		2.00	0.060240	.8068	16600154.56
1311390610	Semiconductor	Q50	Telcordia Issue 1	Level I		1.00	0.024019	.1608	41634486.10
1311138610	Semiconductor	Q74,Q75,Q80	Telcordia Issue 1	Level I		3.00	0.024019	.4825	41634486.10
1315230111	Semiconductor	Q76,Q79	Telcordia Issue 1	Level I		2.00	0.000000	.0000	.00
1314111719	Integrated Circuit	Q95	Telcordia Issue 1	Level I		1.00	0.060240	.4034	16600154.56
1540700080	Resistor	RN1,RN2	Telcordia Issue 1	Level I		2.00	0.012607	.1688	79323179.55
1540782280	Resistor	RN3,RN4	Telcordia Issue 1	Level I		2.00	0.006303	.0844	158646359.09
1540710280	Resistor	RP1,RP6,RP7	Telcordia Issue 1	Level I		3.00	0.006303	.1266	158646359.09
1540733085	Resistor	RP2,RP3,RP4,RP5	Telcordia Issue 1	Level I		4.00	0.006303	.1688	158646359.09
1540747285	Resistor	RP8	Telcordia Issue 1	Level I		1.00	0.006303	.0422	158646359.09
1540756081	Resistor	RP9	Telcordia Issue 1	Level I		1.00	0.006303	.0422	158646359.09
106B701032	Resistor	RT1,RT2,RT3,RT5	Telcordia Issue 1	Level I		4.00	0.011499	.3080	86965018.42
106B501031	Resistor	RT4	Telcordia Issue 1	Level I		1.00	0.011499	.0770	86965018.42
1050512124	Resistor	R1	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95



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**Reference Des**  
**Date** 01. 3, 2011  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.20

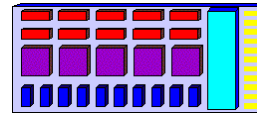


**Description** Top-level assembly  
**File Name** IMBI-Q57.RPJ  
**Time** 14:45  
**Failure Rate** 14.933342  
**MTBF** 66,964

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A702239	Resistor	R2,R360,R723	Telcordia Issue 1	Level I		3.00	0.002277	.0457	439250417.95
105A733009	Resistor	R16,R17,R18,R20,R5, R9	Telcordia Issue 1	Level I		6.00	0.002277	.0915	439250417.95
105A500139	Resistor	R149,R238,R245, R417,R418,R420, R421,R422,R423, R427,R428,R429, R498,R6	Telcordia Issue 1	Level I		14.00	0.002277	.2134	439250417.95
105A702209	Resistor	R355,R358,R374,R7, R727	Telcordia Issue 1	Level I		5.00	0.002277	.0762	439250417.95
105A700003	Resistor	R10,R267,R268,R333, R404,R517,R638, R685,R700,R712, R717,R726,R79	Telcordia Issue 1	Level I		13.00	0.002277	.1982	439250417.95
1059500131	Resistor	R11	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A702263	Resistor	R14,R255,R256,R26, R29,R291,R433,R53, R616,R624,R639, R640,R643,R647, R687,R699,R735	Telcordia Issue 1	Level I		17.00	0.002277	.2592	439250417.95
105A708229	Resistor	R100,R106,R109, R110,R113,R118, R134,R15,R153,R160, R164,R172,R249, R252,R253,R254, R280,R284,R286, R347,R349,R478, R499,R500,R503, R504,R506,R522, R530,R613,R655, R702,R757,R758,R88, R90,R97	Telcordia Issue 1	Level I		37.00	0.002277	.5641	439250417.95
105A703329	Resistor	R21,R233,R409,R713	Telcordia Issue 1	Level I		4.00	0.002277	.0610	439250417.95
105A501539	Resistor	R188,R23,R414,R715	Telcordia Issue 1	Level I		4.00	0.002277	.0610	439250417.95
105A710009	Resistor	R166,R170,R25,R283, R50,R514,R646,R673, R742	Telcordia Issue 1	Level I		9.00	0.002277	.1372	439250417.95
105A502039	Resistor	R27,R572,R680,R697	Telcordia Issue 1	Level I		4.00	0.002277	.0610	439250417.95
105A701533	Resistor	R28,R408,R754,R755	Telcordia Issue 1	Level I		4.00	0.002277	.0610	439250417.95
1050506224	Resistor	R30,R415,R716	Telcordia Issue 1	Level I		3.00	0.002277	.0457	439250417.95
105A705129	Resistor	R31,R380,R44,R46, R48,R740	Telcordia Issue 1	Level I		6.00	0.002277	.0915	439250417.95
105A702229	Resistor	R101,R180,R32,R362, R368,R370,R388, R389,R47,R512,R513, R515,R529,R578, R720,R721,R733, R741,R98	Telcordia Issue 1	Level I		19.00	0.002277	.2897	439250417.95
105A701033	Resistor	R33,R411,R52,R752, R753	Telcordia Issue 1	Level I		5.00	0.002277	.0762	439250417.95

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105A502823	Resistor	R39,R59	Telcordia Issue 1	Level I		2.00	0.002277	.0305	439250417.95
105A518213	Resistor	R258,R45	Telcordia Issue 1	Level I		2.00	0.002277	.0305	439250417.95
105A700009	Resistor	R126,R130,R137, R147,R156,R158, R175,R178,R194, R210,R220,R235, R241,R242,R244, R257,R265,R266, R276,R287,R295, R306,R308,R313, R329,R331,R369, R391,R393,R403, R413,R416,R431, R442,R468,R470, R472,R476,R489,	Telcordia Issue 1	Level I		70.00	0.002277	1.0672	439250417.95
105A515423	Resistor	R56	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A700233	Resistor	R57	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A701039	Resistor	R140,R176,R177, R179,R181,R182, R183,R185,R186, R187,R189,R191, R192,R196,R198, R199,R200,R202, R203,R204,R218, R221,R223,R264, R270,R271,R304, R309,R434,R449, R450,R451,R454, R456,R491,R505, R518,R527,R528,	Telcordia Issue 1	Level I		64.00	0.002277	.9757	439250417.95
105A700139	Resistor	R146,R167,R214, R225,R227,R228, R262,R282,R299, R307,R318,R324, R354,R357,R359, R364,R453,R523, R531,R538,R539, R542,R546,R550, R569,R577,R60,R618, R62,R660,R670,R683, R689,R694,R695, R707,R725,R732, R765,R766	Telcordia Issue 1	Level I		40.00	0.002277	.6098	439250417.95

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105A704739	Resistor	R466,R467,R480,R63	Telcordia Issue 1	Level I		4.00	0.002277	.0610	439250417.95
105A703309	Resistor	R132,R135,R243, R279,R301,R460, R521,R533,R620,R69, R72,R73,R82,R83, R84,R85,R86,R87, R96,R99	Telcordia Issue 1	Level I		20.00	0.002277	.3049	439250417.95
105A505109	Resistor	R117,R474,R487, R586,R78,R80	Telcordia Issue 1	Level I		6.00	0.002277	.0915	439250417.95
1050590964	Resistor	R94	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A510213	Resistor	R95	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A515009	Resistor	R103,R104,R105, R211,R728,R729, R730	Telcordia Issue 1	Level I		7.00	0.002277	.1067	439250417.95
105A701053	Resistor	R107	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A710039	Resistor	R111,R674	Telcordia Issue 1	Level I		2.00	0.002277	.0305	439250417.95
105A704729	Resistor	R115,R120,R123, R162,R171,R224, R232,R356,R377, R382,R396,R435, R619,R652,R653, R654,R690	Telcordia Issue 1	Level I		17.00	0.002277	.2592	439250417.95
105A510009	Resistor	R116	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A705629	Resistor	R119	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A549969	Resistor	R121,R335,R336, R337,R338,R339, R340,R341,R342, R475,R540,R632	Telcordia Issue 1	Level I		12.00	0.002277	.1829	439250417.95
105A513009	Resistor	R124	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A702039	Resistor	R127,R390,R402, R406,R541	Telcordia Issue 1	Level I		5.00	0.002277	.0762	439250417.95
1050524904	Resistor	R128	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
1050703334	Resistor	R131,R459,R461	Telcordia Issue 1	Level I		3.00	0.002277	.0457	439250417.95
105A501039	Resistor	R133,R184,R190, R205,R215,R216, R222,R230,R231, R419,R424,R691	Telcordia Issue 1	Level I		12.00	0.002277	.1829	439250417.95
105A524033	Resistor	R138	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A700239	Resistor	R139	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A512039	Resistor	R142	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A506829	Resistor	R144,R155,R163, R206,R234	Telcordia Issue 1	Level I		5.00	0.002277	.0762	439250417.95
1050522104	Resistor	R145,R152,R159	Telcordia Issue 1	Level I		3.00	0.002277	.0457	439250417.95
105A578713	Resistor	R150	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A516523	Resistor	R151	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95

### AAEON Reliability Prediction Report

**Part Number** 9697IQ5702-D  
**Reference Des**  
**Date** 01. 3, 2011  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.20



**Description** Top-level assembly  
**File Name** IMBI-Q57.RPJ  
**Time** 14:45  
**Failure Rate** 14.933342  
**MTBF** 66,964

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1050533034	Resistor	R157	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
1050502734	Resistor	R165	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A524919	Resistor	R168,R573	Telcordia Issue 1	Level I		2.00	0.002277	.0305	439250417.95
105A720009	Resistor	R169	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A500333	Resistor	R173,R296	Telcordia Issue 1	Level I		2.00	0.002277	.0305	439250417.95
105A501129	Resistor	R174,R229	Telcordia Issue 1	Level I		2.00	0.002277	.0305	439250417.95
105A503039	Resistor	R209	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A701009	Resistor	R212	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A504733	Resistor	R213	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
1059700101	Resistor	R240,R269,R302, R663,R701	Telcordia Issue 1	Level I		5.00	0.002277	.0762	439250417.95
105A593103	Resistor	R247	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A580613	Resistor	R248	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A524963	Resistor	R250	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A568123	Resistor	R251	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A503033	Resistor	R259	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A513723	Resistor	R261,R672	Telcordia Issue 1	Level I		2.00	0.002277	.0305	439250417.95
1050700334	Resistor	R272,R273,R458	Telcordia Issue 1	Level I		3.00	0.002277	.0457	439250417.95
105A512123	Resistor	R274	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A768009	Resistor	R141,R277,R290, R650,R682,R772	Telcordia Issue 1	Level I		6.00	0.002277	.0915	439250417.95
105A705133	Resistor	R303,R315	Telcordia Issue 1	Level I		2.00	0.002277	.0305	439250417.95
1050563420	Resistor	R311	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A707509	Resistor	R361,R722	Telcordia Issue 1	Level I		2.00	0.002277	.0305	439250417.95
105A747003	Resistor	R379,R744	Telcordia Issue 1	Level I		2.00	0.002277	.0305	439250417.95
105A710003	Resistor	R397	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A747039	Resistor	R426	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A501529	Resistor	R430,R497	Telcordia Issue 1	Level I		2.00	0.002277	.0305	439250417.95
105A531613	Resistor	R436	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
1059702261	Resistor	R439,R469,R667, R678	Telcordia Issue 1	Level I		4.00	0.002277	.0610	439250417.95
105A500133	Resistor	R443	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A510003	Resistor	R444	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A707529	Resistor	R457	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A701503	Resistor	R462	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A701003	Resistor	R488,R516	Telcordia Issue 1	Level I		2.00	0.002277	.0305	439250417.95
1050520004	Resistor	R492	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
1050512104	Resistor	R494	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95

### AAEON Reliability Prediction Report

**Part Number** 9697IQ5702-D  
**Reference Des**  
**Date** 01. 3, 2011  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.20



**Description** Top-level assembly  
**File Name** IMBI-Q57.RPJ  
**Time** 14:45  
**Failure Rate** 14.933342  
**MTBF** 66,964

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A703909	Resistor	R496,R501,R502, R756	Telcordia Issue 1	Level I		4.00	0.002277	.0610	439250417.95
1050530124	Resistor	R524	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A530133	Resistor	R525	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A553629	Resistor	R548	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A701059	Resistor	R549,R656,R657	Telcordia Issue 1	Level I		3.00	0.002277	.0457	439250417.95
1050700002	Resistor	R554	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A513733	Resistor	R555	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A504333	Resistor	R556	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A710053	Resistor	R582	Telcordia Issue 1	Level I		1.00	0.013660	.0915	73208402.99
1050532464	Resistor	R592	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A537463	Resistor	R617	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A502003	Resistor	R626,R627	Telcordia Issue 1	Level I		2.00	0.002277	.0305	439250417.95
105A575009	Resistor	R630	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A549913	Resistor	R662,R693,R698	Telcordia Issue 1	Level I		3.00	0.002277	.0457	439250417.95
105A505123	Resistor	R686	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A523713	Resistor	R692	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A715009	Resistor	R703,R704	Telcordia Issue 1	Level I		2.00	0.002277	.0305	439250417.95
105A507509	Resistor	R718,R719,R736	Telcordia Issue 1	Level I		3.00	0.002277	.0457	439250417.95
105A503423	Resistor	R747	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
105A505629	Resistor	R769	Telcordia Issue 1	Level I		1.00	0.002277	.0152	439250417.95
1129610051	Capacitor	TC1,TC10,TC12,TC2, TC21,TC22,TC23, TC25,TC26,TC27, TC28,TC29,TC30, TC31,TC32,TC33, TC34,TC35,TC36, TC37,TC38,TC39,TC4, TC40,TC41,TC42, TC43,TC44,TC45, TC49,TC5,TC50,TC51, TC52,TC53,TC54, TC55,TC56,TC57, TC58,TC59,TC6,T	Telcordia Issue 1	Level I		54.00	0.004553	1.6465	219625208.97
1122710091	Capacitor	TC11,TC13,TC14, TC15,TC16,TC17, TC18,TC19,TC20, TC24,TC7,TC8	Telcordia Issue 1	Level I		12.00	0.004553	.3659	219625208.97
14S4654500	Integrated Circuit	U1	Telcordia Issue 1	Level I		1.00	0.060240	.4034	16600154.56
14S2750100	Integrated Circuit	U2	Telcordia Issue 1	Level I		1.00	0.060240	.4034	16600154.56
1315344310	Integrated Circuit	U3	Telcordia Issue 1	Level I		1.00	0.060240	.4034	16600154.56

### AAEON Reliability Prediction Report

**Part Number** 9697IQ5702-D  
**Reference Des**  
**Date** 01. 3, 2011  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.20



**Description** Top-level assembly  
**File Name** IMBI-Q57.RPJ  
**Time** 14:45  
**Failure Rate** 14.933342  
**MTBF** 66,964

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
14S4195710	Integrated Circuit	U36	Telcordia Issue 1	Level I	20.90	1.00	0.250947	1.6804	3984911.99
14S4195710	Integrated Circuit	U4	Telcordia Issue 1	Level I		1.00	0.060240	.4034	16600154.56
14S5A01402	Integrated Circuit	U6	Telcordia Issue 1	Level I		1.00	0.026492	.1774	37747235.50
14S2634100	Integrated Circuit	U8	Telcordia Issue 1	Level I		1.00	0.026492	.1774	37747235.50
14S3050500	Integrated Circuit	U9	Telcordia Issue 1	Level I	7.10	1.00	0.099982	.6695	10001809.82
14S1035801	Integrated Circuit	U10	Telcordia Issue 1	Level I		1.00	0.060240	.4034	16600154.56
1651611560	Connection	U11	Telcordia Issue 1	Level I		1.00	0.001150	.0077	869650184.19
14S3633400	Integrated Circuit	U12	Telcordia Issue 1	Level I	12.80	1.00	0.147672	.9889	6771770.53
14S4095100	Integrated Circuit	U13	Telcordia Issue 1	Level I	16.00	1.00	0.064607	.4326	15478200.94
14S4871800	Integrated Circuit	U15	Telcordia Issue 1	Level I	16.90	1.00	0.067747	.4537	14760822.47
14S4631400	Integrated Circuit	U16	Telcordia Issue 1	Level I	12.00	1.00	0.052147	.3492	19176410.10
14S4257800	Integrated Circuit	U17	Telcordia Issue 1	Level I	10.70	1.00	0.048582	.3253	20583838.28
14S4825740	Integrated Circuit	U18	Telcordia Issue 1	Level I	13.10	1.00	0.055343	.3706	18069286.61
14S3088801	Integrated Circuit	U19	Telcordia Issue 1	Level I	22.00	1.00	0.269126	1.8022	3715729.90
14S5812502	Integrated Circuit	U21	Telcordia Issue 1	Level I		1.00	0.026492	.1774	37747235.50
14S5A01400	Integrated Circuit	U22,U45,U46	Telcordia Issue 1	Level I		3.00	0.060240	1.2102	16600154.56
14S5A23200	Integrated Circuit	U23	Telcordia Issue 1	Level I	10.70	1.00	0.048582	.3253	20583838.28
14S4048502	Integrated Circuit	U24	Telcordia Issue 1	Level I		1.00	0.060240	.4034	16600154.56
14S4048502	Integrated Circuit	U44	Telcordia Issue 1	Level I	16.90	1.00	0.193794	1.2977	5160114.09
14S2200900	Integrated Circuit	U25	Telcordia Issue 1	Level I		1.00	0.060240	.4034	16600154.56
14S3052400	Integrated Circuit	U27	Telcordia Issue 1	Level I		1.00	0.060240	.4034	16600154.56
14S3052400	Integrated Circuit	U29	Telcordia Issue 1	Level I	11.70	1.00	0.137119	.9182	7292957.20
14S9144200	Integrated Circuit	U28	Telcordia Issue 1	Level I		1.00	0.026492	.1774	37747235.50
1314917314	Integrated Circuit	U32	Telcordia Issue 1	Level I	12.20	1.00	0.141828	.9497	7050799.05
14S5912300	Integrated Circuit	U33	Telcordia Issue 1	Level I		1.00	0.026492	.1774	37747235.50
14S5A24540	Integrated Circuit	U34	Telcordia Issue 1	Level I	13.00	1.00	0.149668	1.0022	6681467.41
1314108412	Integrated Circuit	U37	Telcordia Issue 1	Level I	22.80	1.00	0.283084	1.8957	3532517.66
1314895510	Integrated Circuit	U38	Telcordia Issue 1	Level I		1.00	0.060240	.4034	16600154.56
14S9662200	Integrated Circuit	U39	Telcordia Issue 1	Level I		1.00	0.060240	.4034	16600154.56
14S9661200	Integrated Circuit	U40	Telcordia Issue 1	Level I	28.30	1.00	0.398085	2.6657	2512023.68
14S9661200	Integrated Circuit	U43	Telcordia Issue 1	Level I		1.00	0.060240	.4034	16600154.56
14S5A12506	Integrated Circuit	U41	Telcordia Issue 1	Level I		1.00	0.026492	.1774	37747235.50
14S4021301	Integrated Circuit	U42	Telcordia Issue 1	Level I	15.60	1.00	0.177929	1.1915	5620221.92
123131435B	Miscellaneous	Y1	Telcordia Issue 1	Level I		1.00	0.150000	1.0045	6666666.67
1231325058	Miscellaneous	Y2,Y3,Y4	Telcordia Issue 1	Level I		3.00	0.150000	3.0134	6666666.67
1231332721	Miscellaneous	Y5	Telcordia Issue 1	Level I		1.00	0.150000	1.0045	6666666.67

**AAEON Reliability Prediction Report**

**Part Number** 9697IQ5702-D  
**Reference Des**  
**Date** 01. 3, 2011  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.20



**Description** Top-level assembly  
**File Name** IMBI-Q57.RPJ  
**Time** 14:45  
**Failure Rate** 14.933342  
**MTBF** 66,964

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
14S6308002	Integrated Circuit	U20	Telcordia Issue 1	Level I	12.20	1.00	0.085725	.5740	11665272.09
11E9622050	Capacitor	C108,C255	Telcordia Issue 1	Level I		2.00	0.004553	.0610	219625208.97
1655424020	Connection	ATX1	Telcordia Issue 1	Level I		1.00	0.013799	.0924	72470848.68
1655404020	Connection	ATX2	Telcordia Issue 1	Level I		1.00	0.002300	.0154	434825092.09
1652517205	Connection	AUDIO1	Telcordia Issue 1	Level I		1.00	0.001150	.0077	869650184.19
1750220323	Connection	BAT1	Telcordia Issue 1	Level I		1.00	0.001150	.0077	869650184.19
175011901H	Miscellaneous	BAT1	Telcordia Issue 1	Level I		1.00	0.900000	6.0268	1111111.11
1189656193	Capacitor	EC1,EC10,EC11,EC12, EC13,EC14,EC15, EC17,EC2,EC21,EC22, EC23,EC24,EC3,EC4, EC5	Telcordia Issue 1	Level I		16.00	0.004553	.4878	219625208.97
175910000B	Miscellaneous	BZ1	Telcordia Issue 1	Level I		1.00	0.150000	1.0045	6666666.67
1189656194	Capacitor	EC6,EC8	Telcordia Issue 1	Level I		2.00	0.004553	.0610	219625208.97
1654445301	Connection	CN2	Telcordia Issue 1	Level I		1.00	0.025872	.1733	38651119.30
165440910B	Connection	COM1	Telcordia Issue 1	Level I		1.00	0.022998	.1540	43482509.21
1655004014	Connection	CPU_FAN1,SYS_FAN1, SYS_FAN2	Telcordia Issue 1	Level I		3.00	0.001150	.0231	869650184.19
16515C0496	Connection	DDRIII1,DDRIII2	Telcordia Issue 1	Level I		2.00	0.137987	1.8480	7247084.87
1653205203	Connection	COM2,DIO1	Telcordia Issue 1	Level I		2.00	0.005749	.0770	173930036.84
1653005200	Connection	FP1	Telcordia Issue 1	Level I		1.00	0.022998	.1540	43482509.21
1653003101	Connection	JP1,JP2,JP3,JP4	Telcordia Issue 1	Level I		4.00	0.001725	.0462	579766789.46
1654612307	Connection	KBMS1	Telcordia Issue 1	Level I		1.00	0.001150	.0077	869650184.19
1211103371	Inductor	L10,L9	Telcordia Issue 1	Level I		2.00	0.086511	1.1586	11559221.52
1211103371	Inductor	L8	Telcordia Issue 1	Level I	12.00	1.00	0.108420	.7260	9223363.10
1211105674	Inductor	L11	Telcordia Issue 1	Level I		1.00	0.086511	.5793	11559221.52
1654907002	Connection	SATA1,SATA2,SATA3, SATA4	Telcordia Issue 1	Level I		4.00	0.004025	.1078	248471481.20
1653005201	Connection	USB_F1,USB_F2	Telcordia Issue 1	Level I		2.00	0.005749	.0770	173930036.84
1652522207	Connection	USB_LAN1,USB_LAN2	Telcordia Issue 1	Level I		2.00	0.022998	.3080	43482509.21
1189682196	Capacitor	EC16,EC18,EC19, EC20,EC7	Telcordia Issue 1	Level I		5.00	0.004553	.1525	219625208.97
1181647110	Capacitor	EC9	Telcordia Issue 1	Level I		1.00	0.004553	.0305	219625208.97
1181627191	Capacitor	EC25,EC26,EC27, EC28	Telcordia Issue 1	Level I		4.00	0.004553	.1220	219625208.97