

BOXER-6652 / 6852

Reliability Prediction Report (MTBF)

Summary	Failure Rate: 11692.052877 ppm MTBF: 85,528 Hours
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Issue date	Approval	Test Engineer
2015/12/11	KJ Wang	Danny Chen

Reliability Prediction (MTBF)

I . Model Name: BOXER-6652 / 6852

II . Prediction Date: DEC .11, 2015

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-6652 / 6852 (9697QM87PB-D)

- Failure Rate: 11692.052877

- MTBF: 85,528

**AAEON Reliability Prediction
Summary**

File Name: BOXER-6652.rfp
Duty Cycle: 100
Calculation Model: Telcordia Issue 2
Method: Method I Case 3

Failure Rate: 11692.052877
MTBF (hrs): 85,528
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Assembly Name	Part Number	Ref Des	Quantity	Failure Rate	MTBF
BOXER-6652	9697QM87PB-D		1	11692.052877	85,528

File Name: BOXER-6652.rfp
Assembly: 9697QM87PB-D
Ref Des:
Description:

Failure Rate: 11692.052877
MTBF (hrs): 85,528
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1050500104	Resistor	R122,R212,R222, R268,R269,R270,R64		2.547039	7	48991237.965885
1050501004	Resistor	R124,R642		2.547039	2	154078778.388085
1050501054	Resistor	R718		2.547039	1	282340674.079668
1050502204	Resistor	R352,R355,R366, R368,R369,R746		2.547039	6	56573956.677649
1050502224	Resistor	R17,R291,R292,R293, R31,R331,R332,R333, R343,R439,R440, R475,R476,R518, R519,R526,R527, R710,R711		2.547039	19	19019185.781770
1050503324	Resistor	R704		2.547039	1	282340674.079668
1050503914	Resistor	R852		2.547039	1	282340674.079668
1050503934	Resistor	R219		2.547039	1	282340674.079668
1050504334	Resistor	R815		2.547039	1	282340674.079668
1050504724	Resistor	R529,R532,R543, R544,R561,R656, R896,R918		2.547039	8	43225424.698300
1050504734	Resistor	R469,R470		2.547039	2	154078778.388085
1050505124	Resistor	R1		2.547039	1	282340674.079668
1050505604	Resistor	R647,R676		2.547039	2	154078778.388085
1050505633	Resistor	R177,R460,R51		2.547039	3	107020754.986850
1050507524	Resistor	R411,R417,R693, R708,R775		2.547039	5	67008142.102588
1050508224	Resistor	R450,R479,R707, R839,R840,R841, R842,R864,R865, R866,R867		2.547039	11	32049696.385471

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1050510034	Resistor	R137,R150,R156, R173,R187,R523, R524,R593,R595, R596,R79,R93		2.547039	12	29507083.749401
1050512734	Resistor	R143		2.547039	1	282340674.079668
1050520034	Resistor	R120,R184,R862, R935		2.547039	4	82309758.689546
1050524004	Resistor	R127		2.547039	1	282340674.079668
1050524904	Resistor	R745,R876,R877, R900		2.547039	4	82309758.689546
1050531624	Resistor	R302,R303,R304		2.547039	3	107020754.986850
1050533034	Resistor	R449,R782		2.547039	2	154078778.388085
1050533214	Resistor	R498		2.547039	1	282340674.079668
1050540224	Resistor	R453,R873		2.547039	2	154078778.388085
1050549934	Resistor	R181		2.547039	1	282340674.079668
1050549964	Resistor	R689,R778,R781		2.547039	3	107020754.986850
1050551034	Resistor	R455		2.547039	1	282340674.079668
1050564904	Resistor	R367		2.547039	1	282340674.079668
1050590914	Resistor	R194		2.547039	1	282340674.079668
1050590964	Resistor	R709		2.547039	1	282340674.079668
1050701504	Resistor	R461,R818,R849		2.547039	3	107020754.986850
1050704304	Resistor	R678,R723		2.547039	2	154078778.388085
1052500171	Resistor	R356,R357,R358, R359,R360,R393		2.547039	6	56573956.677649
1054500889	Resistor	R654		2.547039	1	282340674.079668
1054700289	Resistor	R101,R166,R384, R385,R52		2.547039	5	67008142.102588
1054700389	Resistor	R448		2.547039	1	282340674.079668
1059520001	Resistor	R58		2.547039	1	282340674.079668
1059700001	Resistor	R151,R152,R423, R563,R912		2.547039	5	67008142.102588
1059701001	Resistor	R153		2.547039	1	282340674.079668
1059710001	Resistor	R99		2.547039	1	282340674.079668
1059710003	Resistor	R930,R931		2.547039	2	154078778.388085

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Ref Des:
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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A500139	Resistor	R125,R231,R239, R276,R370,R421, R427,R451,R606, R661,R663,R664, R677,R751,R757, R823,R878,R897, R910		2.547039	19	19019185.781770
105A500173	Resistor	R703,R771,R785, R795		2.547039	4	82309758.689546
105A500239	Resistor	R657		2.547039	1	282340674.079668
105A501003	Resistor	R130,R26,R648		2.547039	3	107020754.986850
105A501039	Resistor	R133,R141,R220, R223,R234,R3,R800, R806		2.547039	8	43225424.698300
105A501053	Resistor	R592,R779		2.547039	2	154078778.388085
105A501333	Resistor	R92		2.547039	1	282340674.079668
105A501529	Resistor	R767		2.547039	1	282340674.079668
105A501539	Resistor	R316,R454,R489		2.547039	3	107020754.986850
105A501829	Resistor	R193,R675		2.547039	2	154078778.388085
105A502033	Resistor	R113,R939		2.547039	2	154078778.388085
105A502039	Resistor	R111,R116,R121, R158,R2,R428,R633, R667,R668,R705, R773,R833,R86		2.547039	13	27342571.921361
105A503039	Resistor	R112,R126,R315, R706,R860		2.547039	5	67008142.102588
105A503309	Resistor	R752,R753,R755, R758		2.547039	4	82309758.689546
105A504733	Resistor	R687		2.547039	1	282340674.079668
105A505109	Resistor	R679,R680,R681, R725,R843		2.547039	5	67008142.102588
105A505163	Resistor	R396		2.547039	1	282340674.079668
105A506834	Resistor	R157		2.547039	1	282340674.079668

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105A507509	Resistor	R613,R614,R615, R696,R731		2.547039	5	67008142.102588
105A507533	Resistor	R129		2.547039	1	282340674.079668
105A510009	Resistor	R171,R176,R666, R700,R732,R733,R81, R834,R835,R836		2.547039	10	35079934.879747
105A510223	Resistor	R644		2.547039	1	282340674.079668
105A512009	Resistor	R572,R573,R575, R576		2.547039	4	82309758.689546
105A512039	Resistor	R146,R556		2.547039	2	154078778.388085
105A513009	Resistor	R645,R699		2.547039	2	154078778.388085
105A513333	Resistor	R195		2.547039	1	282340674.079668
105A515009	Resistor	R611,R627,R628, R629,R713,R714, R715,R786		2.547039	8	43225424.698300
105A515034	Resistor	R168		2.547039	1	282340674.079668
105A521003	Resistor	R870,R871,R872		2.547039	3	107020754.986850
105A522623	Resistor	R154		2.547039	1	282340674.079668
105A522669	Resistor	R407		2.547039	1	282340674.079668
105A528733	Resistor	R182		2.547039	1	282340674.079668
105A529413	Resistor	R305,R306,R307		2.547039	3	107020754.986850
105A530113	Resistor	R589		2.547039	1	282340674.079668
105A547003	Resistor	R185,R237		2.547039	2	154078778.388085
105A549919	Resistor	R452,R597		2.547039	2	154078778.388085
105A553629	Resistor	R131,R697		2.547039	2	154078778.388085
105A561909	Resistor	R922,R923,R924, R925,R926,R927, R928,R929		2.547039	8	43225424.698300

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105A700003	Resistor	R140,R167,R178,R20,R322,R353,R361,R362,R363,R371,R375,R379,R381,R382,R383,R386,R387,R388,R389,R404,R41,R410,R555,R566,R612,R622,R632,R639,R643,R658,R712,R727,R736,R744,R761,R784,R796,R82,R917		2.547039	39	9493970.778443

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105A700009	Resistor	R102,R114,R117, R118,R119,R123, R138,R139,R142, R144,R145,R148, R159,R160,R164, R165,R169,R170, R175,R179,R180, R183,R188,R189,R19, R190,R192,R196, R197,R198,R199, R200,R201,R202, R203,R204,R205, R206,R207,R208, R209,R210,R226, R228,R233,R248, R249,R250,R		2.547039	158	2412546.789347
105A70000A	Resistor	R134,R135,R136		2.547039	3	107020754.986850
105A700139	Resistor	R28,R29,R30,R338, R490,R495,R568, R701,R722,R724, R747,R776,R802, R846,R847		2.547039	15	23852782.943395
105A701009	Resistor	R650,R651,R774, R780		2.547039	4	82309758.689546

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105A701039	Resistor	R10,R103,R104,R106,R155,R174,R216,R218,R23,R243,R244,R247,R254,R259,R267,R271,R280,R281,R282,R284,R285,R286,R287,R290,R295,R296,R297,R325,R326,R34,R347,R348,R349,R350,R37,R377,R378,R380,R397,R398,R4,R401,R402,R405,R409,R412,R413,R418,R419,R4		2.547039	137	2776378.967868
105A701053	Resistor	R777,R933		2.547039	2	154078778.388085
105A701059	Resistor	R321,R631,R749		2.547039	3	107020754.986850
105A701069	Resistor	R473		2.547039	1	282340674.079668
105A702229	Resistor	R399,R569,R579,R617,R619,R7,R8,R937,R938		2.547039	9	38754445.632391
105A702269	Resistor	R256,R257,R261		2.547039	3	107020754.986850
105A703309	Resistor	R11,R21,R320,R47,R48,R734,R735		2.547039	7	48991237.965885
105A703329	Resistor	R558,R559,R560,R888,R911,R940		2.547039	6	56573956.677649

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105A704729	Resistor	R221,R227,R230, R232,R235,R236, R240,R242,R263, R312,R328,R329, R330,R496,R500, R594		2.547039	16	22425139.809646
105A705139	Resistor	R414,R415,R416, R480,R481,R482, R483,R484,R485, R486,R487,R488		2.547039	12	29507083.749401
105A706209	Resistor	R669		2.547039	1	282340674.079668
105A708229	Resistor	R390,R391,R394, R406,R478,R765, R769		2.547039	7	48991237.965885
105A710009	Resistor	R46		2.547039	1	282340674.079668
105A710039	Resistor	R100,R128,R162, R214,R238,R241, R283,R327,R345,R35, R372,R38,R39,R426, R429,R430,R431, R432,R433,R434, R435,R436,R502, R582,R590,R602, R624,R625,R630, R634,R635,R659, R671,R790,R791, R808,R885,R886, R898,R899,R904, R905		2.547039	42	8834121.532637
105A720009	Resistor	R229,R245,R694		2.547039	3	107020754.986850

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105A733009	Resistor	R110,R12,R14,R18,R25,R42,R474,R5,R6,R621		2.547039	10	35079934.879747
105A736039	Resistor	R163		2.547039	1	282340674.079668
105A747009	Resistor	R273,R311		2.547039	2	154078778.388085
105B500172	Resistor	R720		2.547039	1	282340674.079668
106B500144	Resistor	RT2,RT3,RT4		7.724580	3	27814800.254496
106B510034	Resistor	RT1		7.724580	1	66247589.526685
1121501690	Capacitor	BC1,BC2,C299,C306,C307,C308,C323,C333,C346,C350,C358,C370,C371,C400,C401,C402,C403,C442,C457,C473,C474,C475,C476,C491,C492,C501,C507,C510,C526,C543,C544,C545,C546,C603,C615,C622,C631,C635,C638,C639,C641,C644,C645,C646,C647,C648,C650,C651,C6		1.128806	59	14541999.022292

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1121501691	Capacitor	C10,C108,C115,C117,C118,C119,C120,C122,C124,C125,C126,C127,C128,C13,C131,C135,C139,C142,C145,C158,C175,C178,C189,C203,C212,C221,C222,C223,C224,C225,C226,C227,C228,C229,C230,C231,C232,C261,C264,C267,C268,C279,C281,C289,C297,C298,C304,C309,C3		1.128806	160	5429554.958534
1121533480	Capacitor	C589		1.128806	1	704977644.692287
1121610061	Capacitor	C151,C581		1.128806	2	375289731.076049
1121701790	Capacitor	C179		1.128806	1	704977644.692287
1122701680	Capacitor	C214,C215,C218		1.128806	3	257514172.353070
1124410191	Capacitor	C147,C169,C174,C176,C181,C21,C22,C23,C24,C25,C26,C534,C535,C536		1.128806	14	59316298.011235
1124418090	Capacitor	C437,C438,C642,C643		1.128806	4	196873384.410843
1124427091	Capacitor	C511,C527,C539,C540,C541		1.128806	5	159367490.199266
1124510250	Capacitor	C421		1.128806	1	704977644.692287
1124522280	Capacitor	C269,C270,C271		1.128806	3	257514172.353070
1124533190	Capacitor	C205		1.128806	1	704977644.692287

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1124533191	Capacitor	C114,C148		1.128806	2	375289731.076049
1124547290	Capacitor	C194		1.128806	1	704977644.692287
1129522790	Capacitor	C121		1.128806	1	704977644.692287
1129610051	Capacitor	C687,C712		1.128806	2	375289731.076049
1129622050	Capacitor	C330		1.128806	1	704977644.692287
1129622690	Capacitor	C202		1.128806	1	704977644.692287
1129701791	Capacitor	C106,C109,C110, C111,C112,C136, C143,C153,C156, C168,C577,C77,C78, C86		1.128806	14	59316298.011235
1129710091	Capacitor	C20,C721,C722,C723		1.128806	4	196873384.410843
1129710390	Capacitor	C274,C428,C432, C550		1.128806	4	196873384.410843
1129710391	Capacitor	C300,C573		1.128806	2	375289731.076049
1129722091	Capacitor	C456,C462		1.128806	2	375289731.076049
1129747090	Capacitor	C184,C208		1.128806	2	375289731.076049
1161627100	Capacitor	C152		1.128806	1	704977644.692287
1169656131	Capacitor	EC2		1.128806	1	704977644.692287
1169656132	Capacitor	C154,C27,C31,C91		1.128806	4	196873384.410843
1169682192	Capacitor	C217,C252,C255, C282,C283,C284		1.128806	6	133979725.056342
1181627191	Capacitor	EC1,EC6		4.744484	2	86049450.747498
1181627197	Capacitor	EC3,EC4		4.744484	2	86049450.747498
1183610191	Capacitor	EC5		4.744484	1	159663026.715137
1189615154	Capacitor	TC1,TC2,TC3,TC4, TC5,TC6,TC7		4.744484	7	26949727.707925
1189647185	Capacitor	C328,C329		4.744484	2	86049450.747498
1189933180	Capacitor	C383,C652		4.744484	2	86049450.747498
11C1501080	Capacitor	C140,C164,C171, C587		1.128806	4	196873384.410843
11C1510390	Capacitor	C167		1.128806	1	704977644.692287
11C1522480	Capacitor	C141,C185		1.128806	2	375289731.076049
11C1539840	Capacitor	C711		1.128806	1	704977644.692287
11C2510480	Capacitor	C260,C262,C263		1.128806	3	257514172.353070
11C4501380	Capacitor	C593,C594,C595		1.128806	3	257514172.353070
11C4501650	Capacitor	C165,C343,C596		1.128806	3	257514172.353070

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11C4501790	Capacitor	C288		1.128806	1	704977644.692287
11C4522290	Capacitor	C113,C172,C204, C206,C257,C258, C609,C610		1.128806	8	101746760.035398
11C4547190	Capacitor	C130,C18,C207,C210, C216,C219,C234, C239,C243,C246,C29, C30,C35,C39,C40, C41,C425,C43,C553, C554,C58,C63		1.128806	22	38230892.707156
11C4547690	Capacitor	C315,C331,C597, C598,C717		1.128806	5	159367490.199266
11C9510050	Capacitor	C247,C248		1.128806	2	375289731.076049
11C9510490	Capacitor	C157,C170,C192, C244,C266,C272, C273,C275,C276, C277,C278,C280, C285,C286,C431, C434,C435,C584, C586		1.128806	19	44097696.883526
11E1510050	Capacitor	C123,C129,C134, C166,C173,C287, C316,C33,C42,C44, C495,C500,C56,C60, C628,C694		1.128806	16	52112480.802928
11E1533780	Capacitor	C197		1.128806	1	704977644.692287

File Name: BOXER-6652.rfp
Assembly: 9697QM87PB-D
Ref Des:
Description:

Failure Rate: 11692.052877
MTBF (hrs): 85,528
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11E2501690	Capacitor	C15,C150,C159,C177,C183,C199,C201,C211,C213,C251,C332,C337,C38,C52,C570,C592,C606,C75,C85,C87		1.128806	20	41950408.034165
11E2510010	Capacitor	C16,C160,C161,C162,C17,C187,C188,C190,C191,C195,C196,C209,C240,C241,C242,C245,C249,C250,C253,C342,C345,C348,C356,C502,C503,C53,C59,C590,C591,C600,C601,C602,C69,C70,C724,C725,C73,C92		1.128806	38	22404668.588477
11E2522060	Capacitor	C611,C612		1.128806	2	375289731.076049
11E4433090	Capacitor	C548,C549,C560,C561		1.128806	4	196873384.410843

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Failure Rate: 11692.052877
MTBF (hrs): 85,528
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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11E9501091	Capacitor	C1,C11,C116,C137,C146,C180,C2,C236,C237,C238,C259,C292,C293,C294,C295,C296,C3,C301,C302,C310,C311,C312,C313,C320,C321,C325,C334,C335,C336,C340,C341,C347,C351,C352,C353,C354,C355,C357,C359,C360,C361,C362,C363,C364,C368,C369,C374,C375,C376,C3		1.128806	100	8642929.593991
11E9510050	Capacitor	C132,C133,C138,C149,C28,C37,C433,C441,C530,C551,C552,C559,C67,C718		1.128806	14	59316298.011235
11E9522680	Capacitor	C665		1.128806	1	704977644.692287
11E9522790	Capacitor	C496		1.128806	1	704977644.692287
11E9547630	Capacitor	C547		1.128806	1	704977644.692287
11E9547680	Capacitor	C198		1.128806	1	704977644.692287
11E9547790	Capacitor	C71		1.128806	1	704977644.692287

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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11E9610080	Capacitor	C107,C12,C14,C144,C155,C19,C200,C265,C317,C318,C32,C326,C327,C338,C339,C349,C372,C373,C381,C382,C398,C399,C420,C422,C54,C575,C578,C579,C616,C618,C621,C625,C630,C632,C634,C637,C659,C681,C703,C709,C8		1.128806	41	20795506.904934
11E9622050	Capacitor	C220,C235,C256,C291,C384,C385,C391,C392,C396,C397,C404,C405,C408,C409,C410,C411,C414,C415,C416,C417,C423,C424,C426,C427,C439,C461,C707		1.128806	27	31305223.485317
11E9622052	Capacitor	C572,C66		1.128806	2	375289731.076049
121110100P	Inductor	L12		4.944252	1	154760964.143460
121110156D	Inductor	L1		4.944252	1	154760964.143460
121110156D	Inductor	L2	30.2	8.320752	1	91960091.572710
121110156W	Inductor	L4		4.944252	1	154760964.143460
1211102266	Inductor	L6	32.7	8.650744	1	88452177.064861
1211102471	Inductor	L8	48.2	10.874505	1	70364323.068949
1211102471	Inductor	L7,L9		4.944252	2	83201062.149749
121110476P	Inductor	L17		4.944252	1	154760964.143460
1211122071	Inductor	L3		4.944252	1	154760964.143460

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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1211122071	Inductor	L5	37.6	9.320523	1	82095943.752052
1212306030	Inductor	FB10,FB18,F B23, FB25,FB30,F B31, FB32,FB33,F B7,FB9		4.944252	10	18485101.557872
1212308054	Inductor	FB17,FB19,F B24, FB37,FB8		4.944252	5	35631881.582999
12123A0009	Inductor	FB11,FB12,F B13, FB14,FB15,F B34		4.944252	6	30055900.223009
12123C0007	Inductor	FB35		4.944252	1	154760964.143460
12123D0001	Inductor	FB1,FB2,FB2 0,FB21, FB22,FB26,F B27, FB28,FB29,F B3,FB4, FB5,FB6		4.944252	13	14371345.712170
1214109000	Inductor	CH1,CH2,CH 23,CH24, CH27,CH28,C H3,CH4, CH5,CH6		4.944252	10	18485101.557872
1214216190	Inductor	L14		4.944252	1	154760964.143460
1214309009	Inductor	CH10,CH11,C H13, CH14,CH15,C H16, CH17,CH18,C H19, CH21,CH22,C H35, CH36,CH37,C H38,CH9		4.944252	16	11765215.454728
123132505D	Miscellaneous	Y2,Y3,Y4		19.200000	3	5742504.738137
1231332721	Miscellaneous	Y1		19.200000	1	23844262.770939
1251005055	Semiconductor	U72		7.793411	1	92807310.010983
1300414848	Semiconductor	D12,D13		7.793411	2	50578095.223398
1301003440	Semiconductor	D14	33.5	18.026366	1	40123754.131829
1301003440	Semiconductor	D18		7.793411	1	92807310.010983
1301005442	Semiconductor	D15,D16,D17		7.793411	3	35106858.962001
1301010600	Semiconductor	D19,D20		7.793411	2	50578095.223398
1301013040	Semiconductor	D23		7.793411	1	92807310.010983
1301053040	Semiconductor	D27,D28		7.793411	2	50578095.223398
1301400642	Semiconductor	D25,D9		7.793411	2	50578095.223398
1301793040	Semiconductor	D10,D11		7.793411	2	50578095.223398

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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1302005641	Semiconductor	D21		7.793411	1	92807310.010983
1304000043	Optical Device	LED4		79.003355	1	6497172.749112
1304051640	Optical Device	LED1,LED2		79.003355	2	3783722.582110
1304451400	Optical Device	LED3		79.003355	1	6497172.749112
130505ESD0	Semiconductor	U17,U21,U3, U52,U60, U63,U64,U65 ,U66, U67,U68,U69 ,U70, U71,U74,U75 ,U76		7.793411	17	6927243.833724
1305080040	Semiconductor	D22,D3,D4,D 5,D6,D7, D8		7.793411	7	16052497.121446
130533CA40	Semiconductor	D29		7.793411	1	92807310.010983
1310390410	Semiconductor	Q41		22.463360	1	31642600.748419
1310390413	Semiconductor	Q23,Q24,Q3, Q4		22.463360	4	9270607.712006
1311390612	Semiconductor	Q48,Q49		22.463360	2	17315095.066101
1315013810	Semiconductor	Q51		22.463360	1	31642600.748419
1315034430	Semiconductor	Q38		22.463360	1	31642600.748419
1315036640	Semiconductor	Q5,Q9		22.463360	2	17315095.066101
1315050311	Semiconductor	Q11,Q14		22.463360	2	17315095.066101
1315086540	Semiconductor	Q58	31.4	49.541569	1	14347529.493558
1315086540	Semiconductor	Q29,Q37,Q5 7,Q59		22.463360	4	9270607.712006
1315200312	Semiconductor	Q19,Q20,Q6		22.463360	3	12043329.789539
1315230111	Semiconductor	Q25		22.463360	1	31642600.748419
1315230211	Semiconductor	Q42		22.463360	1	31642600.748419
1315230511	Semiconductor	Q46,Q54		22.463360	2	17315095.066101
1315700216	Semiconductor	Q16,Q2,Q43, Q44,Q45, Q56		22.463360	6	6378891.324740
1315700217	Semiconductor	Q13,Q15,Q1 7,Q26, Q27,Q28,Q3 0,Q31, Q32,Q34,Q3 9,Q40, Q50		22.463360	13	3088344.241500
1315720010	Semiconductor	Q22		22.463360	1	31642600.748419
1315762010	Semiconductor	Q12		22.463360	1	31642600.748419
1315971500	Semiconductor	U45,U46,U5, U51,U86		22.463360	5	7551839.591592
1315EM6K10	Semiconductor	Q1,Q10,Q21, Q33,Q35, Q36,Q47,Q5 5,Q7,Q8		22.463360	10	3960370.776745
1315S4C550	Semiconductor	U15,U19		22.463360	2	17315095.066101
1315S4C550	Semiconductor	U18	33.6	52.075558	1	13649381.032605

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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1430021430	Integrated Circuit	U23		43.803003	1	11739202.588727
1430973740	Integrated Circuit	U25	46.7	767.357748	1	670107.691517
1430973740	Integrated Circuit	U24,U26		43.803003	2	6834791.244197
14351631A0	Integrated Circuit	U20	33.4	368.143111	1	1396772.923352
143ALC8920	Integrated Circuit	U2		43.803003	1	11739202.588727
1440032040	Integrated Circuit	U33		43.803003	1	11739202.588727
1440211AT0	Integrated Circuit	U59		43.803003	1	11739202.588727
1440218LM0	Integrated Circuit	U58		43.803003	1	11739202.588727
14454402E0	Integrated Circuit	U80		21.706765	1	23689035.791249
14482QM870	Integrated Circuit	U79		43.803003	1	11739202.588727
1462B852A0	Integrated Circuit	U42		43.803003	1	11739202.588727
1469128350	Integrated Circuit			11.063278	1	58231413.220643
14S3010700	Integrated Circuit	U78		11.063278	1	58231413.220643
14S3020901	Integrated Circuit	U73		43.803003	1	11739202.588727
14S3102000	Integrated Circuit	U16		43.803003	1	11739202.588727
14S3112300	Integrated Circuit	U9		43.803003	1	11739202.588727
14S3121600	Integrated Circuit	U13		43.803003	1	11739202.588727
14S3121800	Integrated Circuit	U14		43.803003	1	11739202.588727
14S3378000	Integrated Circuit	U12	39.2	510.704894	1	1006867.831532
14S3435600	Integrated Circuit	U55		43.803003	1	11739202.588727
14S3524700	Integrated Circuit	U1		43.803003	1	11739202.588727
14S4021301	Integrated Circuit	U10,U11,U53,U54		43.803003	4	3879156.910661
14S4186600	Integrated Circuit	U34		43.803003	1	11739202.588727
14S4751100	Integrated Circuit	U6		43.803003	1	11739202.588727
14S4814380	Integrated Circuit	U61,U62		43.803003	2	6834791.244197
14S5A00702	Integrated Circuit	U41		26.018600	1	25551442.237972
14S5A00704	Integrated Circuit	U22,U27,U77		26.018600	3	9949526.289768
14S5A00705	Integrated Circuit	U82		26.018600	1	25551442.237972
14S5A00802	Integrated Circuit	U31,U35,U36,U37		26.018600	4	7696979.559193
14S5A00821	Integrated Circuit	U38,U40,U47,U8,U81		26.018600	5	6292206.574138
14S5A30601	Integrated Circuit	U87		26.018600	1	25551442.237972
14S7035701	Integrated Circuit	U57		26.018600	1	25551442.237972
14S7140000	Integrated Circuit	U48,U49		26.018600	2	14194252.866846
14S7140100	Integrated Circuit	U83,U84		26.018600	2	14194252.866846
14S7140200	Integrated Circuit	U50		26.018600	1	25551442.237972
14S9108500	Integrated Circuit	U28,U39,U44		43.803003	3	4923240.069161
14S9341101	Integrated Circuit	U56		43.803003	1	11739202.588727
14S9346000	Integrated Circuit	U4		43.803003	1	11739202.588727
1540722281	Resistor	RP1		9.971436	1	51606907.671214
1540733085	Resistor	RP2		9.971436	1	51606907.671214
1601613200	Connection	PW1		16.184835	1	35685591.360212
1651508010	Connection	CN7		16.184835	1	35685591.360212
16515A2995	Connection	DIMM1		16.184835	1	35685591.360212
1652003101	Connection	CN37		16.184835	1	35685591.360212

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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1652522202	Connection	CN34		16.184835	1	35685591.360212
1652532207	Connection	CN32		16.184835	1	35685591.360212
1653003101	Connection	CN23,CN24		16.184835	2	20390152.380746
165300310G	Connection	JP10,JP11,JP12, JP13,JP2,JP3,JP4,JP5		16.184835	8	6160226.269180
165300320K	Connection	JP6,JP7,JP8,JP9		16.184835	4	11344857.509064
1653004201	Connection	CN20		16.184835	1	35685591.360212
165300420Q	Connection	CN27		16.184835	1	35685591.360212
165300520X	Connection	JP1		16.184835	1	35685591.360212
165320520C	Connection	CN29		16.184835	1	35685591.360212
165320520W	Connection	CN22		16.184835	1	35685591.360212
165321020D	Connection	CN30		16.184835	1	35685591.360212
1653300107	Connection	JP3(2-3),JP4(2-3),JP6(3-4),JP7(3-4)		16.184835	4	11344857.509064
1653300108	Connection	CN23(1-2),CN24(1-2)		16.184835	2	20390152.380746
165330010E	Connection	JP10(1-2),JP11(1-2),JP12(1-2),JP13(1-2),JP2(1-2),JP5(1-2),JP8(2-4),JP8(3-5),JP9(2-4),JP9(3-5)		16.184835	10	5037852.012953
165390003B	Connection	CN8		16.184835	1	35685591.360212
1653924110	Connection	CN8		16.184835	1	35685591.360212
1654030003	Connection	CN2		16.184835	1	35685591.360212
1654218200	Connection	CN14,CN25		16.184835	2	20390152.380746
1654226303	Connection	CN17,CN18		16.184835	2	20390152.380746
1654418103	Connection	CN3,CN35,CN36		16.184835	3	14515880.849373
1654445300	Connection	CN38		16.184835	1	35685591.360212
1654808201	Connection	CN5		16.184835	1	35685591.360212
1654903901	Connection	CN21		16.184835	1	35685591.360212
1654907004	Connection	CN11,CN16		16.184835	2	20390152.380746
1654919305	Connection	CN33		16.184835	1	35685591.360212
1655003022	Connection	CN15		16.184835	1	35685591.360212
1655004011	Connection	CN4		16.184835	1	35685591.360212
1655103010	Connection	CN31		16.184835	1	35685591.360212
1655302025	Connection	CN12,CN13		16.184835	2	20390152.380746
1655305025	Connection	CN6		16.184835	1	35685591.360212
1655306025	Connection	CN19		16.184835	1	35685591.360212
1655909034	Connection	CN10,CN9		16.184835	2	20390152.380746

**Reliability Prediction
Summary**

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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1655910131	Connection	CN1		16.184835	1	35685591.360212
1655912032	Connection	CN26		16.184835	1	35685591.360212
1750113016	Miscellaneous	BT1		306.000000	1	1681683.006787
1750220323	Miscellaneous	BT1		306.000000	1	1681683.006787
1752000501	Miscellaneous	FS4,FS5		2.400000	2	143944727.196625
1752001603	Miscellaneous	FS2,FS3,FS6, FS7		2.400000	4	79281882.025954
1752001900	Miscellaneous	FS8,FS9		2.400000	2	143944727.196625
1752002400	Miscellaneous	FS1		2.400000	1	254626042.602335
1752002500	Miscellaneous	FS10		2.400000	1	254626042.602335
175910000B	Miscellaneous	BZ1		2.400000	1	254626042.602335