

# FWS-2251

## Reliability Prediction Report (MTBF)

Summary	Failure Rate: 11688.957736 ppm MTBF: 85,551 Hours
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Issue date	QE Manager	Test Engineer
2016-08-09	KJ Wang	Louie Lee

# Reliability Prediction (MTBF)

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**I . Model Name:** FWS-2251

**II . Prediction Date:** Aug. 9th, 2016

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

**IV . Predicted by:** Louie Lee

**V . Equipment:** Windchill Quality Solutions 10.1

## **VI. Simulation Environment:**

- Temperature: 30 degrees C
- Standard: Telcordia (Bellcore) Standard

## **VII. Term and Definition:**

- Unit : An assembly of device.
- Duty Cycle : Used to specify the percentage of time that the element is in an on state, and it is equal to the percentage of total time the item is in the active environment.
- Quantity : The quantity of the selected item.
- Failure Rate : Used to specify that the failure rate is to be calculated based the selected Calculation models. The Failure rate multiplier is 1000000000.
- MTBF : MTBF is always specified in hours.

**VIII. Prediction Result:**

FWS-2251 (M/B: 9697225181-D):

- Failure Rate: 11688.957736 ppm

- MTBF: 85,551 Hours

**AAEON Reliability Prediction  
Summary**

**File Name:** FWS-2251 160809.rfp  
**Duty Cycle:** 100  
**Calculation Model:** Telcordia Issue 2  
**Method:** Method I Case 3

**Failure Rate:** 11688.957736  
**MTBF (hrs):** 85,551  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Assembly Name	Part Number	Ref Des	Quantity	Failure Rate	MTBF
FWS-2251	9697225181-D		1	11688.957736	85,551

**File Name:** FWS-2251 160809.rfp  
**Assembly:** 9697225181-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 11688.957736  
**MTBF (hrs):** 85,551  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1050500104	Resistor	R902		2.547039	1	282340674.079668
1050501004	Resistor	R146		2.547039	1	282340674.079668
1050501054	Resistor	R327,R76		2.547039	2	154078778.388085
1050501064	Resistor	R114		2.547039	1	282340674.079668
1050501234	Resistor	R307		2.547039	1	282340674.079668
1050501334	Resistor	R848		2.547039	1	282340674.079668
1050501634	Resistor	R747		2.547039	1	282340674.079668
1050502004	Resistor	R120,R763		2.547039	2	154078778.388085
1050502204	Resistor	R401,R403,R 553, R627,R853,R 858, R859,R864,R 865, R883,R884,R 885, R886		2.547039	13	27342571.921361
1050502224	Resistor	R274,R276,R 280, R491,R656		2.547039	5	67008142.102588
1050502734	Resistor	R742		2.547039	1	282340674.079668
1050503324	Resistor	R364,R380,R 381, R392,R393,R 395, R396,R413,R 417, R424,R425,R 436, R437,R439,R 440, R456,R463,R 465, R470,R480,R 481, R483,R484,R 496, R504,R513,R 514, R524,R526,R 527, R528,R657		2.547039	32	11502702.879433
1050503334	Resistor	R371,R376,R 412, R415,R459,R 503, R508,R815,R 876		2.547039	9	38754445.632391
1050503634	Resistor	R750		2.547039	1	282340674.079668
1050503934	Resistor	R757,R777		2.547039	2	154078778.388085

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1050504724	Resistor	R116,R117,R12,R13,R144,R145,R148,R201,R202,R203,R204,R234,R236,R237,R238,R239,R241,R242,R243,R245,R246,R247,R249,R250,R258,R259,R261,R262,R314,R315		2.547039	30	12244464.256771
1050505134	Resistor	R906		2.547039	1	282340674.079668
1050505633	Resistor	R782		2.547039	1	282340674.079668
1050506224	Resistor	R664,R751		2.547039	2	154078778.388085
1050510034	Resistor	R108,R632,R633,R637,R698,R7,R705,R712,R716,R732,R739,R8,R802,R807,R811,R816,R821,R826,R841,R888,R890		2.547039	21	17274945.076062
1050511034	Resistor	R785		2.547039	1	282340674.079668
1050512124	Resistor	R740		2.547039	1	282340674.079668
1050512414	Resistor	R127,R130		2.547039	2	154078778.388085
1050513724	Resistor	R892,R894		2.547039	2	154078778.388085
1050515034	Resistor	R772,R778		2.547039	2	154078778.388085
1050516014	Resistor	R717		2.547039	1	282340674.079668
1050516204	Resistor	R9		2.547039	1	282340674.079668
1050516934	Resistor	R766		2.547039	1	282340674.079668
1050516964	Resistor	R119,R870		2.547039	2	154078778.388085
1050517804	Resistor	R404,R405,R854,R855,R860,R861,R866,R867		2.547039	8	43225424.698300
1050520004	Resistor	R118		2.547039	1	282340674.079668
1050520034	Resistor	R152,R719,R730		2.547039	3	107020754.986850

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1050522124	Resistor	R792		2.547039	1	282340674.079668
1050523264	Resistor	R11		2.547039	1	282340674.079668
1050524924	Resistor	R784		2.547039	1	282340674.079668
1050529464	Resistor	R10,R786,R794		2.547039	3	107020754.986850
1050530034	Resistor	R725,R735		2.547039	2	154078778.388085
1050530124	Resistor	R703		2.547039	1	282340674.079668
1050533004	Resistor	R882		2.547039	1	282340674.079668
1050540204	Resistor	R21,R39,R59		2.547039	3	107020754.986850
1050540214	Resistor	R86		2.547039	1	282340674.079668
1050545364	Resistor	R129,R139		2.547039	2	154078778.388085
1050547004	Resistor	R549,R550,R669, R670,R671,R672, R673,R674,R675, R676,R677,R680		2.547039	12	29507083.749401
1050547564	Resistor	R85		2.547039	1	282340674.079668
1050549934	Resistor	R724,R733,R746		2.547039	3	107020754.986850
1050549964	Resistor	R126,R143,R60,R65, R68		2.547039	5	67008142.102588
1050573264	Resistor	R754,R755,R760		2.547039	3	107020754.986850
1050701504	Resistor	R688,R689		2.547039	2	154078778.388085
1050708234	Resistor	R889		2.547039	1	282340674.079668
1050756004	Resistor	R566,R881		2.547039	2	154078778.388085
105A500103	Resistor	R783,R791,R831, R847		2.547039	4	82309758.689546

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105A500139	Resistor	R128,R131,R135, R136,R277,R278, R279,R283,R304, R551,R575,R638, R650,R808,R954, R955,R956,R957, R958,R959,R960, R961,R962,R963, R964,R965,R966, R967,R968,R969		2.547039	30	12244464.256771
105A500239	Resistor	R260		2.547039	1	282340674.079668
105A501003	Resistor	R753		2.547039	1	282340674.079668
105A501039	Resistor	R275,R28,R288,R289, R295,R296,R297, R298,R299,R300, R301,R302,R303, R310,R313,R317, R318,R322,R323, R334,R340,R348, R569,R570,R571, R572,R573,R574, R576,R634,R651, R652,R769,R806, R813,R851,R852		2.547039	37	9991988.939157
105A501323	Resistor	R546		2.547039	1	282340674.079668
105A501539	Resistor	R659,R879		2.547039	2	154078778.388085
105A502039	Resistor	R109,R121,R840, R850		2.547039	4	82309758.689546



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105A503039	Resistor	R710,R744,R803, R820,R825,R832, R896		2.547039	7	48991237.965885
105A503309	Resistor	R58,R639,R72,R77		2.547039	4	82309758.689546
105A505109	Resistor	R111,R112,R113, R115		2.547039	4	82309758.689546
105A505123	Resistor	R713		2.547039	1	282340674.079668
105A505629	Resistor	R654		2.547039	1	282340674.079668
105A510009	Resistor	R155,R156,R157, R666,R842		2.547039	5	67008142.102588
105A515009	Resistor	R29,R30,R31,R559, R562,R683,R684, R685		2.547039	8	43225424.698300
105A515034	Resistor	R767		2.547039	1	282340674.079668
105A515423	Resistor	R708,R822		2.547039	2	154078778.388085
105A518723	Resistor	R752,R780		2.547039	2	154078778.388085
105A519629	Resistor	R899,R900		2.547039	2	154078778.388085
105A522133	Resistor	R793		2.547039	1	282340674.079668
105A533269	Resistor	R773		2.547039	1	282340674.079668
105A535703	Resistor	R25		2.547039	1	282340674.079668
105A538323	Resistor	R699,R817		2.547039	2	154078778.388085
105A540233	Resistor	R749		2.547039	1	282340674.079668
105A549919	Resistor	R398,R442,R486, R530		2.547039	4	82309758.689546
105A556213	Resistor	R774		2.547039	1	282340674.079668
105A564933	Resistor	R775		2.547039	1	282340674.079668
105A578733	Resistor	R758		2.547039	1	282340674.079668
105A700003	Resistor	R538,R542,R781, R801,R810,R828, R843,R849,R898, R903		2.547039	10	35079934.879747

**Reliability Prediction  
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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A700009	Resistor	R103,R107,R122, R137,R138,R140, R141,R142,R153, R154,R18,R187,R198, R199,R200,R216, R217,R24,R268,R269, R270,R271,R291, R308,R32,R33,R346, R356,R357,R359, R361,R372,R397, R399,R407,R441, R443,R444,R445,R45, R451,R485,R487, R488,R495,R529, R531,R533,R536,		2.547039	163	2339595.119819

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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A70000A	Resistor	R162,R163,R164, R165,R166,R167, R169,R170,R172, R173,R174,R175, R176,R177,R178, R179,R180,R182, R183,R184,R186, R188,R189,R190, R191,R192,R193, R194,R195,R196, R197,R205,R213, R218,R244,R362, R391,R394,R406, R435,R438,R450, R479,R482,R494, R523,R525,R629,		2.547039	54	6915869.790048
105A700139	Resistor	R125,R490,R704, R711,R943		2.547039	5	67008142.102588

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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A701039	Resistor	R100,R105,R14,R15,R150,R151,R16,R17,R19,R2,R20,R206,R207,R208,R210,R211,R219,R220,R221,R224,R226,R235,R267,R3,R367,R368,R370,R383,R384,R385,R386,R387,R389,R390,R4,R408,R411,R419,R427,R428,R429,R430,R431,R432,R434,R446,R447,R448,R453,R454, R4		2.547039	106	3573082.374688
105A701069	Resistor	R294		2.547039	1	282340674.079668
105A702039	Resistor	R94		2.547039	1	282340674.079668
105A702209	Resistor	R316,R319,R320,R321,R324,R325,R326,R330,R331,R332,R333,R335,R336,R337,R338,R339,R343,R344,R347,R349,R351,R352,R353,R354,R61,R62,R63,R64,R66, R67		2.547039	30	12244464.256771
105A702229	Resistor	R691,R692,R693, R694		2.547039	4	82309758.689546
105A702263	Resistor	R789		2.547039	1	282340674.079668

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105A702269	Resistor	R701,R709,R715, R728,R743,R814, R818,R823,R846		2.547039	9	38754445.632391
105A703309	Resistor	R311,R377,R378, R379,R382,R388, R421,R422,R423, R426,R433,R460, R461,R462,R464, R477,R509,R510, R511,R512,R521, R880		2.547039	22	16518584.576317
105A703329	Resistor	R690,R696,R697, R877		2.547039	4	82309758.689546
105A704729	Resistor	R640,R668,R679, R681,R702		2.547039	5	67008142.102588
105A705129	Resistor	R655,R658		2.547039	2	154078778.388085
105A708209	Resistor	R341,R345,R350, R400,R402,R556, R856,R857,R862, R863,R868		2.547039	11	32049696.385471
105A710039	Resistor	R700,R706,R762, R768,R797		2.547039	5	67008142.102588
105A715009	Resistor	R635,R636		2.547039	2	154078778.388085
105A743033	Resistor	R779		2.547039	1	282340674.079668
105A747009	Resistor	R309		2.547039	1	282340674.079668
106B510034	Resistor	RT1,RT2,RT3,RT4		7.724580	4	21923287.146155
106BA01033	Resistor	R292,R293		2.547039	2	154078778.388085
1113610191	Capacitor	C594		4.744484	1	159663026.715137
1121415090	Capacitor	C237,C535,C543		1.128806	3	257514172.353070

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1121501690	Capacitor	C251,C252,C253, C254,C255,C259, C260,C264,C265, C269,C301,C333, C365,C396,C397, C399,C400,C401, C417		1.128806	19	44097696.883526
1121501691	Capacitor	C22,C23,C24,C25, C423,C439,C444, C445,C459,C461, C545,C566,C574, C575,C578,C581		1.128806	16	52112480.802928
1121533480	Capacitor	C524		1.128806	1	704977644.692287
1121622780	Capacitor	C422,C425,C426, C427		1.128806	4	196873384.410843
1122722080	Capacitor	C262,C263		1.128806	2	375289731.076049
1124418090	Capacitor	C26,C29		1.128806	2	375289731.076049
1124418190	Capacitor	C413,C414,C415, C416,C418,C419, C420,C421		1.128806	8	101746760.035398
1124427090	Capacitor	C20,C21,C283,C290, C315,C322,C347, C354,C379,C386		1.128806	10	82101057.548118
1124522290	Capacitor	C534,C542,C639		1.128806	3	257514172.353070
1124533190	Capacitor	C583		1.128806	1	704977644.692287
1124533191	Capacitor	C570		1.128806	1	704977644.692287
1124533280	Capacitor	C443		1.128806	1	704977644.692287
1129522790	Capacitor	C404,C405,C553		1.128806	3	257514172.353070

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1129610080	Capacitor	C124,C129,C130, C131,C135,C136, C137,C138,C139, C151,C152,C158, C159,C160,C161, C162,C163,C168, C169,C175,C176, C177,C189,C190, C197,C201,C206, C214,C220,C229, C275,C277,C285, C303,C311,C319, C334,C341,C351, C367,C373,C381, C409,C410,C494, C496,C500,C506,		1.128806	55	15582058.408778
1129610260	Capacitor	C298,C329,C360, C387		1.128806	4	196873384.410843
1129622690	Capacitor	C42,C43,C48,C50, C51,C58		1.128806	6	133979725.056342
1129701690	Capacitor	C132,C133,C134, C141,C142,C143, C144,C145,C146, C147,C148,C149, C150,C157,C164, C165,C166,C167, C170,C171,C172, C173,C174,C258, C585		1.128806	25	33748887.792763

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1129701790	Capacitor	C256,C257		1.128806	2	375289731.076049
1129710090	Capacitor	C37,C38		1.128806	2	375289731.076049
1129710091	Capacitor	C446,C447,C448, C452,C453,C454		1.128806	6	133979725.056342
1129722091	Capacitor	C449,C450,C451, C528		1.128806	4	196873384.410843
1189610153	Capacitor	TC14,TC15,TC16,TC3, TC4,TC5,TC6,TC7, TC8		4.744484	9	21223953.983763
1189615154	Capacitor	C440,C441,C587, TC17,TC18		4.744484	5	36944177.000623
1189633151	Capacitor	C634,C635,C636, TC12,TC13		4.744484	5	36944177.000623
1189633162	Capacitor	C641		4.744484	1	159663026.715137
1189933180	Capacitor	TC1,TC2		4.744484	2	86049450.747498
11A2422190	Capacitor	C428,C429,C430, C431		1.128806	4	196873384.410843
11C1501080	Capacitor	C544		1.128806	1	704977644.692287
11C1510390	Capacitor	C101,C194,C195, C196,C211,C212, C213,C219,C224, C225,C226,C552,C88		1.128806	13	63728475.410842
11C1539840	Capacitor	C282,C314,C346, C378		1.128806	4	196873384.410843
11C2501790	Capacitor	C11,C14,C15,C4,C5, C591,C6,C643,C644, C645,C646		1.128806	11	74892583.279796
11C2610030	Capacitor	C592		1.128806	1	704977644.692287
11C4522290	Capacitor	C573,C582		1.128806	2	375289731.076049



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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11C9510490	Capacitor	C10,C111,C12,C13,C16,C17,C182,C183,C184,C185,C186,C187,C188,C191,C193,C198,C199,C200,C202,C203,C204,C205,C207,C208,C209,C210,C215,C216,C218,C222,C227,C228,C230,C232,C234,C235,C236,C238,C240,C241,C242,C243,C244,C245,C248,C267,C268,C270,C271,		1.128806	165	5266580.845584
11E1522680	Capacitor	C432,C522,C647		1.128806	3	257514172.353070
11E1622060	Capacitor	C473,C474		1.128806	2	375289731.076049
11E2501030	Capacitor	C526		1.128806	1	704977644.692287
11E2501690	Capacitor	C466,C472,C481,C487,C497,C504,C513,C516,C548,C576,C577,C593,C640		1.128806	13	63728475.410842
11E2610030	Capacitor	C546,C547,C607,C608,C611,C612,C613,C614,C615,C616,C617,C618,C619,C620		1.128806	14	59316298.011235

**File Name:** FWS-2251 160809.rfp  
**Assembly:** 9697225181-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 11688.957736  
**MTBF (hrs):** 85,551  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11E4433090	Capacitor	C465,C471,C477, C488,C491,C512, C520,C557,C560, C563		1.128806	10	82101057.548118
11E9501080	Capacitor	C541		1.128806	1	704977644.692287
11E9501090	Capacitor	C470,C476,C479, C489,C492,C518, C521,C556,C559, C562,C565		1.128806	11	74892583.279796
11E9501091	Capacitor	C100,C105,C106, C107,C108,C112, C113,C114,C115, C116,C117,C118, C119,C120,C121, C122,C125,C126, C127,C128,C153, C154,C155,C156, C178,C179,C180, C181,C217,C221,C27, C32,C33,C41,C424, C66,C67,C68,C72, C73,C74,C75,C76, C77,C78,C79,C80, C81,C83,C84,C85, C86,C		1.128806	63	13632557.733278
11E9522490	Capacitor	C519,C525,C529, C590		1.128806	4	196873384.410843
11E9547490	Capacitor	C109		1.128806	1	704977644.692287
11E9547630	Capacitor	C523		1.128806	1	704977644.692287

**File Name:** FWS-2251 160809.rfp  
**Assembly:** 9697225181-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 11688.957736  
**MTBF (hrs):** 85,551  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11E9610080	Capacitor	C438,C469,C475, C478,C490,C493, C517,C551,C554, C555,C558,C561, C564,C605,C606, C609,C621,C622, C627,C628,C629, C630,C631,C632, C633		1.128806	25	33748887.792763
11E9622050	Capacitor	C239,C485,C486, C502,C503,C511, C515		1.128806	7	115633865.771428
11E9622080	Capacitor	C102,C103,C104, C123,C46,C467,C468, C47,C54,C91		1.128806	10	82101057.548118
11E9647690	Capacitor	C56,C57		1.128806	2	375289731.076049
11EA647010	Capacitor	C274,C302,C339, C366,C588		1.128806	5	159367490.199266
121110156R	Inductor	L10		4.944252	1	154760964.143460
121110156S	Inductor	L3,L5,L7		4.944252	3	57363284.375370
1211104270	Inductor	L8,L9		4.944252	2	83201062.149749
121110476R	Inductor	L13	40	9.659744	1	79212983.650600
121114707B	Inductor	L12		4.944252	1	154760964.143460
1212306030	Inductor	FB1,FB2,FB3,FB34		4.944252	4	43912872.424775
121230603I	Inductor	FB3,FB4		4.944252	2	83201062.149749
121231206B	Inductor	FB30		4.944252	1	154760964.143460
12123C0005	Inductor	FB10,FB5,FB6,FB7, FB8,FB9		4.944252	6	30055900.223009
12123C000A	Inductor	FB31,FB32		4.944252	2	83201062.149749
1214309000	Inductor	CH17		4.944252	1	154760964.143460
123132505M	Miscellaneous	Y1,Y5,Y6,Y7, Y8		19.200000	5	3616053.141544
1231332726	Miscellaneous	Y2		19.200000	1	23844262.770939
1233348053	Miscellaneous	Y3		19.200000	1	23844262.770939
1252NS8920	Inductor	TF1,TF2,TF3,TF4		14.982581	4	13946823.334682
1300414844	Semiconductor	D3		7.793411	1	92807310.010983

**File Name:** FWS-2251 160809.rfp  
**Assembly:** 9697225181-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 11688.957736  
**MTBF (hrs):** 85,551  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1301003440	Semiconductor	D13	36	19.063372	1	37941109.352692
1301003440	Semiconductor	D14		7.793411	1	92807310.010983
1301053040	Semiconductor	D1,D10,D11, D2		7.793411	4	26989084.126235
1301400642	Semiconductor	D12,D4		7.793411	2	50578095.223398
13040MT300	Optical Device	LED13		79.003355	1	6497172.749112
1304MT2340	Optical Device	LED14,LED1 5		79.003355	2	3783722.582110
1304MT30G0	Optical Device	LED1,LED2,L ED3, LED4		79.003355	4	2148119.082046
1305099140	Semiconductor	D5,D6,D7		7.793411	3	35106858.962001
1305100541	Semiconductor	U27,U28		22.463360	2	17315095.066101
1310390411	Semiconductor	Q15		22.463360	1	31642600.748419
1310390413	Semiconductor	Q26,Q8		22.463360	2	17315095.066101
1315042140	Semiconductor	Q71		22.463360	1	31642600.748419
1315230211	Semiconductor	Q46,Q5,Q6,Q 69		22.463360	4	9270607.712006
1315230511	Semiconductor	Q17,Q18,Q7 8		22.463360	3	12043329.789539
1315443510	Semiconductor	Q59,Q61,Q6 8		22.463360	3	12043329.789539
1315490110	Semiconductor	Q63		22.463360	1	31642600.748419
1315700211	Semiconductor	Q1,Q10,Q11, Q12,Q13, Q14,Q16,Q1 9,Q2,Q20, Q21,Q22,Q2 3,Q24, Q25,Q27,Q2 8,Q29,Q3, Q30,Q32,Q3 3,Q34, Q38,Q39,Q4, Q40,Q41, Q44,Q47,Q4 8,Q49, Q50,Q51,Q5 2,Q56, Q57,Q58,Q6 0,Q62, Q79,Q80,Q8 1,Q82, Q83,Q84,Q8 5,Q86, Q87,Q88,Q8 9,Q9,Q90, Q91,Q92,Q9 3,Q94, Q95,Q96,Q9 7,Q98		22.463360	61	694881.705410
1315700216	Semiconductor	Q31		22.463360	1	31642600.748419

**File Name:** FWS-2251 160809.rfp  
**Assembly:** 9697225181-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 11688.957736  
**MTBF (hrs):** 85,551  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1315720010	Semiconductor	Q70		22.463360	1	31642600.748419
1315762010	Semiconductor	Q64		22.463360	1	31642600.748419
1420025670	Integrated Circuit	U58		43.803003	1	11739202.588727
1430012830	Integrated Circuit	U40,U46,U48 ,U52,U53, U54		43.803003	6	2750969.191556
1430012830	Integrated Circuit	U39	35.7	419.730327	1	1225101.682326
1430012830	Integrated Circuit	U41	35.4	412.653483	1	1246111.691918
1430012830	Integrated Circuit	U44	42	595.778875	1	863092.584911
1430021430	Integrated Circuit	U43,U45,U47		43.803003	3	4923240.069161
1430973740	Integrated Circuit	U50		43.803003	1	11739202.588727
143S596410	Integrated Circuit	U49		43.803003	1	11739202.588727
1440211AT0	Integrated Circuit	U13,U15,U17		43.803003	3	4923240.069161
1440211AT0	Integrated Circuit	U19	34.9	401.095987	1	1282018.135515
1440J19000	Integrated Circuit	U1	38.6	98.675740	1	5211132.208711
1462V01001	Integrated Circuit	U38		11.063278	1	58231413.220643
1482040641	Integrated Circuit	U21		26.018600	1	25551442.237972
1490086050	Integrated Circuit	U8	53.8	1110.568010	1	463017.415123
149TB01040	Integrated Circuit	U3,U37		43.803003	2	6834791.244197
149TS01040	Integrated Circuit	U2		43.803003	1	11739202.588727
14S3112300	Integrated Circuit	U55		43.803003	1	11739202.588727
14S3121600	Integrated Circuit	U51		43.803003	1	11739202.588727
14S4021301	Integrated Circuit	U24		43.803003	1	11739202.588727
14S4081102	Integrated Circuit	U25		43.803003	1	11739202.588727
14S4872800	Integrated Circuit	U10		43.803003	1	11739202.588727
14S5912300	Integrated Circuit	U26		26.018600	1	25551442.237972
14S5A00821	Integrated Circuit	U12,U56		26.018600	2	14194252.866846
14S5A12509	Integrated Circuit	U59,U60		26.018600	2	14194252.866846
14S5A30601	Integrated Circuit	U7		26.018600	1	25551442.237972
1540722281	Resistor	RP6		9.971436	1	51606907.671214
1540733085	Resistor	RP5		9.971436	1	51606907.671214
1540775082	Resistor	RP1,RP2,RP3 ,RP4		9.971436	4	17049357.262242
1601110201	Connection	SW2		16.184835	1	35685591.360212
1651520401	Connection	DIMM3		16.184835	1	35685591.360212
16515A2995	Connection	DIMM2		16.184835	1	35685591.360212
1652503209	Connection	CN21		16.184835	1	35685591.360212
165251220H	Connection	CN16		16.184835	1	35685591.360212
1652848201	Connection	CN27		16.184835	1	35685591.360212
165300210C	Connection	CN30,CN31		16.184835	2	20390152.380746
1653003101	Connection	CN2,CN3,CN 6,JP1		16.184835	4	11344857.509064
165300420L	Connection	CN20		16.184835	1	35685591.360212
1653212100	Connection	LPC1		16.184835	1	35685591.360212
1653300102	Connection	CN2(2- 3),CN3(2-3), JP1(2-3)		16.184835	3	14515880.849373

**Reliability Prediction  
Summary**

**File Name:** FWS-2251 160809.rfp  
**Assembly:** 9697225181-D  
**Ref Des:**  
**Description:**

**Failure Rate:** 11688.957736  
**MTBF (hrs):** 85,551  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1653300107	Connection	CN6(1-2)		16.184835	1	35685591.360212
1654226303	Connection	CN22,CN23,CN25		16.184835	3	14515880.849373
1654800931	Connection	CN26		16.184835	1	35685591.360212
1654900691	Connection	CN33		16.184835	1	35685591.360212
1654901691	Connection	CN34		16.184835	1	35685591.360212
165490700G	Connection	CN32		16.184835	1	35685591.360212
1655004011	Connection	CN1		16.184835	1	35685591.360212
1655306023	Connection	CN29		16.184835	1	35685591.360212
1655902030	Connection	CN24		16.184835	1	35685591.360212
1655913030	Connection	CN28		16.184835	1	35685591.360212
175011901C	Connection	CN24		16.184835	1	35685591.360212
1752310000	Miscellaneous	FS3		2.400000	1	254626042.602335