

# OMNI-2155

## Reliability Prediction Report (MTBF)

Summary	Failure Rate: 10517.528031 ppm MTBF: 95,079 Hours
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Issue date

Approval

Test Engineer

2015/09/23

KJ Wang

Jack Huang

# Reliability Prediction (MTBF)

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**I . Model Name:** OMNI-2155

**II . Prediction Date:** Sep. 23, 2015

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

**IV . Predicted by:** Jack Huang

**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:**

OMNI-2155(9697BT0305-D):

- Failure Rate: 10517.528031 ppm
- MTBF: 95.097 Hours

Below components were can't get MTBF value by the suppliers:

- (TF)TFT LCD.15.6" 1366\*768 1ch LVDS.AUO.G156XW01V1.NEW EC.400nits

**AAEON Reliability Prediction  
Summary**

**File Name:** OMNI-2155.rfp  
**Duty Cycle:** 100  
**Calculation Model:** Telcordia Issue 2  
**Method:** Method I Case 3

**Failure Rate:** 10517.528031  
**MTBF (hrs):** 95,079  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Assembly Name	Part Number	Ref Des	Quantity	Failure Rate	MTBF
OMNI-2155	SYSTEM		1	10517.528031	95,079
ASS'Y.PBA- BT03.Rev.A1.0_0_0.Intel Bay- Trail-D J1900.2M Cache 2GHz.	9697BT0305-D		1	10517.528031	95,079

**File Name:** OMNI-2155.rfp  
**Assembly:** 9697BT0305-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 10517.528031  
**MTBF (hrs):** 95,079  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1050501234	Resistor	R525,R568,R604		2.547039	3	107020754.986850
1050501834	Resistor	R209		2.547039	1	282340674.079668
1050502004	Resistor	R513,R514,R522, R523,R569,R570, R647,R663		2.547039	8	43225424.698300
1050502734	Resistor	R253,R882		2.547039	2	154078778.388085
1050503634	Resistor	R324		2.547039	1	282340674.079668
1050503934	Resistor	R163,R596,R600, R690		2.547039	4	82309758.689546
1050504724	Resistor	R24,R3,R4,R493, R494,R60,R70		2.547039	7	48991237.965885
1050504734	Resistor	R251,R296		2.547039	2	154078778.388085
1050505124	Resistor	R129,R288		2.547039	2	154078778.388085
1050505134	Resistor	R306,R580,R612		2.547039	3	107020754.986850
1050505633	Resistor	R139,R845		2.547039	2	154078778.388085
1050507524	Resistor	R287,R393		2.547039	2	154078778.388085
1050510034	Resistor	R459,R473,R63, R69, R76		2.547039	5	67008142.102588
1050510524	Resistor	R398		2.547039	1	282340674.079668
1050512414	Resistor	R193		2.547039	1	282340674.079668
1050513724	Resistor	R311,R869		2.547039	2	154078778.388085
1050515034	Resistor	R652,R662,R685		2.547039	3	107020754.986850
1050516034	Resistor	R197		2.547039	1	282340674.079668
1050516204	Resistor	R62		2.547039	1	282340674.079668
1050516934	Resistor	R661		2.547039	1	282340674.079668
1050516964	Resistor	R654		2.547039	1	282340674.079668
1050520034	Resistor	R256,R712,R715		2.547039	3	107020754.986850
1050521024	Resistor	R88		2.547039	1	282340674.079668
1050523264	Resistor	R66		2.547039	1	282340674.079668
1050524934	Resistor	R867		2.547039	1	282340674.079668
1050527424	Resistor	R621,R744		2.547039	2	154078778.388085
1050529464	Resistor	R61		2.547039	1	282340674.079668
1050530004	Resistor	R752		2.547039	1	282340674.079668
1050530124	Resistor	R743		2.547039	1	282340674.079668
1050536514	Resistor	R879		2.547039	1	282340674.079668
1050540204	Resistor	R164,R184,R238		2.547039	3	107020754.986850
1050540214	Resistor	R188		2.547039	1	282340674.079668
1050540224	Resistor	R611		2.547039	1	282340674.079668
1050545364	Resistor	R202,R709		2.547039	2	154078778.388085

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**Assembly:** 9697BT0305-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 10517.528031  
**MTBF (hrs):** 95,079  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1050547564	Resistor	R187		2.547039	1	282340674.079668
1050561934	Resistor	R838		2.547039	1	282340674.079668
1050568124	Resistor	R252		2.547039	1	282340674.079668
1050573264	Resistor	R106,R117,R118		2.547039	3	107020754.986850
1050584524	Resistor	R73		2.547039	1	282340674.079668
1050700002	Resistor	R35,R739		2.547039	2	154078778.388085
1050708234	Resistor	R58		2.547039	1	282340674.079668
1050718034	Resistor	R844		2.547039	1	282340674.079668
1053500489	Resistor	R802		2.547039	1	282340674.079668
1054500689	Resistor	R843		2.547039	1	282340674.079668
1054700289	Resistor	R309,R510		2.547039	2	154078778.388085
1059520001	Resistor	R215		2.547039	1	282340674.079668
1059700001	Resistor	R336,R337		2.547039	2	154078778.388085
1059702261	Resistor	R403,R419		2.547039	2	154078778.388085
1059710001	Resistor	R249		2.547039	1	282340674.079668
105A500103	Resistor	R135,R247,R800		2.547039	3	107020754.986850
105A500139	Resistor	R15,R195,R196,R28,R51,R527,R538,R891		2.547039	8	43225424.698300
105A500173	Resistor	R104,R121,R141,R154,R165,R166,R167,R183,R185,R199,R230,R231,R232,R64,R708,R71,R730,R732,R733,R734,R77,R78,R79,R82,R83,R95,R96		2.547039	27	13557741.157915
105A500239	Resistor	R31		2.547039	1	282340674.079668
105A501003	Resistor	R119,R763		2.547039	2	154078778.388085
105A501039	Resistor	R128,R348,R370,R65		2.547039	4	82309758.689546
105A501053	Resistor	R466,R856		2.547039	2	154078778.388085
105A501539	Resistor	R254,R471,R515		2.547039	3	107020754.986850
105A502039	Resistor	R127,R25,R26,R461,R547,R81		2.547039	6	56573956.677649

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**Ref Des:**  
**Description:**

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

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A503039	Resistor	R198,R543,R55		2.547039	3	107020754.986850
105A505109	Resistor	R156,R157,R178, R179,R194		2.547039	5	67008142.102588
105A505629	Resistor	R597		2.547039	1	282340674.079668
105A506829	Resistor	R678		2.547039	1	282340674.079668
105A507533	Resistor	R840		2.547039	1	282340674.079668
105A510003	Resistor	R365,R380		2.547039	2	154078778.388085
105A510009	Resistor	R102,R111,R242, R762		2.547039	4	82309758.689546
105A510223	Resistor	R839		2.547039	1	282340674.079668
105A510723	Resistor	R319		2.547039	1	282340674.079668
105A510733	Resistor	R399		2.547039	1	282340674.079668
105A512039	Resistor	R458,R460		2.547039	2	154078778.388085
105A512123	Resistor	R807		2.547039	1	282340674.079668
105A512133	Resistor	R344		2.547039	1	282340674.079668
105A515009	Resistor	R174,R349,R476, R477,R479,R727, R728,R729		2.547039	8	43225424.698300
105A518723	Resistor	R169,R594		2.547039	2	154078778.388085
105A529429	Resistor	R74		2.547039	1	282340674.079668
105A531623	Resistor	R318,R329		2.547039	2	154078778.388085
105A533223	Resistor	R808		2.547039	1	282340674.079668
105A533269	Resistor	R646		2.547039	1	282340674.079668
105A535703	Resistor	R737		2.547039	1	282340674.079668
105A540233	Resistor	R75		2.547039	1	282340674.079668
105A543033	Resistor	R155		2.547039	1	282340674.079668
105A544223	Resistor	R325		2.547039	1	282340674.079668
105A544229	Resistor	R836		2.547039	1	282340674.079668
105A547003	Resistor	R229,R248		2.547039	2	154078778.388085
105A547529	Resistor	R870		2.547039	1	282340674.079668
105A549919	Resistor	R447,R448,R455		2.547039	3	107020754.986850
105A549923	Resistor	R519		2.547039	1	282340674.079668
105A549969	Resistor	R115,R130,R142, R143,R144		2.547039	5	67008142.102588
105A561909	Resistor	R289,R291,R292, R295,R758,R766, R768,R771		2.547039	8	43225424.698300
105A564933	Resistor	R153		2.547039	1	282340674.079668
105A578733	Resistor	R595		2.547039	1	282340674.079668

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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A700003	Resistor	R123,R136,R140, R181,R27,R300,R317, R322,R345,R392, R420,R424,R49,R53, R544,R572,R731, R772,R80,R801,R816, R825,R826,R834, R835,R872,R98		2.547039	27	13557741.157915
105A700009	Resistor	R10,R103,R108,R11, R112,R125,R152, R158,R16,R190,R191, R200,R201,R213, R214,R216,R217, R218,R22,R225,R226, R227,R228,R234, R235,R236,R237, R243,R263,R264, R267,R268,R269, R273,R293,R294, R323,R33,R334,R346, R347,R354,R358, R408,R42,R421,R426, R43,R430,R44		2.547039	124	3062567.251153



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105A700139	Resistor	R20,R23,R28 1,R283, R308,R316,R 402, R413,R441,R 528, R540,R549,R 584, R716,R818,R 820, R828,R837,R 842		2.547039	19	19019185.781770
105A701009	Resistor	R865,R878		2.547039	2	154078778.388085
105A701039	Resistor	R1,R100,R10 1,R105, R114,R12,R1 46,R147, R148,R160,R 161,R17, R170,R176,R 177, R182,R189,R 2,R204, R212,R220,R 233, R239,R244,R 255, R265,R285,R 320, R342,R343,R 359, R360,R367,R 371, R372,R377,R 378, R381,R382,R 386, R391,R395,R 396, R397,R40,R4 00,R401, R404,R405,R 40		2.547039	132	2879859.008415
105A701059	Resistor	R208,R314,R 548, R593,R829,R 94		2.547039	6	56573956.677649
105A701069	Resistor	R697		2.547039	1	282340674.079668
105A702039	Resistor	R13,R138,R1 4		2.547039	3	107020754.986850

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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A702229	Resistor	R109,R120,R145, R205,R207,R259, R261,R275,R276, R453,R456,R635, R692,R695,R696, R710,R711,R713, R714,R719,R724,R89		2.547039	22	16518584.576317
105A702263	Resistor	R210		2.547039	1	282340674.079668
105A703309	Resistor	R412,R414,R561, R590,R610,R618, R625,R636,R637, R670,R679,R680, R784,R785		2.547039	14	25477245.255648
105A703329	Resistor	R351,R352,R353, R355,R356,R357, R803,R805,R852, R855		2.547039	10	35079934.879747
105A703363	Resistor	R286		2.547039	1	282340674.079668
105A704729	Resistor	R134,R137,R151, R373,R389,R449, R450,R486,R516, R521,R532,R536, R537,R550,R551, R552,R555,R573, R640,R698,R699, R700,R701,R702, R703,R704,R705, R875,R881		2.547039	29	12652760.276502

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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A705139	Resistor	R332,R333,R334, R335,R338,R339, R340,R341		2.547039	8	43225424.698300
105A708229	Resistor	R677,R686,R687		2.547039	3	107020754.986850
105A710009	Resistor	R374,R383,R388, R394,R439		2.547039	5	67008142.102588
105A710039	Resistor	R186,R21,R250,R272, R277,R279,R280, R282,R284,R290, R297,R298,R299, R301,R302,R307, R315,R321,R327, R330,R427,R428, R429,R431,R432, R433,R434,R462, R489,R490,R499, R560,R571,R577, R578,R579,R581, R588,R603,R607, R626,R742,R747, R755,R757,R760, R764,R767,R		2.547039	58	6449958.733144
105A720009	Resistor	R168		2.547039	1	282340674.079668
105A730009	Resistor	R868		2.547039	1	282340674.079668
105A733009	Resistor	R410,R411,R468, R469,R470,R475, R819,R821,R858, R862		2.547039	10	35079934.879747

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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A747009	Resistor	R18,R180,R278,R32,R59,R735,R741,R761,R792		2.547039	9	38754445.632391
106B510030	Resistor	RT1,RT2,RT3,RT4		2.547039	4	82309758.689546
1121501691	Capacitor	C1,C102,C121,C129,C136,C143,C15,C16,C162,C163,C168,C169,C170,C179,C197,C20,C21,C214,C215,C216,C217,C218,C22,C228,C23,C230,C231,C232,C233,C234,C235,C24,C248,C249,C25,C250,C251,C253,C256,C257,C258,C259,C26,C260,C261,C262,C263,C264,C265,C268,C2		1.128806	241	3617663.991590
1124410191	Capacitor	C201,C202,C203,C204,C221,C222,C223,C224,C225,C226,C252,C255		1.128806	12	68856937.301178
1124418090	Capacitor	C509,C510,C557,C560		1.128806	4	196873384.410843
1124427091	Capacitor	C219,C220,C379,C380,C381,C382,C424,C425,C426		1.128806	9	90863428.080946
1124433190	Capacitor	C351		1.128806	1	704977644.692287

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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1124522680	Capacitor	C367,C368		1.128806	2	375289731.076049
1124533282	Capacitor	C315		1.128806	1	704977644.692287
1129622690	Capacitor	C104,C131,C132,C2,C42,C442,C456,C457,C480,C489,C490,C70,C75,C81		1.128806	14	59316298.011235
1129701791	Capacitor	C110,C115,C137,C145,C182,C191,C240,C241,C242,C243,C275,C305,C345,C355,C506,C516,C541,C656,C72		1.128806	19	44097696.883526
1129710091	Capacitor	C420,C421,C422,C529,C669		1.128806	5	159367490.199266
1129710391	Capacitor	C310,C327,C328,C334,C335,C472,C482,C665		1.128806	8	101746760.035398
1181633190	Capacitor	C324		4.744484	1	159663026.715137
1189610151	Capacitor	C595		4.744484	1	159663026.715137
1189610153	Capacitor	C462		4.744484	1	159663026.715137
1189615151	Capacitor	TC6,TC7		4.744484	2	86049450.747498
1189615154	Capacitor	TC3,TC4,TC5		4.744484	3	59399119.141203
1189622154	Capacitor	TC17,TC18		4.744484	2	86049450.747498
1189633151	Capacitor	TC1,TC19,TC2,TC8,TC9		4.744484	5	36944177.000623
1189933180	Capacitor	TC10,TC11,TC12,TC15,TC16		4.744484	5	36944177.000623
11C1539840	Capacitor	C363,C364		1.128806	2	375289731.076049
11C4501050	Capacitor	C326,C417		1.128806	2	375289731.076049
11C4501380	Capacitor	C390		1.128806	1	704977644.692287
11C4501650	Capacitor	C348,C393,C399,C415,C677		1.128806	5	159367490.199266
11C4515290	Capacitor	C678		1.128806	1	704977644.692287

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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11C4522290	Capacitor	C181,C237,C361, C377,C635,C68		1.128806	6	133979725.056342
11C4547190	Capacitor	C337,C341,C369, C370,C371,C372, C373,C374,C385, C408,C418,C419, C545,C546,C547, C549,C550,C551, C552,C553,C640, C641,C643,C644		1.128806	24	35120617.936543
11C4547290	Capacitor	C636		1.128806	1	704977644.692287
11C4547690	Capacitor	C386,C673		1.128806	2	375289731.076049
11E1501040	Capacitor	C637		1.128806	1	704977644.692287
11E1510050	Capacitor	C19,C254,C321,C331, C352,C356,C580, C660,C674		1.128806	9	90863428.080946
11E1522680	Capacitor	C525,C558		1.128806	2	375289731.076049
11E1533780	Capacitor	C520		1.128806	1	704977644.692287
11E2501690	Capacitor	C246,C322,C347, C378,C576,C592, C598,C651,C671		1.128806	9	90863428.080946
11E2510010	Capacitor	C100,C245,C317, C394,C564,C566, C567,C568,C599, C600,C601,C606, C679,C97,C98,C99		1.128806	16	52112480.802928
11E2522630	Capacitor	C358		1.128806	1	704977644.692287
11E2622020	Capacitor	C329,C330,C650, C652		1.128806	4	196873384.410843
11E2647650	Capacitor	C647		1.128806	1	704977644.692287

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**Ref Des:**  
**Description:**

**Failure Rate:** 10517.528031  
**MTBF (hrs):** 95,079  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11E4433090	Capacitor	C247,C398,C400, C414,C416,C459, C521,C579		1.128806	8	101746760.035398
11E4501030	Capacitor	C376		1.128806	1	704977644.692287
11E4510020	Capacitor	C396,C667,C672		1.128806	3	257514172.353070
11E9501091	Capacitor	C103,C105,C106, C107,C109,C111, C112,C114,C116, C117,C118,C119, C120,C122,C123, C124,C125,C13,C130, C14,C142,C147,C148, C150,C151,C152, C157,C158,C164, C165,C166,C17,C171, C172,C173,C174, C175,C176,C177, C178,C180,C184, C185,C186,C187, C188,C189,C190, C19		1.128806	99	8729159.738216
11E9510050	Capacitor	C101,C127,C194, C195,C236,C266, C323,C325,C395, C428,C48,C484,C488, C531,C537,C569, C596,C627		1.128806	18	46478509.590073
11E9522790	Capacitor	C167,C18,C392,C522, C83		1.128806	5	159367490.199266

**File Name:** OMNI-2155.rfp  
**Assembly:** 9697BT0305-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 10517.528031  
**MTBF (hrs):** 95,079  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11E9547630	Capacitor	C133,C135,C144, C281,C423		1.128806	5	159367490.199266
11E9547790	Capacitor	C108,C314		1.128806	2	375289731.076049
11E9610080	Capacitor	C10,C11,C12,C134, C146,C27,C273,C276, C286,C296,C307,C32, C34,C35,C359,C360, C39,C4,C41,C427, C449,C458,C460, C461,C479,C491, C493,C501,C523, C575,C577,C629, C646,C653,C654, C663,C664,C7,C85, C95,C96		1.128806	41	20795506.904934
11E9622052	Capacitor	C113,C126,C138, C139,C140,C141, C193,C199,C209, C227,C244,C269, C270,C313,C387,C43, C452,C517,C518, C565,C570,C588,C77, C78,C79		1.128806	25	33748887.792763
11E9647690	Capacitor	C530		1.128806	1	704977644.692287
11E9722090	Capacitor	C540		1.128806	1	704977644.692287
11EB610050	Capacitor	C295		1.128806	1	704977644.692287
11EB647020	Capacitor	C29,C311,C375		1.128806	3	257514172.353070
121110156R	Inductor	L6		4.944252	1	154760964.143460
121110156Z	Inductor	L9		4.944252	1	154760964.143460
121110226M	Inductor	L5	45	10.390161	1	73644399.035607
1211104270	Inductor	L1	36.8	9.209084	1	83089385.032704
1211104270	Inductor	L2		4.944252	1	154760964.143460



**File Name:** OMNI-2155.rfp  
**Assembly:** 9697BT0305-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 10517.528031  
**MTBF (hrs):** 95,079  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1211115076	Inductor	L3		4.944252	1	154760964.143460
1211122070	Inductor	L7		4.944252	1	154760964.143460
1211122071	Inductor	L4		4.944252	1	154760964.143460
121113307A	Inductor	L8		4.944252	1	154760964.143460
1212306030	Inductor	FB20,FB21,F B36, FB40,FB42,F B44,FB5, FB6,FB7		4.944252	9	20443842.451049
1212308054	Inductor	FB1,FB22,FB 26,FB27, FB3,FB4,FB9		4.944252	7	25970990.056682
12123A0009	Inductor	FB17,FB18,F B19, FB23,FB38,F B39, FB41,FB43		4.944252	8	22874049.098230
12123D0001	Inductor	FB11,FB12,F B13, FB14,FB15,F B16, FB24,FB25,F B28, FB29,FB30,F B31, FB32,FB33,F B34		4.944252	15	12521115.446963
1214109000	Inductor	CH12,CH22,C H24,CH9		4.944252	4	43912872.424775
1214309009	Inductor	CH14,CH15,C H18, CH19,CH6,C H8		4.944252	6	30055900.223009
1231324056	Miscellaneous	Y5		19.200000	1	23844262.770939
123132505D	Miscellaneous	Y1,Y2,Y3		19.200000	3	5742504.738137
1231332726	Miscellaneous	Y7		19.200000	1	23844262.770939
12330024A1	Miscellaneous	Y6		19.200000	1	23844262.770939
1300041480	Semiconductor	D24,D25		7.793411	2	50578095.223398
1301003440	Semiconductor	D27,D29		7.793411	2	50578095.223398
1301013040	Semiconductor	D31		7.793411	1	92807310.010983
1301053040	Semiconductor	D1		7.793411	1	92807310.010983
1301075140	Semiconductor	D3,D4		7.793411	2	50578095.223398
1301400640	Semiconductor	D21		7.793411	1	92807310.010983
1301400642	Semiconductor	D23		7.793411	1	92807310.010983
1301793040	Semiconductor	D20,D22,D30		7.793411	3	35106858.962001
1302052320	Semiconductor	D28		7.793411	1	92807310.010983
1304000043	Optical Device	LED4		79.003355	1	6497172.749112
1304300140	Optical Device	LED1,LED2		79.003355	2	3783722.582110
1304500240	Optical Device	LED3		79.003355	1	6497172.749112

**File Name:** OMNI-2155.rfp  
**Assembly:** 9697BT0305-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 10517.528031  
**MTBF (hrs):** 95,079  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1305080040	Semiconductor	D10,D11,D12 ,D13, D14,D15,D16 ,D17, D18,D19,D26 ,D5,D6, D7,D8,D9		7.793411	16	7341618.295818
130533CA40	Semiconductor	D32		7.793411	1	92807310.010983
1310390410	Semiconductor	Q44		22.463360	1	31642600.748419
1310390413	Semiconductor	Q40,Q41		22.463360	2	17315095.066101
1311390612	Semiconductor	Q39,Q6		22.463360	2	17315095.066101
131411171G	Semiconductor	U68		22.463360	1	31642600.748419
13150123N0	Semiconductor	Q42,Q43		22.463360	2	17315095.066101
1315015530	Semiconductor	Q64,Q65,Q6 6		22.463360	3	12043329.789539
1315035110	Semiconductor	Q57		22.463360	1	31642600.748419
1315036640	Semiconductor	Q9		22.463360	1	31642600.748419
1315086540	Semiconductor	Q70,Q71		22.463360	2	17315095.066101
1315230511	Semiconductor	Q24,Q25,Q2 6,Q32, Q58,Q59		22.463360	6	6378891.324740
1315443512	Semiconductor	Q29		22.463360	1	31642600.748419
1315700216	Semiconductor	Q19,Q30,Q3 7,Q48, Q49		22.463360	5	7551839.591592
1315720010	Semiconductor	Q27,Q38,Q6 0		22.463360	3	12043329.789539
1315762010	Semiconductor	Q50		22.463360	1	31642600.748419
1315971500	Semiconductor	U26,U29		22.463360	2	17315095.066101
1315D4C500	Semiconductor	Q62,Q67		22.463360	2	17315095.066101
1315EM6K10	Semiconductor	Q10,Q11,Q1 2,Q13, Q14,Q15,Q1 6,Q17, Q18,Q2,Q20, Q21,Q22, Q23,Q28,Q3 4,Q35, Q36,Q51,Q5 2,Q53, Q56,Q61,Q6 8,Q7,Q8		22.463360	26	1589867.643171
1430455200	Integrated Circuit	U12,U17,U25 ,U3,U6, U63,U71		43.803003	7	2408529.736257
1430532190	Integrated Circuit	U76		43.803003	1	11739202.588727
1430973740	Integrated Circuit	U10		43.803003	1	11739202.588727
143S596410	Integrated Circuit	U55		43.803003	1	11739202.588727
1440211AT0	Integrated Circuit	U30,U31		43.803003	2	6834791.244197
1440J19000	Integrated Circuit	U56	23.5	56.947243	1	9029626.419301

**File Name:** OMNI-2155.rfp  
**Assembly:** 9697BT0305-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 10517.528031  
**MTBF (hrs):** 95,079  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1490011840	Integrated Circuit	U43		43.803003	1	11739202.588727
149TB01040	Integrated Circuit	U72		43.803003	1	11739202.588727
149TS01040	Integrated Circuit	U57,U70		43.803003	2	6834791.244197
14S2200900	Integrated Circuit	U37		43.803003	1	11739202.588727
14S2432600	Integrated Circuit	U23		43.803003	1	11739202.588727
14S3010700	Integrated Circuit	U11,U50		43.803003	2	6834791.244197
14S3104500	Integrated Circuit	U13,U19,U35, U69, U73,U74		43.803003	6	2750969.191556
14S3111701	Integrated Circuit	U79		43.803003	1	11739202.588727
14S3112400	Integrated Circuit	U21		43.803003	1	11739202.588727
14S3121600	Integrated Circuit	U8		43.803003	1	11739202.588727
14S3378900	Integrated Circuit	U28		43.803003	1	11739202.588727
14S3435600	Integrated Circuit	U36		43.803003	1	11739202.588727
14S3524700	Integrated Circuit	U65		43.803003	1	11739202.588727
14S3902500	Integrated Circuit	U39	46.4	755.214852	1	680882.172776
14S3902500	Integrated Circuit	U14,U64		43.803003	2	6834791.244197
14S4186600	Integrated Circuit	U45		43.803003	1	11739202.588727
14S4251701	Integrated Circuit	U54	42.1	599.038647	1	858395.918008
14S4600004	Integrated Circuit	U75		43.803003	1	11739202.588727
14S4751100	Integrated Circuit	U53		43.803003	1	11739202.588727
14S4814380	Integrated Circuit	U34		43.803003	1	11739202.588727
14S5A00704	Integrated Circuit	U24,U47		26.018600	2	14194252.866846
14S5A00802	Integrated Circuit	U4,U48		26.018600	2	14194252.866846
14S5A00821	Integrated Circuit	U22,U49,U9		26.018600	3	9949526.289768
14S5A30601	Integrated Circuit	U15,U59,U60		26.018600	3	9949526.289768
14S5A73200	Integrated Circuit	U46,U51		26.018600	2	14194252.866846
14S6206403	Integrated Circuit	U27		43.803003	1	11739202.588727
14S9108500	Integrated Circuit	U41,U44		43.803003	2	6834791.244197
14S9346000	Integrated Circuit	U67		43.803003	1	11739202.588727
1540722281	Resistor	RP2		9.971436	1	51606907.671214
1601613200	Connection	PW1		16.184835	1	35685591.360212
16515A2990	Connection	CN8		16.184835	1	35685591.360212
1652003101	Connection	CN39		16.184835	1	35685591.360212
1652514212	Connection	CN37,CN38		16.184835	2	20390152.380746
165300210C	Connection	JP2		16.184835	1	35685591.360212
165300310G	Connection	JP1,JP3,JP4,J P5, JP6,JP8		16.184835	6	7958792.615968
165300320K	Connection	JP7,JP9		16.184835	2	20390152.380746
165300420Q	Connection	CN30		16.184835	1	35685591.360212
1653300107	Connection	JP5(1-2),JP6 (1-2), JP7(3- 4),JP9(3-4)		16.184835	4	11344857.509064
1653300108	Connection	JP1(1-2)		16.184835	1	35685591.360212
165330010E	Connection	JP3(1-2),JP4 (2-3), JP8(2- 3)		16.184835	3	14515880.849373

**File Name:** OMNI-2155.rfp  
**Assembly:** 9697BT0305-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 10517.528031  
**MTBF (hrs):** 95,079  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
165390003B	Connection	M3		16.184835	1	35685591.360212
1653924110	Connection	CN10		16.184835	1	35685591.360212
1654004010	Connection	CN11		16.184835	1	35685591.360212
1654030003	Connection	CN21		16.184835	1	35685591.360212
1654226303	Connection	CN18,CN3		16.184835	2	20390152.380746
1654401935	Connection	CN22		16.184835	1	35685591.360212
1654409103	Connection	CN40		16.184835	1	35685591.360212
1654415308	Connection	CN41		16.184835	1	35685591.360212
1654801330	Connection	CN28		16.184835	1	35685591.360212
1654808309	Connection	CN32		16.184835	1	35685591.360212
1654900232	Connection	CN43		16.184835	1	35685591.360212
1654900703	Connection	CN20		16.184835	1	35685591.360212
1654903901	Connection	CN9		16.184835	1	35685591.360212
1655302025	Connection	CN19		16.184835	1	35685591.360212
1655305025	Connection	CN17		16.184835	1	35685591.360212
1655902034	Connection	CN6		16.184835	1	35685591.360212
1655909035	Connection	CN29		16.184835	1	35685591.360212
1655912032	Connection	CN4		16.184835	1	35685591.360212
175011301C	Miscellaneous	M1		306.000000	1	1681683.006787
1752000501	Miscellaneous	FS2,FS3		2.400000	2	143944727.196625
1752001603	Miscellaneous	FS1,FS5,FS8, FS9		2.400000	4	79281882.025954
1752001900	Miscellaneous	FS6,FS7		2.400000	2	143944727.196625
175910000B	Connection	BZ1		16.184835	1	35685591.360212