

GENE-BSW5

Reliability Prediction Report (MTBF)

Summary	Failure Rate: 10357.546214 ppm MTBF: 96,548 Hours
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Issue date

QE Manager

Test Engineer

2016/06/22

KJ Wang

Jack Huang

Reliability Prediction (MTBF)

I . Model Name: GENE-BSW5

II . Prediction Date: JUN. 22, 2016

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:

GENE-BSW5(9697BSW50D-D):

- Failure Rate:10357.546214 ppm

- MTBF: 96.548 Hours

**AAEON Reliability Prediction
Summary**

File Name: GENE-BSW5 A1.1.rfp
Duty Cycle: 100
Calculation Model: Telcordia Issue 2
Method: Method I Case 3

Failure Rate: 10357.546214
MTBF (hrs): 96,548
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Assembly Name	Part Number	Ref Des	Quantity	Failure Rate	MTBF
GENE-BSW5 A1.1	SYSTEM9697BSW 50D-D		1	10357.546214	96,548

File Name: GENE-BSW5 A1.1.rfp
Assembly: SYSTEM9697BSW50D-D
Ref Des:
Description:

Failure Rate: 10357.546214
MTBF (hrs): 96,548
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1050500104	Resistor	R238,R311		2.547039	2	154078778.388085
1050501004	Resistor	R360,R600,R690		2.547039	3	107020754.986850
1050501234	Resistor	R158		2.547039	1	282340674.079668
1050502004	Resistor	R257,R357,R385		2.547039	3	107020754.986850
1050502234	Resistor	R389		2.547039	1	282340674.079668
1050502734	Resistor	R69,R737		2.547039	2	154078778.388085
1050503324	Resistor	R220,R386,R400		2.547039	3	107020754.986850
1050503634	Resistor	R12		2.547039	1	282340674.079668
1050503934	Resistor	R206,R392		2.547039	2	154078778.388085
1050504724	Resistor	R167,R212,R213,R24,R29		2.547039	5	67008142.102588
1050504734	Resistor	R338,R518		2.547039	2	154078778.388085
1050505124	Resistor	R448,R675		2.547039	2	154078778.388085
1050505134	Resistor	R11		2.547039	1	282340674.079668
1050505633	Resistor	R426		2.547039	1	282340674.079668
1050506234	Resistor	R617,R667,R703		2.547039	3	107020754.986850
1050507530	Resistor	R208,R346,R382		2.547039	3	107020754.986850
1050510034	Resistor	R345,R359,R701		2.547039	3	107020754.986850
1050512104	Resistor	R428,R535		2.547039	2	154078778.388085
1050513724	Resistor	R13		2.547039	1	282340674.079668
1050518204	Resistor	R572,R605		2.547039	2	154078778.388085
1050520034	Resistor	R320,R464,R559,R655		2.547039	4	82309758.689546
1050524034	Resistor	R601		2.547039	1	282340674.079668
1050525524	Resistor	R722		2.547039	1	282340674.079668
1050526124	Resistor	R602		2.547039	1	282340674.079668
1050530124	Resistor	R639		2.547039	1	282340674.079668
1050531624	Resistor	R210		2.547039	1	282340674.079668
1050535734	Resistor	R682		2.547039	1	282340674.079668
1050536514	Resistor	R738		2.547039	1	282340674.079668
1050540204	Resistor	R513,R548,R552,R558,R574		2.547039	5	67008142.102588
1050545304	Resistor	R258,R344,R712		2.547039	3	107020754.986850
1050545364	Resistor	R547		2.547039	1	282340674.079668
1050549964	Resistor	R259,R337,R366,R581		2.547039	4	82309758.689546
1050561934	Resistor	R435		2.547039	1	282340674.079668
1050569824	Resistor	R471		2.547039	1	282340674.079668
1050700002	Resistor	R449		2.547039	1	282340674.079668

File Name: GENE-BSW5 A1.1.rfp
Assembly: SYSTEM9697BSW50D-D
Ref Des:
Description:

Failure Rate: 10357.546214
MTBF (hrs): 96,548
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1050718034	Resistor	R434		2.547039	1	282340674.079668
1051500172	Resistor	R598		2.547039	1	282340674.079668
1052500171	Resistor	R277,R488,R522, R549,R555,R563, R579,R590		2.547039	8	43225424.698300
1059520001	Resistor	R5		2.547039	1	282340674.079668
1059710001	Resistor	R6		2.547039	1	282340674.079668
1059710003	Resistor	R409,R413		2.547039	2	154078778.388085
105A500103	Resistor	R34		2.547039	1	282340674.079668
105A500139	Resistor	R171,R232,R264, R313,R352,R354, R374,R394,R567, R645,R681,R699		2.547039	12	29507083.749401
105A500173	Resistor	R546,R575,R615, R618,R619,R623, R643		2.547039	7	48991237.965885
105A500239	Resistor	R162		2.547039	1	282340674.079668
105A501003	Resistor	R450,R452		2.547039	2	154078778.388085
105A501039	Resistor	R235,R314,R325, R336,R340,R353, R456,R588,R727		2.547039	9	38754445.632391
105A501539	Resistor	R64		2.547039	1	282340674.079668
105A501829	Resistor	R364,R741,R742		2.547039	3	107020754.986850
105A502039	Resistor	R157,R165,R290, R429,R473,R497, R541		2.547039	7	48991237.965885
105A502263	Resistor	R627,R632,R672, R704,R714,R721		2.547039	6	56573956.677649
105A502823	Resistor	R516		2.547039	1	282340674.079668
105A503039	Resistor	R278,R342		2.547039	2	154078778.388085
105A503309	Resistor	R408,R412		2.547039	2	154078778.388085
105A504703	Resistor	R227,R379,R398		2.547039	3	107020754.986850
105A505109	Resistor	R530,R533,R542,R61, R78		2.547039	5	67008142.102588

File Name: GENE-BSW5 A1.1.rfp
Assembly: SYSTEM9697BSW50D-D
Ref Des:
Description:

Failure Rate: 10357.546214
MTBF (hrs): 96,548
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A506834	Resistor	R142		2.547039	1	282340674.079668
105A507509	Resistor	R10,R19,R43 8,R455, R462,R711,R 745, R746,R747,R 748, R749,R751		2.547039	12	29507083.749401
105A507533	Resistor	R447		2.547039	1	282340674.079668
105A509123	Resistor	R517		2.547039	1	282340674.079668
105A510009	Resistor	R254,R255,R 369, R387,R540,R 594, R608,R726,R 731		2.547039	9	38754445.632391
105A510223	Resistor	R457		2.547039	1	282340674.079668
105A511303	Resistor	R71		2.547039	1	282340674.079668
105A513323	Resistor	R634		2.547039	1	282340674.079668
105A514023	Resistor	R309		2.547039	1	282340674.079668
105A515009	Resistor	R380,R529		2.547039	2	154078778.388085
105A515034	Resistor	R209,R339,R 368		2.547039	3	107020754.986850
105A515823	Resistor	R321		2.547039	1	282340674.079668
105A518229	Resistor	R207		2.547039	1	282340674.079668
105A518723	Resistor	R707		2.547039	1	282340674.079668
105A524919	Resistor	R355,R356,R 587		2.547039	3	107020754.986850
105A524963	Resistor	R445		2.547039	1	282340674.079668
105A530109	Resistor	R260,R331,R 361		2.547039	3	107020754.986850
105A531623	Resistor	R538		2.547039	1	282340674.079668
105A536503	Resistor	R543		2.547039	1	282340674.079668
105A540269	Resistor	R604,R609		2.547039	2	154078778.388085
105A544223	Resistor	R545		2.547039	1	282340674.079668
105A547003	Resistor	R22		2.547039	1	282340674.079668
105A548723	Resistor	R333		2.547039	1	282340674.079668
105A553629	Resistor	R713		2.547039	1	282340674.079668
105A700003	Resistor	R121,R131,R 16,R177, R18,R247,R2 7,R294, R295,R317,R 326,R38, R396,R406,R 433, R468,R515,R 679, R730		2.547039	19	19019185.781770

File Name: GENE-BSW5 A1.1.rfp
Assembly: SYSTEM9697BSW50D-D
Ref Des:
Description:

Failure Rate: 10357.546214
MTBF (hrs): 96,548
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A700009	Resistor	R134,R146,R160, R169,R170,R175, R179,R181,R184, R187,R211,R214, R216,R217,R221, R226,R228,R229, R231,R236,R246, R267,R268,R269, R270,R276,R282, R298,R31,R312,R32, R324,R327,R33,R347, R35,R36,R371,R377, R378,R383,R402, R403,R405,R41,R414, R415,R418,R476, R		2.547039	94	4020429.431429
105A700139	Resistor	R1,R103,R135,R136, R15,R17,R180,R223, R284,R285,R300, R304,R305,R307, R315,R316,R350, R375,R407,R424, R446,R465,R53,R562, R564,R614,R697, R708,R709,R716, R720,R732		2.547039	32	11502702.879433
105A701009	Resistor	R692,R693,R694, R695		2.547039	4	82309758.689546

File Name: GENE-BSW5 A1.1.rfp
Assembly: SYSTEM9697BSW50D-D
Ref Des:
Description:

Failure Rate: 10357.546214
MTBF (hrs): 96,548
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A701039	Resistor	R101,R105,R106, R110,R112,R113, R114,R118,R119, R122,R126,R129, R132,R14,R163,R174, R176,R182,R188, R196,R199,R20,R200, R218,R225,R234, R239,R240,R241, R242,R244,R266, R274,R291,R293,R3, R301,R306,R328, R329,R332,R343, R348,R351,R363, R365,R410,R43,R44, R		2.547039	102	3710658.338951
105A701059	Resistor	R166,R183,R401, R404,R421,R427, R725		2.547039	7	48991237.965885
105A701069	Resistor	R584		2.547039	1	282340674.079668
105A701539	Resistor	R303,R308		2.547039	2	154078778.388085
105A702039	Resistor	R592,R599		2.547039	2	154078778.388085
105A702229	Resistor	R318,R319,R440, R441,R443,R444, R451,R458,R472, R475,R482,R56,R650, R659,R671,R676,R73, R74		2.547039	18	20032117.836120
105A702263	Resistor	R222,R297,R662		2.547039	3	107020754.986850
105A702269	Resistor	R341		2.547039	1	282340674.079668

File Name: GENE-BSW5 A1.1.rfp
Assembly: SYSTEM9697BSW50D-D
Ref Des:
Description:

Failure Rate: 10357.546214
MTBF (hrs): 96,548
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A703309	Resistor	R201,R237,R628, R638,R710,R719, R770,R771,R772, R773,R774,R775, R776		2.547039	13	27342571.921361
105A703363	Resistor	R510		2.547039	1	282340674.079668
105A704729	Resistor	R185,R186,R219, R273,R283,R362, R384,R411,R479, R554,R585,R595, R616,R661,R664, R665,R740,R76,R77, R79,R9		2.547039	21	17274945.076062
105A705139	Resistor	R248,R249,R250, R262,R263,R265, R271,R272,R279, R280,R287,R288		2.547039	12	29507083.749401
105A706829	Resistor	R419,R754		2.547039	2	154078778.388085
105A710009	Resistor	R67		2.547039	1	282340674.079668

File Name: GENE-BSW5 A1.1.rfp
Assembly: SYSTEM9697BSW50D-D
Ref Des:
Description:

Failure Rate: 10357.546214
MTBF (hrs): 96,548
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A710039	Resistor	R104,R108,R111, R115,R116,R117, R123,R124,R125, R128,R139,R143, R145,R147,R153, R156,R164,R168, R189,R192,R194, R195,R197,R198, R203,R204,R224,R23, R26,R281,R30,R381, R391,R416,R42,R420, R423,R425,R432, R439,R460,R463, R523,R524,R525, R537,R54,R556,R573,		2.547039	66	5684918.384720
105A720009	Resistor	R261,R334,R370, R534,R717		2.547039	5	67008142.102588
105A733009	Resistor	R275,R286,R322, R323,R335,R349, R367,R422,R430		2.547039	9	38754445.632391
105A747009	Resistor	R130,R151,R2,R436, R49,R576		2.547039	6	56573956.677649
106B510034	Resistor	RT1,RT2,RT3,RT4, RT5,RT6		2.547039	6	56573956.677649

File Name: GENE-BSW5 A1.1.rfp
Assembly: SYSTEM9697BSW50D-D
Ref Des:
Description:

Failure Rate: 10357.546214
MTBF (hrs): 96,548
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1121501691	Capacitor	C10,C100,C102,C103,C104,C105,C106,C108,C110,C111,C113,C114,C115,C119,C120,C124,C125,C126,C127,C131,C135,C137,C138,C139,C140,C141,C143,C145,C146,C15,C150,C151,C153,C154,C156,C158,C159,C16,C161,C162,C163,C164,C165,C167,C168,C169,C170,C174,C17		1.128806	262	3329856.881174
1124410191	Capacitor	C18,C240,C249,C264,C269,C30,C323,C341,C348,C650,C651,C652,C8		1.128806	13	63728475.410842
1124418090	Capacitor	C489,C490,C89,C99		1.128806	4	196873384.410843
1124420090	Capacitor	C252,C271		1.128806	2	375289731.076049
1124427090	Capacitor	C205,C206,C222,C223		1.128806	4	196873384.410843
1124533190	Capacitor	C530		1.128806	1	704977644.692287
1124533191	Capacitor	C136,C266,C282		1.128806	3	257514172.353070
1124533282	Capacitor	C339		1.128806	1	704977644.692287

File Name: GENE-BSW5 A1.1.rfp
Assembly: SYSTEM9697BSW50D-D
Ref Des:
Description:

Failure Rate: 10357.546214
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Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1129701791	Capacitor	C132,C149,C191,C2,C219,C3,C380,C384,C389,C394,C4,C402,C415,C5,C649,C7		1.128806	16	52112480.802928
1129710090	Capacitor	C440,C463		1.128806	2	375289731.076049
1129710091	Capacitor	C284,C342,C672,C673,C674,C675,C676,C677		1.128806	8	101746760.035398
1129710391	Capacitor	C122,C128,C204,C220,C235,C263,C268,C279,C318,C333,C355,C485,C661,C662,C68		1.128806	15	55479656.844874
1129747090	Capacitor	C130,C241,C273		1.128806	3	257514172.353070
1181610196	Capacitor	EC1		4.744484	1	159663026.715137
1189615154	Capacitor	TC10,TC11,TC2,TC7,TC9		4.744484	5	36944177.000623
1189633151	Capacitor	TC12,TC4		4.744484	2	86049450.747498
118A6221B0	Capacitor	TC1,TC13,TC14,TC3		4.744484	4	45505862.704531
118C6331B0	Capacitor	TC5,TC6,TC8		4.744484	3	59399119.141203
11A2422190	Capacitor	C628		1.128806	1	704977644.692287
11A4410194	Capacitor	C255		1.128806	1	704977644.692287
11C1501080	Capacitor	C332		1.128806	1	704977644.692287
11C2510480	Capacitor	C28,C320,C592,C63		1.128806	4	196873384.410843
11C2522480	Capacitor	C543,C600,C630		1.128806	3	257514172.353070
11C4401880	Capacitor	C129		1.128806	1	704977644.692287
11C4501380	Capacitor	C180,C591		1.128806	2	375289731.076049
11C4522191	Capacitor	C243		1.128806	1	704977644.692287
11C4522290	Capacitor	C17,C19,C44		1.128806	3	257514172.353070
11C4533240	Capacitor	C147,C242,C277		1.128806	3	257514172.353070

File Name: GENE-BSW5 A1.1.rfp
Assembly: SYSTEM9697BSW50D-D
Ref Des:
Description:

Failure Rate: 10357.546214
MTBF (hrs): 96,548
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11C4547190	Capacitor	C121,C152,C155, C157,C166,C193, C194,C228,C300, C301,C302,C303, C304,C306,C312, C319,C331,C41,C657		1.128806	19	44097696.883526
11C4547290	Capacitor	C20		1.128806	1	704977644.692287
11E1510050	Capacitor	C11,C118,C173,C186, C187,C188,C22,C23, C257,C296,C297, C299,C316,C321, C357,C366,C372, C403,C406,C428, C429,C532,C598, C622,C678,C9		1.128806	26	32480878.530766
11E1522680	Capacitor	C12,C123,C207,C521, C614		1.128806	5	159367490.199266
11E2501080	Capacitor	C558,C582,C599		1.128806	3	257514172.353070
11E2501690	Capacitor	C225,C270,C286, C307,C308,C35,C6		1.128806	7	115633865.771428
11E2510010	Capacitor	C160,C309,C310, C315,C317,C554, C601		1.128806	7	115633865.771428
11E2510060	Capacitor	C359,C360,C361		1.128806	3	257514172.353070
11E2647650	Capacitor	C40		1.128806	1	704977644.692287
11E4433090	Capacitor	C288,C290,C39,C552		1.128806	4	196873384.410843

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Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11E9501091	Capacitor	C13,C133,C181,C190,C199,C208,C212,C213,C214,C221,C238,C254,C256,C258,C276,C325,C329,C33,C330,C334,C335,C340,C356,C367,C373,C390,C391,C395,C396,C397,C400,C412,C414,C418,C419,C42,C423,C425,C427,C430,C432,C433,C434,C435,C436,C437,C438,C439,C44		1.128806	112	7727280.077926
11E9522790	Capacitor	C232,C289,C293,C298,C420		1.128806	5	159367490.199266
11E9547630	Capacitor	C171,C172,C178,C179,C314,C393		1.128806	6	133979725.056342
11E9547682	Capacitor	C445,C470,C481,C535,C537,C551		1.128806	6	133979725.056342
11E9547790	Capacitor	C347,C354		1.128806	2	375289731.076049

File Name: GENE-BSW5 A1.1.rfp
Assembly: SYSTEM9697BSW50D-D
Ref Des:
Description:

Failure Rate: 10357.546214
MTBF (hrs): 96,548
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11E9610080	Capacitor	C101,C107,C112, C116,C209,C210, C211,C226,C227, C237,C25,C26,C27, C274,C280,C292, C363,C364,C369, C378,C381,C398, C407,C408,C461, C487,C488,C500, C512,C522,C584, C588,C589,C61,C619, C663,C668,C670, C671,C73		1.128806	40	21305452.824644
11E9622080	Capacitor	C375,C376,C413, C475,C477,C486, C507,C508,C518, C523,C524,C534, C536,C549,C550, C580,C581,C74,C83		1.128806	19	44097696.883526
11EA610030	Capacitor	C604,C660		1.128806	2	375289731.076049
11EB622010	Capacitor	C1,C311,C324,C336, C34,C343,C346,C371, C388,C392,C566, C567,C70,C72,C77, C90		1.128806	16	52112480.802928
121110156J	Inductor	L1	33.3	8.731119	1	87637924.961524
121110226X	Inductor	L3,L7		4.944252	2	83201062.149749
1211102275	Inductor	L5,L8		4.944252	2	83201062.149749
1211103376	Inductor	L6		4.944252	1	154760964.143460
121110476Q	Inductor	L10,L9		4.944252	2	83201062.149749
121110686A	Inductor	L4		4.944252	1	154760964.143460

File Name: GENE-BSW5 A1.1.rfp
Assembly: SYSTEM9697BSW50D-D
Ref Des:
Description:

Failure Rate: 10357.546214
MTBF (hrs): 96,548
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1211115073	Inductor	L2		4.944252	1	154760964.143460
1211202700	Inductor	L11,L12,L13		4.944252	3	57363284.375370
1212306030	Inductor	FB15,FB18,F B19, FB20,FB26,F B27,FB3, FB6		4.944252	8	22874049.098230
1212308054	Inductor	FB7,FB9		4.944252	2	83201062.149749
12123C0031	Inductor	FB12,FB22,F B23, FB24,FB8		4.944252	5	35631881.582999
12123D0001	Inductor	FB1,FB13,FB 14,FB16, FB2,FB5		4.944252	6	30055900.223009
1214109000	Inductor	CH1,CH11,C H12,CH2		4.944252	4	43912872.424775
1214109004	Inductor	CH10,CH3,C H5,CH8		4.944252	4	43912872.424775
12310027A2	Miscellaneous	Y5		19.200000	1	23844262.770939
12310192A0	Miscellaneous	Y6		19.200000	1	23844262.770939
1231324056	Miscellaneous	Y1		19.200000	1	23844262.770939
123132505M	Miscellaneous	Y3,Y4		19.200000	2	8854051.752197
1231332726	Miscellaneous	Y7		19.200000	1	23844262.770939
12330024A1	Miscellaneous	Y2		19.200000	1	23844262.770939
1301005444	Semiconductor	D10,D9		7.793411	2	50578095.223398
1301013040	Semiconductor	D11		7.793411	1	92807310.010983
1301053040	Semiconductor	D16		7.793411	1	92807310.010983
1301400642	Semiconductor	D4		7.793411	1	92807310.010983
1301793040	Semiconductor	D17,D18,D21		7.793411	3	35106858.962001
1304000043	Optical Device	LED3		79.003355	1	6497172.749112
1304101440	Optical Device	LED2		79.003355	1	6497172.749112
1304300140	Optical Device	LED4		79.003355	1	6497172.749112
1304500240	Optical Device	LED1		79.003355	1	6497172.749112
130505ESD0	Semiconductor	U33,U41,U42 ,U43		7.793411	4	26989084.126235
1305080040	Semiconductor	D1,D12,D13, D14,D15, D2,D22,D23, D3		7.793411	9	12694047.317505
1305L12ES0	Semiconductor	U78,U79,U80 ,U81		7.793411	4	26989084.126235
1310390413	Semiconductor	Q58,Q59		22.463360	2	17315095.066101
1311390612	Semiconductor	Q13,Q9		22.463360	2	17315095.066101
1315190100	Semiconductor	U64,U67,U71		22.463360	3	12043329.789539
1315230511	Semiconductor	Q37,Q38,Q3 9,Q42, Q46,Q47,Q5 0,Q53		22.463360	8	4877097.849338
1315443512	Semiconductor	Q1,Q2,Q5		22.463360	3	12043329.789539

File Name: GENE-BSW5 A1.1.rfp
Assembly: SYSTEM9697BSW50D-D
Ref Des:
Description:

Failure Rate: 10357.546214
MTBF (hrs): 96,548
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1315700216	Semiconductor	Q11,Q26,Q40,Q61,Q62,Q63,Q8		22.463360	7	5525968.936223
1315720010	Semiconductor	Q16,Q19,Q27,Q28		22.463360	4	9270607.712006
1315762010	Semiconductor	Q20		22.463360	1	31642600.748419
1315D4C500	Semiconductor	Q10,Q29		22.463360	2	17315095.066101
1315EM6K10	Semiconductor	Q12,Q14,Q15,Q17,Q18,Q21,Q22,Q23,Q24,Q25,Q3,Q31,Q35,Q36,Q4,Q44,Q45,Q48,Q49,Q51,Q52,Q54,Q55,Q56,Q57,Q6,Q60,Q64,Q7		22.463360	29	1430830.196026
1430455200	Integrated Circuit	U1,U11,U16,U48		43.803003	4	3879156.910661
1430532190	Integrated Circuit	U49		43.803003	1	11739202.588727
1430812410	Integrated Circuit	U22,U36,U40		43.803003	3	4923240.069161
143117ADJ0	Integrated Circuit	U10,U47		43.803003	2	6834791.244197
143ALC8920	Integrated Circuit	U2		43.803003	1	11739202.588727
1440002130	Integrated Circuit	U20,U32		43.803003	2	6834791.244197
14407517A0	Integrated Circuit	U44		43.803003	1	11739202.588727
1440N31600	Integrated Circuit	U14	34.8	86.325774	1	5956648.935985
1462GBW5A0	Integrated Circuit	U31		43.803003	1	11739202.588727
149TB01040	Integrated Circuit	U26,U58,U60,U66		43.803003	4	3879156.910661
14S1035803	Integrated Circuit	U70		43.803003	1	11739202.588727
14S2200900	Integrated Circuit	U46		43.803003	1	11739202.588727
14S2432600	Integrated Circuit	U3		43.803003	1	11739202.588727
14S3010700	Integrated Circuit	U38	41.3	573.400892	1	896776.297978
14S3112400	Integrated Circuit	U9		43.803003	1	11739202.588727
14S3121600	Integrated Circuit	U68		43.803003	1	11739202.588727
14S3128422	Integrated Circuit	U55		43.803003	1	11739202.588727
14S3524700	Integrated Circuit	U50		43.803003	1	11739202.588727
14S3902500	Integrated Circuit	U27	45	700.785193	1	733765.973686
14S3902500	Integrated Circuit	U6	34.7	396.554798	1	1296699.302337
14S4186600	Integrated Circuit	U19		43.803003	1	11739202.588727
14S4251402	Integrated Circuit	U15		43.803003	1	11739202.588727
14S4751100	Integrated Circuit	U7		43.803003	1	11739202.588727
14S4811103	Integrated Circuit	U34,U35		43.803003	2	6834791.244197
14S4814380	Integrated Circuit	U13,U8		43.803003	2	6834791.244197
14S5A00704	Integrated Circuit	U17		26.018600	1	25551442.237972
14S5A00802	Integrated Circuit	U23,U24		26.018600	2	14194252.866846

File Name: GENE-BSW5 A1.1.rfp
Assembly: SYSTEM9697BSW50D-D
Ref Des:
Description:

Failure Rate: 10357.546214
MTBF (hrs): 96,548
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
14S5A00821	Integrated Circuit	U18,U53,U61		26.018600	3	9949526.289768
14S5A01402	Integrated Circuit	U28,U29		26.018600	2	14194252.866846
14S5A30601	Integrated Circuit	U30,U59		26.018600	2	14194252.866846
14S5A73200	Integrated Circuit	U21		26.018600	1	25551442.237972
14S6206403	Integrated Circuit			11.063278	1	58231413.220643
14S6366B00	Integrated Circuit	U62,U63		43.803003	2	6834791.244197
14S9346000	Integrated Circuit	U4		43.803003	1	11739202.588727
1540722281	Resistor	RP2		9.971436	1	51606907.671214
1540733085	Resistor	RP1		9.971436	1	51606907.671214
16515A2990	Connection	CN34		16.184835	1	35685591.360212
165251420B	Connection	CN26,CN27		16.184835	2	20390152.380746
1652602105	Connection	CN6		16.184835	1	35685591.360212
165300310G	Connection	JP12,JP15		16.184835	2	20390152.380746
165300320K	Connection	JP2,JP3,JP4,J P5, JP6		16.184835	5	9343344.843761
165300520X	Connection	JP1		16.184835	1	35685591.360212
165321320Q	Connection	CN12		16.184835	1	35685591.360212
1653300107	Connection	JP2(3-4),JP3 (3-5), JP3(4- 6),JP4(3-5), JP4(4-6),JP5 (3-4)		16.184835	6	7958792.615968
1653300108	Connection	JP15(1-2)		16.184835	1	35685591.360212
165330010E	Connection	JP12(2- 3),JP6(1-3), JP6(2-4)		16.184835	3	14515880.849373
1654030003	Connection	CN9		16.184835	1	35685591.360212
1654226303	Connection	CN33,CN37		16.184835	2	20390152.380746
1654400910	Connection	CN29		16.184835	1	35685591.360212
1654415308	Connection	CN32		16.184835	1	35685591.360212
1654818301	Connection	CN28		16.184835	1	35685591.360212
1654907009	Connection	CN5		16.184835	1	35685591.360212
1654926900	Connection	CN36		16.184835	1	35685591.360212
1655003016	Connection	CN25		16.184835	1	35685591.360212
1655003028	Connection	CN4		16.184835	1	35685591.360212
1655302025	Connection	CN2		16.184835	1	35685591.360212
1655305025	Connection	CN3		16.184835	1	35685591.360212
1655306025	Connection	CN24		16.184835	1	35685591.360212
1655306026	Connection	CN1		16.184835	1	35685591.360212
1655807030	Connection	CN18		16.184835	1	35685591.360212
1655902034	Connection	CN31		16.184835	1	35685591.360212
1655905038	Connection	CN19,CN20		16.184835	2	20390152.380746
1655909034	Connection	CN11,CN13,C N17		16.184835	3	14515880.849373
1655910032	Connection	CN10		16.184835	1	35685591.360212
1655912032	Connection	CN14		16.184835	1	35685591.360212
175011901M	Miscellaneous	CN31		306.000000	1	1681683.006787

**Reliability Prediction
Summary**

File Name: GENE-BSW5 A1.1.rfp
Assembly: SYSTEM9697BSW50D-D
Ref Des:
Description:

Failure Rate: 10357.546214
MTBF (hrs): 96,548
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1752000501	Miscellaneous	FS2,FS3		2.400000	2	143944727.196625
1752001603	Miscellaneous	FS6,FS8,FS9		2.400000	3	101854599.204190
1752002500	Miscellaneous	FS4		2.400000	1	254626042.602335
175910000B	Connection	BZ1		16.184835	1	35685591.360212