

BOXER-6357VS

Reliability Prediction Report (MTBF)

Summary	Failure Rate: 14498.159362 ppm MTBF: 68,974 Hours
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Issue date

Approval

Test Engineer

2015/6/26

KJ Wang

Max Chang

Reliability Prediction (MTBF)

I . Model Name: BOXER-6357VS

II . Prediction Date: June, 26, 2015

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

IV . Predicted by: Max Chang

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-6357VS (9697QM777B-D):

- Failure Rate: 14498.159362 ppm
- MTBF: 68,974 Hours

**AAEON Reliability Prediction
Summary**

File Name: BOXER-6357VS.rfp
Duty Cycle: 100
Calculation Model: Telcordia Issue 2
Method: Method I Case 3

Failure Rate: 14498.159362
MTBF (hrs): 68,974
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Assembly Name	Part Number	Ref Des	Quantity	Failure Rate	MTBF
BOXER-6357VS	System		1	14498.159362	68,974
9697QM777B-D			1	11285.944278	88,606
9697T29202-D			1	405.519027	2,465,976
9697T30100-D			1	3109.855937	321,558

File Name: BOXER-6357VS.rfp
Assembly:
Ref Des:
Description:

Failure Rate: 11285.944278
MTBF (hrs): 88,606
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1050501004	Resistor	R359,R369		2.547039	2	154078778.388085
1050501054	Resistor	R100,R47,R517,R541,R55		2.547039	5	67008142.102588
1050502424	Resistor	R841		2.547039	1	282340674.079668
1050504724	Resistor	R297,R408,R409,R418,R614,R622,R642,R651,R688,R69,R691,R699,R700,R701,R709,R757,R818,R906,R907		2.547039	19	19019185.781770
1050504734	Resistor	R417		2.547039	1	282340674.079668
1050505124	Resistor	R285,R673		2.547039	2	154078778.388085
1050505604	Resistor	R801,R860,R862		2.547039	3	107020754.986850
1050505633	Resistor	R72,R772,R852		2.547039	3	107020754.986850
1050506234	Resistor	R254		2.547039	1	282340674.079668
1050510034	Resistor	R11,R122,R143,R204,R206,R273,R291,R30,R31,R335,R337,R362,R366,R401,R416,R516,R52,R598,R650,R662,R675,R682,R760,R767,R769,R79,R805,R92		2.547039	28	13089488.559853
1050511034	Resistor	R788		2.547039	1	282340674.079668
1050512104	Resistor	R680		2.547039	1	282340674.079668
1050514324	Resistor	R6		2.547039	1	282340674.079668
1050519114	Resistor	R859,R867		2.547039	2	154078778.388085
1050520004	Resistor	R349		2.547039	1	282340674.079668
1050520034	Resistor	R236,R262,R309,R671		2.547039	4	82309758.689546
1050524904	Resistor	R733,R734		2.547039	2	154078778.388085
1050525504	Resistor	R884,R886		2.547039	2	154078778.388085
1050533034	Resistor	R540,R563		2.547039	2	154078778.388085
1050533214	Resistor	R62		2.547039	1	282340674.079668

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1050537404	Resistor	R429		2.547039	1	282340674.079668
1050539214	Resistor	R875		2.547039	1	282340674.079668
1050539224	Resistor	R853		2.547039	1	282340674.079668
1050540224	Resistor	R61,R71		2.547039	2	154078778.388085
1050584514	Resistor	R387		2.547039	1	282340674.079668
1050700002	Resistor	R658		2.547039	1	282340674.079668
1050702734	Resistor	R314		2.547039	1	282340674.079668
1050704304	Resistor	R397,R796		2.547039	2	154078778.388085
1050756004	Resistor	R702,R703,R707		2.547039	3	107020754.986850
1051768009	Resistor	R443,R444,R445, R446		2.547039	4	82309758.689546
1052500171	Resistor	R724		2.547039	1	282340674.079668
1052730009	Resistor	R468,R469,R473, R474		2.547039	4	82309758.689546
1053500179	Resistor	SR2		2.547039	1	282340674.079668
1053500489	Resistor	R385,SR1		2.547039	2	154078778.388085
1054700289	Resistor	R299,R300,R549, R690,R697,R837		2.547039	6	56573956.677649
1059700001	Resistor	R218,R219,R233, R483,R745,R761, R784,R786,R791, R795,R813,R840, R864,R865,R890, R891,R937,R943		2.547039	18	20032117.836120
1059700131	Resistor	R448,R449		2.547039	2	154078778.388085
1059700201	Resistor	R921		2.547039	1	282340674.079668
1059701001	Resistor	R209		2.547039	1	282340674.079668
1059702261	Resistor	R343		2.547039	1	282340674.079668
105A500103	Resistor	R736,R751,R753, R789,R817,R822, R869,R871		2.547039	8	43225424.698300
105A500133	Resistor	R67,R895		2.547039	2	154078778.388085

**Reliability Prediction
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Description:

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MTBF (hrs): 88,606
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Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A500139	Resistor	R134,R145,R180, R224,R241,R323, R357,R36,R365,R378, R379,R380,R381, R382,R40,R42,R53, R533,R536,R54, R546,R558,R559,R58, R589,R599,R66,R672, R712,R726,R729,R731, R737,R76,R826, R827,R834,R835,R839		2.547039	39	9493970.778443
105A500239	Resistor	R686		2.547039	1	282340674.079668
105A501033	Resistor	R923		2.547039	1	282340674.079668

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105A501039	Resistor	R109,R110,R123, R154,R157,R160, R166,R169,R170, R174,R182,R197, R199,R200,R213, R215,R230,R240, R245,R252,R265, R266,R271,R272, R286,R29,R292,R293, R302,R310,R332,R37, R41,R414,R43,R44, R440,R441,R442,R45, R450,R451,R456, R458,R46,R475,R477, R479,R480,R48		2.547039	104	3640565.083780
105A501053	Resistor	R800,R814		2.547039	2	154078778.388085
105A501333	Resistor	R782		2.547039	1	282340674.079668
105A501539	Resistor	R184,R821		2.547039	2	154078778.388085
105A501829	Resistor	R21,R32		2.547039	2	154078778.388085
105A502033	Resistor	R410,R903		2.547039	2	154078778.388085
105A502039	Resistor	R119,R333,R396, R433,R65,R687,R696, R704,R764,R773, R778,R794		2.547039	12	29507083.749401
105A502223	Resistor	R306		2.547039	1	282340674.079668
105A502263	Resistor	R754		2.547039	1	282340674.079668
105A503033	Resistor	R411		2.547039	1	282340674.079668
105A503039	Resistor	R107,R121,R399,R60, R851		2.547039	5	67008142.102588

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105A503309	Resistor	R104,R148,R167, R176,R229,R419, R420,R421,R422, R423,R564,R592, R619		2.547039	13	27342571.921361
105A504323	Resistor	R267		2.547039	1	282340674.079668
105A504333	Resistor	R669		2.547039	1	282340674.079668
105A505109	Resistor	R363,R368,R374, R376,R377		2.547039	5	67008142.102588
105A505123	Resistor	R905		2.547039	1	282340674.079668
105A506829	Resistor	R489,R490		2.547039	2	154078778.388085
105A506834	Resistor	R728		2.547039	1	282340674.079668
105A507509	Resistor	R15,R16,R17,R23, R24,R26,R392,R500, R507,R511,R797		2.547039	11	32049696.385471
105A509133	Resistor	R762		2.547039	1	282340674.079668
105A510003	Resistor	R933,R934,R941, R942		2.547039	4	82309758.689546
105A510033	Resistor	R929		2.547039	1	282340674.079668
105A511823	Resistor	R177		2.547039	1	282340674.079668
105A512039	Resistor	R353,R798		2.547039	2	154078778.388085
105A512133	Resistor	R930		2.547039	1	282340674.079668
105A512413	Resistor	R926,R927		2.547039	2	154078778.388085
105A513009	Resistor	R344,R398,R792		2.547039	3	107020754.986850
105A513733	Resistor	R404		2.547039	1	282340674.079668
105A514009	Resistor	R350		2.547039	1	282340674.079668
105A514033	Resistor	R922		2.547039	1	282340674.079668
105A514723	Resistor	R928		2.547039	1	282340674.079668
105A515009	Resistor	R496,R499,R503, R616,R623,R627		2.547039	6	56573956.677649
105A516523	Resistor	R743,R779,R810, R856,R858		2.547039	5	67008142.102588
105A516933	Resistor	R242		2.547039	1	282340674.079668
105A518723	Resistor	R388,R407		2.547039	2	154078778.388085
105A522663	Resistor	R554		2.547039	1	282340674.079668
105A523713	Resistor	R261		2.547039	1	282340674.079668
105A524003	Resistor	R787		2.547039	1	282340674.079668
105A525563	Resistor	R345		2.547039	1	282340674.079668

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105A528723	Resistor	R735,R765,R799, R849,R850		2.547039	5	67008142.102588
105A530133	Resistor	R855,R857		2.547039	2	154078778.388085
105A531613	Resistor	R547		2.547039	1	282340674.079668
105A531623	Resistor	R774		2.547039	1	282340674.079668
105A532429	Resistor	R13		2.547039	1	282340674.079668
105A536503	Resistor	R684		2.547039	1	282340674.079668
105A537463	Resistor	R248		2.547039	1	282340674.079668
105A539003	Resistor	R289		2.547039	1	282340674.079668
105A539033	Resistor	R739,R768,R803		2.547039	3	107020754.986850
105A545313	Resistor	R106		2.547039	1	282340674.079668
105A549913	Resistor	R542,R582		2.547039	2	154078778.388085
105A549919	Resistor	R352,R386,R7		2.547039	3	107020754.986850
105A549923	Resistor	R8		2.547039	1	282340674.079668
105A549963	Resistor	R256,R695		2.547039	2	154078778.388085
105A551123	Resistor	R389		2.547039	1	282340674.079668
105A553623	Resistor	R336		2.547039	1	282340674.079668
105A575009	Resistor	R653,R694		2.547039	2	154078778.388085
105A590963	Resistor	R649		2.547039	1	282340674.079668
105A700003	Resistor	R102,R246,R249, R276,R278,R287, R307,R313,R320, R406,R434,R435, R437,R438,R462, R472,R505,R506, R521,R524,R543, R647,R663,R665, R723,R742,R758, R759,R766,R892, R899,R90,R913, R915, R924,R932,R936		2.547039	37	9991988.939157

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105A700009	Resistor	R10,R108,R111,R113,R118,R12,R125,R127,R128,R129,R130,R135,R139,R14,R140,R142,R144,R149,R150,R151,R153,R159,R161,R165,R175,R181,R187,R188,R189,R202,R221,R222,R225,R234,R235,R247,R25,R250,R251,R253,R257,R258,R263,R264,R268,R277,R280,R283,R284,		2.547039	168	2270940.721708
105A700139	Resistor	R186,R194,R220,R223,R785,R99		2.547039	6	56573956.677649
105A700239	Resistor	R881,R882,R883, R885		2.547039	4	82309758.689546
105A701009	Resistor	R101,R394,R811,R812,R85		2.547039	5	67008142.102588
105A701033	Resistor	R275,R317,R393		2.547039	3	107020754.986850

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105A701039	Resistor	R103,R115,R117, R146,R147,R183, R185,R19,R192,R201, R214,R239,R269, R270,R308,R334,R35, R513,R522,R652, R679,R740,R804, R807,R89		2.547039	25	14603612.751152
105A701053	Resistor	R643		2.547039	1	282340674.079668
105A701069	Resistor	R574		2.547039	1	282340674.079668
105A701539	Resistor	R120,R577,R59		2.547039	3	107020754.986850
105A702053	Resistor	R18		2.547039	1	282340674.079668
105A702209	Resistor	R485,R486,R487, R488		2.547039	4	82309758.689546
105A702229	Resistor	R1,R114,R138,R155, R156,R2,R207,R208, R304,R452,R461, R498,R502,R534, R535,R597,R603, R604,R609,R613, R620,R628,R629, R667,R81,R82		2.547039	26	14061076.827148
105A702239	Resistor	R4,R5		2.547039	2	154078778.388085
105A703033	Resistor	R848		2.547039	1	282340674.079668
105A703309	Resistor	R203,R27,R28		2.547039	3	107020754.986850
105A703329	Resistor	R319		2.547039	1	282340674.079668
105A704729	Resistor	R20,R22,R3,R34,R48, R510,R634,R639, R640,R705,R706, R747,R748,R80		2.547039	14	25477245.255648

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105A704739	Resistor	R112,R555		2.547039	2	154078778.388085
105A705129	Resistor	R303,R311		2.547039	2	154078778.388085
105A705139	Resistor	R39,R457,R460,R470,R471,R478,R908, R909		2.547039	8	43225424.698300
105A706209	Resistor	R586,R718,R802		2.547039	3	107020754.986850
105A708229	Resistor	R124,R126,R131,R132,R137,R141,R158,R163,R164,R168,R191,R196,R228,R537,R538,R539,R561,R562,R583,R600		2.547039	20	18104712.511396
105A710009	Resistor	R312,R347,R354		2.547039	3	107020754.986850
105A710039	Resistor	R178,R255,R324,R33,R38,R530,R668,R725,R775,R780,R781,R87,R88,R880,R888		2.547039	15	23852782.943395
105A715003	Resistor	R492,R493,R494,R519,R520,R523		2.547039	6	56573956.677649
105A720009	Resistor	R341,R346		2.547039	2	154078778.388085
105A733003	Resistor	R57,R70,R78,R9, R944		2.547039	5	67008142.102588
105A733009	Resistor	R210		2.547039	1	282340674.079668
105A747009	Resistor	R484,R887,R889		2.547039	3	107020754.986850
105A747033	Resistor	R925		2.547039	1	282340674.079668
106B510030	Resistor	RT3,RT4,RT5,RT6,RT7,RT8,RT9		2.547039	7	48991237.965885
106B701031	Resistor	RT1,RT2		2.547039	2	154078778.388085

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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1121501690	Capacitor	C1,C10,C102,C103,C104,C105,C107,C108,C109,C110,C111,C112,C113,C12,C121,C124,C125,C127,C130,C131,C133,C14,C143,C144,C153,C154,C156,C160,C168,C175,C176,C177,C180,C188,C192,C195,C196,C197,C198,C199,C200,C201,C202,C206,C207,C208,C209,C210,C215,		1.128806	178	4885411.973951
1121501691	Capacitor	C212,C292,C396,C401,C402,C406,C407,C413,C415,C417,C419,C420,C521,C594,C63,C66,C70,C77,C780,C781,C782,C783,C784		1.128806	23	36609385.175833
1121533480	Capacitor	C351		1.128806	1	704977644.692287
1121610180	Capacitor	C603,C608,C613,C614		1.128806	4	196873384.410843
1121647780	Capacitor	C231		1.128806	1	704977644.692287
1122522890	Capacitor	C357		1.128806	1	704977644.692287
1122547450	Capacitor	C588		1.128806	1	704977644.692287
1122701680	Capacitor	C796		1.128806	1	704977644.692287
1124410190	Capacitor	C343,C747		1.128806	2	375289731.076049

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1124410191	Capacitor	C421,C422,C423, C425,C474,C475		1.128806	6	133979725.056342
1124418090	Capacitor	C11,C13,C532,C533, C575,C579		1.128806	6	133979725.056342
1124418190	Capacitor	C16,C17,C18,C19, C20,C21,C22,C23, C430,C431,C432, C433,C434,C435, C436,C437,C438, C439,C440,C441, C442,C443,C444, C445,C450,C451, C452,C453,C454, C455,C456,C457, C458,C459,C460, C461,C462,C463, C464,C465,C466, C467,C468,C469, C470,C471,C472, C473		1.128806	48	17813540.224875
1124427090	Capacitor	C480,C481,C484, C488,C493,C495,C86, C90		1.128806	8	101746760.035398
1124468090	Capacitor	C91		1.128806	1	704977644.692287
1124501780	Capacitor	C802		1.128806	1	704977644.692287
1124510280	Capacitor	C803		1.128806	1	704977644.692287

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Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1124522280	Capacitor	C285,C296,C370, C631,C637,C642, C644,C661,C675, C700,C712,C714, C726,C728,C731, C742,C744,C766		1.128806	18	46478509.590073
1124522680	Capacitor	C810,C816		1.128806	2	375289731.076049
1124533190	Capacitor	C3		1.128806	1	704977644.692287
1124547190	Capacitor	C687		1.128806	1	704977644.692287
1129522790	Capacitor	C668		1.128806	1	704977644.692287
1129610080	Capacitor	C214,C217,C31,C44, C45,C485,C51,C52, C554,C64		1.128806	10	82101057.548118
1129610260	Capacitor	C36,C492		1.128806	2	375289731.076049
1129701690	Capacitor	C506		1.128806	1	704977644.692287
1129701790	Capacitor	C116,C117,C118, C119,C146,C151, C152,C162,C165, C166,C167,C172, C173,C174,C181, C182,C183,C184, C186,C187,C189, C190,C274,C330, C517,C518,C519, C520,C525,C549, C596		1.128806	31	27349602.091781
1129710090	Capacitor	C28,C37,C43,C479, C482,C489,C497, C500		1.128806	8	101746760.035398
1129710091	Capacitor	C380		1.128806	1	704977644.692287
1129710390	Capacitor	C58,C68,C73		1.128806	3	257514172.353070
1129722091	Capacitor	C477,C478,C499, C501		1.128806	4	196873384.410843

File Name: BOXER-6357VS.rfp
Assembly:
Ref Des:
Description:

Failure Rate: 11285.944278
MTBF (hrs): 88,606
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1129747090	Capacitor	C543,C546		1.128806	2	375289731.076049
1161627100	Capacitor	C290,C374,C839		1.128806	3	257514172.353070
1169682192	Capacitor	C342		1.128806	1	704977644.692287
1181610180	Capacitor	C778,C779,T C1		1.128806	3	257514172.353070
1183615110	Capacitor	EC1		1.128806	1	704977644.692287
1183622190	Capacitor	C801,C809		1.128806	2	375289731.076049
1189610151	Capacitor	C98		1.128806	1	704977644.692287
1189615154	Capacitor	C27,C389,C390,C633,C667,C775,C776		1.128806	7	115633865.771428
1189627150	Capacitor	C191,C205,C97		1.128806	3	257514172.353070
1189633162	Capacitor	C720,C721		1.128806	2	375289731.076049
1189647180	Capacitor	C218		1.128806	1	704977644.692287
1189647185	Capacitor	C235,C243,C269,C293,C312,C321,C345,C346		1.128806	8	101746760.035398
1189647187	Capacitor	C213,C344,C347		1.128806	3	257514172.353070
1189922181	Capacitor	C612,C626		1.128806	2	375289731.076049
1189933180	Capacitor	C211,C552,C618		1.128806	3	257514172.353070
11C1533890	Capacitor	C237,C337,C338,C339,C652,C761,C762		1.128806	7	115633865.771428
11C1547890	Capacitor	C318		1.128806	1	704977644.692287
11C2501790	Capacitor	C15,C71,C88		1.128806	3	257514172.353070
11C2522650	Capacitor	C817		1.128806	1	704977644.692287

File Name: BOXER-6357VS.rfp
Assembly:
Ref Des:
Description:

Failure Rate: 11285.944278
MTBF (hrs): 88,606
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11C2610030	Capacitor	C100,C101,C106, C164,C170,C223, C230,C234,C252, C255,C259,C266, C277,C29,C297,C298, C316,C322,C326,C34, C35,C362,C369,C373, C383,C384,C40,C400, C48,C49,C516,C524, C548,C555,C556, C566,C581,C598, C599,C601,C607, C609,C62,C624,C634, C635,C640,C645, C648,C65		1.128806	91	9486556.958661
11C4510380	Capacitor	C804		1.128806	1	704977644.692287
11C4515230	Capacitor	C827,C829,C831		1.128806	3	257514172.353070
11C4547680	Capacitor	C834,C835		1.128806	2	375289731.076049
11C4547690	Capacitor	C696		1.128806	1	704977644.692287
11C5501650	Capacitor	C691,C787		1.128806	2	375289731.076049
11C5510190	Capacitor	C790		1.128806	1	704977644.692287
11C9510050	Capacitor	C219,C220,C576, C591,C592,C593		1.128806	6	133979725.056342
11C9510290	Capacitor	C759		1.128806	1	704977644.692287
11C9510490	Capacitor	C262		1.128806	1	704977644.692287
11E1522680	Capacitor	C300,C354,C621, C622,C703,C717, C719,C739,C741		1.128806	9	90863428.080946
11E1547090	Capacitor	C662		1.128806	1	704977644.692287
11E1622060	Capacitor	C586		1.128806	1	704977644.692287

File Name: BOXER-6357VS.rfp
Assembly:
Ref Des:
Description:

Failure Rate: 11285.944278
MTBF (hrs): 88,606
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11E2501080	Capacitor	C382,C418,C47,C507,C785,C786,C813,C840		1.128806	8	101746760.035398
11E2501690	Capacitor	C122,C123,C129,C26,C30,C324,C325,C352,C371,C38,C387,C394,C395,C403,C405,C410,C411,C412,C414,C426,C427,C428,C429,C446,C447,C486,C487,C491,C494,C496,C498,C50,C502,C503,C504,C505,C523,C53,C54,C55,C580,C584,C632,C639,C646,C647,C651,C664,C665,C67		1.128806	55	15582058.408778
11E2601050	Capacitor	C301		1.128806	1	704977644.692287
11E3510010	Capacitor	C797,C798,C799,C800,C806,C807,C808,C838		1.128806	8	101746760.035398
11E4510020	Capacitor	C711		1.128806	1	704977644.692287

**Reliability Prediction
Summary**

File Name: BOXER-6357VS.rfp
Assembly:
Ref Des:
Description:

Failure Rate: 11285.944278
MTBF (hrs): 88,606
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11E9501091	Capacitor	C114,C115,C120,C126,C134,C135,C137,C138,C139,C140,C141,C142,C145,C147,C148,C149,C150,C155,C157,C158,C163,C169,C171,C185,C193,C194,C2,C227,C238,C239,C241,C242,C245,C248,C249,C250,C256,C258,C261,C264,C271,C272,C278,C279,C283,C284,C289,C291,C3		1.128806	97	8906904.137688
11E9522490	Capacitor	C257		1.128806	1	704977644.692287
11E9547680	Capacitor	C25,C42,C59		1.128806	3	257514172.353070
11E9622050	Capacitor	C763,C764		1.128806	2	375289731.076049
11E9622052	Capacitor	C540,C568,C577,C585,C587,C89		1.128806	6	133979725.056342

**Reliability Prediction
Summary**

File Name: BOXER-6357VS.rfp
Assembly:
Ref Des:
Description:

Failure Rate: 11285.944278
MTBF (hrs): 88,606
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11E9622080	Capacitor	C132,C136,C159, C161,C221,C222, C225,C226,C229, C240,C244,C246, C251,C253,C254, C260,C265,C267, C268,C270,C276, C281,C282,C286, C287,C294,C295, C299,C303,C309, C310,C311,C314, C320,C323,C331, C333,C334,C335, C522,C589,C636, C641,C649,C650, C657,C658,C670,		1.128806	57	15044000.029504
11E9647690	Capacitor	C203,C329,C355, C542,C560		1.128806	5	159367490.199266
1211100113	Inductor	L16,L4,L5		4.944252	3	57363284.375370
1211100160	Inductor	L3		4.944252	1	154760964.143460
121110106G	Inductor	L18		4.944252	1	154760964.143460
121110156M	Inductor	L27		4.944252	1	154760964.143460
121110226M	Inductor	L31		4.944252	1	154760964.143460
121110336X	Inductor	L14,L20,L21		4.944252	3	57363284.375370
121110336Y	Inductor	L19		4.944252	1	154760964.143460
1211103671	Inductor	L23,L25,L26, L28, L29		4.944252	5	35631881.582999
121110476P	Inductor	L15		4.944252	1	154760964.143460
1212306030	Inductor	FB2,FB21,FB22,FB23, FB24,FB35,FB36, FB37,FB4,FB5,FB6, FB7		4.944252	12	15520616.516984
1212306032	Inductor	FB10,FB13		4.944252	2	83201062.149749

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Assembly:
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Failure Rate: 11285.944278
MTBF (hrs): 88,606
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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
121230603S	Inductor	FB1,FB25,FB26,FB27,FB28,FB8		4.944252	6	30055900.223009
121230603Z	Inductor	FB18		4.944252	1	154760964.143460
1212308054	Inductor	FB11,FB12,FB3,FB30,FB34		4.944252	5	35631881.582999
12123A0009	Inductor	FB29,FB31,FB9		4.944252	3	57363284.375370
12123C0003	Inductor	FB32,FB33		4.944252	2	83201062.149749
12123D0001	Inductor	FB14,FB15,FB16,FB17,FB19,FB20		4.944252	6	30055900.223009
1214309008	Inductor	L1,L10,L11,L12,L13,L2,L22,L24,L6,L7, L8,L9		4.944252	12	15520616.516984
12310027A0	Miscellaneous	Y1		19.200000	1	23844262.770939
123132505D	Miscellaneous	Y2,Y5,Y6		19.200000	3	5742504.738137
1231332722	Miscellaneous	Y4		19.200000	1	23844262.770939
1233348051	Miscellaneous	Y3		19.200000	1	23844262.770939
12510MA010	Integrated Circuit	U34		43.803003	1	11739202.588727
1300414841	Semiconductor	D19,D37		7.793411	2	50578095.223398
1301003440	Semiconductor	D42,D43		7.793411	2	50578095.223398
1301005440	Semiconductor	D16,D23,D26,D39		7.793411	4	26989084.126235
1301005442	Semiconductor	D11,D3,D31,D32,D33,D34,D9		7.793411	7	16052497.121446
1301005444	Semiconductor	D1,D18,D24,D25		7.793411	4	26989084.126235
1301005450	Semiconductor	D15,D17		7.793411	2	50578095.223398
1301075140	Semiconductor	D12,D13		7.793411	2	50578095.223398
1301400541	Semiconductor	D10,D2		7.793411	2	50578095.223398
1301400642	Semiconductor	D22,D44		7.793411	2	50578095.223398
1302005641	Semiconductor	D36,D41		7.793411	2	50578095.223398
1304001340	Optical Device	LED3,LED4,LED5, LED6		79.003355	4	2148119.082046
1304451451	Optical Device	LED1,LED2		79.003355	2	3783722.582110
1305080040	Semiconductor	D27,D28,D29,D30,U44,U45,U46,U48,U49,U50		7.793411	10	11489279.961809
1305100541	Semiconductor	D4,D5,D6,D7,D8,U2,U3,U4,U51,U54,U56, U7		7.793411	12	9662455.000384

File Name: BOXER-6357VS.rfp
Assembly:
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Description:

Failure Rate: 11285.944278
MTBF (hrs): 88,606
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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
130533CA40	Semiconductor	D40		7.793411	1	92807310.010983
1310390410	Semiconductor	Q10,Q11,Q12,Q38,Q52,Q53,Q84		22.463360	7	5525968.936223
1310390413	Semiconductor	Q20,Q22		22.463360	2	17315095.066101
1311138610	Semiconductor	Q46,Q48		22.463360	2	17315095.066101
131411171G	Semiconductor	U62		22.463360	1	31642600.748419
1314880511	Semiconductor	Q58		22.463360	1	31642600.748419
1314881910	Semiconductor	Q45		22.463360	1	31642600.748419
1315009250	Semiconductor	Q32,Q57,Q63,Q64		22.463360	4	9270607.712006
13150123N0	Semiconductor	Q87,Q89		22.463360	2	17315095.066101
1315013810	Semiconductor	Q29		22.463360	1	31642600.748419
1315441012	Semiconductor	Q36		22.463360	1	31642600.748419
1315443512	Semiconductor	Q28,Q50,Q70		22.463360	3	12043329.789539
1315490110	Semiconductor	Q80,Q81		22.463360	2	17315095.066101
1315567011	Semiconductor	Q75,Q76		22.463360	2	17315095.066101
1315700216	Semiconductor	Q1,Q13,Q14,Q15,Q16,Q17,Q18,Q2,Q23,Q24,Q25,Q26,Q27,Q3,Q34,Q35,Q37,Q39,Q4,Q40,Q41,Q42,Q43,Q44,Q49,Q5,Q54,Q55,Q56,Q59,Q6,Q61,Q62,Q67,Q68,Q7,Q71,Q72,Q8,Q85,Q86,Q9,Q91		22.463360	43	976836.457616
1315762010	Semiconductor	Q60,Q77		22.463360	2	17315095.066101
1315806510	Semiconductor	Q30,Q31,Q47,Q51,Q69		22.463360	5	7551839.591592
1315971500	Semiconductor	U11,U32,U33,U63,U67		22.463360	5	7551839.591592
1315D4C500	Semiconductor	Q65,Q66,Q73,Q74,Q78,Q79,Q82,Q83		22.463360	8	4877097.849338
1315S4C550	Semiconductor	Q88,Q90		22.463360	2	17315095.066101
1430455200	Integrated Circuit	U71,U72		43.803003	2	6834791.244197
143ALC8920	Integrated Circuit	U38		43.803003	1	11739202.588727
14407517A0	Integrated Circuit	U53		43.803003	1	11739202.588727

File Name: BOXER-6357VS.rfp
Assembly:
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Description:

Failure Rate: 11285.944278
MTBF (hrs): 88,606
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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1462W00A20	Integrated Circuit	U15		43.803003	1	11739202.588727
1469128350	Integrated Circuit			43.803003	1	11739202.588727
1470EL3H70	Integrated Circuit	U75,U76,U77 ,U78, U79,U80		43.803003	6	2750969.191556
14S2200900	Integrated Circuit	U52		43.803003	1	11739202.588727
14S2965000	Integrated Circuit	U70		43.803003	1	11739202.588727
14S3003700	Integrated Circuit	TF1,TF2		43.803003	2	6834791.244197
14S3030000	Integrated Circuit	U24		43.803003	1	11739202.588727
14S3051000	Integrated Circuit	U37,U8		43.803003	2	6834791.244197
14S3052400	Integrated Circuit	U5,U6		43.803003	2	6834791.244197
14S3104500	Integrated Circuit	D20,D21		43.803003	2	6834791.244197
14S3112300	Integrated Circuit	U64		43.803003	1	11739202.588727
14S3121600	Integrated Circuit	U27		43.803003	1	11739202.588727
14S3121800	Integrated Circuit	U25,U26,U60		43.803003	3	4923240.069161
14S3378900	Integrated Circuit	U83		43.803003	1	11739202.588727
14S3435600	Integrated Circuit	U68		43.803003	1	11739202.588727
14S3973100	Integrated Circuit	U22		43.803003	1	11739202.588727
14S4021301	Integrated Circuit	U41,U42		43.803003	2	6834791.244197
14S4033900	Integrated Circuit	U14,U43,U47 ,U81		43.803003	4	3879156.910661
14S4170000	Integrated Circuit	U66		21.706765	1	23689035.791249
14S4186600	Integrated Circuit	U61		43.803003	1	11739202.588727
14S4257900	Integrated Circuit	U58		43.803003	1	11739202.588727
14S4825740	Integrated Circuit	U21		43.803003	1	11739202.588727
14S4QM7700	Integrated Circuit	U59		43.803003	1	11739202.588727
14S5908000	Integrated Circuit	U20		26.018600	1	25551442.237972
14S5A00702	Integrated Circuit	U1,U23,U29		26.018600	3	9949526.289768
14S5A00704	Integrated Circuit	U16,U28,U30		26.018600	3	9949526.289768
14S5A00802	Integrated Circuit	U18,U19,U35 ,U36		26.018600	4	7696979.559193
14S5A00821	Integrated Circuit	U9		26.018600	1	25551442.237972
14S5A73200	Integrated Circuit	U10		43.803003	1	11739202.588727
14S6308002	Integrated Circuit	U57		11.063278	1	58231413.220643
14S7041000	Integrated Circuit	ISO1		43.803003	1	11739202.588727
14S7141100	Integrated Circuit	U40		43.803003	1	11739202.588727
14S7141200	Integrated Circuit	U39,U82		43.803003	2	6834791.244197
14S9108500	Integrated Circuit	U12,U13,U17 ,U31		43.803003	4	3879156.910661
14S9160100	Integrated Circuit	U65,U73,U74		43.803003	3	4923240.069161
14S9341101	Integrated Circuit	U55		43.803003	1	11739202.588727
1540722281	Resistor	RP4		9.971436	1	51606907.671214
1540733085	Resistor	RP1,RP10,RP 11,RP13, RP14,RP15,R P2,RP5, RP6,RP7,RP8 ,RP9		9.971436	12	6588713.101045

File Name: BOXER-6357VS.rfp
Assembly:
Ref Des:
Description:

Failure Rate: 11285.944278
MTBF (hrs): 88,606
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1540775081	Resistor	RP12,RP3		9.971436	2	30043399.401299
1651508010	Connection	SIM1		16.184835	1	35685591.360212
1651520400	Connection	DIMM2		16.184835	1	35685591.360212
16515A2995	Connection	DIMM1		16.184835	1	35685591.360212
1652010101	Connection	CN35		16.184835	1	35685591.360212
1652709202	Connection	CN36		16.184835	1	35685591.360212
1653002101	Connection	CN10,CN26,C N27, CN28,CN31,C N32, CN33,CN8		16.184835	8	6160226.269180
1653003101	Connection	CN5,JP1,JP2, JP3, JP6		16.184835	5	9343344.843761
1653003201	Connection	JP4,JP5		16.184835	2	20390152.380746
165300420L	Connection	CN7		16.184835	1	35685591.360212
1653005209	Connection	CN6		16.184835	1	35685591.360212
1653212100	Connection	CN18		16.184835	1	35685591.360212
1653300107	Connection	JP1(1-2),JP4 (5-6), JP5(5- 6)		16.184835	3	14515880.849373
1653300108	Connection	JP2(2-3),JP3 (2-3)		16.184835	2	20390152.380746
165330010E	Connection	JP6(2-3)		16.184835	1	35685591.360212
165390003B	Connection	CN41_1		16.184835	1	35685591.360212
1653924110	Connection	CN41		16.184835	1	35685591.360212
1654226303	Connection	PCIE1,PCIE3, PCIE6		16.184835	3	14515880.849373
1654409103	Connection	CN38,CN39,C N40		16.184835	3	14515880.849373
1654430301	Connection	CN4		16.184835	1	35685591.360212
1654515308	Connection	CN3		16.184835	1	35685591.360212
1654818301	Connection	CN34		16.184835	1	35685591.360212
1654900704	Connection	CN16,CN17		16.184835	2	20390152.380746
1654900838	Connection	CN1,CN2,M1 2COM1, USBM1		16.184835	4	11344857.509064
1654903900	Connection	CN20,CN24		16.184835	2	20390152.380746
165490700G	Connection	SATA1,SATA 2		16.184835	2	20390152.380746
1655002011	Connection	12VOUTCN1 3, 12VOUTCN1 4		16.184835	2	20390152.380746
1655003022	Connection	LEDSB5VCN1 2		16.184835	1	35685591.360212
1655004011	Connection	PWR1,PWR2, PWR3, PWR4		16.184835	4	11344857.509064
1655004014	Connection	CN21		16.184835	1	35685591.360212

**Reliability Prediction
Summary**

File Name: BOXER-6357VS.rfp
Assembly:
Ref Des:
Description:

Failure Rate: 11285.944278
MTBF (hrs): 88,606
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1655302020	Connection	CN42,HDDLE DCN1, HDDSWCN1, LEDCN9, POECN2,PSO NCN1, PWRSW1		16.184835	7	6941176.714407
1655307022	Connection	POECN1		16.184835	1	35685591.360212
1655404020	Connection	CN25		16.184835	1	35685591.360212
1655902030	Connection	BAT1		16.184835	1	35685591.360212
1655906032	Connection	CN23		16.184835	1	35685591.360212
1655909031	Connection	CN29,CN30		16.184835	2	20390152.380746
1655910131	Connection	CN22		16.184835	1	35685591.360212
1750113019	Miscellaneous	BAT1-CR		306.000000	1	1681683.006787
1752000501	Miscellaneous	FS4,FS5		2.400000	2	143944727.196625
1752001900	Miscellaneous	FS10,FS9		2.400000	2	143944727.196625
1752002400	Miscellaneous	FS7,FS8		2.400000	2	143944727.196625
1752011002	Miscellaneous	FS1,FS3,FS6		2.400000	3	101854599.204190

**Reliability Prediction
Summary**

File Name: BOXER-6357VS.rfp
Assembly:
Ref Des:
Description:

Failure Rate: 405.519027
MTBF (hrs): 2,465,976
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11C6501080	Capacitor	C3,C6,C7		1.128806	3	257514172.353070
11C9510290	Capacitor	C10,C11,C13,C8,C9		1.128806	5	159367490.199266
1300302000	Semiconductor	D1		22.463360	1	31642600.748419
105A700003	Resistor	R1,R3,R4		2.547039	3	107020754.986850
1655106110	Connection	CN2		16.184835	1	35685591.360212
1116610190	Capacitor	C14,C15,C5		4.744484	3	59399119.141203
1214152100	Inductor	L1		4.944252	1	154760964.143460
1251015010	Integrated Circuit	U1		43.803003	1	11739202.588727
S1D5108010	Integrated Circuit	U1.11,U1.12,U1.13, U1.14		43.803003	4	3879156.910661
1752921501	Miscellaneous	FS1		2.400000	1	254626042.602335
1652002100	Connection	CN1		16.184835	1	35685591.360212

File Name: BOXER-6357VS.rfp
Assembly:
Ref Des:
Description:

Failure Rate: 3109.855937
MTBF (hrs): 321,558
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1050501004	Resistor	R33		2.547039	1	282340674.079668
1050501032	Resistor	R30		2.547039	1	282340674.079668
1050504760	Resistor	R47		2.547039	1	282340674.079668
1050510034	Resistor	PR2,R88		2.547039	2	154078778.388085
1050512004	Resistor	PR4		2.547039	1	282340674.079668
1050520004	Resistor	PR5		2.547039	1	282340674.079668
1050520034	Resistor	R4		2.547039	1	282340674.079668
1050551004	Resistor	UR1,UR2,UR3,UR4		2.547039	4	82309758.689546
1051702222	Resistor	R1		2.547039	1	282340674.079668
1052510009	Resistor	RSNUB1		2.547039	1	282340674.079668
1053502579	Resistor	CR1		2.547039	1	282340674.079668
1054500589	Resistor	RSNS1		2.547039	1	282340674.079668
1054500889	Resistor	R19		2.547039	1	282340674.079668
1059500131	Resistor	R39		2.547039	1	282340674.079668
1059500161	Resistor	R41		2.547039	1	282340674.079668
1059500231	Resistor	R129		2.547039	1	282340674.079668
1059501001	Resistor	R20		2.547039	1	282340674.079668
1059510521	Resistor	ROV2		2.547039	1	282340674.079668
1059524931	Resistor	ROV1,RUV1		2.547039	2	154078778.388085
1059532421	Resistor	RUV2		2.547039	1	282340674.079668
1059545331	Resistor	R8		2.547039	1	282340674.079668
1059547531	Resistor	R16		2.547039	1	282340674.079668
1059700001	Resistor	R29		2.547039	1	282340674.079668
105A500103	Resistor	RS1A1,RS1B1,RS1C1,RS1D1,RS2A1,RS2B1,RS2C1,RS2D1,RS3A1,RS3B1,RS3C1,RS3D1,RS4A1,RS4B1,RS4C1,RS4D1		2.547039	16	22425139.809646
105A500133	Resistor	R12,R15		2.547039	2	154078778.388085
105A501003	Resistor	R2,R21		2.547039	2	154078778.388085
105A501539	Resistor	R7		2.547039	1	282340674.079668
105A505109	Resistor	R6		2.547039	1	282340674.079668
105A505633	Resistor	R32		2.547039	1	282340674.079668
105A510053	Resistor	R49,R51,R53,R55		2.547039	4	82309758.689546
105A512033	Resistor	R5		2.547039	1	282340674.079668
105A512123	Resistor	R17,R28		2.547039	2	154078778.388085
105A515034	Resistor	PR3		2.547039	1	282340674.079668
105A516923	Resistor	R18		2.547039	1	282340674.079668
105A518223	Resistor	R10		2.547039	1	282340674.079668
105A518233	Resistor	R70		2.547039	1	282340674.079668

File Name: BOXER-6357VS.rfp
Assembly:
Ref Des:
Description:

Failure Rate: 3109.855937
MTBF (hrs): 321,558
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A520003	Resistor	R74,R78,R80 ,R83		2.547039	4	82309758.689546
105A522623	Resistor	R9		2.547039	1	282340674.079668
105A524919	Resistor	R114,UR5		2.547039	2	154078778.388085
105A530003	Resistor	R50,R52,R54 ,R56		2.547039	4	82309758.689546
105A533213	Resistor	R31		2.547039	1	282340674.079668
105A539223	Resistor	R26		2.547039	1	282340674.079668
105A547523	Resistor	R43		2.547039	1	282340674.079668
105A551033	Resistor	R35,R36,R37 ,R38		2.547039	4	82309758.689546
105A580603	Resistor	R42		2.547039	1	282340674.079668
105A582033	Resistor	R67		2.547039	1	282340674.079668
105A586623	Resistor	R27		2.547039	1	282340674.079668
105A700003	Resistor	R11,R72,R75 ,R77, R81,R82,UR9		2.547039	7	48991237.965885
105A700009	Resistor	R109,R118,R 126,R3, R40,R44,R61 ,R62, R63,R64,R85 ,R95		2.547039	12	29507083.749401
105A700139	Resistor	R68		2.547039	1	282340674.079668
105A701033	Resistor	R13,R23		2.547039	2	154078778.388085
105A701039	Resistor	R65,UR7,UR 8		2.547039	3	107020754.986850
105A701529	Resistor	R84		2.547039	1	282340674.079668
105A702229	Resistor	R73,R76		2.547039	2	154078778.388085
105A702263	Resistor	R22		2.547039	1	282340674.079668
105A704729	Resistor	R100,R102,R 103, R104,R105,R 106, R107,R110,R 113, R119,R122,R 127, R128,R96,R9 8,R99		2.547039	16	22425139.809646
105A710039	Resistor	PR1,R66		2.547039	2	154078778.388085
105A747009	Resistor	R101,R112,R 117, R121,R125,R 91		2.547039	6	56573956.677649
1114610192	Capacitor	C6,C7,C8		1.128806	3	257514172.353070
1119615090	Capacitor	C57		1.128806	1	704977644.692287
1119682090	Capacitor	C27,C28,C29		1.128806	3	257514172.353070
1121415090	Capacitor	C32		1.128806	1	704977644.692287

File Name: BOXER-6357VS.rfp
Assembly:
Ref Des:
Description:

Failure Rate: 3109.855937
MTBF (hrs): 321,558
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1121501691	Capacitor	C12,C62,C63 ,C64, C67,C68,C69 ,C70, C71,C72,C73 ,C74, C75,C76,C77 ,C78, C79,PC10,PC 17,PC2, UC10,UC15, UC17, UC18,UC19, UC20, UC21,UC22, UC23, UC24,UC25, UC3,UC5, UC6,UC7,UC 8,UC9		1.128806	37	22998172.632301
1121610180	Capacitor	C31		1.128806	1	704977644.692287
1124410190	Capacitor	C11,C15		1.128806	2	375289731.076049
1124427091	Capacitor	C80,C82,UC1 ,UC2		1.128806	4	196873384.410843
1124501750	Capacitor	C140		1.128806	1	704977644.692287
1124522280	Capacitor	C48		1.128806	1	704977644.692287
1129610051	Capacitor	C58		1.128806	1	704977644.692287
1129701791	Capacitor	C101,C105,C 107, C108,C111,C 113, C116,C117,C 118, C119,C120,C 121, C122,C123,C 128,C81, C85,C88,C89 ,C90, C91,C92,C93 ,C94, C95,PC1,PC1 3,PC16, PC3,PC5,PC9		1.128806	31	27349602.091781
1129710390	Capacitor	C21,PC4		1.128806	2	375289731.076049
1129722091	Capacitor	C60,PC7		1.128806	2	375289731.076049
1169656132	Capacitor	C16		1.128806	1	704977644.692287
1189610153	Capacitor	PEC1		1.128806	1	704977644.692287
11C2410390	Capacitor	CTMR1		1.128806	1	704977644.692287
11C2510480	Capacitor	C33		1.128806	1	704977644.692287

File Name: BOXER-6357VS.rfp
Assembly:
Ref Des:
Description:

Failure Rate: 3109.855937
MTBF (hrs): 321,558
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11C4501650	Capacitor	C10,C139,C14,C20,C36,C39		1.128806	6	133979725.056342
11C4510280	Capacitor	C34,C40		1.128806	2	375289731.076049
11C4547690	Capacitor	C2,C3,C37,C38,C9,COUT1		1.128806	6	133979725.056342
11C5501650	Capacitor	C1,C24,C35,C4,C5		1.128806	5	159367490.199266
11C5510190	Capacitor	C43		1.128806	1	704977644.692287
11C5510330	Capacitor	CHG1		1.128806	1	704977644.692287
11C5510430	Capacitor	C13,COV1,CUV1		1.128806	3	257514172.353070
11C5522690	Capacitor	C25,C26		1.128806	2	375289731.076049
11C5522760	Capacitor	C47,C51,C52,C53,C54		1.128806	5	159367490.199266
11C5547420	Capacitor	C55,C56		1.128806	2	375289731.076049
11C9510050	Capacitor	C61,PC11,PC12,PC14,PC6,PC8		1.128806	6	133979725.056342
11C9510320	Capacitor	CSNUB1		1.128806	1	704977644.692287
11C9510490	Capacitor	C18,C50		1.128806	2	375289731.076049
11E1510050	Capacitor	C22,C49		1.128806	2	375289731.076049
11E1547650	Capacitor	C41		1.128806	1	704977644.692287
11E9501091	Capacitor	C104,C106,C109,C112,C124,C125,C126,C83,C98,C99,UC26		1.128806	11	74892583.279796
11E9547680	Capacitor	C59,C66,UC14,UC16		1.128806	4	196873384.410843
11E9610190	Capacitor	C42		1.128806	1	704977644.692287
11E9622050	Capacitor	C44,C45		1.128806	2	375289731.076049
11E9622052	Capacitor	C65		1.128806	1	704977644.692287
11E9622060	Capacitor	C17		1.128806	1	704977644.692287
1211100113	Capacitor	L6,L7		1.128806	2	375289731.076049
1211100116	Inductor	L4		4.944252	1	154760964.143460
1211101503	Inductor	L2		4.944252	1	154760964.143460
121110226N	Inductor	L8,PL4,UL1		4.944252	3	57363284.375370
1211110009	Inductor	L5		4.944252	1	154760964.143460
121112207G	Inductor	L3		4.944252	1	154760964.143460
1212306030	Inductor	FB1,FB2,FB5,FB7,FB8		4.944252	5	35631881.582999
1212306033	Inductor	L10,L9		4.944252	2	83201062.149749

File Name: BOXER-6357VS.rfp
Assembly:
Ref Des:
Description:

Failure Rate: 3109.855937
MTBF (hrs): 321,558
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1212308054	Inductor	FB10,FB11,F B14, FB15,FB18,F B19, FB22,FB23,F B26,PL1, PL2		4.944252	11	16872203.304846
1212312063	Inductor	FB3,FB4		4.944252	2	83201062.149749
1214216190	Inductor	L1		4.944252	1	154760964.143460
123132505D	Miscellaneous	Y1,Y2		19.200000	2	8854051.752197
1300010440	Semiconductor	D10,D11,D12 ,D13, D14,D15,D17 ,D8,D9		7.793411	9	12694047.317505
1300414848	Semiconductor	D18,D7		7.793411	2	50578095.223398
1301001443	Semiconductor	D6		7.793411	1	92807310.010983
1301003440	Semiconductor	D5		7.793411	1	92807310.010983
1302052150	Semiconductor	D2,D3		7.793411	2	50578095.223398
1302059450	Semiconductor	D4		7.793411	1	92807310.010983
1304001340	Optical Device	LED1,LED2,L ED5, LED7		79.003355	4	2148119.082046
1304101340	Optical Device	LED3		79.003355	1	6497172.749112
1304200043	Optical Device	LED4		79.003355	1	6497172.749112
1304300140	Optical Device	LED6		79.003355	1	6497172.749112
1304400240	Optical Device	LED8		79.003355	1	6497172.749112
1305005840	Semiconductor	D1,D16		7.793411	2	50578095.223398
1305080040	Integrated Circuit	U11,U12		43.803003	2	6834791.244197
1311009210	Semiconductor	Q6,Q7		22.463360	2	17315095.066101
1315012010	Semiconductor	Q12,Q13,Q1 4,Q15		22.463360	4	9270607.712006
13150123N0	Semiconductor	Q3,Q4		22.463360	2	17315095.066101
1315035210	Semiconductor	Q10,Q11,Q8, Q9		22.463360	4	9270607.712006
1315251211	Semiconductor	Q5		22.463360	1	31642600.748419
131533N250	Semiconductor	M1		22.463360	1	31642600.748419
1315700212	Semiconductor	Q2		22.463360	1	31642600.748419
1315700216	Semiconductor	Q16		22.463360	1	31642600.748419
1315714810	Semiconductor	M2		22.463360	1	31642600.748419
1315746510	Semiconductor	Q1		22.463360	1	31642600.748419
1430037860	Integrated Circuit	U3		43.803003	1	11739202.588727
1430038030	Integrated Circuit	U4		43.803003	1	11739202.588727
1430042660	Integrated Circuit	U5		43.803003	1	11739202.588727
1430043640	Integrated Circuit	U2		43.803003	1	11739202.588727
1430622900	Integrated Circuit	U6		43.803003	1	11739202.588727
1437W178A0	Semiconductor	PU1		22.463360	1	31642600.748419
1440081530	Integrated Circuit	U14		43.803003	1	11739202.588727
1440083670	Integrated Circuit	U16		43.803003	1	11739202.588727
145A17P6X0	Integrated Circuit	U8		43.803003	1	11739202.588727
1463T30100	Integrated Circuit	U15		11.063278	1	58231413.220643

**Reliability Prediction
Summary**

File Name: BOXER-6357VS.rfp
Assembly:
Ref Des:
Description:

Failure Rate: 3109.855937
MTBF (hrs): 321,558
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1470000630	Integrated Circuit	U7,U9		43.803003	2	6834791.244197
14S3104500	Integrated Circuit	U13		43.803003	1	11739202.588727
14S3111703	Integrated Circuit	PQ1		43.803003	1	11739202.588727
14S5382400	Integrated Circuit	U1		43.803003	1	11739202.588727
14S6216060	Integrated Circuit	U10		43.803003	1	11739202.588727
1652882200	Connection	CN8		16.184835	1	35685591.360212
1653002101	Connection	JP2		16.184835	1	35685591.360212
1653003101	Connection	JP1		16.184835	1	35685591.360212
165300410B	Connection	T1		16.184835	1	35685591.360212
1653300107	Connection	JP1(2-3)		16.184835	1	35685591.360212
1655302020	Connection	CN3		16.184835	1	35685591.360212
1655307022	Connection	CN6		16.184835	1	35685591.360212
1655404120	Connection	CN1		16.184835	1	35685591.360212
1655902030	Connection	CN2,CN4,CN5		16.184835	3	14515880.849373
1655910131	Connection	CN7		16.184835	1	35685591.360212
1752001900	Miscellaneous	FS1,FS2		2.400000	2	143944727.196625