

# EPIC-9457

## Reliability Prediction Report (MTBF)

Report NO : 09E070036

**07-28-2009**

Issue Date

**Wenyuan Yang**

Manager

**Jessica Chou**

Test Engineer

## Reliability Prediction (MTBF)

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**I . Model Name:** TF-EPIC-9457-A10-03

**II . Prediction Date:** Jul. 28, 2009

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

**IV . Predicted by:** Jessica Chou

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

### **VI. Simulation Environment:**

- Temperature: 25.0 degrees C
- Standard: Telcordia (Bellcore) Standard

### **VII. Term and Definition:**

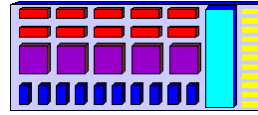
- Unit : An assembly of device.
- Duty Cycle : 100%
- Quantity : The quantity of the selected item.
- Failure Rate : Used to specify that the failure rate is to be calculated based the selected Calculation models. The multiplier is 1,000,000.
- MTBF : MTBF is always specified in hours.

### **VIII. Prediction Result:**

- TF-EPIC-9457-A10-03 :  
Failure Rate: 16.628362 ppm  
MTBF: 60,138 Hours

**AAEON Reliability Prediction Report**

**Part Number** 9697945703-D  
**Reference Des**  
**Date** 07. 28, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description** Top-level assembly  
**File Name** TF-EPIC-9457-A10-03.RPJ  
**Time** 2:59 下午  
**Failure Rate** 16.628362  
**MTBF** 60,138

Assembly Name	Part Number	Model	Method	Environment	Duty Cycle	Qty	Failure Rate	MTBF
TF-EPIC-9457-A10-03	9697945703-D	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled	100.00	1.00	16.63	60138.22

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**Time** 2:59 下午  
**Failure Rate** 16.628362  
**MTBF** 60,138

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
165301320B	Connection	CN12	Telcordia Issue 1	Level I		1.00	0.014793	.0890	67598482.36
105A507509	Resistor	R276,R278,R280	Telcordia Issue 1	Level I		3.00	0.002268	.0409	440974090.03
1654030003	Connection	CN7	Telcordia Issue 1	Level I		1.00	0.017069	.1027	58585351.38
1653007204	Connection	CN6	Telcordia Issue 1	Level I		1.00	0.199140	1.1976	5021601.55
16540F6300	Connection	CN17	Telcordia Issue 1	Level I		1.00	0.001138	.0068	878780270.71
1655909032	Connection	CN18	Telcordia Issue 1	Level I		1.00	0.001138	.0068	878780270.71
1231325058	Miscellaneous	Y5,Y6	Telcordia Issue 1	Level I		2.00	0.150000	1.8041	6666666.67
123131435B	Miscellaneous	Y4	Telcordia Issue 1	Level I		1.00	0.150000	.9021	6666666.67
1129701790	Capacitor	C1,C121,C186,C241,C483,C485,C496,C518,C52,C520,C524,C556,C561,C664	Telcordia Issue 1	Level I		14.00	0.004535	.3819	220487045.01
1121501690	Capacitor	C10,C100,C104,C108,C109,C11,C110,C12,C123,C124,C132,C133,C134,C137,C14,C140,C142,C148,C149,C150,C151,C152,C153,C155,C165,C167,C168,C170,C178,C179,C183,C194,C198,C199,C2,C200,C204,C207,C213,C214,C216,C217,C221,	Telcordia Issue 1	Level I		285.00	0.004535	7.7734	220487045.01
11E9510050	Capacitor	C15,C176,C283,C3,C32,C38,C394,C421,C424,C448,C515,C523,C575,C577,C590,C596,C597,C625,C626,C627,C628,C638,C9	Telcordia Issue 1	Level I		23.00	0.004535	.6273	220487045.01
1124533190	Capacitor	C246,C264,C285,C286,C289,C291,C292,C331,C4,C55	Telcordia Issue 1	Level I		10.00	0.005466	.3287	182961702.19
11E1647650	Capacitor	C138,C141,C5,C6	Telcordia Issue 1	Level I		4.00	0.042673	1.0265	23434140.55
11B2701690	Capacitor	C13,C21,C262,C8	Telcordia Issue 1	Level I		4.00	0.004535	.1091	220487045.01
11C1501080	Capacitor	C16	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
1129722091	Capacitor	C17,C18,C22	Telcordia Issue 1	Level I		3.00	0.004535	.0818	220487045.01

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1129610080	Capacitor	C122,C135,C136, C139,C145,C146,C19, C242,C258,C270, C272,C309,C31,C313, C327,C329,C330, C332,C339,C343, C345,C348,C366, C375,C388,C395, C401,C41,C435,C438, C439,C451,C460, C461,C462,C463, C464,C47,C49,C490, C491,C492,C494,	Telcordia Issue 1	Level I		68.00	0.004535	1.8547	220487045.01
1129710390	Capacitor	C191,C20,C203,C237, C251,C28,C29,C613, C614,C658,C661	Telcordia Issue 1	Level I		11.00	0.004535	.3000	220487045.01
11E9501091	Capacitor	C117,C209,C222,C25, C256,C26,C265,C27, C287,C293,C295,C30, C307,C326,C328,C34, C352,C362,C37,C370, C372,C396,C40,C400, C413,C43,C446,C46, C48,C51,C521,C536, C537,C54,C546,C57, C587,C588,C589, C591,C592,C594, C595,C599,C600, C601,C602,C609,	Telcordia Issue 1	Level I		62.00	0.004535	1.6911	220487045.01
11E9522680	Capacitor	C101,C102,C115, C127,C130,C177, C290,C56	Telcordia Issue 1	Level I		8.00	0.004535	.2182	220487045.01
1124427090	Capacitor	C126,C131,C173, C174,C181,C182, C205,C208,C218, C219,C228,C231, C232,C233,C234,C73	Telcordia Issue 1	Level I		16.00	0.004535	.4364	220487045.01
1124547290	Capacitor	C112,C113,C118, C119,C120,C125,C81, C83	Telcordia Issue 1	Level I		8.00	0.004535	.2182	220487045.01
1129710090	Capacitor	C103,C197,C201, C210,C211,C212, C226,C227,C497,C99	Telcordia Issue 1	Level I		10.00	0.004535	.2728	220487045.01
11B9747490	Capacitor	C106,C422,C443, C449	Telcordia Issue 1	Level I		4.00	0.004535	.1091	220487045.01

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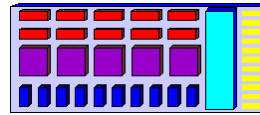


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Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1124547190	Capacitor	C143,C215,C639, C640,C643,C644, C645,C646,C648	Telcordia Issue 1	Level I		9.00	0.004535	.2455	220487045.01
1124405080	Capacitor	C144,C154,C161, C163,C502,C504	Telcordia Issue 1	Level I		6.00	0.005466	.1972	182961702.19
1124410190	Capacitor	C147,C157,C160, C162,C164,C166, C169,C171,C172, C175,C180,C184, C185,C187,C188, C189,C190,C229, C315	Telcordia Issue 1	Level I		19.00	0.004535	.5182	220487045.01
1124518280	Capacitor	C156	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
1129747090	Capacitor	C158,C663	Telcordia Issue 1	Level I		2.00	0.005466	.0657	182961702.19
11E1547090	Capacitor	C206,C634,C635	Telcordia Issue 1	Level I		3.00	0.004535	.0818	220487045.01
1124518180	Capacitor	C224	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
11A4415080	Capacitor	C225	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
11C4510380	Capacitor	C236	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
11E9647680	Capacitor	C202,C239,C249, C253,C304,C334, C337,C351,C391, C417,C418,C419, C429,C473,C474, C511,C512	Telcordia Issue 1	Level I		17.00	0.004535	.4637	220487045.01
1189615160	Capacitor	C244,TC6	Telcordia Issue 1	Level I		2.00	0.004535	.0546	220487045.01
11C2510190	Capacitor	C273,C274	Telcordia Issue 1	Level I		2.00	0.004535	.0546	220487045.01
1129622050	Capacitor	C322,C344,C458, C459,C471,C472, C540,C567,C571	Telcordia Issue 1	Level I		9.00	0.004535	.2455	220487045.01
1124522280	Capacitor	C487	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
11C4515190	Capacitor	C672,C673	Telcordia Issue 1	Level I		2.00	0.004535	.0546	220487045.01
16515A0997	Connection	DIMM1	Telcordia Issue 1	Level I		1.00	0.113794	.6843	8787802.71
1301005440	Semiconductor	D1,D12,D14,D15,D17, D20	Telcordia Issue 1	Level I		6.00	0.023881	.8617	41874327.58
1300001440	Semiconductor	D3,D4	Telcordia Issue 1	Level I		2.00	0.023881	.2872	41874327.58
1301005442	Semiconductor	D13,D16,D5	Telcordia Issue 1	Level I		3.00	0.023881	.4308	41874327.58
1305100541	Semiconductor	D21,D22,D23,D24, D27,D30,D31,D32, D33,D34,D35,D36, D37,D38,D39,D40, D41,D42,D7,D8,D9	Telcordia Issue 1	Level I		21.00	0.023881	3.0159	41874327.58
1301053040	Semiconductor	D18,D19,D43	Telcordia Issue 1	Level I		3.00	0.023881	.4308	41874327.58
1305099140	Semiconductor	D25,D26	Telcordia Issue 1	Level I		2.00	0.079603	.9574	12562298.27

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**Description** Top-level assembly  
**File Name** TF-EPIC-9457-A10-03.RPJ  
**Time** 2:59 下午  
**Failure Rate** 16.628362  
**MTBF** 60,138

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
1301002240	Semiconductor	D29	Telcordia Issue 1	Level I		1.00	0.023881	.1436	41874327.58
1300581940	Semiconductor	D44	Telcordia Issue 1	Level I		1.00	0.079603	.4787	12562298.27
1059700001	Resistor	FB1,FB2,FB21,FB24, FB25,FB6,FB7,L10, L31,L32,R12,R162, R267,R341,R500, R536,R620,R96	Telcordia Issue 1	Level I		18.00	0.002268	.2455	440974090.03
1212306030	Inductor	FB17,FB18,FB19, FB20,FB26,L29,L34, L35,L40,L41,L42	Telcordia Issue 1	Level I		11.00	0.002268	.1500	440974090.03
12123B0006	Inductor	FB10	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
12123C0007	Inductor	FB12,FB13,FB14	Telcordia Issue 1	Level I		3.00	0.002268	.0409	440974090.03
12123C0006	Inductor	FB15,FB16	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
1212306035	Inductor	FB22,FB23,L16,L17, L18,L20,L21,L22, L23,L4,L5	Telcordia Issue 1	Level I		11.00	0.002268	.1500	440974090.03
1752001900	Miscellaneous	FS1	Telcordia Issue 1	Level I		1.00	0.003000	.0180	333333333.33
1752001601	Miscellaneous	FS2,FS4	Telcordia Issue 1	Level I		2.00	0.003000	.0361	333333333.33
1304001340	Semiconductor	LED1,LED2,LED3, LED4	Telcordia Issue 1	Level I		4.00	0.004877	.1173	205063180.81
1211000180	Inductor	L1	Telcordia Issue 1	Level I	23.80	1.00	0.003493	.0210	286320139.96
1211000180	Inductor	L2	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1211000180	Inductor	L11	Telcordia Issue 1	Level I	24.60	1.00	0.003540	.0213	282506265.34
121230603S	Inductor	L12	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1211100102	Inductor	L26,L6	Telcordia Issue 1	Level I		2.00	0.086173	1.0365	11604581.32
121230603Z	Inductor	L30,L7,L8	Telcordia Issue 1	Level I		3.00	0.002268	.0409	440974090.03
14S4730701	Integrated Circuit	U52	Telcordia Issue 1	Level I	29.00	1.00	0.410383	2.4680	2436748.16
12123C0005	Inductor	L13,L14,L15	Telcordia Issue 1	Level I		3.00	0.002268	.0409	440974090.03
121110100P	Inductor	L19,L25	Telcordia Issue 1	Level I		2.00	0.086173	1.0365	11604581.32
1212308054	Inductor	L24	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1214309000	Inductor	L27,L28,L36,L37, L38,L39	Telcordia Issue 1	Level I		6.00	0.002268	.0818	440974090.03
1310390410	Semiconductor	Q19,Q2,Q25,Q29,Q42, Q43,Q49	Telcordia Issue 1	Level I		7.00	0.023881	1.0053	41874327.58
1315230511	Semiconductor	Q3,Q44	Telcordia Issue 1	Level I		2.00	0.079603	.9574	12562298.27
1315442011	Semiconductor	Q4	Telcordia Issue 1	Level I		1.00	0.079603	.4787	12562298.27
1315442011	Semiconductor	Q32	Telcordia Issue 1	Level I	27.10	1.00	0.162549	.9775	6151998.59
1315442011	Semiconductor	Q33	Telcordia Issue 1	Level I	24.40	1.00	0.152206	.9153	6570057.61
1315441014	Semiconductor	Q35,Q6	Telcordia Issue 1	Level I		2.00	0.079603	.9574	12562298.27
1315441014	Semiconductor	Q5	Telcordia Issue 1	Level I	52.90	1.00	0.289510	1.7411	3454112.98
1311390610	Semiconductor	Q15,Q46	Telcordia Issue 1	Level I		2.00	0.023881	.2872	41874327.58
14S3524700	Integrated Circuit	Q16	Telcordia Issue 1	Level I		1.00	0.059366	.3570	16844654.92

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1315230300	Semiconductor	Q21	Telcordia Issue 1	Level I		1.00	0.079603	.4787	12562298.27
1315313800	Semiconductor	Q30	Telcordia Issue 1	Level I		1.00	0.079603	.4787	12562298.27
1311138610	Semiconductor	Q47, Q48, Q50, Q51	Telcordia Issue 1	Level I		4.00	0.023881	.5745	41874327.58
1315441012	Semiconductor	Q53	Telcordia Issue 1	Level I	8.50	1.00	0.100944	.6071	9906459.43
1540782282	Resistor	RP16, RP17, RP2, RP3, RP4, RP5	Telcordia Issue 1	Level I		6.00	0.012492	.4507	80051386.00
1540710084	Resistor	RP10, RP11, RP12, RP13, RP6, RP7, RP8, RP9	Telcordia Issue 1	Level I		8.00	0.006246	.3005	160102772.00
1540710280	Resistor	RP14, RP15	Telcordia Issue 1	Level I		2.00	0.006246	.0751	160102772.00
106B501032	Resistor	RT1, RT2, RT3	Telcordia Issue 1	Level I		3.00	0.002268	.0409	440974090.03
1059510031	Resistor	RT4	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A733009	Resistor	R1, R532, R627, R629, R8, R9	Telcordia Issue 1	Level I		6.00	0.002268	.0818	440974090.03
105A700009	Resistor	R109, R125, R127, R132, R144, R145, R156, R198, R2, R204, R23, R258, R259, R263, R274, R285, R291, R292, R3, R309, R31, R317, R332, R359, R360, R372, R374, R376, R382, R393, R395, R4, R407, R411, R42, R422, R423, R426, R427, R428, R431, R435, R441, R45, R	Telcordia Issue 1	Level I		74.00	0.002268	1.0092	440974090.03
105A510009	Resistor	R11, R297, R298, R391, R420, R451, R469, R497, R499, R578, R579	Telcordia Issue 1	Level I		11.00	0.002268	.1500	440974090.03
105A704729	Resistor	R115, R14, R149, R15, R183, R191, R194, R20, R214, R231, R255, R331, R348, R349, R38, R39, R394, R408, R412, R419, R471, R480, R491, R50, R52, R522, R540, R556, R591, R592, R594, R612, R613	Telcordia Issue 1	Level I		33.00	0.002268	.4500	440974090.03
105A502033	Resistor	R18, R19, R46	Telcordia Issue 1	Level I		3.00	0.002268	.0409	440974090.03
105A510213	Resistor	R22	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03





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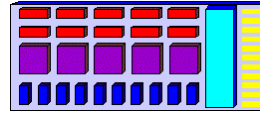


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105A515009	Resistor	R184,R195,R196, R200,R201,R209, R213,R218,R256, R277,R279,R281, R446,R456,R463,R55, R554,R59,R63	Telcordia Issue 1	Level I		19.00	0.002268	.2591	440974090.03
105A708229	Resistor	R117,R118,R119, R120,R121,R122, R142,R319,R320, R323,R452,R460, R468,R490,R527, R601,R605,R65,R66	Telcordia Issue 1	Level I		19.00	0.002268	.2591	440974090.03
105A705609	Resistor	R107,R108,R110, R111,R113,R114, R129,R130,R134, R135,R136,R137, R140,R141,R153, R154,R158,R251, R252,R253,R254, R514,R543,R544, R558,R560,R566, R574,R67,R70,R73, R77,R78,R82,R84, R85,R94,R98,R99	Telcordia Issue 1	Level I		39.00	0.002268	.5319	440974090.03
105A705139	Resistor	R157,R193,R205, R505,R68,R93	Telcordia Issue 1	Level I		6.00	0.002268	.0818	440974090.03
105A710053	Resistor	R100,R509,R74	Telcordia Issue 1	Level I		3.00	0.013606	.2455	73495681.67
105A580663	Resistor	R75,R81	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A701039	Resistor	R116,R123,R124, R160,R185,R186, R187,R219,R221, R227,R228,R242, R282,R283,R286, R290,R293,R295, R311,R324,R325, R326,R327,R328, R329,R330,R339, R342,R351,R352, R353,R354,R377, R404,R405,R409, R414,R421,R429,	Telcordia Issue 1	Level I		67.00	0.002268	.9137	440974090.03
1050512164	Resistor	R102,R103,R180, R181	Telcordia Issue 1	Level I		4.00	0.002268	.0546	440974090.03

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

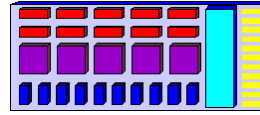


**Description** Top-level assembly  
**File Name** TF-EPIC-9457-A10-03.RPJ  
**Time** 2:59 下午  
**Failure Rate** 16.628362  
**MTBF** 60,138

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1050524904	Resistor	R131,R143,R379, R413,R477,R495	Telcordia Issue 1	Level I		6.00	0.002268	.0818	440974090.03
105A700103	Resistor	R133,R336,R432, R439,R455,R461	Telcordia Issue 1	Level I		6.00	0.002268	.0818	440974090.03
105A710039	Resistor	R384,R401,R478, R628,R632,R633	Telcordia Issue 1	Level I		6.00	0.002268	.0818	440974090.03
105A747003	Resistor	R155,R161	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A554969	Resistor	R164,R232,R483, R496	Telcordia Issue 1	Level I		4.00	0.002268	.0546	440974090.03
105A527463	Resistor	R167,R236	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A510733	Resistor	R206	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1315889611	Semiconductor	U48	Telcordia Issue 1	Level I		1.00	0.079603	.4787	12562298.27
105A501233	Resistor	R215	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A549919	Resistor	R241,R248,R440, R515,R516,R549, R550	Telcordia Issue 1	Level I		7.00	0.002268	.0955	440974090.03
105A513033	Resistor	R262,R269	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A701533	Resistor	R284	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A706823	Resistor	R287,R288,R552, R564	Telcordia Issue 1	Level I		4.00	0.002268	.0546	440974090.03
105A549903	Resistor	R289,R492	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A502223	Resistor	R312	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A501623	Resistor	R313	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A700133	Resistor	R314	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A511313	Resistor	R315	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A532413	Resistor	R318	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A507533	Resistor	R338	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A506823	Resistor	R362	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A501413	Resistor	R602,R635	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A501523	Resistor	R430	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A733033	Resistor	R433	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A525503	Resistor	R436	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A701053	Resistor	R447,R562,R589	Telcordia Issue 1	Level I		3.00	0.002268	.0409	440974090.03
105A522103	Resistor	R474,R493	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A500139	Resistor	R531,R547,R573, R581,R582,R585, R586,R587,R588, R606	Telcordia Issue 1	Level I		10.00	0.002268	.1364	440974090.03
105A520003	Resistor	R170,R356,R494	Telcordia Issue 1	Level I		3.00	0.002268	.0409	440974090.03
105A500239	Resistor	R542,R583,R590	Telcordia Issue 1	Level I		3.00	0.002268	.0409	440974090.03
105A705123	Resistor	R548	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A503033	Resistor	R557	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03

**AAEON Reliability Prediction Report**

**Part Number** 9697945703-D  
**Reference Des**  
**Date** 07. 28, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description** Top-level assembly  
**File Name** TF-EPIC-9457-A10-03.RPJ  
**Time** 2:59 下午  
**Failure Rate** 16.628362  
**MTBF** 60,138

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
105A547033	Resistor	R561	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A706803	Resistor	R570	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A501223	Resistor	R623	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A588703	Resistor	R625	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A502833	Resistor	R207,R630	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
1600000203	Connection	S1	Telcordia Issue 1	Level I		1.00	0.001138	.0068	878780270.71
1189622150	Capacitor	TC14,TC17,TC18,TC19,TC2,TC20,TC22	Telcordia Issue 1	Level I		7.00	0.004535	.1909	220487045.01
1189633160	Capacitor	TC10,TC23,TC24,TC25,TC4,TC5,TC9	Telcordia Issue 1	Level I		7.00	0.004535	.1909	220487045.01
1182622080	Capacitor	TC11	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
1189647180	Capacitor	TC15,TC21,TC30, TC31	Telcordia Issue 1	Level I		4.00	0.004535	.1091	220487045.01
1189647184	Capacitor	TC16	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
1189633181	Capacitor	TC28,TC29	Telcordia Issue 1	Level I		2.00	0.004535	.0546	220487045.01
1315970211	Semiconductor	U47,U49,U50	Telcordia Issue 1	Level I		3.00	0.159207	2.8723	6281149.14
14S4653700	Integrated Circuit	U1	Telcordia Issue 1	Level I		1.00	0.059366	.3570	16844654.92
14S2041700	Integrated Circuit	U3	Telcordia Issue 1	Level I		1.00	0.026183	.1575	38193355.79
14S3065500	Integrated Circuit	U4	Telcordia Issue 1	Level I	15.80	1.00	0.177929	1.0700	5620223.34
1231332721	Miscellaneous	Y2	Telcordia Issue 1	Level I		1.00	0.150000	.9021	6666666.67
14S428010D	Integrated Circuit	U7	Telcordia Issue 1	Level I	15.10	1.00	0.060944	.3665	16408595.56
14S4021301	Integrated Circuit	U14,U19,U25,U8	Telcordia Issue 1	Level I		4.00	0.059366	1.4281	16844654.92
14S4294503	Integrated Circuit	U10	Telcordia Issue 1	Level I	41.00	1.00	0.217851	1.3101	4590291.99
14S4048502	Integrated Circuit	U15	Telcordia Issue 1	Level I	9.00	1.00	0.112485	.6765	8890058.82
14S4048502	Integrated Circuit	U20	Telcordia Issue 1	Level I	8.90	1.00	0.111712	.6718	8951568.23
14S5A12506	Integrated Circuit	U16	Telcordia Issue 1	Level I		1.00	0.026183	.1575	38193355.79
14S4081110	Integrated Circuit	U41	Telcordia Issue 1	Level I		1.00	0.059366	.3570	16844654.92
14S3050100	Integrated Circuit	U18	Telcordia Issue 1	Level I	27.80	1.00	0.381426	2.2938	2621743.49
14S6308001	Integrated Circuit	U21,U22	Telcordia Issue 1	Level I		2.00	0.035882	.4316	27868824.73
14S5A00401	Integrated Circuit	U23	Telcordia Issue 1	Level I		1.00	0.026183	.1575	38193355.79
14S5812502	Integrated Circuit	U24	Telcordia Issue 1	Level I		1.00	0.026183	.1575	38193355.79
14S4878100	Integrated Circuit	U26	Telcordia Issue 1	Level I	32.30	1.00	0.145212	.8733	6886484.67
14S3387201	Integrated Circuit	U27	Telcordia Issue 1	Level I		1.00	0.059366	.3570	16844654.92
14S4160020	Integrated Circuit	U28	Telcordia Issue 1	Level I	26.90	1.00	0.111665	.6715	8955330.40
14S4825740	Integrated Circuit	U29	Telcordia Issue 1	Level I	24.00	1.00	0.096621	.5811	10349712.20
14S4825740	Integrated Circuit	U30	Telcordia Issue 1	Level I	18.20	1.00	0.071766	.4316	13934130.18
14S5812300	Integrated Circuit	U31	Telcordia Issue 1	Level I	6.90	1.00	0.038921	.2341	25693002.65
14S3128421	Integrated Circuit	U32	Telcordia Issue 1	Level I	6.90	1.00	0.097229	.5847	10284956.02

**AAEON Reliability Prediction Report**

**Part Number** 9697945703-D  
**Reference Des**  
**Date** 07. 28, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description** Top-level assembly  
**File Name** TF-EPIC-9457-A10-03.RPJ  
**Time** 2:59 下午  
**Failure Rate** 16.628362  
**MTBF** 60,138

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
14S4600003	Integrated Circuit	U33	Telcordia Issue 1	Level I		1.00	0.026183	.1575	38193355.79
14S2200900	Integrated Circuit	U34	Telcordia Issue 1	Level I		1.00	0.059366	.3570	16844654.92
1315155510	Integrated Circuit	U35,U36,U37	Telcordia Issue 1	Level I		3.00	0.059366	1.0710	16844654.92
14S2045400	Integrated Circuit	U38	Telcordia Issue 1	Level I		1.00	0.059366	.3570	16844654.92
14S4195710	Integrated Circuit	U51	Telcordia Issue 1	Level I	11.10	1.00	0.129877	.7811	7699578.77
14S4195710	Integrated Circuit	U54	Telcordia Issue 1	Level I		1.00	0.059366	.3570	16844654.92
14S5A00700	Integrated Circuit	U44	Telcordia Issue 1	Level I	19.80	1.00	0.075195	.4522	13298831.38
165392521H	Connection	CN26	Telcordia Issue 1	Level I		1.00	0.028449	.1711	35151210.83
1315700217	Semiconductor	Q1,Q10,Q11,Q12,Q13, Q14,Q20,Q22,Q23, Q24,Q26,Q27,Q28, Q36,Q37,Q38,Q39, Q45,Q52,Q54,Q7,Q8, Q9	Telcordia Issue 1	Level I		23.00	0.079603	11.0106	12562298.27
1314780511	Integrated Circuit	U2	Telcordia Issue 1	Level I		1.00	0.059366	.3570	16844654.92
165300420L	Connection	CN28	Telcordia Issue 1	Level I		1.00	0.004552	.0274	219695067.68
1752011000	Miscellaneous	FS3	Telcordia Issue 1	Level I		1.00	0.003000	.0180	33333333.33
1314108412	Integrated Circuit	U40	Telcordia Issue 1	Level I	26.30	1.00	0.347820	2.0917	2875049.61
1314108412	Integrated Circuit	U46	Telcordia Issue 1	Level I	23.90	1.00	0.299564	1.8015	3338181.74
105A533003	Resistor	R363,R553	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
1314638110	Integrated Circuit	U11	Telcordia Issue 1	Level I		1.00	0.059366	.3570	16844654.92
105A517423	Resistor	R266	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A730039	Resistor	R618	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A512033	Resistor	R610	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1121647480	Capacitor	C676,C678	Telcordia Issue 1	Level I		2.00	0.004535	.0546	220487045.01
11B2701080	Capacitor	C250,C593,C651	Telcordia Issue 1	Level I		3.00	0.004535	.0818	220487045.01
1122522890	Capacitor	C341,C349,C353, C358,C364,C371, C373	Telcordia Issue 1	Level I		7.00	0.004535	.1909	220487045.01
105A710033	Resistor	R470	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
14S5A00702	Integrated Circuit	U55	Telcordia Issue 1	Level I		1.00	0.059366	.3570	16844654.92
105A717433	Resistor	R29	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
1189615150	Capacitor	TC1,TC12,TC13,TC26, TC27,TC3,TC32,TC33, TC34	Telcordia Issue 1	Level I		9.00	0.004535	.2455	220487045.01
105A502233	Resistor	R369	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
105A508223	Resistor	R584	Telcordia Issue 1	Level I		1.00	0.002268	.0136	440974090.03
121110226C	Inductor	L9	Telcordia Issue 1	Level I		1.00	0.086173	.5182	11604581.32
14S6201601	Integrated Circuit		Telcordia Issue 1	Level I		1.00	0.167136	1.0051	5983167.80
1655902030	Connection	BAT1	Telcordia Issue 1	Level I		1.00	0.001138	.0068	878780270.71

