

Boxer-6313

Reliability Prediction Report (MTBF)

Summary	Failure Rate: 11199.474840 ppm MTBF: 89,290 Hours
---------	--

Issue date	QE Manager	Test Engineer
2016-06-30	KJ Wang	Louie Lee

Reliability Prediction (MTBF)

I . Model Name: Boxer-6313

II . Prediction Date: June. 30th, 2016

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

IV . Predicted by: Louie Lee

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:

Boxer-6313 (M/B: 9697BT0803-D):

- Failure Rate: 11199.474840 ppm

- MTBF: 89,290 Hours

**AAEON Reliability Prediction
Summary**

File Name: Boxer-6313.rfp
Duty Cycle: 100
Calculation Model: Telcordia Issue 2
Method: Method I Case 3

Failure Rate: 11199.474840
MTBF (hrs): 89,290
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Assembly Name	Part Number	Ref Des	Quantity	Failure Rate	MTBF
Boxer-6313	9697BT0803-D		1	11199.474840	89,290

File Name: Boxer-6313.rfp
Assembly: 9697BT0803-D
Ref Des:
Description:

Failure Rate: 11199.474840
MTBF (hrs): 89,290
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1050501234	Resistor	R381		2.547039	1	282340674.079668
1050501834	Resistor	R674		2.547039	1	282340674.079668
1050502004	Resistor	R90,R91		2.547039	2	154078778.388085
1050502734	Resistor	R536,R718		2.547039	2	154078778.388085
1050503334	Resistor	R692		2.547039	1	282340674.079668
1050503634	Resistor	R723		2.547039	1	282340674.079668
1050503934	Resistor	R644,R648,R667		2.547039	3	107020754.986850
1050504724	Resistor	R1,R192,R194,R195,R197,R2,R523,R958,R959		2.547039	9	38754445.632391
1050504734	Resistor	R187,R734,R895,R898,R899,R921,R922,R923,R924,R925,R926,R927,R928,R929,R969		2.547039	15	23852782.943395
1050505124	Resistor	R623		2.547039	1	282340674.079668
1050505134	Resistor	R673,R724		2.547039	2	154078778.388085
1050505633	Resistor	R670,R693		2.547039	2	154078778.388085
1050507524	Resistor	R622		2.547039	1	282340674.079668
1050508224	Resistor	R711		2.547039	1	282340674.079668
1050510034	Resistor	R6,R639,R7,R901,R902,R911,R914,R915,R916,R917,R933,R934,R941,R943,R945,R949,R952		2.547039	17	21160422.299251
1050512414	Resistor	R123		2.547039	1	282340674.079668
1050513724	Resistor	R712,R722		2.547039	2	154078778.388085
1050515034	Resistor	R657,R664,R669		2.547039	3	107020754.986850
1050516034	Resistor	R678		2.547039	1	282340674.079668
1050516204	Resistor	R5		2.547039	1	282340674.079668
1050516934	Resistor	R655		2.547039	1	282340674.079668
1050516964	Resistor	R92		2.547039	1	282340674.079668
1050520034	Resistor	R127,R131,R211		2.547039	3	107020754.986850
1050520044	Resistor	R794		2.547039	1	282340674.079668
1050521024	Resistor	R652		2.547039	1	282340674.079668

File Name: Boxer-6313.rfp
Assembly: 9697BT0803-D
Ref Des:
Description:

Failure Rate: 11199.474840
MTBF (hrs): 89,290
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1050523264	Resistor	R4		2.547039	1	282340674.079668
1050524934	Resistor	R708		2.547039	1	282340674.079668
1050527424	Resistor	R720		2.547039	1	282340674.079668
1050529464	Resistor	R3		2.547039	1	282340674.079668
1050530004	Resistor	R740		2.547039	1	282340674.079668
1050530124	Resistor	R721		2.547039	1	282340674.079668
1050536514	Resistor	R533		2.547039	1	282340674.079668
1050540204	Resistor	R19,R32,R41		2.547039	3	107020754.986850
1050540214	Resistor	R77		2.547039	1	282340674.079668
1050545364	Resistor	R110,R122		2.547039	2	154078778.388085
1050547564	Resistor	R58		2.547039	1	282340674.079668
1050561934	Resistor	R698		2.547039	1	282340674.079668
1050568124	Resistor	R188		2.547039	1	282340674.079668
1050573264	Resistor	R682,R683,R684		2.547039	3	107020754.986850
1050584524	Resistor	R654		2.547039	1	282340674.079668
1050700002	Resistor	R155,R354		2.547039	2	154078778.388085
1050708234	Resistor	R640		2.547039	1	282340674.079668
1050718034	Resistor	R691		2.547039	1	282340674.079668
1053500489	Resistor	R954		2.547039	1	282340674.079668
1054700289	Resistor	R637,R695		2.547039	2	154078778.388085
1054700389	Resistor	R973		2.547039	1	282340674.079668
1059500131	Resistor	R792		2.547039	1	282340674.079668
1059501261	Resistor	R940		2.547039	1	282340674.079668
1059520001	Resistor	R869		2.547039	1	282340674.079668
1059700001	Resistor	R252,R295		2.547039	2	154078778.388085
1059710001	Resistor	R870		2.547039	1	282340674.079668
105A500103	Resistor	R651,R677,R696		2.547039	3	107020754.986850
105A500139	Resistor	R113,R114,R521,R524,R641,R748, R749		2.547039	7	48991237.965885

File Name: Boxer-6313.rfp
Assembly: 9697BT0803-D
Ref Des:
Description:

Failure Rate: 11199.474840
MTBF (hrs): 89,290
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A500173	Resistor	R153,R156,R157, R158,R159,R160, R161,R162,R163, R164,R165,R166, R167,R168,R169, R170,R171,R172, R173,R174,R175, R176,R177,R179, R182,R183,R185		2.547039	27	13557741.157915
105A500239	Resistor	R522		2.547039	1	282340674.079668
105A501003	Resistor	R234,R653		2.547039	2	154078778.388085
105A501033	Resistor	R963,R965		2.547039	2	154078778.388085
105A501039	Resistor	R636,R719,R752, R755,R756,R761, R765,R912,R920, R930,R932,R962		2.547039	12	29507083.749401
105A501139	Resistor	R947		2.547039	1	282340674.079668
105A501333	Resistor	R919		2.547039	1	282340674.079668
105A501539	Resistor	R717,R897,R910		2.547039	3	107020754.986850
105A502033	Resistor	R960		2.547039	1	282340674.079668
105A502039	Resistor	R519,R520,R568, R773		2.547039	4	82309758.689546
105A503039	Resistor	R638,R681,R771		2.547039	3	107020754.986850
105A503309	Resistor	R570		2.547039	1	282340674.079668
105A505109	Resistor	R70,R71,R72, ,R74, R75		2.547039	5	67008142.102588
105A505123	Resistor	R961		2.547039	1	282340674.079668
105A505629	Resistor	R645		2.547039	1	282340674.079668
105A506823	Resistor	R663		2.547039	1	282340674.079668
105A507509	Resistor	R200,R201,R202		2.547039	3	107020754.986850
105A507533	Resistor	R697		2.547039	1	282340674.079668
105A509123	Resistor	R938		2.547039	1	282340674.079668
105A510009	Resistor	R151,R152,R154, R738		2.547039	4	82309758.689546

File Name: Boxer-6313.rfp
Assembly: 9697BT0803-D
Ref Des:
Description:

Failure Rate: 11199.474840
MTBF (hrs): 89,290
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A510223	Resistor	R700		2.547039	1	282340674.079668
105A510723	Resistor	R624		2.547039	1	282340674.079668
105A512009	Resistor	R403,R408		2.547039	2	154078778.388085
105A512039	Resistor	R900,R905		2.547039	2	154078778.388085
105A513003	Resistor	R569		2.547039	1	282340674.079668
105A515009	Resistor	R14,R15,R16 ,R198, R199,R203,R 28,R425		2.547039	8	43225424.698300
105A515433	Resistor	R948		2.547039	1	282340674.079668
105A518723	Resistor	R646,R671		2.547039	2	154078778.388085
105A519623	Resistor	R903		2.547039	1	282340674.079668
105A522123	Resistor	R918		2.547039	1	282340674.079668
105A523713	Resistor	R939		2.547039	1	282340674.079668
105A529429	Resistor	R656		2.547039	1	282340674.079668
105A531623	Resistor	R626,R627		2.547039	2	154078778.388085
105A533223	Resistor	R913		2.547039	1	282340674.079668
105A533269	Resistor	R685		2.547039	1	282340674.079668
105A535703	Resistor	R22		2.547039	1	282340674.079668
105A540233	Resistor	R643		2.547039	1	282340674.079668
105A543033	Resistor	R668		2.547039	1	282340674.079668
105A544214	Resistor	R906		2.547039	1	282340674.079668
105A544223	Resistor	R625		2.547039	1	282340674.079668
105A547003	Resistor	R871,R872		2.547039	2	154078778.388085
105A547529	Resistor	R709		2.547039	1	282340674.079668
105A549919	Resistor	R283,R325		2.547039	2	154078778.388085
105A549969	Resistor	R126,R48,R4 9,R50, R96		2.547039	5	67008142.102588
105A561909	Resistor	R216,R217,R 218, R220,R221,R 222, R224,R225		2.547039	8	43225424.698300
105A564933	Resistor	R665		2.547039	1	282340674.079668
105A575003	Resistor	R896		2.547039	1	282340674.079668
105A578733	Resistor	R647		2.547039	1	282340674.079668
105A584523	Resistor	R955		2.547039	1	282340674.079668

File Name: Boxer-6313.rfp
Assembly: 9697BT0803-D
Ref Des:
Description:

Failure Rate: 11199.474840
MTBF (hrs): 89,290
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A700003	Resistor	R178,R186,R265, R267,R308,R310, R439,R451,R459, R525,R564,R576, R619,R620,R629, R634,R642,R659, R676,R688,R704, R710,R714,R725, R783,R791,R967		2.547039	27	13557741.157915
105A700009	Resistor	R105,R106,R125, R130,R136,R142, R148,R149,R150,R17, R18,R180,R193,R196, R20,R208,R209,R21, R210,R232,R243, R247,R253,R256, R257,R275,R294, R296,R298,R299, R318,R336,R340, R341,R342,R343, R344,R345,R346, R347,R349,R35,R350, R351,R352,R356,R36, R360,R362,R3		2.547039	141	2698819.344841

File Name: Boxer-6313.rfp
Assembly: 9697BT0803-D
Ref Des:
Description:

Failure Rate: 11199.474840
MTBF (hrs): 89,290
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A700139	Resistor	R100,R268,R311, R390,R434,R478, R694,R706,R730, R731,R736,R739, R780,R865,R877, R881		2.547039	16	22425139.809646
105A701009	Resistor	R907,R908,R950, R951		2.547039	4	82309758.689546
105A701039	Resistor	R102,R104,R143, R144,R145,R146, R147,R189,R190, R191,R204,R214, R226,R235,R238, R242,R248,R262, R263,R264,R269, R270,R271,R272, R273,R274,R276, R277,R278,R279, R280,R281,R282, R305,R306,R307, R312,R313,R314, R315,R316,R317, R319,R320,R321, R322,R323,R324,		2.547039	137	2776378.967868
105A701059	Resistor	R11,R229,R382,R435, R450,R57,R909		2.547039	7	48991237.965885
105A701069	Resistor	R84		2.547039	1	282340674.079668
105A701523	Resistor	R395		2.547039	1	282340674.079668
105A702039	Resistor	R101,R103,R86		2.547039	3	107020754.986850

File Name: Boxer-6313.rfp
Assembly: 9697BT0803-D
Ref Des:
Description:

Failure Rate: 11199.474840
MTBF (hrs): 89,290
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A70220A	Resistor	R396,R397		2.547039	2	154078778.388085
105A702229	Resistor	R116,R118,R119,R12,R128,R129,R13,R132,R133,R206,R207,R212,R213,R236,R237,R24,R25,R26,R27,R563,R567,R813,R820,R85		2.547039	24	15190138.820515
105A702239	Resistor	R413,R883,R886, R887		2.547039	4	82309758.689546
105A702263	Resistor	R672		2.547039	1	282340674.079668
105A703309	Resistor	R124,R134,R448,R475,R495,R496,R572,R573,R574,R575,R578,R876, R880		2.547039	13	27342571.921361
105A703329	Resistor	R284,R285,R286,R327,R328,R329		2.547039	6	56573956.677649
105A703363	Resistor	R621		2.547039	1	282340674.079668
105A704729	Resistor	R266,R309,R404,R406,R415,R416,R417,R418,R419,R420,R421,R422,R424,R462,R466,R467,R481,R482,R483,R484,R485,R486,R487,R488,R490,R491,R509,R529,R535,R56,R82,R83,R885,R93		2.547039	34	10846303.620910

File Name: Boxer-6313.rfp
Assembly: 9697BT0803-D
Ref Des:
Description:

Failure Rate: 11199.474840
MTBF (hrs): 89,290
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A705139	Resistor	R855,R858,R859, R860,R861,R862, R863,R864,R956, R957		2.547039	10	35079934.879747
105A708229	Resistor	R108,R111		2.547039	2	154078778.388085
105A710009	Resistor	R868		2.547039	1	282340674.079668
105A710039	Resistor	R107,R219,R230, R231,R241,R250, R474,R589,R590, R591,R592,R593, R594,R595,R596, R598,R602,R605, R608,R609,R610, R612,R613,R617, R679,R689,R701, R705,R713,R716, R726,R727,R728, R729,R732,R733, R735,R737,R741, R742,R743,R744, R776,R777,R778, R811,R824		2.547039	47	7918121.839508
105A720009	Resistor	R76		2.547039	1	282340674.079668
105A730009	Resistor	R707		2.547039	1	282340674.079668
105A733009	Resistor	R288,R293,R332, R337,R856,R857, R873,R874,R875, R971,R972		2.547039	11	32049696.385471

File Name: Boxer-6313.rfp
Assembly: 9697BT0803-D
Ref Des:
Description:

Failure Rate: 11199.474840
MTBF (hrs): 89,290
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A747009	Resistor	R452,R457,R745, R746,R754,R757, R758,R763,R766		2.547039	9	38754445.632391
106B510030	Resistor	RT1,RT3		7.724580	2	38596617.434771
106B510034	Resistor	RT2,RT4		7.724580	2	38596617.434771
1114633130	Capacitor	C601,C691,C692		4.744484	3	59399119.141203
1121501680	Capacitor	C693		1.128806	1	704977644.692287
1121501690	Capacitor	C701,C702		1.128806	2	375289731.076049
1121501691	Capacitor	C1,C104,C11,C116, C117,C119,C120, C122,C123,C13,C132, C133,C134,C135, C136,C137,C138, C139,C14,C140,C141, C142,C149,C15,C150, C151,C152,C153, C157,C158,C168, C169,C170,C171, C172,C173,C177, C179,C18,C180,C181, C182,C183,C184, C185,C186,C187, C188,C194,C19		1.128806	229	3805676.374426
1124410190	Capacitor	C684,C687		1.128806	2	375289731.076049
1124410191	Capacitor	C174,C175,C394, C395,C396,C397, C414,C415,C423, C424,C430,C431		1.128806	12	68856937.301178

File Name: Boxer-6313.rfp
Assembly: 9697BT0803-D
Ref Des:
Description:

Failure Rate: 11199.474840
MTBF (hrs): 89,290
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1124418090	Capacitor	C16,C17,C30 0,C301		1.128806	4	196873384.410843
1124427091	Capacitor	C10,C12,C15 5,C160, C162,C226,C 227, C245,C246		1.128806	9	90863428.080946
1124533282	Capacitor	C566		1.128806	1	704977644.692287
1124547280	Capacitor	C705		1.128806	1	704977644.692287
1129622690	Capacitor	C118,C121,C 31,C32, C51,C52,C53 ,C54		1.128806	8	101746760.035398
1129701790	Capacitor	C683,C686,C 694		1.128806	3	257514172.353070
1129701791	Capacitor	C196,C254,C 255, C256,C257,C 260, C261,C262,C 263, C368,C490,C 513, C529,C535,C 550,C74, C94		1.128806	17	49133303.073811
1129710091	Capacitor	C154,C159,C 161, C402,C433		1.128806	5	159367490.199266
1129710391	Capacitor	C191,C346,C 347, C349,C350,C 361, C542,C576		1.128806	8	101746760.035398
1129722091	Capacitor	C338,C339		1.128806	2	375289731.076049
1129747090	Capacitor	C685		1.128806	1	704977644.692287
1181633112	Capacitor	C689,C690		4.744484	2	86049450.747498
118961018A	Capacitor	C571		4.744484	1	159663026.715137
1189615151	Capacitor	TC13,TC14		4.744484	2	86049450.747498
1189615154	Capacitor	TC15,TC16,T C19,TC2, TC3		4.744484	5	36944177.000623
1189622154	Capacitor	TC17,TC18		4.744484	2	86049450.747498
1189633151	Capacitor	TC1,TC4,TC5 ,TC6, TC7		4.744484	5	36944177.000623
1189933180	Capacitor	TC10,TC11,T C12,TC8, TC9		4.744484	5	36944177.000623
11A2410240	Capacitor	C695		1.128806	1	704977644.692287
11C1539840	Capacitor	C225,C244		1.128806	2	375289731.076049
11C1547890	Capacitor	C688		1.128806	1	704977644.692287

File Name: Boxer-6313.rfp
Assembly: 9697BT0803-D
Ref Des:
Description:

Failure Rate: 11199.474840
MTBF (hrs): 89,290
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11C2510480	Capacitor	C697,C698		1.128806	2	375289731.076049
11C2522480	Capacitor	C677,C678		1.128806	2	375289731.076049
11C4501650	Capacitor	C654,C655,C656, C658,C659,C661, C664,C665,C666, C672,C675,C679, C681		1.128806	13	63728475.410842
11C4522290	Capacitor	C393,C398,C507, C524,C540		1.128806	5	159367490.199266
11C4547190	Capacitor	C228,C229,C230, C247,C248,C249, C370,C371,C372, C373,C375,C376, C377,C378,C639, C640,C641,C642, C643,C644,C645, C647,C648,C649		1.128806	24	35120617.936543
11C4547290	Capacitor	C536		1.128806	1	704977644.692287
11C4547690	Capacitor	C653,C657,C660, C673,C674		1.128806	5	159367490.199266
11E1501040	Capacitor	C506,C539		1.128806	2	375289731.076049
11E1510050	Capacitor	C156,C178,C316, C321,C538,C543, C667,C680,C703, C704		1.128806	10	82101057.548118
11E1522680	Capacitor	C504,C662,C663, C668		1.128806	4	196873384.410843
11E1533780	Capacitor	C505		1.128806	1	704977644.692287
11E2501690	Capacitor	C176,C204,C336, C390,C400,C530, C573,C650		1.128806	8	101746760.035398

File Name: Boxer-6313.rfp
Assembly: 9697BT0803-D
Ref Des:
Description:

Failure Rate: 11199.474840
MTBF (hrs): 89,290
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11E2510010	Capacitor	C203,C466,C467, C499,C500,C501, C502,C517,C518, C519,C520,C531, C532,C533,C570, C594,C676,C682		1.128806	18	46478509.590073
11E2510060	Capacitor	C670,C671,C699, C700,C706		1.128806	5	159367490.199266
11E2647650	Capacitor	C541		1.128806	1	704977644.692287
11E4433090	Capacitor	C163,C164,C165, C166,C498,C551, C556		1.128806	7	115633865.771428
11E9501091	Capacitor	C101,C102,C103, C106,C107,C108, C109,C110,C111, C112,C113,C114, C115,C145,C146, C147,C148,C19,C20, C21,C215,C233,C234, C252,C253,C29,C298, C303,C305,C307, C308,C314,C318, C324,C33,C34,C342, C35,C408,C411,C413, C417,C418,C419, C420,C421,C443, C445,C456,C45		1.128806	93	9285107.560068

File Name: Boxer-6313.rfp
Assembly: 9697BT0803-D
Ref Des:
Description:

Failure Rate: 11199.474840
MTBF (hrs): 89,290
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11E9510050	Capacitor	C268,C277,C286, C389,C40,C409,C41, C410,C412,C416,C42, C468,C469,C471, C480,C486,C487, C548,C95		1.128806	19	44097696.883526
11E9522790	Capacitor	C167,C404,C491, C497,C516		1.128806	5	159367490.199266
11E9547630	Capacitor	C36,C37,C475,C508, C636		1.128806	5	159367490.199266
11E9547790	Capacitor	C209,C80		1.128806	2	375289731.076049
11E9610080	Capacitor	C124,C125,C126, C127,C128,C129, C130,C131,C143, C144,C193,C205, C211,C217,C222, C224,C235,C240, C243,C297,C30,C343, C345,C428,C432, C473,C483,C492, C494,C495,C554, C559		1.128806	32	26512863.286539
11E9622052	Capacitor	C100,C192,C362,C38, C39,C43,C509,C510, C511,C512,C525, C526,C527,C528, C574,C577,C578, C579,C580,C581, C582,C637,C96,C98, C99		1.128806	25	33748887.792763
11E9647690	Capacitor	C522		1.128806	1	704977644.692287

File Name: Boxer-6313.rfp
Assembly: 9697BT0803-D
Ref Des:
Description:

Failure Rate: 11199.474840
MTBF (hrs): 89,290
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11E9722090	Capacitor	C515		1.128806	1	704977644.692287
11EB522010	Capacitor	C707,C708,C709		1.128806	3	257514172.353070
11EB610050	Capacitor	C562		1.128806	1	704977644.692287
11EB647020	Capacitor	C315,C322		1.128806	2	375289731.076049
121110156R	Inductor	L3		4.944252	1	154760964.143460
121110156Z	Inductor	L6	21.4	7.221638	1	105956184.249310
121110226M	Inductor	L10		4.944252	1	154760964.143460
1211104270	Inductor	L4		4.944252	1	154760964.143460
1211104270	Inductor	L5	17	6.708157	1	114066669.134006
1211115076	Inductor	L8		4.944252	1	154760964.143460
1211122070	Inductor	L1		4.944252	1	154760964.143460
1211122071	Inductor	L7		4.944252	1	154760964.143460
121113307A	Inductor	L2	14.9	6.471462	1	118238678.704420
1212306030	Inductor	FB10,FB11,F B12, FB16,FB2,FB 23,FB24, FB25,FB32,F B9		4.944252	10	18485101.557872
1212308054	Inductor	FB13,FB14,F B19, FB41		4.944252	4	43912872.424775
12123A0009	Inductor	FB33,FB34,F B35, FB36,FB37,F B38, FB39,FB40		4.944252	8	22874049.098230
12123D0001	Inductor	FB1,FB17,FB 18,FB26, FB27,FB28,F B29,FB3, FB30,FB31,F B4,FB5, FB6,FB7,FB8		4.944252	15	12521115.446963
1214109000	Inductor	CH15,CH19,C H20, CH22,CH9		4.944252	5	35631881.582999
1214216190	Inductor	L11		4.944252	1	154760964.143460
1214309009	Inductor	CH1,CH12,C H14,CH2, CH5,CH6		4.944252	6	30055900.223009
12313012A0	Miscellaneous	Y6		19.200000	1	23844262.770939
1231324056	Miscellaneous	Y5		19.200000	1	23844262.770939
123132505D	Miscellaneous	Y1,Y3,Y4		19.200000	3	5742504.738137
1231332726	Miscellaneous	Y2		19.200000	1	23844262.770939
12330024A1	Miscellaneous	Y7		19.200000	1	23844262.770939
1300414841	Semiconductor	D40,D41,D42 ,D43, D51,D52		7.793411	6	18540453.699406

File Name: Boxer-6313.rfp
Assembly: 9697BT0803-D
Ref Des:
Description:

Failure Rate: 11199.474840
MTBF (hrs): 89,290
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1301003440	Semiconductor	D55,D56		7.793411	2	50578095.223398
1301005442	Semiconductor	D44		7.793411	1	92807310.010983
1301013040	Semiconductor	D4		7.793411	1	92807310.010983
1301053040	Semiconductor	D11		7.793411	1	92807310.010983
1301075140	Semiconductor	D1,D2		7.793411	2	50578095.223398
1301400642	Semiconductor	D36		7.793411	1	92807310.010983
1301793040	Semiconductor	D12,D37,D38		7.793411	3	35106858.962001
1304000043	Optical Device	LED2		79.003355	1	6497172.749112
1304100001	Optical Device	LED6		79.003355	1	6497172.749112
1304300140	Optical Device	LED1,LED3		79.003355	2	3783722.582110
1304451400	Optical Device	LED5		79.003355	1	6497172.749112
1304500240	Optical Device	LED4		79.003355	1	6497172.749112
1305050040	Semiconductor	U100		22.463360	1	31642600.748419
1305080040	Semiconductor	D10,D13,D14 ,D15, D16,D17,D18 ,D5,D6, D7,D8,D9		7.793411	12	9662455.000384
1305104041	Semiconductor	U95,U96,U97 ,U98		22.463360	4	9270607.712006
130533CA50	Semiconductor	D39		7.793411	1	92807310.010983
1305SMF330	Semiconductor	U90		22.463360	1	31642600.748419
1310390410	Semiconductor	Q52,Q56,Q7 3,Q75		22.463360	4	9270607.712006
1310390413	Semiconductor	Q66,Q69		22.463360	2	17315095.066101
1311390612	Semiconductor	Q24,Q25		22.463360	2	17315095.066101
131411171G	Semiconductor	U63		22.463360	1	31642600.748419
1315015530	Semiconductor	Q18,Q19,Q2 0		22.463360	3	12043329.789539
1315035110	Semiconductor	Q11		22.463360	1	31642600.748419
1315036640	Semiconductor	Q30		22.463360	1	31642600.748419
1315230511	Semiconductor	Q12,Q26,Q3 7,Q38, Q40,Q42,Q4 3		22.463360	7	5525968.936223
1315443512	Semiconductor	Q35		22.463360	1	31642600.748419
1315567011	Semiconductor	Q49,Q50,Q5 8,Q59, Q60,Q61		22.463360	6	6378891.324740
1315700211	Semiconductor	Q74,Q76,Q7 7		22.463360	3	12043329.789539
1315700216	Semiconductor	Q10,Q13,Q2 3,Q6,Q7, Q8,Q85,Q86		22.463360	8	4877097.849338
1315720010	Semiconductor	Q27,Q28,Q3 3		22.463360	3	12043329.789539
1315762010	Semiconductor	Q29		22.463360	1	31642600.748419
1315971500	Semiconductor	U24,U28		22.463360	2	17315095.066101

File Name: Boxer-6313.rfp
Assembly: 9697BT0803-D
Ref Des:
Description:

Failure Rate: 11199.474840
MTBF (hrs): 89,290
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1315D4C500	Semiconductor	Q31		22.463360	1	31642600.748419
1315EM6K10	Semiconductor	Q1,Q14,Q16, Q2,Q3, Q32,Q34,Q3 6,Q39,Q4, Q41,Q44,Q4 5,Q5,Q62, Q63,Q64,Q6 5,Q67, Q68,Q70,Q7 1,Q72, Q87,Q88,Q8 9,Q9		22.463360	27	1533030.992154
1410029600	Integrated Circuit	U80		43.803003	1	11739202.588727
1430455200	Integrated Circuit	U64,U65,U67 ,U68, U69,U70,U71		43.803003	7	2408529.736257
1430532190	Integrated Circuit	U57		43.803003	1	11739202.588727
1430973740	Integrated Circuit	U56	18.3	148.543679	1	3461691.092488
143ALC8920	Integrated Circuit	U47	16.6	133.396862	1	3854755.818320
143S596410	Integrated Circuit	U55	17.5	141.232745	1	3640886.047945
1440010500	Integrated Circuit	U33,U81		43.803003	2	6834791.244197
1440019361	Integrated Circuit	U91		43.803003	1	11739202.588727
1440032040	Integrated Circuit	U43		43.803003	1	11739202.588727
1440211AT0	Integrated Circuit	U19		43.803003	1	11739202.588727
1440211AT0	Integrated Circuit	U21	17	136.829743	1	3758044.988472
1440E38450	Integrated Circuit	U1	12.7	37.214430	1	13817552.133687
1445F56301	Integrated Circuit	U88		26.018600	1	25551442.237972
1462B313A0	Integrated Circuit	U40		11.063278	1	58231413.220643
149TB01040	Integrated Circuit	U41		43.803003	1	11739202.588727
149TS01040	Integrated Circuit	U2,U25,U3		43.803003	3	4923240.069161
14S1035803	Integrated Circuit	U45		43.803003	1	11739202.588727
14S2200900	Integrated Circuit	U8		43.803003	1	11739202.588727
14S2432600	Integrated Circuit	U61		43.803003	1	11739202.588727
14S3010700	Integrated Circuit	U7	21.3	179.096235	1	2871150.967762
14S3104500	Integrated Circuit	U10,U12,U13 ,U26, U27,U30,U38 ,U39		43.803003	8	2144463.783749
14S3111701	Integrated Circuit	U58		43.803003	1	11739202.588727
14S3112400	Integrated Circuit	U53		43.803003	1	11739202.588727
14S3121600	Integrated Circuit	U54		43.803003	1	11739202.588727
14S3128422	Integrated Circuit	U44		43.803003	1	11739202.588727
14S3378000	Integrated Circuit	U84		43.803003	1	11739202.588727
14S3435600	Integrated Circuit	U87		43.803003	1	11739202.588727
14S3520900	Integrated Circuit	U85	16.8	135.103473	1	3806063.004267
14S3524700	Integrated Circuit	U17		43.803003	1	11739202.588727
14S3528000	Integrated Circuit	U92		43.803003	1	11739202.588727

File Name: Boxer-6313.rfp
Assembly: 9697BT0803-D
Ref Des:
Description:

Failure Rate: 11199.474840
MTBF (hrs): 89,290
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
14S3902500	Integrated Circuit	U59,U60		43.803003	2	6834791.244197
14S4021301	Integrated Circuit	U49,U50		43.803003	2	6834791.244197
14S4186600	Integrated Circuit	U37	5	62.039112	1	8288518.476102
14S4251701	Integrated Circuit	U23	10.9	92.223700	1	5575706.995224
14S4751100	Integrated Circuit	U46		43.803003	1	11739202.588727
14S4814380	Integrated Circuit	U51		43.803003	1	11739202.588727
14S4814380	Integrated Circuit	U52	14.2	114.380445	1	4495631.498244
14S5A00704	Integrated Circuit	U62		26.018600	1	25551442.237972
14S5A00802	Integrated Circuit	U72,U75		26.018600	2	14194252.866846
14S5A00821	Integrated Circuit	U18,U4,U76		26.018600	3	9949526.289768
14S5A30601	Integrated Circuit	U5,U6,U9		26.018600	3	9949526.289768
14S5A73200	Integrated Circuit	U73,U77		26.018600	2	14194252.866846
14S6206403	Integrated Circuit			11.063278	1	58231413.220643
14S9108500	Integrated Circuit	U66,U74		43.803003	2	6834791.244197
14S9346000	Integrated Circuit	U16	12.5	102.429404	1	5020163.231636
1540722281	Resistor	RP1		9.971436	1	51606907.671214
1540733085	Resistor	RP2		9.971436	1	51606907.671214
1601123600	Connection	SW1		16.184835	1	35685591.360212
1601PB6130	Connection	SW4		16.184835	1	35685591.360212
16515A2991	Connection	DIMM1		16.184835	1	35685591.360212
1652003101	Connection	CN68		16.184835	1	35685591.360212
165251420B	Connection	CN8,CN9		16.184835	2	20390152.380746
1652602107	Connection	CN24		16.184835	1	35685591.360212
1652709202	Connection	CN65		16.184835	1	35685591.360212
1653002100	Connection	CN55		16.184835	1	35685591.360212
165300210C	Connection	JP1		16.184835	1	35685591.360212
1653003101	Connection	JP12,JP6		16.184835	2	20390152.380746
165300310G	Connection	JP2,JP3,JP4,J P5, JP7,JP8		16.184835	6	7958792.615968
165300320K	Connection	JP10,JP9		16.184835	2	20390152.380746
165300420Q	Connection	CN30		16.184835	1	35685591.360212
165300520X	Connection	JP11		16.184835	1	35685591.360212
1653007204	Connection	CN60		16.184835	1	35685591.360212
165300720E	Connection	CN25		16.184835	1	35685591.360212
165320520V	Connection	CN29		16.184835	1	35685591.360212
1653300107	Connection	JP3(2-3),JP4 (2-3), JP9(3- 4)		16.184835	3	14515880.849373
1653300108	Connection	JP12(2- 3),JP2(1-2), JP6(1-2)		16.184835	3	14515880.849373
165330010E	Connection	JP10(3- 4),JP5(1-2), JP7(1-2),JP8 (1-2)		16.184835	4	11344857.509064
1654030003	Connection	CN7		16.184835	1	35685591.360212

File Name: Boxer-6313.rfp
Assembly: 9697BT0803-D
Ref Des:
Description:

Failure Rate: 11199.474840
MTBF (hrs): 89,290
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1654226303	Connection	CN15,CN17,C N19		16.184835	3	14515880.849373
1654401932	Connection	CN62		16.184835	1	35685591.360212
1654409300	Connection	CN71		16.184835	1	35685591.360212
1654415308	Connection	CN69		16.184835	1	35685591.360212
1654418103	Connection	CN63,CN64		16.184835	2	20390152.380746
1654801330	Connection	CN21		16.184835	1	35685591.360212
1654808309	Connection	CN22		16.184835	1	35685591.360212
1654900703	Connection	CN53,CN54		16.184835	2	20390152.380746
1654903901	Connection	CN16,CN18,C N20		16.184835	3	14515880.849373
1655004011	Connection	CN13,CN66		16.184835	2	20390152.380746
1655103010	Connection	CN45		16.184835	1	35685591.360212
1655305025	Connection	CN6		16.184835	1	35685591.360212
1655306026	Connection	CN51		16.184835	1	35685591.360212
1655902034	Connection	CN1		16.184835	1	35685591.360212
1655905032	Connection	CN56		16.184835	1	35685591.360212
1655905038	Connection	CN23,CN27		16.184835	2	20390152.380746
1655912032	Connection	CN31		16.184835	1	35685591.360212
175011301C	Miscellaneous	M1		306.000000	1	1681683.006787
1752000501	Miscellaneous	FS6,FS7		2.400000	2	143944727.196625
1752001603	Miscellaneous	FS1,FS3,FS4, FS5		2.400000	4	79281882.025954
1752001900	Miscellaneous	FS8,FS9		2.400000	2	143944727.196625