

BOXER-6638U

Reliability Prediction Report (MTBF)

Summary	Failure Rate: 8893.987147ppm MTBF: 112,436 Hours
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Issue date

Approval

Test Engineer

2016/03/31

KJ Wang

Danny Chen

Reliability Prediction (MTBF)

I . Model Name: BOXER-6638U

II . Prediction Date: March .30, 2016

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

IV . Predicted by: Danny

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-6638U (9697BDU70-D):

- Failure Rate: 8893.987147 ppm

- MTBF: 112,436 Hours

**AAEON Reliability Prediction
Summary**

File Name: BOXER-6638U.rfp
Duty Cycle: 100
Calculation Model: Telcordia Issue 2
Method: Method I Case 3

Failure Rate: 8893.987147
MTBF (hrs): 112,436
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Assembly Name	Part Number	Ref Des	Quantity	Failure Rate	MTBF
BOXER-6638U	9697BDU70-D		1	8893.987147	112,436

**Reliability Prediction
Summary**

File Name: BOXER-6638U.rfp
Assembly: 9697BDU70-D
Ref Des:
Description:

Failure Rate: 8893.987147
MTBF (hrs): 112,436
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1050501004.0000 00000000000	Resistor	R533		2.547039	1	282340674.079668
1050501234.0000 00000000000	Resistor	R120,R385,R 408		2.547039	3	107020754.986850
1050501334.0000 00000000000	Resistor	R835		2.547039	1	282340674.079668
1050502204.0000 00000000000	Resistor	R382,R383,R 430, R433,R613,R 619, R691,R698,R 699		2.547039	9	38754445.632391
1050502234.0000 00000000000	Resistor	R375,R377		2.547039	2	154078778.388085
1050503934.0000 00000000000	Resistor	R494		2.547039	1	282340674.079668
1050504724.0000 00000000000	Resistor	R98		2.547039	1	282340674.079668
1050505124.0000 00000000000	Resistor	R409,R549		2.547039	2	154078778.388085
1050505164.0000 00000000000	Resistor	R403		2.547039	1	282340674.079668
1050505604.0000 00000000000	Resistor	R475		2.547039	1	282340674.079668
1050505633.0000 00000000000	Resistor	R391		2.547039	1	282340674.079668
1050506224.0000 00000000000	Resistor	R465		2.547039	1	282340674.079668
1050507530.0000 00000000000	Resistor	R524,R542		2.547039	2	154078778.388085
1050508224.0000 00000000000	Resistor	R637,R688,R 793		2.547039	3	107020754.986850

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1050510034.0000 00000000000	Resistor	R102,R1126, R12, R131,R26,R2 79,R316, R32,R402,R4 11,R416, R42,R429,R4 62,R492, R520,R552,R 58,R582, R606,R608,R 638, R659,R668,R 673, R674,R690,R 758, R786,R788,R 8,R815, R827,R83,R8 30,R866, R91		2.547039	37	9991988.939157
1050511314.0000 00000000000	Resistor	R843		2.547039	1	282340674.079668
1050512104.0000 00000000000	Resistor	R418,R467		2.547039	2	154078778.388085
1050515034.0000 00000000000	Resistor	R295,R531,R 553		2.547039	3	107020754.986850
1050520004.0000 00000000000	Resistor	R340,R419		2.547039	2	154078778.388085
1050520034.0000 00000000000	Resistor	R610		2.547039	1	282340674.079668
1050522034.0000 00000000000	Resistor	R627		2.547039	1	282340674.079668
1050524904.0000 00000000000	Resistor	R150,R422,R 618		2.547039	3	107020754.986850
1050524909.0000 00000000000	Resistor	R376		2.547039	1	282340674.079668
1050525514.0000 00000000000	Resistor	R428		2.547039	1	282340674.079668
1050530124.0000 00000000000	Resistor	R405		2.547039	1	282340674.079668
1050533034.0000 00000000000	Resistor	R628,R634		2.547039	2	154078778.388085
1050536514.0000 00000000000	Resistor	R128		2.547039	1	282340674.079668
1050539224.0000 00000000000	Resistor	R1129		2.547039	1	282340674.079668
1050540224.0000 00000000000	Resistor	R387		2.547039	1	282340674.079668

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1050545334.0000 00000000000	Resistor	R555		2.547039	1	282340674.079668
1050549964.0000 00000000000	Resistor	R483,R585,R 591		2.547039	3	107020754.986850
1050551034.0000 00000000000	Resistor	R547		2.547039	1	282340674.079668
1050557614.0000 00000000000	Resistor	R530		2.547039	1	282340674.079668
1050590914.0000 00000000000	Resistor	R499		2.547039	1	282340674.079668
1050593114.0000 00000000000	Resistor	R557		2.547039	1	282340674.079668
1050700002.0000 00000000000	Resistor	R158,R82		2.547039	2	154078778.388085
1050701504.0000 00000000000	Resistor	R587,R588,R 626		2.547039	3	107020754.986850
1050702734.0000 00000000000	Resistor	R566		2.547039	1	282340674.079668
1050703334.0000 00000000000	Resistor	R683,R720		2.547039	2	154078778.388085
1050704304.0000 00000000000	Resistor	R458,R67		2.547039	2	154078778.388085
1054500789.0000 00000000000	Resistor	R384		2.547039	1	282340674.079668
1054700289.0000 00000000000	Resistor	R110,R113		2.547039	2	154078778.388085
1059510001.0000 00000000000	Resistor	R1134,R138		2.547039	2	154078778.388085
1059520001.0000 00000000000	Resistor	R137		2.547039	1	282340674.079668
1059700001.0000 00000000000	Resistor	R264		2.547039	1	282340674.079668
	Resistor	R858,R859		2.547039	2	154078778.388085
	Resistor	R115,R116,R 396, R434,R842		2.547039	5	67008142.102588
	Resistor	R100		2.547039	1	282340674.079668
	Resistor	R564		2.547039	1	282340674.079668
	Resistor	R53		2.547039	1	282340674.079668
	Resistor	R1132,R1133 ,R31, R390,R413,R 414, R489,R584,R 80,R848, R9 R844,R845		2.547039	11	32049696.385471
	Resistor	R844,R845		2.547039	2	154078778.388085

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	Resistor	R111,R112,R164, R392,R394,R398, R412,R603,R609, R611,R621,R670, R825,R836		2.547039	14	25477245.255648
	Resistor	R393,R601,R616, R665,R822		2.547039	5	67008142.102588
	Resistor	R11,R35,R36,R37, R850,R851		2.547039	6	56573956.677649
	Resistor	R469,R470,R471, R472,R473,R474, R476,R73,R74		2.547039	9	38754445.632391
	Resistor	R846,R847		2.547039	2	154078778.388085
	Resistor	R351,R352,R353,R52		2.547039	4	82309758.689546
	Resistor	R1124,R420,R50,R78, R89		2.547039	5	67008142.102588
	Resistor	R622		2.547039	1	282340674.079668
	Resistor	R19		2.547039	1	282340674.079668
	Resistor	R612		2.547039	1	282340674.079668
	Resistor	R49,R77		2.547039	2	154078778.388085
	Resistor	R860		2.547039	1	282340674.079668
	Resistor	R146,R149,R389, R401		2.547039	4	82309758.689546
	Resistor	R27		2.547039	1	282340674.079668
	Resistor	R20,R21,R22,R25		2.547039	4	82309758.689546
	Resistor	R623		2.547039	1	282340674.079668
	Resistor	R397		2.547039	1	282340674.079668
	Resistor	R169,R565,R605, R807		2.547039	4	82309758.689546
	Resistor	R1125		2.547039	1	282340674.079668
	Resistor	R1127		2.547039	1	282340674.079668
	Resistor	R329		2.547039	1	282340674.079668
	Resistor	R45		2.547039	1	282340674.079668
	Resistor	R40		2.547039	1	282340674.079668

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	Resistor	R1128,R1131, R205, R236,R260,R 406, R417,R43,R5 04,R51, R511,R551,R 574, R598,R642,R 645, R667,R79,R8 14,R818, R823,R824,R 828, R837		2.547039	24	15190138.820515
	Resistor	R103,R104,R 1140, R1141,R117, R122, R13,R14,R15 7,R162, R190,R191,R 192, R193,R200,R 204, R206,R207,R 228,R23, R24,R244,R2 61,R266, R267,R296,R 305, R310,R317,R 319, R327,R33,R3 4,R347, R354,R356,R 359, R360,R362,R 363, R367,R378,R 388,R39, R395,R404,R 407, R410,R415,R		2.547039	113	3355470.219926
	Resistor	R526		2.547039	1	282340674.079668

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	Resistor	R16,R178,R199,R245,R307,R457,R459,R46,R513,R579,R615,R636,R648,R654,R66,R660,R69,R697,R722,R723,R774,R775,R785,R792,R794,R839,R841		2.547039	27	13557741.157915
	Resistor	R265,R561		2.547039	2	154078778.388085
	Resistor	R1145,R118,R119,R121,R124,R125,R126,R127,R130,R170,R171,R172,R184,R195,R208,R209,R210,R211,R212,R213,R214,R215,R216,R217,R218,R219,R220,R221,R222,R225,R227,R235,R242,R246,R247,R248,R249,R250,R251,R252,R253,R254,R255,R262,R268,R277,R278,R280		2.547039	118	3215647.514161

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	Resistor	R1142,R1143 ,R263, R328,R338,R 368, R554,R597,R 646, R653		2.547039	10	35079934.879747
	Resistor	R661		2.547039	1	282340674.079668
	Resistor	R174,R176,R 188, R651,R658,R 677, R678,R716,R 739, R740,R753,R 754, R784,R799,R 806, R808		2.547039	16	22425139.809646
	Resistor	R154		2.547039	1	282340674.079668
	Resistor	R105,R123,R 133, R135,R141,R 142, R144,R177,R 194, R198,R202,R 229, R427,R602,R 607, R614,R620,R 84,R85		2.547039	19	19019185.781770
	Resistor	R140,R237,R 238, R239,R539,R 663, R664,R680		2.547039	8	43225424.698300
	Resistor	R292,R41,R4 8,R505, R506,R507,R 569, R694,R721,R 747, R767,R810,R 92		2.547039	13	27342571.921361

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	Resistor	R223,R224,R226, R256,R257,R259, R282,R283,R284, R285,R735,R736, R737,R764,R765, R766,R780,R781, R782,R783		2.547039	20	18104712.511396
	Resistor	R321,R322,R330, R332,R335,R337, R341,R345,R348, R349,R803,R804		2.547039	12	29507083.749401
	Resistor	R448		2.547039	1	282340674.079668
	Resistor	R181,R182,R183, R187,R189,R197, R369,R370,R371, R372,R373,R374, R421,R426,R431, R432,R437,R438, R444,R447,R456, R468,R485,R491, R497,R63,R65,R679, R710,R86,R96		2.547039	31	11861900.957214
	Resistor	R134		2.547039	1	282340674.079668
	Resistor	R230,R231,R232, R233,R234,R545, R742,R743,R744, R745,R746,R93		2.547039	12	29507083.749401
	Resistor	R861		2.547039	1	282340674.079668

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1121501691.0000 00000000000	Resistor	R464,R97		2.547039	2	154078778.388085	
	Resistor	R1,R101,R2, R3,R312, R313,R314,R 315, R867,R868		2.547039	10	35079934.879747	
	Resistor	R5,R580,R59 6,R600		2.547039	4	82309758.689546	
	Resistor	RT1		2.547039	1	282340674.079668	
	Resistor	RT2		2.547039	1	282340674.079668	
	Capacitor	C10,C11,C13 5,C136, C137,C138,C 151, C152,C153,C 154, C155,C167,C 180, C181,C182,C 183, C184,C185,C 188, C189,C191,C 199, C200,C201,C 202, C203,C204,C 205, C207,C208,C 213, C215,C219,C 22,C232, C233,C235,C 241, C246,C247,C 251, C253,C254,C 267, C271,C272,C 273, C274,C27		1.128806	194	4485965.882580	
	1121533480.0000 00000000000	Capacitor	C93		1.128806	1	704977644.692287
	1124410191.0000 00000000000	Capacitor	C372,C378,C 379, C380,C381,C 386, C518		1.128806	7	115633865.771428
	1124418090.0000 00000000000	Capacitor	C487,C492,C 517, C522,C678,C 679		1.128806	6	133979725.056342

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1124420090.0000 00000000000	Capacitor	C328,C331		1.128806	2	375289731.076049
1124427091.0000 00000000000	Capacitor	C290,C314,C 604, C616,C662		1.128806	5	159367490.199266
1124515281.0000 00000000000	Capacitor	C84		1.128806	1	704977644.692287
1124522290.0000 00000000000	Capacitor	C746,C749		1.128806	2	375289731.076049
1124533191.0000 00000000000	Capacitor	C734,C735		1.128806	2	375289731.076049
1124547281.0000 00000000000	Capacitor	C427		1.128806	1	704977644.692287
1129701791.0000 00000000000	Capacitor	C139,C142,C 164, C168,C226,C 230, C239,C244,C 33,C404, C436,C519,C 624, C632,C75		1.128806	15	55479656.844874
1129710091.0000 00000000000	Capacitor	C243,C675,C 676, C677,C689,C 690, C691,C77		1.128806	8	101746760.035398
1129710391.0000 00000000000	Capacitor	C365,C366,C 414, C497,C527,C 580, C636		1.128806	7	115633865.771428
1129747091.0000 00000000000	Capacitor	C440		1.128806	1	704977644.692287
1174510180.0000 00000000000	Capacitor	CP1		1.128806	1	704977644.692287
1181627197.0000 00000000000	Capacitor	TC1,TC2		1.128806	2	375289731.076049
1183610191.0000 00000000000	Capacitor	TC3		1.128806	1	704977644.692287
1189615154.0000 00000000000	Capacitor	TC12,TC13,T C14,TC6		1.128806	4	196873384.410843
1189622154.0000 00000000000	Capacitor	TC16,TC18		1.128806	2	375289731.076049
1189622194.0000 00000000000	Capacitor	TC7,TC8		1.128806	2	375289731.076049
1189633151.0000 00000000000	Capacitor	TC17		1.128806	1	704977644.692287
1189633193.0000 00000000000	Capacitor	TC9		1.128806	1	704977644.692287

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1189933180.0000 00000000000	Capacitor	TC5		1.128806	1	704977644.692287
	Capacitor	TC15,TC19,T C20		1.128806	3	257514172.353070
	Capacitor	C425		1.128806	1	704977644.692287
	Capacitor	C738,C739		1.128806	2	375289731.076049
	Capacitor	C209,C361,C 362, C363,C364,C 403		1.128806	6	133979725.056342
	Capacitor	C383		1.128806	1	704977644.692287
	Capacitor	C266		1.128806	1	704977644.692287
	Capacitor	C674		1.128806	1	704977644.692287
	Capacitor	C13,C421,C6 69,C99		1.128806	4	196873384.410843
	Capacitor	C474,C80		1.128806	2	375289731.076049
	Capacitor	C21,C469		1.128806	2	375289731.076049
	Capacitor	C367,C641,C 642, C650		1.128806	4	196873384.410843
	Capacitor	C743		1.128806	1	704977644.692287
	Capacitor	C260,C261,C 262, C263,C264,C 265, C277,C278,C 279, C280,C309,C 310, C319,C322,C 325, C342,C532,C 533, C534,C535,C 536, C537,C588,C 589, C590,C591,C 592, C593,C594,C 607, C615,C623		1.128806	32	26512863.286539
	Capacitor	C171,C525,C 646, C657,C744,C 92		1.128806	6	133979725.056342

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	Capacitor	C119,C296,C297,C298,C299,C300,C301,C330,C368,C370,C373,C375,C4, C416		1.128806	14	59316298.011235
	Capacitor	C417		1.128806	1	704977644.692287
	Capacitor	C6		1.128806	1	704977644.692287
	Capacitor	C18,C432,C471,C663,C717,C721,C725, C726		1.128806	8	101746760.035398
	Capacitor	C30,C303,C31,C355,C438,C444,C513,C514,C595,C596,C645,C660,C661,C670,C671,C672,C704,C705,C706,C710,C714,C715,C716,C722,C723, C724		1.128806	26	32480878.530766
	Capacitor	C48,C49		1.128806	2	375289731.076049
	Capacitor	C212,C360,C551		1.128806	3	257514172.353070
	Capacitor	C249,C252,C318,C324,C335,C409,C465,C475,C476,C528,C584,C585,C598,C599,C736, C737		1.128806	16	52112480.802928
	Capacitor	C15,C16,C687,C711		1.128806	4	196873384.410843
	Capacitor	C727,C728,C729,C730,C740		1.128806	5	159367490.199266
	Capacitor	C78		1.128806	1	704977644.692287
	Capacitor	C109		1.128806	1	704977644.692287

**Reliability Prediction
Summary**

File Name: BOXER-6638U.rfp
Assembly: 9697BDU70-D
Ref Des:
Description:

Failure Rate: 8893.987147
MTBF (hrs): 112,436
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
	Capacitor	C105,C106,C107, C108,C126,C127, C128,C129,C145, C146,C147,C148, C195,C196,C197, C198,C529,C665, C666,C667,C70, C701,C71,C72,C73		1.128806	25	33748887.792763
	Capacitor	C747,C748		1.128806	2	375289731.076049
	Capacitor	C100,C110,C117, C125,C149,C186, C187,C194,C206, C223,C231,C24, C269,C270,C29,C305, C311,C359,C418,C420, C424,C426,C43, C433,C435,C437,C446, C453,C456,C457, C480,C491,C498, C499,C505,C546, C555,C565,C581, C587,C601,C603, C608,C612,C625, C626,C654,C656, C65		1.128806	59	14541999.022292

**Reliability Prediction
Summary**

File Name: BOXER-6638U.rfp
Assembly: 9697BDU70-D
Ref Des:
Description:

Failure Rate: 8893.987147
MTBF (hrs): 112,436
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit	
1211101970.0000 00000000000	Capacitor	C111,C113,C114, C118,C121,C124, C131,C132,C133, C140,C143,C144, C150,C156,C157, C158,C159,C160, C162,C163,C166, C172,C173,C174, C175,C176,C177, C192,C214,C216, C217,C218,C224, C227,C237,C238, C245,C306,C307, C329,C340,C341, C357,C376,C377, C390,C392,C393,		1.128806	87	9916966.085517	
	Capacitor	C27,C399,C720		1.128806	3	257514172.353070	
	Capacitor	C268,C63,C664,C702, C703,C713,C74, C741,C742		1.128806	9	90863428.080946	
	Inductor	L5		4.944252	1	154760964.143460	
	Inductor	L13		4.944252	1	154760964.143460	
	Inductor	L7		4.944252	1	154760964.143460	
	1211202700.0000 00000000000	Inductor	L17		4.944252	1	154760964.143460
		Inductor	L6		4.944252	1	154760964.143460
		Inductor	L1		4.944252	1	154760964.143460
		Inductor	L12		4.944252	1	154760964.143460
		Inductor	L11		4.944252	1	154760964.143460
		Inductor	L14,L15,L16		4.944252	3	57363284.375370

File Name: BOXER-6638U.rfp
Assembly: 9697BDU70-D
Ref Des:
Description:

Failure Rate: 8893.987147
MTBF (hrs): 112,436
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1212306030.0000 00000000000	Inductor	FB13,FB14,F B15, FB16,FB17,F B18, FB19,FB20,F B24, FB25,FB26,F B30, FB31,FB32,F B39,FB7		4.944252	16	11765215.454728
1212308054.0000 00000000000	Inductor	FB22		4.944252	1	154760964.143460
	Inductor	FB1,FB2,FB3, FB4, FB5		4.944252	5	35631881.582999
	Inductor	FB33,FB34,F B35, FB36,FB37		4.944252	5	35631881.582999
	Inductor	FB10,FB11,F B12,FB6, FB8,FB9		4.944252	6	30055900.223009
1214309008.0000 00000000000	Inductor	CH1,CH10,C H2,CH3, CH6,CH7		4.944252	6	30055900.223009
1214309009.0000 00000000000	Inductor	CH4,CH5,CH 8,CH9		4.944252	4	43912872.424775
	Miscellaneous	Y2,Y5		19.200000	2	8854051.752197
1231324054.0000 00000000000	Miscellaneous	Y4		19.200000	1	23844262.770939
1231327053.0000 00000000000	Miscellaneous	Y1		19.200000	1	23844262.770939
1231332726.0000 00000000000	Miscellaneous	Y3		19.200000	1	23844262.770939
1301005442.0000 00000000000	Semiconductor	D35		7.793411	1	92807310.010983
1301005444.0000 00000000000	Semiconductor	D13,D21,D24 ,D29,D4		7.793411	5	21965031.404253
1301013040.0000 00000000000	Semiconductor	D17,D39		7.793411	2	50578095.223398
1301053040.0000 00000000000	Semiconductor	D7		7.793411	1	92807310.010983
1301400642.0000 00000000000	Semiconductor	D5		7.793411	1	92807310.010983
1302008240.0000 00000000000	Optical Device	D19		79.003355	1	6497172.749112
1304000043.0000 00000000000	Optical Device	LED3		79.003355	1	6497172.749112
1304300140.0000 00000000000	Optical Device	LED2		79.003355	1	6497172.749112

**Reliability Prediction
Summary**

File Name: BOXER-6638U.rfp
Assembly: 9697BDU70-D
Ref Des:
Description:

Failure Rate: 8893.987147
MTBF (hrs): 112,436
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1304500240.0000 00000000000	Optical Device	LED1		79.003355	1	6497172.749112
	Optical Device	D1,D14,D15, D16,D18, D3,D30,D32, D33,D36, D43,D44,D45 ,D46,D9		79.003355	15	680060.342853
1310222211.0000 00000000000	Optical Device	U73		79.003355	1	6497172.749112
	Semiconductor	Q4,Q5		22.463360	2	17315095.066101
1310390413.0000 00000000000	Semiconductor	Q58,Q81,Q8 2		22.463360	3	12043329.789539
1311390612.0000 00000000000	Semiconductor	Q16,Q17		22.463360	2	17315095.066101
1315076980.0000 00000000000	Semiconductor	Q36		22.463360	1	31642600.748419
1315083270.0000 00000000000	Semiconductor	Q61,Q62,Q6 8,Q69, Q70		22.463360	5	7551839.591592
1315190100.0000 00000000000	Semiconductor	U25,U31,U9		22.463360	3	12043329.789539
1315200312.0000 00000000000	Semiconductor	Q64,Q65,Q6 6,Q72, Q73		22.463360	5	7551839.591592
1315230511.0000 00000000000	Semiconductor	Q1,Q10,Q11, Q2,Q54, Q59,Q67		22.463360	7	5525968.936223
1315443512.0000 00000000000	Semiconductor	Q38,Q55		22.463360	2	17315095.066101
1315444710.0000 00000000000	Semiconductor	Q12,Q63		22.463360	2	17315095.066101
1315700216.0000 00000000000	Semiconductor	Q13,Q14,Q1 5,Q18, Q19,Q20,Q2 1,Q22, Q23,Q24,Q2 6,Q32, Q33,Q35,Q4 1,Q42, Q45,Q50,Q5 1,Q52, Q53,Q56,Q5 7,Q6,Q79, Q8,Q83		22.463360	27	1533030.992154
1315831310.0000 00000000000	Semiconductor	Q44		22.463360	1	31642600.748419
	Semiconductor	Q80		22.463360	1	31642600.748419
1410023060.0000 00000000000	Semiconductor	U2		22.463360	1	31642600.748419
1430014840.0000 00000000000	Integrated Circuit	U72		43.803003	1	11739202.588727

**Reliability Prediction
Summary**

File Name: BOXER-6638U.rfp
Assembly: 9697BDU70-D
Ref Des:
Description:

Failure Rate: 8893.987147
MTBF (hrs): 112,436
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1430021850.0000 00000000000	Integrated Circuit	U4		43.803003	1	11739202.588727
1430023050.0000 00000000000	Integrated Circuit	U52		43.803003	1	11739202.588727
1430059300.0000 00000000000	Integrated Circuit	U65		43.803003	1	11739202.588727
1430516220.0000 00000000000	Integrated Circuit	U36		43.803003	1	11739202.588727
1430973950.0000 00000000000	Integrated Circuit	U37		43.803003	1	11739202.588727
1440002130.0000 00000000000	Integrated Circuit	U71		43.803003	1	11739202.588727
	Integrated Circuit	U7		43.803003	1	11739202.588727
	Integrated Circuit	U19,U20		43.803003	2	6834791.244197
1462001280.0000 00000000000	Integrated Circuit	U22		43.803003	1	11739202.588727
	Integrated Circuit	U62		43.803003	1	11739202.588727
	Integrated Circuit	U66		43.803003	1	11739202.588727
	Integrated Circuit	U39		21.706765	1	23689035.791249
	Integrated Circuit			43.803003	1	11739202.588727
	Integrated Circuit	U12		43.803003	1	11739202.588727
	Integrated Circuit	U11		43.803003	1	11739202.588727
	Integrated Circuit	U64		43.803003	1	11739202.588727
	Integrated Circuit	U34		43.803003	1	11739202.588727
	Integrated Circuit	U43		43.803003	1	11739202.588727
	Integrated Circuit	U33		43.803003	1	11739202.588727
	Integrated Circuit	U21		43.803003	1	11739202.588727
	Integrated Circuit	U40		43.803003	1	11739202.588727
	Integrated Circuit	U17,U57		43.803003	2	6834791.244197
Integrated Circuit	U44		26.018600	1	25551442.237972	
Integrated Circuit	U51,U8		26.018600	2	14194252.866846	
Integrated Circuit	U53,U59,U61		26.018600	3	9949526.289768	
Integrated Circuit	U16,U26,U28, U3,U41, U47,U48		26.018600	7	4626592.240320	
Integrated Circuit	U29,U30,U49, U58		43.803003	4	3879156.910661	
Integrated Circuit	U42		43.803003	1	11739202.588727	
1540733085.0000 00000000000	Resistor	RP1		9.971436	1	51606907.671214
1540747285.0000 00000000000	Resistor	RP2		9.971436	1	51606907.671214
1652602105.0000 00000000000	Connection	DIMM1		16.184835	1	35685591.360212
	Connection	CN26,CN27		16.184835	2	20390152.380746
	Connection	CN4		16.184835	1	35685591.360212
	Connection	JP1,JP2,JP4		16.184835	3	14515880.849373
Connection	JP13,JP14		16.184835	2	20390152.380746	

File Name: BOXER-6638U.rfp
Assembly: 9697BDU70-D
Ref Des:
Description:

Failure Rate: 8893.987147
MTBF (hrs): 112,436
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1653300107.0000 00000000000	Connection	CN16		16.184835	1	35685591.360212
	Connection	CN9		16.184835	1	35685591.360212
	Connection	JP1(2-3),JP13(3-4),JP14(3-4)		16.184835	3	14515880.849373
1653300108.0000 00000000000	Connection	JP2(1-2)		16.184835	1	35685591.360212
	Connection	JP4(1-2)		16.184835	1	35685591.360212
1654226303.0000 00000000000	Connection	CN12,CN38		16.184835	2	20390152.380746
	Connection	CN34		16.184835	1	35685591.360212
1654415305.0000 00000000000	Connection	CN33		16.184835	1	35685591.360212
1654418103.0000 00000000000	Connection	CN30		16.184835	1	35685591.360212
1654818301.0000 00000000000	Connection	CN15		16.184835	1	35685591.360212
1654903901.0000 00000000000	Connection	CN15		16.184835	1	35685591.360212
1654907004.0000 00000000000	Connection	SATA1,SATA 2		16.184835	2	20390152.380746
1654920307.0000 00000000000	Connection	CN31		16.184835	1	35685591.360212
1655302025.0000 00000000000	Connection	CN14		16.184835	1	35685591.360212
1655902034.0000 00000000000	Connection	BAT1A1,CN1, CN2		16.184835	3	14515880.849373
1655905038.0000 00000000000	Connection	CN10,CN11,CN37,CN7		16.184835	4	11344857.509064
1655906032.0000 00000000000	Connection	CN18		16.184835	1	35685591.360212
1655909034.0000 00000000000	Connection	CN28,CN29		16.184835	2	20390152.380746
1655910032.0000 00000000000	Connection	CN6,CN8		16.184835	2	20390152.380746
1655912032.0000 00000000000	Connection	CN20		16.184835	1	35685591.360212
1752000501.0000 00000000000	Miscellaneous	BAT1B1		306.000000	1	1681683.006787
	Miscellaneous	FS3,FS4		2.400000	2	143944727.196625
1752001603.0000 00000000000	Miscellaneous	FS1,FS2,FS6		2.400000	3	101854599.204190
	Miscellaneous	FS5		2.400000	1	254626042.602335
	Miscellaneous	BZ1		2.400000	1	254626042.602335