

# AEC-6913

## Reliability Prediction Report (MTBF)

Summary	Failure Rate: 17893.189073 ppm MTBF: 55,887 Hours
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Issue date	Approval	Test Engineer
2014/07/21	Tom Lin	Aslen Hsieh

# Reliability Prediction (MTBF)

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**I . Model Name:** AEC-6913

**II . Prediction Date:** July. 21, 2014

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

**IV . Predicted by:** Aslen Hsieh

**V . Equipment:** Windchill Quality Solutions 10.1

## **VI. Simulation Environment:**

- Temperature: 30 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 Failure rate multiplier is 1000000000.
- MTBF : MTBF is always specified in hours.

**VIII. Prediction Result:**

AEC-6913 (M/B: 9697CV0008-D ; I/O Board: DTXP691302-D):

- Failure Rate: 17893.189073 ppm

- MTBF: 55,887 Hours

**AAEON Reliability Prediction  
Summary**

**File Name:** AEC-6913.rfp  
**Duty Cycle:** 100  
**Calculation Model:** Telcordia Issue 2  
**Method:** Method I Case 3

**Failure Rate:** 17893.189073  
**MTBF (hrs):** 55,887  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Assembly Name	Part Number	Ref Des	Quantity	Failure Rate	MTBF
AEC-6913	System		1	17893.189073	55,887
IO Board	DTXP691302-D		1	11359.828466	88,029
CPU Board	9697CV0008-D		1	7106.964813	140,707

**File Name:** AEC-6913.rfp  
**Assembly:** DTXP691302-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 11359.828466  
**MTBF (hrs):** 88,029  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1050502224	Resistor	R136,R137		2.547039	2	154078778.388085
1050504724	Resistor	R110,R112,R 212, R321,R322,R 324, R325,R331,R 342		2.547039	9	38754445.632391
1050505124	Resistor	R334		2.547039	1	282340674.079668
1050510034	Resistor	R197,R198,R 333, R339,R506,R 507, R512,R514,R 519, R521,R523,R 604		2.547039	12	29507083.749401
1050532414	Resistor	R1000		2.547039	1	282340674.079668
1050547004	Resistor	R1010,R1014 ,R1018, R1022		2.547039	4	82309758.689546
1050702734	Resistor	R496		2.547039	1	282340674.079668
1050747012	Resistor	R1011,R1015 ,R1019, R1023		2.547039	4	82309758.689546
1050756004	Resistor	R1155,R1156 ,R1157, R1158,R1159 ,R1160, R1161,R1162 ,R349, R350,R351,R 352		2.547039	12	29507083.749401
1052510719	Resistor	R1008,R1012 ,R1016, R1020		2.547039	4	82309758.689546
1052730009	Resistor	R1117,R1118 ,R1119, R1120		2.547039	4	82309758.689546
1053501289	Resistor	R527		2.547039	1	282340674.079668
1054600289	Resistor	R42,R43		2.547039	2	154078778.388085
1054700289	Resistor	R499		2.547039	1	282340674.079668
1059522001	Resistor	R446		2.547039	1	282340674.079668
1059700001	Resistor	R410		2.547039	1	282340674.079668
1059700201	Resistor	R515		2.547039	1	282340674.079668
1059710001	Resistor	R447,R448		2.547039	2	154078778.388085
105A500113	Resistor	R546,R561		2.547039	2	154078778.388085

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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A500139	Resistor	R1112,R1116 ,R119, R120,R233,R 244, R249,R253,R 256, R311,R371,R 445, R449,R455,R 456, R459,R462,R 465, R545,R554,R 555, R556,R557,R 564		2.547039	24	15190138.820515
105A500239	Resistor	R115		2.547039	1	282340674.079668
105A500333	Resistor	R550		2.547039	1	282340674.079668
105A501039	Resistor	R1088,R1096 ,R1153, R116,R117,R 1177, R236,R237,R 241, R242,R243,R 245, R246,R247,R 255, R304,R309,R 329, R330,R335,R 344, R345,R346,R 382, R402,R404,R 45,R497, R79,R80,R81 ,R82, R83,R84,R85 ,R87, R88,R90,R91 ,R93, R98		2.547039	41	9043562.562696
105A501053	Resistor	R504,R509		2.547039	2	154078778.388085
105A501139	Resistor	R520		2.547039	1	282340674.079668
105A501413	Resistor	R444		2.547039	1	282340674.079668
105A501539	Resistor	R508		2.547039	1	282340674.079668
105A501633	Resistor	R1178,R1179		2.547039	2	154078778.388085
105A502033	Resistor	R298,R307,R 543		2.547039	3	107020754.986850

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105A502039	Resistor	R111,R113,R114, R1152,R511, R892		2.547039	6	56573956.677649
105A502200	Resistor	R100,R1175, R312, R567,R99		2.547039	5	67008142.102588
105A503309	Resistor	R118,R235,R250, R251,R252,R29, R30, R31,R32,R360, R485, R486,R487,R488, R63, R64,R66,R67, R68, R69,R70,R71, R72, R73		2.547039	24	15190138.820515
105A503323	Resistor	R565		2.547039	1	282340674.079668
105A504733	Resistor	R552,R553		2.547039	2	154078778.388085
105A505163	Resistor	R306		2.547039	1	282340674.079668
105A507509	Resistor	R131,R132,R133, R291,R292,R296, R297,R301,R302		2.547039	9	38754445.632391
105A508223	Resistor	R370,R391		2.547039	2	154078778.388085
105A509123	Resistor	R528		2.547039	1	282340674.079668
105A510003	Resistor	R679		2.547039	1	282340674.079668
105A511503	Resistor	R568		2.547039	1	282340674.079668
105A512039	Resistor	R500,R505		2.547039	2	154078778.388085
105A515009	Resistor	R128,R129,R130		2.547039	3	107020754.986850
105A515433	Resistor	R516		2.547039	1	282340674.079668
105A523713	Resistor	R525		2.547039	1	282340674.079668
105A533209	Resistor	R1009,R1013, R1017, R1021		2.547039	4	82309758.689546
105A547509	Resistor	R94		2.547039	1	282340674.079668
105A549913	Resistor	R103,R105,R234, R258,R259		2.547039	5	67008142.102588
105A549919	Resistor	R503		2.547039	1	282340674.079668
105A549969	Resistor	R54,R55,R56, R57, R58,R59,R60, R61, R62,R65		2.547039	10	35079934.879747

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**Temperature:** 30  
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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A556003	Resistor	R549		2.547039	1	282340674.079668
105A700003	Resistor	R209,R214,R272, R278,R356,R357, R539,R547,R562, R589,R590,R591		2.547039	12	29507083.749401
105A700009	Resistor	C315,C316,C318, C326,R10,R11,R1166, R1176,R1182,R12, R138,R139,R140, R144,R145,R146, R147,R150,R151, R152,R153,R154, R163,R165,R166, R168,R169,R170, R171,R172,R173, R174,R175,R178, R188,R191,R192, R193,R194,R203, R204,R205,R206, R217,R218,R219,R22, R220,R		2.547039	107	3540274.720688
105A700103	Resistor	R1180,R1181		2.547039	2	154078778.388085
105A700139	Resistor	R1087,R1095,R1104, R1108,R1109,R1110, R374,R386,R388, R389,R395,R408, R409,R412,R420, R422,R434,R437, R891		2.547039	19	19019185.781770



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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A701003	Resistor	R317		2.547039	1	282340674.079668
105A701009	Resistor	R501,R502,R517, R518		2.547039	4	82309758.689546
105A701039	Resistor	R1082,R1086,R1105,R1106,R1107,R1111,R1163,R1164,R1165,R134,R135,R379,R384,R385,R387,R406,R407,R411,R425,R427,R442, R443		2.547039	22	16518584.576317
105A702209	Resistor	R124,R125,R126, R127		2.547039	4	82309758.689546
105A702229	Resistor	R142,R143,R161,R162,R167,R176,R186,R187,R299,R300,R491,R602		2.547039	12	29507083.749401
105A703329	Resistor	R494		2.547039	1	282340674.079668
105A704723	Resistor	R305,R308,R310,R338,R355,R513		2.547039	6	56573956.677649

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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A704729	Resistor	R1113,R1114 ,R1115, R149,R179,R 207, R279,R280,R 283, R285,R289,R 290, R313,R358,R 361, R362,R363,R 364, R369,R37,R3 72,R373, R383,R390,R 393, R394,R405,R 417, R418,R419,R 432, R433,R436,R 50,R51, R538,R569,R 570, R579,R580,R 586		2.547039	41	9043562.562696
105A705129	Resistor	R490,R493		2.547039	2	154078778.388085
105A705139	Resistor	R529,R532,R 533		2.547039	3	107020754.986850
105A706823	Resistor	R122,R123		2.547039	2	154078778.388085
105A708229	Resistor	R287,R414,R 415, R428,R429,R 479, R480,R481,R 482		2.547039	9	38754445.632391
105A710009	Resistor	R492		2.547039	1	282340674.079668
105A710039	Resistor	R148,R177,R 281, R282,R284,R 286, R450,R46,R4 7,R888, R889,R893		2.547039	12	29507083.749401
105A733009	Resistor	R196,R199,R 263, R268,R270,R 274, R275,R276,R 544, R688,R698		2.547039	11	32049696.385471

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105A747003	Resistor	R377,R380,R398, R403		2.547039	4	82309758.689546
105A747009	Resistor	R421,R426,R435, R441		2.547039	4	82309758.689546
106B501032	Resistor	RT1,RT2		7.724580	2	38596617.434771
1111647191	Capacitor	C89		4.744484	1	159663026.715137
1114633130	Capacitor	C286,C287		4.744484	2	86049450.747498
111961029D	Capacitor	C94		4.744484	1	159663026.715137
1121501680	Capacitor	C263,C265,C266, C267,C310,C311, C312,C313		1.128806	8	101746760.035398
1121501690	Capacitor	BC1,BC10,BC11,BC12, BC126,BC127,BC129, BC13,BC14,B C15, BC16,BC17,B C18, BC189,BC19, BC191, BC2,BC20,BC21,BC22, BC23,BC24,B C25, BC26,BC27,B C28, BC29,BC3,BC30,BC31, BC34,BC35,B C4,BC5, BC6,BC7,BC8 ,BC9, C103,C107,C110, C112,C113,C114, C115,C116,C117, C118,C120,		1.128806	171	5083505.691791
1121610061	Capacitor	C293,C302,C304, C406,C413,C416		1.128806	6	133979725.056342
1121610180	Capacitor	C37,C38,C39 ,C40		1.128806	4	196873384.410843
1122601680	Capacitor	BC37,BC38		1.128806	2	375289731.076049

**File Name:** AEC-6913.rfp  
**Assembly:** DTXP691302-D  
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**Description:**

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**Temperature:** 30  
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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1124410190	Capacitor	C168,C170,C183, C184,C187,C190, C291,C294		1.128806	8	101746760.035398
1124427090	Capacitor	C109,C119,C200,C48, C49,C50,C53,C54, C55,C56		1.128806	10	82101057.548118
1124501780	Capacitor	C131,C133		1.128806	2	375289731.076049
1124522280	Capacitor	C586,C587		1.128806	2	375289731.076049
1124533190	Capacitor	C136,C137,C139, C140,C268,C269, C270,C271		1.128806	8	101746760.035398
1129610051	Capacitor	C100,C104,C108, C111,C122,C129, C130,C134,C135,C16, C167,C171,C173, C177,C198,C199, C314,C320,C321, C327,C328,C333, C338,C341,C342, C352,C353,C355,C75, C76,C83,C84,C9,C93, C96,TC2		1.128806	36	23624151.295955
1129610080	Capacitor	TC27,TC28		1.128806	2	375289731.076049

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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1129701690	Capacitor	C213,C214,C215, C216,C217,C218, C219,C220,C221, C222,C223,C224, C225,C226,C227, C228,C550,C552, C553,C554,C555, C570		1.128806	22	38230892.707156
1129701790	Capacitor	C261,C295,C303		1.128806	3	257514172.353070
1129710090	Capacitor	C45,C46,C47,C51, C52,C57,C58		1.128806	7	115633865.771428
1129747090	Capacitor	C299		1.128806	1	704977644.692287
1161627100	Capacitor	C410,C414		4.744484	2	86049450.747498
1169656132	Capacitor	C405,C412		4.744484	2	86049450.747498
1174522180	Capacitor	CP1,CP2,CP3,CP4		1.128806	4	196873384.410843
1181610090	Capacitor	C407		4.744484	1	159663026.715137
1181610191	Capacitor	EC3		4.744484	1	159663026.715137
1181627193	Capacitor	EC32		4.744484	1	159663026.715137
1181633112	Capacitor	C290,C298		4.744484	2	86049450.747498
1181647080	Capacitor	C24,C7		4.744484	2	86049450.747498
118961018A	Capacitor	EC1		4.744484	1	159663026.715137
1189622152	Capacitor	C317		4.744484	1	159663026.715137
1189922181	Capacitor	C319,C411		4.744484	2	86049450.747498
118A622190	Capacitor	C148,C151,C154, C157		4.744484	4	45505862.704531
11A4410280	Capacitor	C262		1.128806	1	704977644.692287
11C1501080	Capacitor	C194		1.128806	1	704977644.692287
11C1522480	Capacitor	C296,C301		1.128806	2	375289731.076049
11C1522650	Capacitor	C282,C339		1.128806	2	375289731.076049
11C1547890	Capacitor	C288		1.128806	1	704977644.692287
11C2501050	Capacitor	C12,C2,C20,C21,C22, C4,C5		1.128806	7	115633865.771428

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11C2510480	Capacitor	BC32,BC33,C10,C101,C105,C11,C17,C18,C19,C3,C325,C329,C335,C343,C346,C357,C366,C368,C408,C415,C85,C86,C87		1.128806	23	36609385.175833
11C2522650	Capacitor	TC29,TC30		1.128806	2	375289731.076049
11C4501650	Capacitor	C275,C279,C281,C284,C289,C292,C305		1.128806	7	115633865.771428
11C4547690	Capacitor	C276,C278,C280,C285,C306		1.128806	5	159367490.199266
11C5501650	Capacitor	C549,C558,C559,C560,C561		1.128806	5	159367490.199266
11C9510050	Capacitor	TC1		1.128806	1	704977644.692287
11C9510290	Capacitor	C551,C575,C585		1.128806	3	257514172.353070
11E1510050	Capacitor	C26,C33		1.128806	2	375289731.076049
11E1547090	Capacitor	C297,C300		1.128806	2	375289731.076049
11E1647650	Capacitor	C162,C163,C178,C179,C180,C181		1.128806	6	133979725.056342
11E2510060	Capacitor	C102,C106,C23,C283,C334,C337,C356,C358,C409,C6,C88		1.128806	11	74892583.279796
11E2647650	Capacitor	C97,C98		1.128806	2	375289731.076049
11E9501090	Capacitor	C175,C176,C182,C185,C186,C188,C189,C191,C192,C193,C259,C323,C324,C41,C8		1.128806	15	55479656.844874
11E9610080	Capacitor	C77,C80		1.128806	2	375289731.076049
1211100110	Inductor	L14		4.944252	1	154760964.143460
121110156J	Inductor	L16	56.6	12.208867	1	62673885.694616

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121110226J	Inductor	L27		4.944252	1	154760964.143460
1212306030	Inductor	FB8,FB9		4.944252	2	83201062.149749
1212306032	Inductor	FB29,FB30,L29,L30		4.944252	4	43912872.424775
121230603S	Inductor	FB1,FB2,FB3,FB4		4.944252	4	43912872.424775
12123C0006	Inductor	L4,L5,L6,L7,L8,L9		4.944252	6	30055900.223009
12123C0010	Inductor	FB10,FB11,FB12,FB13,L1,L10,L11,L12,L2,L3		4.944252	10	18485101.557872
12123D0001	Inductor	FB5,FB6,FB7		4.944252	3	57363284.375370
1214216190	Inductor	L13		4.944252	1	154760964.143460
1214309008	Inductor	CH1,CH10,CH2,CH7,CH8,CH9		4.944252	6	30055900.223009
121430900A	Inductor	CH3,CH4,CH5,CH6		4.944252	4	43912872.424775
123132505D	Miscellaneous	Y1		19.200000	1	23844262.770939
1233348051	Miscellaneous	OSC1,OSC2		19.200000	2	8854051.752197
12510MA010	Integrated Circuit	U83,U90		43.803003	2	6834791.244197
1300414841	Semiconductor	D45,D46		7.793411	2	50578095.223398
1300414848	Semiconductor	D48,D49		7.793411	2	50578095.223398
1301002240	Semiconductor	D54		7.793411	1	92807310.010983
1301003440	Semiconductor	D50,D51,D82		7.793411	3	35106858.962001
1301005440	Semiconductor	D2,D5,D52,D8		7.793411	4	26989084.126235
1301005442	Semiconductor	D15,D79,D80,D81		7.793411	4	26989084.126235
1301005444	Semiconductor	D39,D40,D55,D56,D78		7.793411	5	21965031.404253
1301013041	Semiconductor	D38		7.793411	1	92807310.010983
1301400541	Semiconductor	D1,D58,D59,D60		7.793411	4	26989084.126235
1301400642	Semiconductor	D4,D41,D42,D7		7.793411	4	26989084.126235
1301SK5640	Semiconductor	D83		7.793411	1	92807310.010983
1302005641	Semiconductor	D47		7.793411	1	92807310.010983
1304101440	Optical Device	LED2,LED3,LED4		79.003355	3	2725958.067754
1304451400	Semiconductor	D14		7.793411	1	92807310.010983
1305040241	Semiconductor	D21,D22,D23,D24,D25,D26,D27,D28		7.793411	8	14161142.003130

**File Name:** AEC-6913.rfp  
**Assembly:** DTXP691302-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 11359.828466  
**MTBF (hrs):** 88,029  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1305100541	Semiconductor	D29,D3,D30, D31,D32, D33,D34,D35 ,D36,D6, D9,U22,U23, U24,U25		7.793411	15	7809407.629947
130533CA40	Semiconductor	D44		7.793411	1	92807310.010983
1310390410	Semiconductor	Q18,Q19,Q2 5,Q31, Q47,Q53		22.463360	6	6378891.324740
1310390413	Semiconductor	Q24,Q30,Q3 6,Q37, Q42,Q43		22.463360	6	6378891.324740
1311138610	Semiconductor	Q14,Q15		22.463360	2	17315095.066101
1311390610	Semiconductor	Q20,Q27		22.463360	2	17315095.066101
1311390612	Semiconductor	Q21,Q26,Q3 2,Q33, Q38,Q39		22.463360	6	6378891.324740
1315044910	Semiconductor	Q61,Q83,Q8 4,Q85, Q87		22.463360	5	7551839.591592
1315230511	Semiconductor	Q48		22.463360	1	31642600.748419
1315441012	Semiconductor	Q9		22.463360	1	31642600.748419
1315567011	Semiconductor	Q51,Q52,Q5 4,Q56		22.463360	4	9270607.712006
1315668510	Semiconductor	Q70		22.463360	1	31642600.748419
1315686110	Semiconductor	U18,U19,U20 ,U21		22.463360	4	9270607.712006
1315700211	Semiconductor	Q10,Q11		22.463360	2	17315095.066101
1315700216	Semiconductor	Q1,Q2,Q22,Q 23,Q28, Q29,Q3,Q34, Q35,Q4, Q40,Q41,Q4 4,Q45, Q46,Q65,Q6 6,Q71, Q72		22.463360	19	2149533.403027
1315700217	Semiconductor	Q49,Q5,Q50, Q58,Q6, Q7		22.463360	6	6378891.324740
1315762010	Semiconductor	Q86		22.463360	1	31642600.748419
1315806511	Semiconductor	Q81,Q82		22.463360	2	17315095.066101
1315889612	Semiconductor	Q55,Q57		22.463360	2	17315095.066101
143ALC8920	Integrated Circuit	U33	24.2	213.892255	1	2404071.761263
1469128350	Integrated Circuit	CN16		11.063278	1	58231413.220643
14S2200900	Integrated Circuit	U7		43.803003	1	11739202.588727
14S2921400	Integrated Circuit	U74	44.7	689.587976	1	745680.532429
14S2921400	Integrated Circuit	U75	40.9	560.953656	1	916675.244371
14S3052400	Integrated Circuit	U10,U12,U13 ,U9		43.803003	4	3879156.910661
14S3115001	Integrated Circuit	U76		43.803003	1	11739202.588727



**File Name:** AEC-6913.rfp  
**Assembly:** DTXP691302-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 11359.828466  
**MTBF (hrs):** 88,029  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
14S3378000	Integrated Circuit	U70		43.803003	1	11739202.588727
14S3435600	Integrated Circuit	U69		43.803003	1	11739202.588727
14S3520900	Integrated Circuit	U71		43.803003	1	11739202.588727
14S3524700	Integrated Circuit	Q59		43.803003	1	11739202.588727
14S3910800	Integrated Circuit	U1		43.803003	1	11739202.588727
14S4021301	Integrated Circuit	U37,U46,U48 ,U49, U50,U51,U52 ,U53		43.803003	8	2144463.783749
14S4048501	Integrated Circuit	U36,U44		43.803003	2	6834791.244197
14S4048503	Integrated Circuit	U40,U45,U56 ,U58, U61,U63		43.803003	6	2750969.191556
14S4121601	Integrated Circuit	U35	21.4	180.205617	1	2853475.588059
14S4186600	Integrated Circuit	U34		43.803003	1	11739202.588727
14S4258300	Integrated Circuit	U16		43.803003	1	11739202.588727
14S4519500	Integrated Circuit	U64		43.803003	1	11739202.588727
14S4650601	Integrated Circuit	U73		43.803003	1	11739202.588727
14S4871300	Integrated Circuit	U67,U68		43.803003	2	6834791.244197
14S4911216	Integrated Circuit	U2		43.803003	1	11739202.588727
14S5A00601	Integrated Circuit	U39,U43,U55 ,U60		26.018600	4	7696979.559193
14S5A00702	Integrated Circuit	U31		26.018600	1	25551442.237972
14S5A00703	Integrated Circuit	U65		26.018600	1	25551442.237972
14S5A00821	Integrated Circuit	U66		26.018600	1	25551442.237972
14S5A12503	Integrated Circuit	U38,U42,U54 ,U59		26.018600	4	7696979.559193
14S5A12506	Integrated Circuit	U41,U47,U57 ,U62		26.018600	4	7696979.559193
14S5A73200	Integrated Circuit	U77		26.018600	1	25551442.237972
14S6308002	Integrated Circuit	U17		11.063278	1	58231413.220643
14S7035701	Integrated Circuit	ISO2,ISO4,IS O6, ISO8		43.803003	4	3879156.910661
14S7041000	Integrated Circuit	ISO1,ISO10,I SO3, ISO5,ISO7,IS O9		43.803003	6	2750969.191556
14S7141100	Integrated Circuit	U72,U88		43.803003	2	6834791.244197
14S7141200	Integrated Circuit	U82,U89		43.803003	2	6834791.244197
14S9341101	Integrated Circuit	U11,U8		43.803003	2	6834791.244197
1540710080	Resistor	RP10,RP11,R P12, RP13,RP14,R P15, RP16,RP17,R P18,RP7, RP8,RP9		9.971436	12	6588713.101045
1540710280	Resistor	RP1,RP2		9.971436	2	30043399.401299

**File Name:** AEC-6913.rfp  
**Assembly:** DTXP691302-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 11359.828466  
**MTBF (hrs):** 88,029  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1540733085	Resistor	RP3,RP4,RP5,RP6		9.971436	4	17049357.262242
1600030203	Connection	SW1		16.184835	1	35685591.360212
1651508010	Connection	CN40		16.184835	1	35685591.360212
1651901660	Connection	CN16		16.184835	1	35685591.360212
1652003101	Connection	CN28		16.184835	1	35685591.360212
1652010100	Connection	CN29		16.184835	1	35685591.360212
1652522202	Connection	CN12		16.184835	1	35685591.360212
1652532207	Connection	CN13		16.184835	1	35685591.360212
1653002101	Connection	J1		16.184835	1	35685591.360212
1653003101	Connection	JP1,JP13,JP5,JP8,JP9		16.184835	5	9343344.843761
1653003201	Connection	JP16,JP17,JP3,JP4		16.184835	4	11344857.509064
1653003202	Connection	JP11,JP12		16.184835	2	20390152.380746
165300420L	Connection	CN34		16.184835	1	35685591.360212
165320520C	Connection	CN38,DIO1		16.184835	2	20390152.380746
1653207204	Connection	CN39		16.184835	1	35685591.360212
1653212100	Connection	CN18		16.184835	1	35685591.360212
1653300102	Connection	JP5(2-3),JP8(1-2),JP9(2-3)		16.184835	3	14515880.849373
1653300107	Connection	JP1(1-2),JP11(5-6),JP12(5-6),JP13(1-2),JP16(1-2),JP16(3-4),JP16(5-6),JP17(1-2),JP17(3-4),JP17(5-6),JP3(1-2),JP3(3-4),JP3(5-6),JP4(1-2),JP4(3-4),JP4(5-6)		16.184835	16	3277426.782195
1653924110	Connection	CN9		16.184835	1	35685591.360212
1654030003	Connection	CN17		16.184835	1	35685591.360212
16540M0201	Connection	CN2,CN3		16.184835	2	20390152.380746
1654218200	Connection	PCIE1		16.184835	1	35685591.360212
1654226303	Connection	CN5,CN6		16.184835	2	20390152.380746
1654409103	Connection	CN19,CN26		16.184835	2	20390152.380746
1654808309	Connection	CN30		16.184835	1	35685591.360212
1654903900	Connection	CN7		16.184835	1	35685591.360212
1654907004	Connection	SATA1		16.184835	1	35685591.360212
1654930307	Connection	CN4		16.184835	1	35685591.360212
1655004014	Connection	FAN1		16.184835	1	35685591.360212
1655004110	Connection	CN10,CN11		16.184835	2	20390152.380746

**Reliability Prediction  
Summary**

**File Name:** AEC-6913.rfp  
**Assembly:** DTXP691302-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 11359.828466  
**MTBF (hrs):** 88,029  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1655103010	Connection	CN31		16.184835	1	35685591.360212
1655305020	Connection	CN32		16.184835	1	35685591.360212
1655306023	Connection	CN27		16.184835	1	35685591.360212
1655404020	Connection	CN33		16.184835	1	35685591.360212
1655909031	Connection	CN20,CN21,C N22, CN23,CN24,C N25		16.184835	6	7958792.615968
175011901H	Miscellaneous	BATTERY1		306.000000	1	1681683.006787
1750220323	Connection	BT1		16.184835	1	35685591.360212
1752000501	Miscellaneous	FS10,FS9		2.400000	2	143944727.196625
1752001603	Miscellaneous	FS1,FS12,FS 13,FS2, FS3		2.400000	5	65101085.623547
1752001900	Miscellaneous	F1,F2		2.400000	2	143944727.196625
1752310000	Miscellaneous	FS17,FS18,F S19, FS20		2.400000	4	79281882.025954

**File Name:** AEC-6913.rfp  
**Assembly:** 9697CV0008-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 7106.964813  
**MTBF (hrs):** 140,707  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1050501004	Resistor	R195		2.547039	1	282340674.079668
1050501234	Resistor	R92		2.547039	1	282340674.079668
1050501834	Resistor	R580		2.547039	1	282340674.079668
1050502004		R203		0.000000	1	0.000000
1050502204	Resistor	R517		2.547039	1	282340674.079668
1050504724	Resistor	R534		2.547039	1	282340674.079668
1050504764	Resistor	R132,R301		2.547039	2	154078778.388085
1050505124	Resistor	R411		2.547039	1	282340674.079668
1050505633	Resistor	R585		2.547039	1	282340674.079668
1050507524	Resistor	R140,R477		2.547039	2	154078778.388085
1050507530	Resistor	R121,R329,R96		2.547039	3	107020754.986850
1050510034	Resistor	R162,R202,R258,R356,R395,R461,R485,R537,R626,R632,R635,R750		2.547039	12	29507083.749401
1050511009	Resistor	R247		2.547039	1	282340674.079668
1050512104	Resistor	R130,R367		2.547039	2	154078778.388085
1050513034	Resistor	R143,R300,R573		2.547039	3	107020754.986850
1050518034	Resistor	R574		2.547039	1	282340674.079668
1050520004	Resistor	R388		2.547039	1	282340674.079668
1050522114	Resistor	R564		2.547039	1	282340674.079668
1050524904	Resistor	R122		2.547039	1	282340674.079668
1050524924	Resistor	R749		2.547039	1	282340674.079668
1050560434	Resistor	R495		2.547039	1	282340674.079668
1050561934	Resistor	R548		2.547039	1	282340674.079668
1050569824	Resistor	R339		2.547039	1	282340674.079668
1050590964	Resistor	R230,R254,R263,R433		2.547039	4	82309758.689546
1050703334	Resistor	R563		2.547039	1	282340674.079668
1059700001	Resistor	R107		2.547039	1	282340674.079668
105A500139	Resistor	R105,R106,R120,R3,R354,R355,R363,R364,R493,R524,R55		2.547039	11	32049696.385471
105A500239	Resistor	R289,R376,R577		2.547039	3	107020754.986850
105A500333	Resistor	R384		2.547039	1	282340674.079668

**File Name:** AEC-6913.rfp  
**Assembly:** 9697CV0008-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 7106.964813  
**MTBF (hrs):** 140,707  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A501039	Resistor	R110,R125,R296, R306,R365,R387, R409,R436,R489, R546,R557,R558, R566,R570,R571, R579,R581,R583, R624,R650,R660		2.547039	21	17274945.076062
105A501529	Resistor	R576		2.547039	1	282340674.079668
105A501539	Resistor	R90		2.547039	1	282340674.079668
105A501623	Resistor	R236		2.547039	1	282340674.079668
105A502039	Resistor	R4,R68		2.547039	2	154078778.388085
105A503309	Resistor	R238,R245,R257, R265,R270,R271, R272,R283,R284, R428,R467		2.547039	11	32049696.385471
105A505109	Resistor	R158,R197,R198, R199,R200,R201		2.547039	6	56573956.677649
105A505163	Resistor	R358		2.547039	1	282340674.079668
105A505629	Resistor	R545,R575,R582		2.547039	3	107020754.986850
105A507509	Resistor	R555		2.547039	1	282340674.079668
105A510009	Resistor	R133,R246,R316, R372,R373,R374, R375,R39,R427,R504, R512,R514,R531, R547,R57		2.547039	15	23852782.943395
105A513009	Resistor	R552		2.547039	1	282340674.079668
105A515009	Resistor	R248,R249,R250		2.547039	3	107020754.986850
105A522669	Resistor	R118,R204		2.547039	2	154078778.388085
105A527403	Resistor	R112		2.547039	1	282340674.079668
105A528723	Resistor	R415		2.547039	1	282340674.079668
105A531613	Resistor	R131		2.547039	1	282340674.079668
105A533269	Resistor	R117		2.547039	1	282340674.079668

**File Name:** AEC-6913.rfp  
**Assembly:** 9697CV0008-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 7106.964813  
**MTBF (hrs):** 140,707  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A549919	Resistor	R510,R515,R520		2.547039	3	107020754.986850
105A549969	Resistor	R464,R465		2.547039	2	154078778.388085
105A551119	Resistor	R565		2.547039	1	282340674.079668
105A560469	Resistor	R171,R208		2.547039	2	154078778.388085
105A561909	Resistor	R297		2.547039	1	282340674.079668
105A561924	Resistor	R549		2.547039	1	282340674.079668
105A561933	Resistor	R351		2.547039	1	282340674.079668
105A562034	Resistor	R505		2.547039	1	282340674.079668
105A568103	Resistor	R266		2.547039	1	282340674.079668
105A573223	Resistor	R392		2.547039	1	282340674.079668
105A700003	Resistor	C83,R108,R129,R362,R393,R420,R498,R513,R536,R654,R656,R658		2.547039	12	29507083.749401
105A700009	Resistor	C501,C510,C73,R10,R109,R124,R127,R13,R134,R135,R136,R137,R138,R139,R141,R142,R145,R146,R148,R149,R151,R155,R161,R163,R167,R169,R180,R186,R189,R196,R2,R206,R207,R212,R219,R220,R221,R222,R223,R224,R226,R227,R235,R244,R253,R26,R276,R278,R279, R		2.547039	126	3014741.579367

**Reliability Prediction  
Summary**

**File Name:** AEC-6913.rfp  
**Assembly:** 9697CV0008-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 7106.964813  
**MTBF (hrs):** 140,707  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A700139	Resistor	R114,R119,R166, R168,R178,R211, R214,R215,R232, R234,R242,R282, R291,R303,R326, R330,R332,R337, R338,R346,R438, R457,R459,R46, R460,R491,R499, R518, R521,R56,R609, R91, R93,R98		2.547039	34	10846303.620910
105A701003	Resistor	R394,R594		2.547039	2	154078778.388085
105A701039	Resistor	R100,R101,R102, R103,R111,R116, R12,R172,R177,R183, R184,R188,R190, R191,R192,R193, R210,R228,R229, R255,R264,R268, R285,R286,R308, R309,R314,R318, R331,R334,R335, R348,R353,R357, R361,R38,R382, R383, R389,R390,R391, R397,R406,R407, R41, R419,R426,R434, R44,		2.547039	99	3821035.116675

**File Name:** AEC-6913.rfp  
**Assembly:** 9697CV0008-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 7106.964813  
**MTBF (hrs):** 140,707  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A701059	Resistor	R176,R252,R378, R379,R380,R381, R487,R492,R623, R625,R633		2.547039	11	32049696.385471
105A701069	Resistor	R156,R439		2.547039	2	154078778.388085
105A702229	Resistor	R147,R175,R181, R216,R237,R239, R269,R34,R35,R36, R408,R412,R445, R448,R458,R481, R482,R94		2.547039	18	20032117.836120
105A702263	Resistor	R1,R313,R350		2.547039	3	107020754.986850
105A703363	Resistor	R404		2.547039	1	282340674.079668
105A704709	Resistor	R128,R243,R423, R424		2.547039	4	82309758.689546
105A704723	Resistor	R366		2.547039	1	282340674.079668
105A704729	Resistor	R104,R123,R144, R150,R154,R194, R256,R290,R304, R320,R328,R340, R352,R430,R431, R550,R590,R591, R659		2.547039	19	19019185.781770
105A704733	Resistor	R21,R22,R23,R24, R25		2.547039	5	67008142.102588
105A704739	Resistor	R317,R342,R532		2.547039	3	107020754.986850
105A704763	Resistor	R586,R587		2.547039	2	154078778.388085
105A705129	Resistor	R746		2.547039	1	282340674.079668
105A705139	Resistor	R187,R40,R496,R511, R572,R8		2.547039	6	56573956.677649
105A706829	Resistor	R617,R619,R620, R628,R629		2.547039	5	67008142.102588
105A707509	Resistor	R231		2.547039	1	282340674.079668



**File Name:** AEC-6913.rfp  
**Assembly:** 9697CV0008-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 7106.964813  
**MTBF (hrs):** 140,707  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A708229	Resistor	R173,R213,R359, R422,R429,R455,R60, R61,R62,R63,R64, R65,R66,R67,R75, R76,R77,R78,R79, R80,R81,R82,R83, R84,R85,R86,R87		2.547039	27	13557741.157915
105A710039	Resistor	R275,R292,R293, R307,R490,R533		2.547039	6	56573956.677649
105A733009	Resistor	R185,R315		2.547039	2	154078778.388085
105A739039	Resistor	R164		2.547039	1	282340674.079668
106B501032	Resistor	RT1,RT2,RT4,RT5		7.724580	4	21923287.146155
1121501690	Capacitor	C339,C346,C347, C349,C350,C361, C371,C435,C440, C441,C442,C443, C444,C445,C446		1.128806	15	55479656.844874

**File Name:** AEC-6913.rfp  
**Assembly:** 9697CV0008-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 7106.964813  
**MTBF (hrs):** 140,707  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1121501691	Capacitor	C104,C105,C109, C110,C111,C112, C113,C114,C115, C116,C117,C118, C119,C121,C124, C125,C127,C128, C129,C130,C134, C158,C159,C160, C166,C167,C169, C170,C171,C179, C180,C181,C189,C19, C193,C195,C198, C199,C20,C201,C202, C203,C205,C23,C235, C24,C242,C250,C252,		1.128806	180	4831624.536724
1121701790	Capacitor	C342,C343,C344, C345,C351,C355, C357,C358,C359, C364,C365,C436, C437		1.128806	13	63728475.410842
1122701680	Capacitor	C176,C186,C192		1.128806	3	257514172.353070
1124412080	Capacitor	C360,C373		1.128806	2	375289731.076049
1124418090	Capacitor	C67,C68,C93,C94		1.128806	4	196873384.410843
1124427090	Capacitor	C303,C304		1.128806	2	375289731.076049
1124427091	Capacitor	C284,C287,C51		1.128806	3	257514172.353070
1124468090	Capacitor	C294,C366		1.128806	2	375289731.076049
1124522190	Capacitor	C292,C356		1.128806	2	375289731.076049
1129610051	Capacitor	C305,C308,C315, C326,C332,C439		1.128806	6	133979725.056342

File Name: AEC-6913.rfp  
 Assembly: 9697CV0008-D  
 Ref Des:  
 Description:

Failure Rate: 7106.964813  
 MTBF (hrs): 140,707  
 Temperature: 30  
 Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1129622690	Capacitor	C161,C165,C213,C39,C40,C41,C42,C78,C95		1.128806	9	90863428.080946
1129701791	Capacitor	C139,C140,C141,C142,C148,C149,C150,C151,C163,C22,C243,C262,C32,C33,C47,C49,C58,C86		1.128806	18	46478509.590073
1129710091	Capacitor	C244,C251,C255		1.128806	3	257514172.353070
1129710391	Capacitor	C162,C28,C352,C353		1.128806	4	196873384.410843
1129722091	Capacitor	C426,C434		1.128806	2	375289731.076049
1182622080	Capacitor	TC16,TC17,TC7		4.744484	3	59399119.141203
1189615151	Capacitor	TC10,TC11,TC4		4.744484	3	59399119.141203
1189622150	Capacitor	TC2		4.744484	1	159663026.715137
1189627150	Capacitor	TC13,TC14,TC15,TC18		4.744484	4	45505862.704531
1189633163	Capacitor	TC1,TC12,TC3,TC8,TC9		4.744484	5	36944177.000623
1189633193	Capacitor	TC5,TC6		4.744484	2	86049450.747498
1189647180	Capacitor	EC11		4.744484	1	159663026.715137
11A4433180	Capacitor	C45		1.128806	1	704977644.692287
11C2501790	Capacitor	C191,C194,C314,C336		1.128806	4	196873384.410843
11C2510480	Capacitor	C122,C126,C136,C137		1.128806	4	196873384.410843
11C4501790	Capacitor	C71		1.128806	1	704977644.692287
11C4547290	Capacitor	C21,C48		1.128806	2	375289731.076049
11E1510050	Capacitor	C188		1.128806	1	704977644.692287
11E1522680	Capacitor	C375,C376		1.128806	2	375289731.076049
11E2510060	Capacitor	C168,C172,C183,C184,C197,C204,C293		1.128806	7	115633865.771428
11E2647650	Capacitor	C100,C101,C102,C133,C135		1.128806	5	159367490.199266
11E9501090	Capacitor	C11,C131,C16,C173,C177,C190		1.128806	6	133979725.056342

**File Name:** AEC-6913.rfp  
**Assembly:** 9697CV0008-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 7106.964813  
**MTBF (hrs):** 140,707  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11E9501091	Capacitor	BC33,C10,C138,C144,C152,C174,C185,C200,C206,C207,C208,C211,C214,C218,C220,C221,C222,C224,C225,C227,C228,C231,C232,C233,C234,C236,C240,C241,C245,C248,C249,C25,C263,C264,C267,C268,C275,C348,C370,C389,C392,C415,C61,C69,C77,C8,C80,C81,C84,C87		1.128806	50	17113035.871263
11E9510051	Capacitor	C1,C103,C132,C15,C153,C154,C155,C156,C157,C164,C175,C182,C2,C209,C246,C266,C27,C285,C29,C3,C4,C5,C6,C7,C85,C96,C98,C99		1.128806	28	30212160.975569
11E9547680	Capacitor	C187,C311,C334		1.128806	3	257514172.353070
11E9610080	Capacitor	C212,C397,C398,C407,C416,C417,C425		1.128806	7	115633865.771428

**File Name:** AEC-6913.rfp  
**Assembly:** 9697CV0008-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 7106.964813  
**MTBF (hrs):** 140,707  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11E9622050	Capacitor	C210,C215,C216, C217,C219,C265, C307,C318,C337,C38		1.128806	10	82101057.548118
11E9622080	Capacitor	C388		1.128806	1	704977644.692287
11E9647680	Capacitor	C106,C107,C108,C74		1.128806	4	196873384.410843
1211100113	Inductor	L10,L11,L13, L8		4.944252	4	43912872.424775
121110106G	Inductor	L6		4.944252	1	154760964.143460
121110106M	Inductor	L14		4.944252	1	154760964.143460
121110156K	Inductor	L1,L2,L9		4.944252	3	57363284.375370
121110336L	Inductor	L12		4.944252	1	154760964.143460
1212306030	Inductor	FB1,FB10,FB13,FB14, FB2,FB25,FB26,FB27, FB28,FB29,F B3,FB4, FB6,FB8,FB9		4.944252	15	12521115.446963
1212308054	Inductor	PB2		4.944252	1	154760964.143460
12123C0003	Inductor	FB7		4.944252	1	154760964.143460
123131435J	Miscellaneous	Y5		19.200000	1	23844262.770939
1231324054	Miscellaneous	Y3		19.200000	1	23844262.770939
123132505D	Miscellaneous	Y6		19.200000	1	23844262.770939
1231327053	Miscellaneous	Y2,Y8		19.200000	2	8854051.752197
1231332721	Miscellaneous	Y1		19.200000	1	23844262.770939
1231332722	Miscellaneous	Y4		19.200000	1	23844262.770939
1301003240	Semiconductor	D34		7.793411	1	92807310.010983
1301005440	Semiconductor	D16,D24,D30		7.793411	3	35106858.962001
1301005442	Semiconductor	D32		7.793411	1	92807310.010983
1301005444	Semiconductor	D1,D10,D11, D18,D2, D3,D4,D5		7.793411	8	14161142.003130
1301005447	Semiconductor	D19,D31		7.793411	2	50578095.223398
1301005450	Semiconductor	D12,D13,D14, D15, D17,D20,D21, D22, D23,D6,D7,D 8,D9		7.793411	13	8953033.829657
1304001340	Optical Device	D29		79.003355	1	6497172.749112
1304101340	Optical Device	D25		79.003355	1	6497172.749112
1305099140	Semiconductor	D26,D27		7.793411	2	50578095.223398
1310390413	Semiconductor	Q14,Q15,Q7 0,Q8,Q9		22.463360	5	7551839.591592
1311138610	Semiconductor	Q24,Q25		22.463360	2	17315095.066101

**File Name:** AEC-6913.rfp  
**Assembly:** 9697CV0008-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 7106.964813  
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**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1311390610	Semiconductor	Q7		22.463360	1	31642600.748419
1311390612	Semiconductor	Q16		22.463360	1	31642600.748419
1314108412	Semiconductor	U33		22.463360	1	31642600.748419
1314917314	Semiconductor	U41		22.463360	1	31642600.748419
1315030110	Semiconductor	Q4,Q5		22.463360	2	17315095.066101
1315230511	Semiconductor	Q23,Q69		22.463360	2	17315095.066101
1315422410	Semiconductor	U11,U2		22.463360	2	17315095.066101
1315482110	Semiconductor	U24,U28,U32		22.463360	3	12043329.789539
1315482410	Semiconductor	U31		22.463360	1	31642600.748419
1315667910	Semiconductor	U16,U25,U29,U34,U4		22.463360	5	7551839.591592
1315700216	Semiconductor	Q1,Q11,Q12,Q13,Q17,Q18,Q19,Q2,Q20,Q21,Q22,Q26,Q3,Q6,Q68		22.463360	15	2694825.052176
1315700217	Semiconductor	Q28,Q29,Q30,Q31,Q32		22.463360	5	7551839.591592
1315762010	Semiconductor	U21,U22		22.463360	2	17315095.066101
1440D25500	Integrated Circuit	U14	33.6	82.704705	1	6217449.564464
1462A913A0	Integrated Circuit	U12		11.063278	1	58231413.220643
14E06913A0	Integrated Circuit	U15		11.063278	1	58231413.220643
14S2321900	Integrated Circuit	U23		43.803003	1	11739202.588727
14S2591200	Integrated Circuit	U3,U43		43.803003	2	6834791.244197
14S3050100	Integrated Circuit	U20		43.803003	1	11739202.588727
14S3111600	Integrated Circuit	U1		43.803003	1	11739202.588727
14S3112400	Integrated Circuit	U9		43.803003	1	11739202.588727
14S3621601	Integrated Circuit	U7		43.803003	1	11739202.588727
14S3816700	Integrated Circuit	U26		43.803003	1	11739202.588727
14S4001000	Integrated Circuit	U13		43.803003	1	11739202.588727
14S4020002	Integrated Circuit	U42	49.8	903.422188	1	569182.754392
14S4258300	Integrated Circuit	U27		43.803003	1	11739202.588727
14S4851800	Integrated Circuit	U35		43.803003	1	11739202.588727
14S5A00702	Integrated Circuit	U36		26.018600	1	25551442.237972
14S5A00704	Integrated Circuit	U47		26.018600	1	25551442.237972
14S5A00821	Integrated Circuit	U17,U18,U19,U50		26.018600	4	7696979.559193
14S5A12503	Integrated Circuit	U39		26.018600	1	25551442.237972
14S5A12506	Integrated Circuit	U30		26.018600	1	25551442.237972
14S6203204	Integrated Circuit			11.063278	1	58231413.220643
14S6216060	Integrated Circuit			11.063278	1	58231413.220643
14S6225050	Integrated Circuit	U52		11.063278	1	58231413.220643
14S6308002	Integrated Circuit			11.063278	1	58231413.220643
14S6399044	Integrated Circuit	U48		43.803003	1	11739202.588727
14S63CCV00	Integrated Circuit	U40		11.063278	1	58231413.220643
14S9330600	Integrated Circuit	U53,U54		43.803003	2	6834791.244197

**Reliability Prediction  
Summary**

**File Name:** AEC-6913.rfp  
**Assembly:** 9697CV0008-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 7106.964813  
**MTBF (hrs):** 140,707  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
14S9751100	Integrated Circuit	U49		43.803003	1	11739202.588727
14S9781800	Integrated Circuit	U8		43.803003	1	11739202.588727
14S9894400	Integrated Circuit	U45	32.4	347.544623	1	1479557.716121
1600030803	Connection	SW1(10N)		16.184835	1	35685591.360212
16515A2991	Connection	DIMM1		16.184835	1	35685591.360212
1651900860	Connection	U15		16.184835	1	35685591.360212
1653212100	Connection	CN1		16.184835	1	35685591.360212
16540M0000	Connection	CN4,CN6		16.184835	2	20390152.380746
1654903030	Connection	CN5		16.184835	1	35685591.360212
1655902122	Connection	BAT1		16.184835	1	35685591.360212
1655907130	Connection	CN2		16.184835	1	35685591.360212