

AEV-6312

Reliability Prediction Report (MTBF)

Summary	Failure Rate: 17.364797 ppm MTBF: 57,588 Hours
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Issue date	Approval	Test Engineer
2011/09/30	Jansin Lee	Matthew Chi

Reliability Prediction (MTBF)

I . Model Name: TF-AEV-6312-A1-1010

II . Prediction Date: September. 30, 2011

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

IV . Predicted by: Matthew Chi

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 : 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-AEV-6312-A1-1010: (Not include GPS module)

- Failure Rate: 17.364797ppm
- MTBF: 57,588Hours

Below component value were provided by the suppliers:

- (TF)GPS module.5pin housing 1.25mm USB.LOCOSYS.LS20020
MTBF: N/A (Vendors can not provide this information)

AAEON Reliability Prediction Report

Part Number TF-AEV-6312-A1-1010
Reference Des
Date 09. 28, 2011
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description Top-level assembly
File Name TF-AEV-6312-A1-1010.RPJ
Time 10:46
Failure Rate 17.364797
MTBF 57,588

Assembly Name	Part Number	Model	Method	Environment	Duty Cycle	Qty	Failure Rate	MTBF
System	TF-AEV-6312-A1--1010	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled	100.00	1.00	17.36	57587.77
Power Board	9697P20D01-D	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	2.82	354608.09
GENE-LN05 A1.0	9697LN050F-D	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	14.54	68758.58

AAEON Reliability Prediction Report

Part Number TF-AEV-6312-A1-1010
Reference Des
Date 09. 28, 2011
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description Top-level assembly
File Name TF-AEV-6312-A1-1010.RPJ
Time 10:46
Failure Rate 17.364797
MTBF 57,588

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1652003201	Connection		Telcordia Issue 1	Level I		1.00	0.001144	100.0000	874201776.95

AAEON Reliability Prediction Report

Part Number 9697P20D01-D
Reference Des
Date 09. 28, 2011
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name TF-AEV-6312-A1-1010.RPJ
Time 10:46
Failure Rate 2.820015
MTBF 354,608

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
1301005442	Semiconductor	D12	Telcordia Issue 1	Level I		1.00	0.023950	.8493	41754194.40
11C4501650	Capacitor	C1,C11,C14,C15,C19, C25,C3,C33,C4,C41, C6,C9	Telcordia Issue 1	Level I		12.00	0.004544	1.9337	220055560.52
11C4547690	Capacitor	C2,C20,C23,C5,C7	Telcordia Issue 1	Level I		5.00	0.004544	.8057	220055560.52
11E1522680	Capacitor	C12,C16,C17	Telcordia Issue 1	Level I		3.00	0.004544	.4834	220055560.52
1129610051	Capacitor	C13,C26,C38,C40	Telcordia Issue 1	Level I		4.00	0.004544	.6446	220055560.52
1129701790	Capacitor	C18,C28,C39	Telcordia Issue 1	Level I		3.00	0.004544	.4834	220055560.52
11C1547890	Capacitor	C24	Telcordia Issue 1	Level I		1.00	0.004544	.1611	220055560.52
1124410190	Capacitor	C27,C37	Telcordia Issue 1	Level I		2.00	0.004544	.3223	220055560.52
11E2510060	Capacitor	C29,C34	Telcordia Issue 1	Level I		2.00	0.004544	.3223	220055560.52
1129747090	Capacitor	C32	Telcordia Issue 1	Level I		1.00	0.004544	.1611	220055560.52
11C1522480	Capacitor	C35,C36	Telcordia Issue 1	Level I		2.00	0.004544	.3223	220055560.52
1300414841	Semiconductor	D13,D2,D4,D5,D6	Telcordia Issue 1	Level I		5.00	0.023950	4.2464	41754194.40
1302005641	Semiconductor	D3	Telcordia Issue 1	Level I		1.00	0.027266	.9669	36675926.75
1305050040	Semiconductor	D7	Telcordia Issue 1	Level I		1.00	0.079832	2.8309	12526258.32
1301003440	Semiconductor	D8,D9	Telcordia Issue 1	Level I		2.00	0.023950	1.6986	41754194.40
1301003640	Semiconductor	D10,D11	Telcordia Issue 1	Level I		2.00	0.023950	1.6986	41754194.40
1752001900	Miscellaneous	F1,F2	Telcordia Issue 1	Level I		2.00	0.003000	.2128	33333333.33
1653007204	Connection	J2	Telcordia Issue 1	Level I		1.00	0.001144	.0406	874201776.95
1310390410	Semiconductor	Q1,Q4,Q5,Q7,Q8	Telcordia Issue 1	Level I		5.00	0.023950	4.2464	41754194.40
1315567011	Semiconductor	Q10,Q11,Q12,Q13,Q2, Q3	Telcordia Issue 1	Level I		6.00	0.159665	33.9710	6263129.16
1315700211	Semiconductor	Q14,Q6,Q9	Telcordia Issue 1	Level I		3.00	0.159665	16.9855	6263129.16
1050504734	Resistor	R1,R14,R15,R31,R32, R33,R34,R35,R36, R37,R38,R39,R42	Telcordia Issue 1	Level I		13.00	0.002272	1.0474	440111121.05
105A702239	Resistor	R2,R4	Telcordia Issue 1	Level I		2.00	0.002272	.1611	440111121.05
105A703329	Resistor	R3	Telcordia Issue 1	Level I		1.00	0.002272	.0806	440111121.05
105A501539	Resistor	R16,R5,R7	Telcordia Issue 1	Level I		3.00	0.002272	.2417	440111121.05
105A575003	Resistor	R6	Telcordia Issue 1	Level I	20.80	1.00	0.003325	.1179	300751753.08
105A512039	Resistor	R13,R8	Telcordia Issue 1	Level I		2.00	0.002272	.1611	440111121.05
105A701009	Resistor	R10,R46,R47,R9	Telcordia Issue 1	Level I		4.00	0.002272	.3223	440111121.05
105A544214	Resistor	R11	Telcordia Issue 1	Level I		1.00	0.002272	.0806	440111121.05
105A701059	Resistor	R12	Telcordia Issue 1	Level I		1.00	0.002272	.0806	440111121.05
105A700009	Resistor	R17,R51,R53,R55	Telcordia Issue 1	Level I		4.00	0.002272	.3223	440111121.05
105A519623	Resistor	R18	Telcordia Issue 1	Level I		1.00	0.002272	.0806	440111121.05

AAEON Reliability Prediction Report

Part Number 9697P20D01-D
Reference Des
Date 09. 28, 2011
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name TF-AEV-6312-A1-1010.RPJ
Time 10:46
Failure Rate 2.820015
MTBF 354,608

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1050510034	Resistor	R19,R20,R21,R23, R26,R27,R28,R43, R44,R48,R52,R54, R57,R62	Telcordia Issue 1	Level I		14.00	0.002272	1.1280	440111121.05
105A522123	Resistor	R22	Telcordia Issue 1	Level I		1.00	0.002272	.0806	440111121.05
105A501333	Resistor	R24	Telcordia Issue 1	Level I		1.00	0.002272	.0806	440111121.05
105A501039	Resistor	R25,R30,R40,R61, R63	Telcordia Issue 1	Level I		5.00	0.002272	.4029	440111121.05
105A533223	Resistor	R29	Telcordia Issue 1	Level I		1.00	0.013633	.4834	73351853.51
1059501261	Resistor	R45	Telcordia Issue 1	Level I		1.00	0.002272	.0806	440111121.05
105A515433	Resistor	R49	Telcordia Issue 1	Level I		1.00	0.002272	.0806	440111121.05
105A501139	Resistor	R50	Telcordia Issue 1	Level I		1.00	0.002272	.0806	440111121.05
105A523713	Resistor	R56	Telcordia Issue 1	Level I		1.00	0.002272	.0806	440111121.05
105A509123	Resistor	R58	Telcordia Issue 1	Level I		1.00	0.002272	.0806	440111121.05
1053502579	Resistor	R59,R60	Telcordia Issue 1	Level I		2.00	0.002272	.1611	440111121.05
14S3435600	Integrated Circuit	U1	Telcordia Issue 1	Level I		1.00	0.059802	2.1206	16721916.86
14S3528000	Integrated Circuit	U2	Telcordia Issue 1	Level I		1.00	0.059802	2.1206	16721916.86
14S3378000	Integrated Circuit	U4	Telcordia Issue 1	Level I		1.00	0.059802	2.1206	16721916.86
14S3520900	Integrated Circuit	U5	Telcordia Issue 1	Level I	20.80	1.00	0.247763	8.7859	4036117.54
14S4193601	Integrated Circuit	U3	Telcordia Issue 1	Level I		1.00	0.026337	.9339	37969565.62
1652003101	Connection	CN1	Telcordia Issue 1	Level I		1.00	0.001144	.0406	874201776.95
1655304020	Connection	CN3	Telcordia Issue 1	Level I		1.00	0.001144	.0406	874201776.95
1655302020	Connection	CN4,CN6	Telcordia Issue 1	Level I		2.00	0.001144	.0811	874201776.95
1655404120	Connection	CN5	Telcordia Issue 1	Level I		1.00	0.001144	.0406	874201776.95
1114633130	Capacitor	C21,C22,C8	Telcordia Issue 1	Level I		3.00	0.004544	.4834	220055560.52
1181633112	Capacitor	C30,C31	Telcordia Issue 1	Level I		2.00	0.004544	.3223	220055560.52
130533CA50	Semiconductor	D1	Telcordia Issue 1	Level I		1.00	0.079832	2.8309	12526258.32
1653002100	Connection	J1	Telcordia Issue 1	Level I		1.00	0.001144	.0406	874201776.95
1214216190	Inductor	L1	Telcordia Issue 1	Level I		1.00	0.002272	.0806	440111121.05
1211100110	Inductor	L2	Telcordia Issue 1	Level I		1.00	0.002272	.0806	440111121.05
1602065200	Switching Device		Telcordia Issue 1	Level I		1.00	0.028598	1.0141	34968071.08
1652003201	Connection		Telcordia Issue 1	Level I		1.00	0.001144	.0406	874201776.95

AAEON Reliability Prediction Report

Part Number 9697LN050F-D
Reference Des
Date 09. 28, 2011
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10

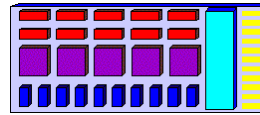


Description
File Name TF-AEV-6312-A1-1010.RPJ
Time 10:46
Failure Rate 14.543639
MTBF 68,759

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
14S634022E	Integrated Circuit	U49	Telcordia Issue 1	Level I		1.00	0.023111	.1589	43268765.90
1315230511	Semiconductor	Q7,Q9	Telcordia Issue 1	Level I		2.00	0.079832	1.0978	12526258.32
165392521J	Connection	CFD1A	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
1124410080	Capacitor	C36	Telcordia Issue 1	Level I		1.00	0.004544	.0312	220055560.52
1653212100	Connection	CN4	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
1655909032	Connection	CN9	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
165320520G	Connection	CN26	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
165321320H	Connection	CN27	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
1654030003	Connection	CN29	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
1654903900	Connection	CN34	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
1174522180	Capacitor	CP1,CP10,CP11,CP12, CP13,CP2,CP3,CP4, CP5,CP6,CP7,CP8, CP9	Telcordia Issue 1	Level I		13.00	0.004544	.4062	220055560.52
1121501691	Capacitor	C1,C10,C100,C101, C103,C105,C106, C107,C108,C109, C111,C112,C113, C114,C116,C117, C120,C123,C124, C125,C126,C127, C129,C130,C133, C134,C135,C136, C141,C142,C143, C144,C145,C146, C147,C148,C149, C150,C151,C152,	Telcordia Issue 1	Level I		238.00	0.004544	7.4366	220055560.52
1122701680	Capacitor	C11,C238,C24,C26	Telcordia Issue 1	Level I		4.00	0.004544	.1250	220055560.52
11E9510051	Capacitor	C102,C12,C128,C137, C139,C161,C168, C215,C226,C228, C263,C272,C277, C289,C294,C301, C303,C313,C331, C334,C335,C344, C351,C355,C377, C378,C386,C387, C391,C394,C399, C414,C415,C421, C433,C448,C456, C466,C467,C482,	Telcordia Issue 1	Level I		45.00	0.004544	1.4061	220055560.52

AAEON Reliability Prediction Report

Part Number 9697LN050F-D
Reference Des
Date 09. 28, 2011
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name TF-AEV-6312-A1-1010.RPJ
Time 10:46
Failure Rate 14.543639
MTBF 68,759

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
1129701791	Capacitor	C13,C178,C179,C189, C19,C191,C20,C21, C22,C372,C39,C40, C41,C42,C43,C449, C454,C455,C461, C468,C469,C471, C478	Telcordia Issue 1	Level I		23.00	0.004544	.7187	220055560.52
11E1510050	Capacitor	C14,C15,C16,C213, C222	Telcordia Issue 1	Level I		5.00	0.004544	.1562	220055560.52
1124547190	Capacitor	C18,C199,C284,C436, C437,C443,C451, C463,C474	Telcordia Issue 1	Level I		9.00	0.004544	.2812	220055560.52
1129710091	Capacitor	C188,C216,C37,C38, C483,C484,C485	Telcordia Issue 1	Level I		7.00	0.004544	.2187	220055560.52
1124410191	Capacitor	C196,C198,C207, C438,C439,C440, C441,C45,C460	Telcordia Issue 1	Level I		9.00	0.004544	.2812	220055560.52
11E9647680	Capacitor	C131,C184,C203, C242,C292,C302, C366,C389,C423, C434,C46	Telcordia Issue 1	Level I		11.00	0.004544	.3437	220055560.52
11C2539290	Capacitor	C47	Telcordia Issue 1	Level I		1.00	0.004544	.0312	220055560.52
11E9501091	Capacitor	C122,C132,C156, C174,C175,C176, C181,C182,C190, C201,C210,C218, C237,C247,C249, C278,C305,C308, C317,C319,C322, C323,C324,C326, C327,C328,C329, C332,C333,C338, C341,C345,C353, C354,C357,C358, C369,C370,C371,	Telcordia Issue 1	Level I		55.00	0.004544	1.7185	220055560.52
1129622690	Capacitor	C104,C110,C115, C119,C121,C217, C234,C246,C250, C321,C330,C337, C349,C356,C392,C64	Telcordia Issue 1	Level I		16.00	0.004544	.4999	220055560.52
1124427091	Capacitor	C118,C140,C208, C416,C420,C430, C458,C479,C480, C481,C66,C77	Telcordia Issue 1	Level I		12.00	0.004544	.3750	220055560.52
11C1547890	Capacitor	C296,C76,C79	Telcordia Issue 1	Level I		3.00	0.004544	.0937	220055560.52
1129710391	Capacitor	C138,C221,C225, C243,C282,C304, C435,C80	Telcordia Issue 1	Level I		8.00	0.004544	.2500	220055560.52
1124533282	Capacitor	C82	Telcordia Issue 1	Level I		1.00	0.004544	.0312	220055560.52

AAEON Reliability Prediction Report

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Description
File Name TF-AEV-6312-A1-1010.RPJ
Time 10:46
Failure Rate 14.543639
MTBF 68,759

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1129622050	Capacitor	C180,C230,C239, C240,C309,C360, C367,C395,C425, C444,C445	Telcordia Issue 1	Level I		11.00	0.004544	.3437	220055560.52
11C1501080	Capacitor	C209	Telcordia Issue 1	Level I		1.00	0.004544	.0312	220055560.52
1122522890	Capacitor	C275	Telcordia Issue 1	Level I		1.00	0.004544	.0312	220055560.52
11C4522190	Capacitor	C285,C291	Telcordia Issue 1	Level I		2.00	0.004544	.0625	220055560.52
1124522290	Capacitor	C300,C311,C320	Telcordia Issue 1	Level I		3.00	0.004544	.0937	220055560.52
11C4582190	Capacitor	C306	Telcordia Issue 1	Level I		1.00	0.004544	.0312	220055560.52
1129522790	Capacitor	C462,C486,C496	Telcordia Issue 1	Level I		3.00	0.004544	.0937	220055560.52
11E4433090	Capacitor	C491,C492	Telcordia Issue 1	Level I		2.00	0.004544	.0625	220055560.52
16515A0997	Connection	DIMM1	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
1305080040	Semiconductor	D1,D10,D2,D29,D3, D30,D32,D33,D34, D35,D36,D37,D39,D4, D40,D41,D42,D45, D47,D48,D49,D5,D50	Telcordia Issue 1	Level I		23.00	0.079832	12.6251	12526258.32
1301005444	Semiconductor	D15,D16,D25,D7	Telcordia Issue 1	Level I		4.00	0.023950	.6587	41754194.40
1304300140	Semiconductor	D19,D8	Telcordia Issue 1	Level I		2.00	0.004921	.0677	203197151.95
1301005442	Semiconductor	D11,D12,D26,D38	Telcordia Issue 1	Level I		4.00	0.023950	.6587	41754194.40
1301005443	Semiconductor	D13,D18	Telcordia Issue 1	Level I		2.00	0.023950	.3293	41754194.40
1304001340	Semiconductor	D20	Telcordia Issue 1	Level I		1.00	0.004921	.0338	203197151.95
1304101340	Semiconductor	D21	Telcordia Issue 1	Level I		1.00	0.004921	.0338	203197151.95
1301005441	Semiconductor	D31	Telcordia Issue 1	Level I		1.00	0.023950	.1647	41754194.40
1301053040	Semiconductor	D43,D44,D46	Telcordia Issue 1	Level I		3.00	0.023950	.4940	41754194.40
1212306030	Inductor	FB10,FB11,FB12, FB13,FB15,FB17, FB18,FB2,FB22,FB23, FB24,FB25,FB26, FB27,FB28,FB3,FB33, FB34,FB35,FB36,FB5, FB6,FB7,FB8,FB9	Telcordia Issue 1	Level I		25.00	0.002272	.3906	440111121.05
12123C0003	Inductor	FB21,FB4	Telcordia Issue 1	Level I		2.00	0.002272	.0312	440111121.05
1212306035	Inductor	FB14,FB16,FB19, FB20,FB29,FB30, FB31,FB32,FB37, FB38,FB39	Telcordia Issue 1	Level I		11.00	0.002272	.1719	440111121.05
1752000501	Miscellaneous	FS1	Telcordia Issue 1	Level I		1.00	0.003000	.0206	333333333.33
1752001601	Miscellaneous	FS2,FS3	Telcordia Issue 1	Level I		2.00	0.003000	.0413	333333333.33
121110106D	Inductor	L10,L11,L12,L7,L8, L9	Telcordia Issue 1	Level I		6.00	0.002272	.0937	440111121.05
1654926900	Connection	PCIE1B,PCIE2B	Telcordia Issue 1	Level I		2.00	0.001144	.0157	874201776.95

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Date 09. 28, 2011
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name TF-AEV-6312-A1-1010.RPJ
Time 10:46
Failure Rate 14.543639
MTBF 68,759

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1315700216	Semiconductor	Q1,Q10,Q11,Q13,Q17, Q2,Q20,Q21,Q22,Q23, Q28,Q29,Q3,Q34,Q35, Q36,Q39,Q40,Q41,Q6, Q8	Telcordia Issue 1	Level I		21.00	0.079832	11.5272	12526258.32
1310390413	Semiconductor	Q18,Q19,Q25,Q26, Q27,Q37,Q4	Telcordia Issue 1	Level I		7.00	0.023950	1.1527	41754194.40
1315030110	Semiconductor	Q14,Q16	Telcordia Issue 1	Level I		2.00	0.079832	1.0978	12526258.32
1311390612	Semiconductor	Q24	Telcordia Issue 1	Level I		1.00	0.023950	.1647	41754194.40
1311138610	Semiconductor	Q30,Q32,Q33	Telcordia Issue 1	Level I		3.00	0.023950	.4940	41754194.40
1540710382	Resistor	RP1,RP10,RP9	Telcordia Issue 1	Level I		3.00	0.007843	.1618	127498126.09
1540782282	Resistor	RP13,RP2,RP3,RP4, RP5,RP6	Telcordia Issue 1	Level I		6.00	0.007843	.3236	127498126.09
1540733085	Resistor	RP14,RP7,RP8	Telcordia Issue 1	Level I		3.00	0.007843	.1618	127498126.09
1540710280	Resistor	RP11,RP12	Telcordia Issue 1	Level I		2.00	0.007843	.1079	127498126.09
106B501032	Resistor	RT1	Telcordia Issue 1	Level I		1.00	0.011439	.0787	87420177.69
106B510030	Resistor	RT2	Telcordia Issue 1	Level I		1.00	0.011439	.0787	87420177.69
105A704729	Resistor	R1,R169,R170,R172, R174,R18,R196,R218, R221,R227,R235, R291,R300,R341, R344,R372,R377, R398,R408,R470,R48, R483,R484,R487, R494,R495,R502, R526,R536,R537,R56, R598,R600,R65	Telcordia Issue 1	Level I		34.00	0.002272	.5312	440111121.05
105A503309	Resistor	R2,R228,R232,R278, R283,R288,R290, R302,R529,R534,R59, R602,R603,R70,R78, R81,R88,R92	Telcordia Issue 1	Level I		18.00	0.002272	.2812	440111121.05
105A733009	Resistor	R11,R16,R3,R320, R321,R322	Telcordia Issue 1	Level I		6.00	0.002272	.0937	440111121.05
105A705139	Resistor	R24,R25,R26,R32, R33,R358,R381,R394, R4,R405,R410	Telcordia Issue 1	Level I		11.00	0.002272	.1719	440111121.05
105A556269	Resistor	R214,R350,R5	Telcordia Issue 1	Level I		3.00	0.002272	.0469	440111121.05

AAEON Reliability Prediction Report

Part Number 9697LN050F-D
Reference Des
Date 09. 28, 2011
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name TF-AEV-6312-A1-1010.RPJ
Time 10:46
Failure Rate 14.543639
MTBF 68,759

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A700139	Resistor	R119,R157,R191, R195,R199,R206, R208,R223,R23,R233, R234,R236,R237, R238,R239,R240, R242,R244,R262, R274,R282,R298,R30, R31,R317,R327,R362, R387,R404,R411, R428,R429,R438,R47, R474,R485,R517, R545,R562,R567, R568,R601,R605,	Telcordia Issue 1	Level I		46.00	0.002272	.7187	440111121.05
105A511333	Resistor	R28	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
105A701069	Resistor	R37,R482	Telcordia Issue 1	Level I		2.00	0.013633	.1875	73351853.51
1050524904	Resistor	R175,R337,R352,R39	Telcordia Issue 1	Level I		4.00	0.002272	.0625	440111121.05
105A545303	Resistor	R46	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
105A532413	Resistor	R50	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
1050502204	Resistor	R141,R246,R369, R447,R448,R466,R51, R57	Telcordia Issue 1	Level I		8.00	0.002272	.1250	440111121.05
1050505124	Resistor	R52,R548	Telcordia Issue 1	Level I		2.00	0.002272	.0312	440111121.05
1050702734	Resistor	R296,R55	Telcordia Issue 1	Level I		2.00	0.002272	.0312	440111121.05
105A702229	Resistor	R137,R147,R342, R359,R379,R380,R61, R63,R85	Telcordia Issue 1	Level I		9.00	0.002272	.1406	440111121.05
105A502039	Resistor	R251,R550,R566, R569,R66	Telcordia Issue 1	Level I		5.00	0.002272	.0781	440111121.05
105A500139	Resistor	R189,R194,R216, R275,R285,R426, R498,R519,R535,R67	Telcordia Issue 1	Level I		10.00	0.002272	.1562	440111121.05
105A549919	Resistor	R303,R305,R551, R552,R553,R554,R68	Telcordia Issue 1	Level I		7.00	0.002272	.1094	440111121.05
105A704709	Resistor	R116,R121,R127, R135,R140,R148, R153,R156,R159, R162,R164,R166, R176,R178,R179, R180,R182,R183, R185,R187,R192, R197,R201,R391, R399,R76,R83,R90, R94	Telcordia Issue 1	Level I		29.00	0.002272	.4531	440111121.05
105A768009	Resistor	R114,R120,R125, R133,R82,R89,R93	Telcordia Issue 1	Level I		7.00	0.002272	.1094	440111121.05

AAEON Reliability Prediction Report

Part Number 9697LN050F-D
Reference Des
Date 09. 28, 2011
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10

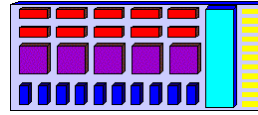


Description
File Name TF-AEV-6312-A1-1010.RPJ
Time 10:46
Failure Rate 14.543639
MTBF 68,759

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A501039	Resistor	R100,R102,R335, R338,R406,R499, R505,R506,R508, R509,R510,R547	Telcordia Issue 1	Level I		12.00	0.002272	.1875	440111121.05
105A706829	Resistor	R104,R105	Telcordia Issue 1	Level I		2.00	0.002272	.0312	440111121.05
105A515009	Resistor	R106,R107,R108, R578,R580,R582	Telcordia Issue 1	Level I		6.00	0.002272	.0937	440111121.05
105A580623	Resistor	R111	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
105A505109	Resistor	R115,R126,R134, R149,R184,R186, R190,R503,R513, R518,R521,R523, R531	Telcordia Issue 1	Level I		13.00	0.002272	.2031	440111121.05
105A515033	Resistor	R117	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
105A536533	Resistor	R122	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
1050501004	Resistor	R123,R181,R247, R249,R279,R284, R299,R375,R376, R386,R435,R436, R473,R475,R478, R574,R575	Telcordia Issue 1	Level I		17.00	0.002272	.2656	440111121.05
105A575033	Resistor	R129	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
105A568163	Resistor	R136	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
105A513033	Resistor	R144	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
105A580663	Resistor	R150,R151	Telcordia Issue 1	Level I		2.00	0.002272	.0312	440111121.05
105A700003	Resistor	R258,R349,R351, R401,R449,R450, R451,R530	Telcordia Issue 1	Level I		8.00	0.002272	.1250	440111121.05
105A522669	Resistor	R168	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
105A502003	Resistor	R177	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
105A500239	Resistor	R198,R497	Telcordia Issue 1	Level I		2.00	0.002272	.0312	440111121.05
1050547004	Resistor	R203,R210,R373	Telcordia Issue 1	Level I		3.00	0.002272	.0469	440111121.05
105A549969	Resistor	R492	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
105A507523	Resistor	R219,R259	Telcordia Issue 1	Level I		2.00	0.002272	.0312	440111121.05
105A556213	Resistor	R264	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
1059700001	Resistor	R286,R325	Telcordia Issue 1	Level I		2.00	0.002272	.0312	440111121.05
105A501233	Resistor	R287,R385	Telcordia Issue 1	Level I		2.00	0.002272	.0312	440111121.05
105A523713	Resistor	R310,R465	Telcordia Issue 1	Level I		2.00	0.002272	.0312	440111121.05
105A747039	Resistor	R328	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
105A701009	Resistor	R332,R353,R467, R471	Telcordia Issue 1	Level I		4.00	0.002272	.0625	440111121.05
105A702263	Resistor	R346,R446,R462	Telcordia Issue 1	Level I		3.00	0.002272	.0469	440111121.05
1050533034	Resistor	R348,R368	Telcordia Issue 1	Level I		2.00	0.002272	.0312	440111121.05

AAEON Reliability Prediction Report

Part Number 9697LN050F-D
Reference Des
Date 09. 28, 2011
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name TF-AEV-6312-A1-1010.RPJ
Time 10:46
Failure Rate 14.543639
MTBF 68,759

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
105A513723	Resistor	R360	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
1059702261	Resistor	R453,R454	Telcordia Issue 1	Level I		2.00	0.002272	.0312	440111121.05
105A566503	Resistor	R458	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
105A554923	Resistor	R459	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
105A584523	Resistor	R460	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
105A501539	Resistor	R493	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
105A503039	Resistor	R507	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
105A701003	Resistor	R511	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
105A575003	Resistor	R512	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
105A501413	Resistor	R515	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
105A534823	Resistor	R543	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
105A568123	Resistor	R544	Telcordia Issue 1	Level I		1.00	0.002272	.0156	440111121.05
105A722009	Resistor	R556,R557,R558, R560,R563,R564	Telcordia Issue 1	Level I		6.00	0.002272	.0937	440111121.05
105A700239	Resistor	R570,R571	Telcordia Issue 1	Level I		2.00	0.002272	.0312	440111121.05
105A507509	Resistor	R579,R581,R583	Telcordia Issue 1	Level I		3.00	0.002272	.0469	440111121.05
1189633193	Capacitor	TC1,TC12,TC2,TC6, TC9	Telcordia Issue 1	Level I		5.00	0.004544	.1562	220055560.52
1189627150	Capacitor	TC10,TC15,TC16, TC17,TC18,TC20, TC21,TC3,TC7	Telcordia Issue 1	Level I		9.00	0.004544	.2812	220055560.52
1189633160	Capacitor	TC22,TC23,TC24,TC4	Telcordia Issue 1	Level I		4.00	0.004544	.1250	220055560.52
1189615151	Capacitor	TC11,TC13,TC14, TC19,TC25,TC26, TC27,TC28	Telcordia Issue 1	Level I		8.00	0.004544	.2500	220055560.52
1182622080	Capacitor	TC8	Telcordia Issue 1	Level I		1.00	0.004544	.0312	220055560.52
14S9811500	Integrated Circuit	U1	Telcordia Issue 1	Level I		1.00	0.026337	.1811	37969565.62
1315667910	Semiconductor	U2,U74,U75	Telcordia Issue 1	Level I		3.00	0.079832	1.6467	12526258.32
1315441012	Semiconductor	U4,U45	Telcordia Issue 1	Level I		2.00	0.079832	1.0978	12526258.32
14S2041800	Integrated Circuit	U5	Telcordia Issue 1	Level I		1.00	0.059802	.4112	16721916.86
1315970211	Semiconductor	U18,U20,U6,U63	Telcordia Issue 1	Level I		4.00	0.079832	2.1957	12526258.32
14S4021301	Integrated Circuit	U13,U17,U25,U29, U64,U7	Telcordia Issue 1	Level I		6.00	0.059802	2.4671	16721916.86
1315422410	Semiconductor	U9	Telcordia Issue 1	Level I		1.00	0.079832	.5489	12526258.32
14S2362400	Integrated Circuit	U10	Telcordia Issue 1	Level I		1.00	0.059802	.4112	16721916.86
14S4280121	Integrated Circuit	U11	Telcordia Issue 1	Level I	22.20	1.00	0.088655	.6096	11279722.81
14S5A00821	Integrated Circuit	U12,U38,U69	Telcordia Issue 1	Level I		3.00	0.026337	.5433	37969565.62
14S2538000	Integrated Circuit	U14	Telcordia Issue 1	Level I		1.00	0.059802	.4112	16721916.86
14S3050100	Integrated Circuit	U15	Telcordia Issue 1	Level I	26.20	1.00	0.108395	.7453	9225546.73
14S4600004	Integrated Circuit	U16	Telcordia Issue 1	Level I		1.00	0.059802	.4112	16721916.86
14S4166012	Integrated Circuit	U19	Telcordia Issue 1	Level I		1.00	0.026337	.1811	37969565.62

AAEON Reliability Prediction Report

Part Number 9697LN050F-D
Reference Des
Date 09. 28, 2011
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10

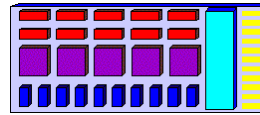


Description
File Name TF-AEV-6312-A1-1010.RPJ
Time 10:46
Failure Rate 14.543639
MTBF 68,759

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
14S4121601	Integrated Circuit	U21	Telcordia Issue 1	Level I		1.00	0.026337	.1811	37969565.62
14S5A12506	Integrated Circuit	U22	Telcordia Issue 1	Level I		1.00	0.026337	.1811	37969565.62
14S2591200	Integrated Circuit	U23	Telcordia Issue 1	Level I		1.00	0.059802	.4112	16721916.86
14S5A00601	Integrated Circuit	U24	Telcordia Issue 1	Level I		1.00	0.026337	.1811	37969565.62
14S4362707	Integrated Circuit	U26	Telcordia Issue 1	Level I		1.00	0.026337	.1811	37969565.62
14S4048503	Integrated Circuit	U27,U30	Telcordia Issue 1	Level I		2.00	0.059802	.8224	16721916.86
14S5A12503	Integrated Circuit	U28,U35	Telcordia Issue 1	Level I		2.00	0.026337	.3622	37969565.62
14S2041500	Integrated Circuit	U31	Telcordia Issue 1	Level I		1.00	0.059802	.4112	16721916.86
14S2048800	Integrated Circuit	U32	Telcordia Issue 1	Level I		1.00	0.059802	.4112	16721916.86
14S4256701	Inductor	U33	Telcordia Issue 1	Level I		1.00	0.018177	.1250	55013890.13
14S4258300	Inductor	U34	Telcordia Issue 1	Level I		1.00	0.018177	.1250	55013890.13
14S5A73200	Integrated Circuit	U36	Telcordia Issue 1	Level I		1.00	0.026337	.1811	37969565.62
14S3088800	Integrated Circuit	U37	Telcordia Issue 1	Level I	33.90	1.00	0.157453	1.0826	6351119.45
1315155510	Semiconductor	U39,U40,U41	Telcordia Issue 1	Level I		3.00	0.159665	3.2935	6263129.16
14S5912300	Integrated Circuit	U43	Telcordia Issue 1	Level I		1.00	0.070734	.4864	14137459.36
14S4081110	Integrated Circuit	U46	Telcordia Issue 1	Level I		1.00	0.026337	.1811	37969565.62
1315446310	Semiconductor	U47,U48	Telcordia Issue 1	Level I		2.00	0.079832	1.0978	12526258.32
14S9103200	Integrated Circuit	U50	Telcordia Issue 1	Level I		1.00	0.059802	.4112	16721916.86
14S4911216	Integrated Circuit	U52	Telcordia Issue 1	Level I	26.80	1.00	0.111665	.7678	8955330.40
1315482410	Semiconductor	U53,U62	Telcordia Issue 1	Level I		2.00	0.079832	1.0978	12526258.32
1315482110	Semiconductor	U54,U58	Telcordia Issue 1	Level I		2.00	0.079832	1.0978	12526258.32
14S4195710	Integrated Circuit	U55	Telcordia Issue 1	Level I		1.00	0.026337	.1811	37969565.62
1315997510	Semiconductor	U59,U60	Telcordia Issue 1	Level I		2.00	0.159665	2.1957	6263129.16
14S3156500	Integrated Circuit	U61	Telcordia Issue 1	Level I	30.10	1.00	0.441303	3.0343	2266018.69
14S3524700	Integrated Circuit	U65	Telcordia Issue 1	Level I		1.00	0.059802	.4112	16721916.86
14S3128421	Integrated Circuit	U66	Telcordia Issue 1	Level I		1.00	0.059802	.4112	16721916.86
14S4751100	Integrated Circuit	U67	Telcordia Issue 1	Level I		1.00	0.026337	.1811	37969565.62
14S2200900	Integrated Circuit	U68	Telcordia Issue 1	Level I		1.00	0.059802	.4112	16721916.86
1231332721	Miscellaneous	Y1	Telcordia Issue 1	Level I		1.00	0.150000	1.0314	6666666.67
123131435J	Miscellaneous	Y2	Telcordia Issue 1	Level I		1.00	0.150000	1.0314	6666666.67
123132505D	Miscellaneous	Y3,Y4	Telcordia Issue 1	Level I		2.00	0.150000	2.0628	6666666.67
14S6308002	Integrated Circuit	U57	Telcordia Issue 1	Level I		1.00	0.023111	.1589	43268765.90
11C9501050	Capacitor	C343	Telcordia Issue 1	Level I		1.00	0.004544	.0312	22005560.52
105A705629	Resistor	R409	Telcordia Issue 1	Level I		1.00	0.002272	.0156	44011121.05
1214309008	Inductor	CH2,CH3,CH4,CH5, CH6,CH7,CH8	Telcordia Issue 1	Level I		7.00	0.002272	.1094	44011121.05

AAEON Reliability Prediction Report

Part Number 9697LN050F-D
Reference Des
Date 09. 28, 2011
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name TF-AEV-6312-A1-1010.RPJ
Time 10:46
Failure Rate 14.543639
MTBF 68,759

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
121110226J	Inductor	L1	Telcordia Issue 1	Level I		1.00	0.086342	.5937	11581871.61
121110156K	Inductor	L2,L4	Telcordia Issue 1	Level I		2.00	0.086342	1.1873	11581871.61
121110156J	Inductor	L3	Telcordia Issue 1	Level I		1.00	0.086342	.5937	11581871.61
121110226K	Inductor	L5,L6	Telcordia Issue 1	Level I		2.00	0.086342	1.1873	11581871.61
1050586604	Resistor	R143	Telcordia Issue 1	Level I		1.00	0.002272	.0156	44011121.05
105A531613	Resistor	R250	Telcordia Issue 1	Level I		1.00	0.002272	.0156	44011121.05
1654226303	Connection	PCIE1A,PCIE2A	Telcordia Issue 1	Level I		2.00	0.001144	.0157	874201776.95
14S6263120	Integrated Circuit	U8	Telcordia Issue 1	Level I		1.00	0.103043	.7085	9704707.35
14S6203204	Integrated Circuit		Telcordia Issue 1	Level I		1.00	0.103043	.7085	9704707.35
1655902030	Connection	BAT1A	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
175011901M	Connection	BAT1B	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
1653900039	Connection	CFD1B	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
1655003010	Connection	CN1	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
1655306020	Connection	CN2	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
1655003022	Connection	CN3	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
1654907004	Connection	CN5,CN6	Telcordia Issue 1	Level I		2.00	0.001144	.0157	874201776.95
1652602105	Connection	CN8	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
1655302020	Connection	CN10	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
1653005201	Connection	CN11	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
1655905032	Connection	CN14,CN16,CN17, CN19,CN20	Telcordia Issue 1	Level I		5.00	0.001144	.0393	874201776.95
1655909031	Connection	CN13,CN15,CN18, CN21,CN22	Telcordia Issue 1	Level I		5.00	0.001144	.0393	874201776.95
1655910131	Connection	CN23	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
165251420B	Connection	CN24,CN25	Telcordia Issue 1	Level I		2.00	0.001144	.0157	874201776.95
1655305020	Connection	CN28	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
1654808309	Connection	CN30	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
1655306023	Connection	CN31	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
1654409103	Connection	CN32	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
1654415308	Connection	CN33	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
1181627191	Capacitor	EC1	Telcordia Issue 1	Level I		1.00	0.004544	.0312	220055560.52
1653002101	Connection	JP1	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
1653003101	Connection	JP2,JP4,JP5,JP6, JP7	Telcordia Issue 1	Level I		5.00	0.001144	.0393	874201776.95
1653003201	Connection	JP3	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
1653300102	Connection	JP1(1-2),JP2(1-2), JP5(1-2)	Telcordia Issue 1	Level I		3.00	0.001144	.0236	874201776.95
1653300107	Connection	JP3(5-6),JP6(2-3), JP7(2-3)	Telcordia Issue 1	Level I		3.00	0.001144	.0236	874201776.95
1653300108	Connection	JP4(1-2)	Telcordia Issue 1	Level I		1.00	0.001144	.0079	874201776.95
175910000B	Miscellaneous	SP1	Telcordia Issue 1	Level I		1.00	0.150000	1.0314	6666666.67

AAEON Reliability Prediction Report

Part Number 9697LN050F-D
Reference Des
Date 09. 28, 2011
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name TF-AEV-6312-A1-1010.RPJ
Time 10:46
Failure Rate 14.543639
MTBF 68,759

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
17592LN050	Miscellaneous		Telcordia Issue 1	Level I		1.00	0.150000	1.0314	6666666.67