

# ECB-916M

## Reliability Prediction Report

### (MTBF)

Summary	Failure Rate: 14.545768 ppm MTBF: 68,749 Hours
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Issue date	Approval	Test Engineer
2010/10/20	Jansin Lee	Jessica Chou

## Reliability Prediction (MTBF)

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**I . Model Name:** TF-ECB-916M-A21

**II . Prediction Date:** Oct. 20, 2010

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

**IV . Predicted by:** Jessica Chou

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

**VI . Simulation Environment:**

- Temperature: 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.

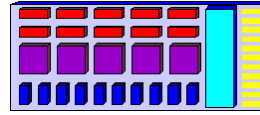
### VIII. Prediction Result:

TF-ECB-916M-A21:

- Failure Rate: 14.545768 ppm
- MTBF: 68,749 Hours

### AAEON Reliability Prediction Report

**Part Number** 9697916M09-D  
**Reference Des**  
**Date** 10. 20, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description** Top-level assembly  
**File Name** TF-ECB-916M-A21.RPJ  
**Time** 9:42  
**Failure Rate** 14.545768  
**MTBF** 68,749

Assembly Name	Part Number	Model	Method	Environment	Duty Cycle	Qty	Failure Rate	MTBF
TF-ECB-916M-A21	9697916M09-D	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled	100.00	1.00	14.55	68748.52

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**Part Number** 9697916M09-D  
**Reference Des**  
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**Temp. (°C)** 25.00

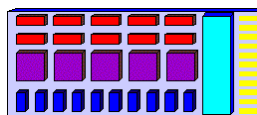


**Description** Top-level assembly  
**File Name** TF-ECB-916M-A21.RPJ  
**Time** 9:42  
**Failure Rate** 14.545768  
**MTBF** 68,749

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1653926110	Connection	CN8	Telcordia Issue 1	Level I		1.00	0.014793	.1017	67598482.36
1121501690	Capacitor	BC1,BC10,BC11,BC12, BC13,BC14,BC2,BC3, BC8,BC9,C110,C112, C123,C141,C144, C145,C146,C18,C19, C191,C199,C20,C204, C210,C211,C214, C220,C222,C226,C23, C240,C243,C244, C247,C248,C249, C250,C251,C253, C258,C262,C263, C267,C268,C271,	Telcordia Issue 1	Level I		97.00	0.004535	3.0245	220487045.01
11C2510480	Capacitor	BC15,C111,C113, C114,C117,C118, C121,C122,C124, C133,C137,C138, C139,C147,C150, C151,C152,C153, C154,C16,C164,C190, C223,C227,C234, C235,C257,C259, C266,C269,C283, C285,C290,C292, C299,C314,C316, C320,C322,C33,C	Telcordia Issue 1	Level I		69.00	0.004535	2.1514	220487045.01
1214309000	Inductor	CH1,CH2,CH3,CH4, CH5,CH6,CH7,CH8	Telcordia Issue 1	Level I		8.00	0.002268	.1247	440974090.03
1654926900	Connection	CN19A	Telcordia Issue 1	Level I		1.00	0.029586	.2034	33799241.18
1654226300	Connection	CN19B	Telcordia Issue 1	Level I		1.00	0.029586	.2034	33799241.18
1654030003	Connection	CN24	Telcordia Issue 1	Level I		1.00	0.017069	.1173	58585351.38
16540M0201	Connection	CN25,CN28	Telcordia Issue 1	Level I		2.00	0.125173	1.7211	7988911.55
1655905130	Connection	CN40	Telcordia Issue 1	Level I		1.00	0.001138	.0078	878780270.71
165392521H	Connection	CON1	Telcordia Issue 1	Level I		1.00	0.028449	.1956	35151210.83
1124501780	Capacitor	C165,C166,C167, C168,C169,C178, C179,C180,C181, C429,C430,C432, C435	Telcordia Issue 1	Level I		13.00	0.004535	.4053	220487045.01
1124510280	Capacitor	C428,C431,C433	Telcordia Issue 1	Level I		3.00	0.004535	.0935	220487045.01

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**Part Number** 9697916M09-D  
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**Description** Top-level assembly  
**File Name** TF-ECB-916M-A21.RPJ  
**Time** 9:42  
**Failure Rate** 14.545768  
**MTBF** 68,749

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
11E9510050	Capacitor	C115,C119,C120,C17, C212,C213,C215, C252,C256,C264, C270,C278,C280, C295,C312,C319, C328,C333,C334, C348,C371,C378, C390,C398,C439, C447,C458,C465, C482,C555,C556, C557,C558,C560, C565,C566,C578, C581,C584,C590,	Telcordia Issue 1	Level I		47.00	0.004535	1.4655	220487045.01
11C1501080	Capacitor	C116,C140,C142, C159,C225,C27,C288, C30,C325,C326,C367, C376,C384,C392, C395,C396,C404, C405,C436,C437, C438,C445,C455, C460,C461,C462, C480,C486,C495, C498,C527,C538, C539,C582,C593	Telcordia Issue 1	Level I		35.00	0.004535	1.0913	220487045.01
11C4501060	Capacitor	C276,C277,C281, C287,C296,C297, C310,C313,C47	Telcordia Issue 1	Level I		9.00	0.004535	.2806	220487045.01
11E1647650	Capacitor	C94	Telcordia Issue 1	Level I		1.00	0.004535	.0312	220487045.01
105A700003	Resistor	C100,C101,C102, C103,C104,C105, C125,C126,C127, C128,C129,C130, C131,C132,C98,C99, FB16,FB36,FB37, FB43,R119,R172, R182,R200,R203, R204,R205,R219, R220,R221,R222, R224,R249,R252,R27, R28,R31,R351,R356, R358,R368,R370,	Telcordia Issue 1	Level I		90.00	0.002268	1.4031	440974090.03
11E9501090	Capacitor	C143	Telcordia Issue 1	Level I		1.00	0.004535	.0312	220487045.01
11C2522650	Capacitor	C183,C571	Telcordia Issue 1	Level I		2.00	0.004535	.0624	220487045.01

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1124510080	Capacitor	C192,C193,C196, C506,C529	Telcordia Issue 1	Level I		5.00	0.004535	.1559	220487045.01
1121610180	Capacitor	C216,C217,C218, C219,C236,C237, C238,C239,C340, C341,C342,C343, C491,C492,C493, C494,C512,C513, C514,C515,C516, C517,C518,C519, C523,C524,C525, C526,C542,C543, C544,C545	Telcordia Issue 1	Level I		32.00	0.004535	.9978	220487045.01
1124515080	Capacitor	C221	Telcordia Issue 1	Level I		1.00	0.004535	.0312	220487045.01
1124533180	Capacitor	C241	Telcordia Issue 1	Level I		1.00	0.004535	.0312	220487045.01
1129610080	Capacitor	C261,C275,C443, C444,C446,C453, C454	Telcordia Issue 1	Level I		7.00	0.004535	.2183	220487045.01
11E9647680	Capacitor	C265	Telcordia Issue 1	Level I		1.00	0.004535	.0312	220487045.01
11A4456680	Capacitor	C301,C303,C304, C306,C307,C309	Telcordia Issue 1	Level I		6.00	0.004535	.1871	220487045.01
1124427090	Capacitor	C331,C533,C534	Telcordia Issue 1	Level I		3.00	0.004535	.0935	220487045.01
1121610060	Capacitor	C332	Telcordia Issue 1	Level I		1.00	0.004535	.0312	220487045.01
1129710090	Capacitor	C336,C337,C577	Telcordia Issue 1	Level I		3.00	0.004535	.0935	220487045.01
1124410190	Capacitor	C338,C349,C400, C401,C402,C403, C414,C415,C416, C417,C418,C419, C420	Telcordia Issue 1	Level I		13.00	0.004535	.4053	220487045.01
1129701790	Capacitor	C350	Telcordia Issue 1	Level I		1.00	0.004535	.0312	220487045.01
1129710390	Capacitor	C355,C358,C368, C369,C434,C473	Telcordia Issue 1	Level I		6.00	0.004535	.1871	220487045.01
1124533190	Capacitor	C366,C375,C383, C391,C440,C441, C456,C463,C472, C476,C481,C487, C496,C499,C528	Telcordia Issue 1	Level I		15.00	0.004535	.4677	220487045.01
1121647480	Capacitor	C406,C407,C411, C412,C413,C507, C508	Telcordia Issue 1	Level I		7.00	0.004535	.2183	220487045.01
1124547080	Capacitor	C449,C450,C451, C483,C484,C485, C510,C511,C521, C522	Telcordia Issue 1	Level I		10.00	0.004535	.3118	220487045.01
1124547180	Capacitor	C466,C467,C468, C469	Telcordia Issue 1	Level I		4.00	0.004535	.1247	220487045.01
11C4547380	Capacitor	C509	Telcordia Issue 1	Level I		1.00	0.004535	.0312	220487045.01





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1059700001	Resistor	FB23,FB26,FB29, FB30,FB45,FB46, FB47,FB48,L11,L32, L8,L9,R511,R549, R810	Telcordia Issue 1	Level I		15.00	0.002268	.2339	440974090.03
1212306031	Inductor	FB51,FB52	Telcordia Issue 1	Level I		2.00	0.002268	.0312	440974090.03
1752001601	Miscellaneous	FS1,FS2	Telcordia Issue 1	Level I		2.00	0.003000	.0412	333333333.33
121110336L	Inductor	L2	Telcordia Issue 1	Level I		1.00	0.086173	.5924	11604581.32
1212306033	Inductor	L10,L12,L13,L15, L16,L18,L21,L22, L23,L24,L25,L26, L27,L28,L29,L30, L31	Telcordia Issue 1	Level I		17.00	0.002268	.2650	440974090.03
121230805X	Inductor	L14,L17,L19,L20	Telcordia Issue 1	Level I		4.00	0.002268	.0624	440974090.03
1654262306	Connection	MPC12	Telcordia Issue 1	Level I		1.00	0.001138	.0078	878780270.71
1233324050	Miscellaneous	OSC1	Telcordia Issue 1	Level I		1.00	0.360000	2.4749	2777777.78
1315441012	Semiconductor	Q11,Q5,Q6	Telcordia Issue 1	Level I		3.00	0.079603	1.6418	12562298.27
1315700211	Semiconductor	Q14,Q16,Q19,Q28, Q30,Q33,Q35,Q38, Q41,Q42,Q43,Q44, Q45,Q50,Q51,Q56, Q60,Q62,Q64,Q65	Telcordia Issue 1	Level I		20.00	0.079603	10.9452	12562298.27
1315700310	Semiconductor	Q9	Telcordia Issue 1	Level I		1.00	0.079603	.5473	12562298.27
1315667910	Semiconductor	Q10,U75,U76	Telcordia Issue 1	Level I		3.00	0.159207	3.2836	6281149.14
1310390411	Semiconductor	Q13,Q26,Q52,Q81	Telcordia Issue 1	Level I		4.00	0.023881	.6567	41874327.58
1315230300	Semiconductor	Q18,Q23	Telcordia Issue 1	Level I		2.00	0.079603	1.0945	12562298.27
1315230111	Semiconductor	Q34	Telcordia Issue 1	Level I		1.00	0.000000	.0000	.00
1311006910	Semiconductor	Q37,Q40	Telcordia Issue 1	Level I		2.00	0.023881	.3284	41874327.58
1315002010	Semiconductor	Q46	Telcordia Issue 1	Level I		1.00	0.079603	.5473	12562298.27
1311390610	Semiconductor	Q49	Telcordia Issue 1	Level I		1.00	0.023881	.1642	41874327.58
1540722085	Resistor	RN10,RN6,RN7,RN8, RN9	Telcordia Issue 1	Level I		5.00	0.012492	.4294	80051386.00
1540782280	Resistor	RP34	Telcordia Issue 1	Level I		1.00	0.006246	.0429	160102772.00
1540701380	Resistor	RP1	Telcordia Issue 1	Level I		1.00	0.006246	.0429	160102772.00
1540700081	Resistor	RP24,RP37,RP38, RP39	Telcordia Issue 1	Level I		4.00	0.000000	.0000	.00
1540715180	Resistor	RP20,RP21,RP22, RP25	Telcordia Issue 1	Level I		4.00	0.006246	.1718	160102772.00
1540710080	Resistor	RP26,RP29,RP30, RP31,RP32,RP33, RP35,RP36	Telcordia Issue 1	Level I		8.00	0.006246	.3435	160102772.00
1540510380	Resistor	RP83	Telcordia Issue 1	Level I		1.00	0.006246	.0429	160102772.00
106B501031	Resistor	RT1,RT2,RT3	Telcordia Issue 1	Level I		3.00	0.011379	.2347	87878027.07
105A733003	Resistor	R13,R23,R328,R337, R437,R445,R447,R94	Telcordia Issue 1	Level I		8.00	0.002268	.1247	440974090.03

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**Temp. (°C)** 25.00



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**Time** 9:42  
**Failure Rate** 14.545768  
**MTBF** 68,749

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A703303	Resistor	R14,R171,R177,R198, R225,R226,R352,R89, R95	Telcordia Issue 1	Level I		9.00	0.002268	.1403	440974090.03
105A700133	Resistor	R124,R125,R16,R167, R194,R199,R202, R206,R215,R223, R236,R242,R248, R255,R280,R284, R322,R325,R327, R331,R340,R346, R679,R78	Telcordia Issue 1	Level I		24.00	0.002268	.3742	440974090.03
105A708223	Resistor	R17,R638	Telcordia Issue 1	Level I		2.00	0.002268	.0312	440974090.03
105A503323	Resistor	R25	Telcordia Issue 1	Level I		1.00	0.002268	.0156	440974090.03
105A701533	Resistor	R26	Telcordia Issue 1	Level I		1.00	0.002268	.0156	440974090.03
105A500133	Resistor	R29	Telcordia Issue 1	Level I		1.00	0.002268	.0156	440974090.03
105A701003	Resistor	R156,R30,R469,R470, R471,R472,R473, R477,R478,R479, R484,R485,R486, R487,R544,R548	Telcordia Issue 1	Level I		16.00	0.002268	.2494	440974090.03
105A501033	Resistor	R102,R103,R104, R105,R121,R122, R123,R130,R149, R168,R175,R176, R178,R179,R214, R232,R233,R277, R288,R320,R324, R332,R333,R342, R343,R348,R364, R413,R450,R458, R460,R466,R532, R559,R569,R586, R609,R615,R617,	Telcordia Issue 1	Level I		49.00	0.002268	.7639	440974090.03
105A502033	Resistor	R107,R109,R164, R453,R564	Telcordia Issue 1	Level I		5.00	0.002268	.0780	440974090.03
105A704723	Resistor	R126,R174,R192, R193,R241,R243, R267,R272,R276, R291,R295,R344, R374,R375,R376, R393,R396,R403, R428,R649,R650, R651,R661,R695, R700,R705,R722,R81	Telcordia Issue 1	Level I		28.00	0.002268	.4365	440974090.03
105A702263	Resistor	R83	Telcordia Issue 1	Level I		1.00	0.002268	.0156	440974090.03

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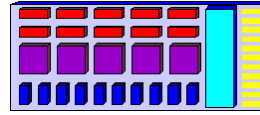


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105A510033	Resistor	R283,R347,R357, R531,R555,R746, R747,R755,R756	Telcordia Issue 1	Level I		9.00	0.002268	.1403	440974090.03
105A703003	Resistor	R114,R115,R116, R117,R118,R98	Telcordia Issue 1	Level I		6.00	0.002268	.0935	440974090.03
105A510003	Resistor	R106,R271,R335, R546,R547,R639	Telcordia Issue 1	Level I		6.00	0.002268	.0935	440974090.03
105A505123	Resistor	R127,R566,R567	Telcordia Issue 1	Level I		3.00	0.002268	.0468	440974090.03
105A506823	Resistor	R131,R133	Telcordia Issue 1	Level I		2.00	0.002268	.0312	440974090.03
105A503033	Resistor	R132	Telcordia Issue 1	Level I		1.00	0.002268	.0156	440974090.03
105A702039	Resistor	R136	Telcordia Issue 1	Level I		1.00	0.002268	.0156	440974090.03
105A704729	Resistor	R147,R148,R218, R273,R353,R354, R380,R383,R415, R526,R631,R644, R645,R710,R711, R776,R783,R785	Telcordia Issue 1	Level I		18.00	0.002268	.2806	440974090.03
105A700139	Resistor	R154,R159,R712	Telcordia Issue 1	Level I		3.00	0.002268	.0468	440974090.03
105A702239	Resistor	R186,R562,R589	Telcordia Issue 1	Level I		3.00	0.002268	.0468	440974090.03
105A747033	Resistor	R187	Telcordia Issue 1	Level I		1.00	0.002268	.0156	440974090.03
105A710033	Resistor	R188,R227,R240, R455,R584,R585	Telcordia Issue 1	Level I		6.00	0.002268	.0935	440974090.03
105A701039	Resistor	R1072,R399,R400, R576,R675,R716, R779,R782,R784, R795,R801,R808, R811,R813,R976	Telcordia Issue 1	Level I		15.00	0.002268	.2339	440974090.03
105A501523	Resistor	R256	Telcordia Issue 1	Level I		1.00	0.002268	.0156	440974090.03
105A501539	Resistor	R275	Telcordia Issue 1	Level I		1.00	0.002268	.0156	440974090.03
105A751003	Resistor	R285,R286,R287	Telcordia Issue 1	Level I		3.00	0.002268	.0468	440974090.03
105A511503	Resistor	R292	Telcordia Issue 1	Level I		1.00	0.002268	.0156	440974090.03
105A502200	Resistor	R293	Telcordia Issue 1	Level I		1.00	0.002268	.0156	440974090.03
1050502204	Resistor	R302,R307,R394, R395,R662,R663, R664,R665,R666, R667,R787,R788, R791,R792	Telcordia Issue 1	Level I		14.00	0.002268	.2183	440974090.03
105A704733	Resistor	R323,R454,R476, R480,R587,R637	Telcordia Issue 1	Level I		6.00	0.002268	.0935	440974090.03
105A515003	Resistor	R360,R361,R362, R481,R482,R483	Telcordia Issue 1	Level I		6.00	0.002268	.0935	440974090.03
105A747003	Resistor	R365,R714,R715	Telcordia Issue 1	Level I		3.00	0.002268	.0468	440974090.03

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105A703903	Resistor	R385,R386,R387, R388,R389,R390, R391,R392	Telcordia Issue 1	Level I		8.00	0.002268	.1247	440974090.03
105A710009	Resistor	R398	Telcordia Issue 1	Level I		1.00	0.002268	.0156	440974090.03
105A512003	Resistor	R406,R410	Telcordia Issue 1	Level I		2.00	0.002268	.0312	440974090.03
105A703329	Resistor	R427,R448,R488, R560,R601,R611	Telcordia Issue 1	Level I		6.00	0.002268	.0935	440974090.03
105A547503	Resistor	R430	Telcordia Issue 1	Level I		1.00	0.002268	.0156	440974090.03
105A503300	Resistor	R475,R490,R492, R512,R523,R539, R557,R572,R596, R598,R603,R606, R612,R618	Telcordia Issue 1	Level I		14.00	0.002268	.2183	440974090.03
105A549963	Resistor	R491,R502,R503, R504,R505,R506, R507,R508,R509, R513,R524,R540, R556,R573,R597, R599,R602,R607, R613,R619,R659, R660	Telcordia Issue 1	Level I		22.00	0.002268	.3430	440974090.03
105A702229	Resistor	R530,R554	Telcordia Issue 1	Level I		2.00	0.002268	.0312	440974090.03
105A539223	Resistor	R570	Telcordia Issue 1	Level I		1.00	0.002268	.0156	440974090.03
105A549919	Resistor	R571	Telcordia Issue 1	Level I		1.00	0.002268	.0156	440974090.03
105A704709	Resistor	R592,R600,R608	Telcordia Issue 1	Level I		3.00	0.002268	.0468	440974090.03
105A707503	Resistor	R593,R594,R595	Telcordia Issue 1	Level I		3.00	0.002268	.0468	440974090.03
105A708229	Resistor	R605	Telcordia Issue 1	Level I		1.00	0.002268	.0156	440974090.03
1054600289	Resistor	R624,R635,R648	Telcordia Issue 1	Level I		3.00	0.016397	.3382	60987234.06
105A756033	Resistor	R741	Telcordia Issue 1	Level I		1.00	0.002268	.0156	440974090.03
1051747002	Resistor	R757	Telcordia Issue 1	Level I		1.00	0.002268	.0156	440974090.03
105A708209	Resistor	R786,R789,R793	Telcordia Issue 1	Level I		3.00	0.002268	.0468	440974090.03
105A501233	Resistor	R794	Telcordia Issue 1	Level I		1.00	0.002268	.0156	440974090.03
105A701053	Resistor	R798	Telcordia Issue 1	Level I		1.00	0.002268	.0156	440974090.03
105A703309	Resistor	R806	Telcordia Issue 1	Level I		1.00	0.002268	.0156	440974090.03
1050547004	Resistor	R807	Telcordia Issue 1	Level I		1.00	0.002268	.0156	440974090.03
1053500279	Resistor	SR3,SR4	Telcordia Issue 1	Level I		2.00	0.002268	.0312	440974090.03
1600001600	Switching Device	SW1	Telcordia Issue 1	Level I		1.00	0.142243	.9779	7030242.17
14S2921400	Integrated Circuit	U6	Telcordia Issue 1	Level I		1.00	0.059366	.4081	16844654.92
14S4650601	Integrated Circuit	U21	Telcordia Issue 1	Level I		1.00	0.059366	.4081	16844654.92
14S4362704	Integrated Circuit	U24	Telcordia Issue 1	Level I		1.00	0.026183	.1800	38193355.79
1315410510	Semiconductor	U25,U26,U27	Telcordia Issue 1	Level I		3.00	0.079603	1.6418	12562298.27

**AAEON Reliability Prediction Report**

**Part Number** 9697916M09-D  
**Reference Des**  
**Date** 10. 20, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description** Top-level assembly  
**File Name** TF-ECB-916M-A21.RPJ  
**Time** 9:42  
**Failure Rate** 14.545768  
**MTBF** 68,749

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
14S6336600	Integrated Circuit	U29	Telcordia Issue 1	Level I		1.00	0.030663	.2108	32612948.43
14S4045800	Integrated Circuit	U30	Telcordia Issue 1	Level I		1.00	0.026183	.1800	38193355.79
14S5812300	Integrated Circuit	U34	Telcordia Issue 1	Level I		1.00	0.026183	.1800	38193355.79
131411171G	Integrated Circuit	U37	Telcordia Issue 1	Level I		1.00	0.059366	.4081	16844654.92
14S9811500	Integrated Circuit	U39	Telcordia Issue 1	Level I		1.00	0.059366	.4081	16844654.92
14S4070610	Integrated Circuit	U40	Telcordia Issue 1	Level I		1.00	0.059366	.4081	16844654.92
1651203291	Connection	U44	Telcordia Issue 1	Level I		1.00	0.018207	.1252	54923766.92
14S5A00700	Integrated Circuit	U45	Telcordia Issue 1	Level I		1.00	0.025245	.1736	39611408.47
14S3115001	Integrated Circuit	U47	Telcordia Issue 1	Level I		1.00	0.059366	.4081	16844654.92
14S4911216	Integrated Circuit	U49,U73	Telcordia Issue 1	Level I		2.00	0.059366	.8163	16844654.92
14S4021301	Integrated Circuit	U50,U57,U59,U66	Telcordia Issue 1	Level I		4.00	0.059366	1.6325	16844654.92
14S3522800	Integrated Circuit	U51,U52	Telcordia Issue 1	Level I		2.00	0.059366	.8163	16844654.92
1315970211	Semiconductor	U53,U54,U82	Telcordia Issue 1	Level I		3.00	0.159207	3.2836	6281149.14
14S3088800	Integrated Circuit	U55	Telcordia Issue 1	Level I		1.00	0.026183	.1800	38193355.79
14S4825730	Integrated Circuit	U58	Telcordia Issue 1	Level I		1.00	0.026183	.1800	38193355.79
14S1013200	Integrated Circuit	U60	Telcordia Issue 1	Level I		1.00	0.059366	.4081	16844654.92
14S3910800	Integrated Circuit	U61	Telcordia Issue 1	Level I		1.00	0.059366	.4081	16844654.92
14S2200900	Integrated Circuit	U62	Telcordia Issue 1	Level I		1.00	0.059366	.4081	16844654.92
14S3128421	Integrated Circuit	U63	Telcordia Issue 1	Level I		1.00	0.059366	.4081	16844654.92
14S6308001	Integrated Circuit	U65	Telcordia Issue 1	Level I		1.00	0.035882	.2467	27868824.73
14S4048502	Integrated Circuit	U67,U68	Telcordia Issue 1	Level I		2.00	0.059366	.8163	16844654.92
14S5A01400	Integrated Circuit	U70	Telcordia Issue 1	Level I		1.00	0.059366	.4081	16844654.92
14S5A12506	Integrated Circuit	U71	Telcordia Issue 1	Level I		1.00	0.026183	.1800	38193355.79
14S5812502	Integrated Circuit	U72	Telcordia Issue 1	Level I		1.00	0.026183	.1800	38193355.79
14S9223100	Integrated Circuit	U74	Telcordia Issue 1	Level I		1.00	0.059366	.4081	16844654.92
14S9080901	Integrated Circuit	U80	Telcordia Issue 1	Level I		1.00	0.059366	.4081	16844654.92
14S4033001	Integrated Circuit	U81	Telcordia Issue 1	Level I		1.00	0.026183	.1800	38193355.79
14S5A00821	Integrated Circuit	U143	Telcordia Issue 1	Level I		1.00	0.026183	.1800	38193355.79
1231332721	Miscellaneous	Y2	Telcordia Issue 1	Level I		1.00	0.150000	1.0312	6666666.67
1231325058	Miscellaneous	Y4,Y5	Telcordia Issue 1	Level I		2.00	0.150000	2.0625	6666666.67
1051512002	Resistor	R50,R53	Telcordia Issue 1	Level I		2.00	0.002268	.0312	440974090.03
14S825720A	Integrated Circuit	U69	Telcordia Issue 1	Level I		1.00	0.026183	.1800	38193355.79
14S5A00401	Integrated Circuit	U16	Telcordia Issue 1	Level I		1.00	0.026183	.1800	38193355.79
1124522080	Capacitor	C589,C592	Telcordia Issue 1	Level I		2.00	0.005466	.0752	182961702.19
1655906121	Connection	CN27	Telcordia Issue 1	Level I		1.00	0.001138	.0078	878780270.71
1315035210	Semiconductor	Q61	Telcordia Issue 1	Level I		1.00	0.000000	.0000	.00

### AAEON Reliability Prediction Report

**Part Number** 9697916M09-D  
**Reference Des**  
**Date** 10. 20, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00

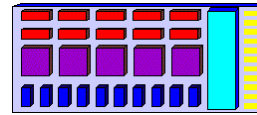


**Description** Top-level assembly  
**File Name** TF-ECB-916M-A21.RPJ  
**Time** 9:42  
**Failure Rate** 14.545768  
**MTBF** 68,749

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
1652530200	Connection	AUDIO1	Telcordia Issue 1	Level I		1.00	0.017069	.1173	58585351.38
175011901H	Miscellaneous	BT1	Telcordia Issue 1	Level I		1.00	0.900000	6.1874	11111111.11
1759100002	Miscellaneous	BZ1	Telcordia Issue 1	Level I		1.00	0.150000	1.0312	6666666.67
1653005100	Connection	CN1	Telcordia Issue 1	Level I		1.00	0.071121	.4889	14060484.33
1653005201	Connection	CN2	Telcordia Issue 1	Level I		1.00	0.005690	.0391	175756054.14
1653217202	Connection	CN7	Telcordia Issue 1	Level I		1.00	0.019345	.1330	51692957.10
165300420J	Connection	CN11	Telcordia Issue 1	Level I		1.00	0.004552	.0313	219695067.68
1655305020	Connection	CN29	Telcordia Issue 1	Level I		1.00	0.002845	.0196	351512108.28
1655003010	Connection	CN13,CN14	Telcordia Issue 1	Level I		2.00	0.001707	.0235	585853513.81
1653013200	Connection	CN15	Telcordia Issue 1	Level I		1.00	0.014793	.1017	67598482.36
1653003201	Connection	CN17,JP1,JP16,JP17, JP18,JP2,JP7	Telcordia Issue 1	Level I		7.00	0.001138	.0548	878780270.71
1653005200	Connection	CN22	Telcordia Issue 1	Level I		1.00	0.022759	.1565	43939013.54
1653004201	Connection	CN26	Telcordia Issue 1	Level I		1.00	0.004552	.0313	219695067.68
1653008100	Connection	CN27	Telcordia Issue 1	Level I		1.00	0.004552	.0313	219695067.68
1655310023	Connection	CN30	Telcordia Issue 1	Level I		1.00	0.005690	.0391	175756054.14
1655303020	Connection	CN31	Telcordia Issue 1	Level I		1.00	0.001707	.0117	585853513.81
1655302020	Connection	CN32,CN33	Telcordia Issue 1	Level I		2.00	0.001138	.0156	878780270.71
1655004022	Connection	CN34	Telcordia Issue 1	Level I		1.00	0.002276	.0156	439390135.35
1652522202	Connection	CN36,RJUSB1	Telcordia Issue 1	Level I		2.00	0.012517	.1721	79889115.52
1654549502	Connection	CN38	Telcordia Issue 1	Level I		1.00	0.001138	.0078	878780270.71
1654612307	Connection	CN39	Telcordia Issue 1	Level I		1.00	0.001138	.0078	878780270.71
1111610211	Capacitor	EC3,EC6,EC7,EC8	Telcordia Issue 1	Level I		4.00	0.071121	1.9558	14060484.33
1111610194	Capacitor	C242,C245,C260, C272,C273,C293, C298,C317,C321, C323,C324,C330, C335	Telcordia Issue 1	Level I		13.00	0.042673	3.8138	23434140.55
1112633191	Capacitor	EC1	Telcordia Issue 1	Level I		1.00	0.042673	.2934	23434140.55
111961029H	Capacitor	C351,C353,EC13,EC2, EC4,EC5	Telcordia Issue 1	Level I		6.00	0.071121	2.9337	14060484.33
1119622196	Capacitor	EC10,EC17,EC9	Telcordia Issue 1	Level I		3.00	0.071121	1.4668	14060484.33
1112610200	Capacitor	EC11,EC12,EC14, EC16	Telcordia Issue 1	Level I		4.00	0.071121	1.9558	14060484.33
1653220208	Connection	IDE1	Telcordia Issue 1	Level I		1.00	0.022759	.1565	43939013.54
1653003101	Connection	JP10,JP11,JP12, JP14,JP15,JP20, JP21,JP22,JP23, JP25,JP27,JP28, JP29,JP3,JP30,JP31, JP32,JP4	Telcordia Issue 1	Level I		18.00	0.001707	.2112	585853513.81
1653002101	Connection	JP19,JP5	Telcordia Issue 1	Level I		2.00	0.001138	.0156	878780270.71

### AAEON Reliability Prediction Report

**Part Number** 9697916M09-D  
**Reference Des**  
**Date** 10. 20, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description** Top-level assembly  
**File Name** TF-ECB-916M-A21.RPJ  
**Time** 9:42  
**Failure Rate** 14.545768  
**MTBF** 68,749

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1653003100	Connection	JP13,JP24,JP6,JP9	Telcordia Issue 1	Level I		4.00	0.001707	.0469	585853513.81
1653010200	Connection	JP8	Telcordia Issue 1	Level I		1.00	0.011379	.0782	87878027.07
1654260207	Connection	PCI1	Telcordia Issue 1	Level I		1.00	0.068276	.4694	14646337.85
1654907006	Connection	SATA2,SATA3,SATA4	Telcordia Issue 1	Level I		3.00	0.003983	.0821	251080077.35
1601123000	Connection	SW2,SW3	Telcordia Issue 1	Level I		2.00	0.002276	.0313	439390135.35
1750220326	Connection	BT1	Telcordia Issue 1	Level I		1.00	0.001138	.0078	878780270.71
1189656190	Capacitor	C34	Telcordia Issue 1	Level I		1.00	0.004535	.0312	220487045.01
1304000061	Semiconductor	U41,U42	Telcordia Issue 1	Level I		2.00	0.004877	.0671	205063180.81
1653205203	Connection	CN37	Telcordia Issue 1	Level I		1.00	0.005690	.0391	175756054.14
1653900036	Connection	CN8	Telcordia Issue 1	Level I		1.00	0.001138	.0078	878780270.71
1654218202	Connection	PCIE1	Telcordia Issue 1	Level I		1.00	0.020483	.1408	48821126.15
1654282201	Connection	CN23	Telcordia Issue 1	Level I		1.00	0.093311	.6415	10716832.57
1655112012	Connection	CN3	Telcordia Issue 1	Level I		1.00	0.006828	.0469	146463378.45
1655420020	Connection	CN6	Telcordia Issue 1	Level I		1.00	0.011379	.0782	87878027.07
1655902030	Connection	BT2	Telcordia Issue 1	Level I		1.00	0.001138	.0078	878780270.71