

# GENE-CV05

## Reliability Prediction Report (MTBF)

Summary	Failure Rate: 15.958623 ppm MTBF: 62,662 Hours
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Issue date	Approval	Test Engineer
2011/12/20	Jansin Lee	Jessica Chou

# Reliability Prediction (MTBF)

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**I . Model Name:** GENE-CV05 (9697CV0502-D)

**II . Prediction Date:** Dec. 20, 2011

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

**IV . Predicted by:** Jessica Chou

**V . Equipment:** Relex Ver.7.3 Visual Reliability Software

## VI. Simulation Environment:

- Temperature: 25.3 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 multiplier is 1,000,000.
- MTBF : MTBF is always specified in hours.

**VIII. Prediction Result:**

GENE-CV05(9697CV0502-D):

- Failure Rate: 15.958623ppm
- MTBF: 62,662 Hours

### AAEON Reliability Prediction Report

**Part Number** 9697CV0502-D  
**Reference Des**  
**Date** 12. 20, 2011  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.30



**Description** Top-level assembly  
**File Name** GENE-CV05.RPJ  
**Time** 14:13  
**Failure Rate** 15.958623  
**MTBF** 62,662

Assembly Name	Part Number	Model	Method	Environment	Duty Cycle	Qty	Failure Rate	MTBF
GENE-CV05	9697CV0502-D	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled	100.00	1.00	15.96	62662.05

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**Time** 14:13  
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Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1653924110	Connection	CFD1A	Telcordia Issue 1	Level I		1.00	0.001156	.0072	865125403.57
1214309008	Inductor	CH1,CH2,CH3,CH4, CH5,CH6	Telcordia Issue 1	Level I		6.00	0.002281	.0858	438391989.82
1214309009	Inductor	CH10,CH7,CH8,CH9	Telcordia Issue 1	Level I		4.00	0.002281	.0572	438391989.82
165320520G	Connection	CN7	Telcordia Issue 1	Level I		1.00	0.005780	.0362	173025080.71
165321320H	Connection	CN8	Telcordia Issue 1	Level I		1.00	0.015027	.0942	66548107.97
1653212100	Connection	CN17	Telcordia Issue 1	Level I		1.00	0.006935	.0435	144187567.26
1655909032	Connection	CN20	Telcordia Issue 1	Level I		1.00	0.005202	.0326	192250089.68
1654030003	Connection	CN22,CN27	Telcordia Issue 1	Level I		2.00	0.017339	.2173	57675026.90
1654903901	Connection	CN34	Telcordia Issue 1	Level I		1.00	0.001156	.0072	865125403.57
1174522180	Capacitor	CP1,CP10,CP11,CP12, CP13,CP2,CP3,CP4, CP5,CP6,CP7,CP8, CP9	Telcordia Issue 1	Level I		13.00	0.005476	.4461	182603895.42
11E9501091	Capacitor	C1,C109,C116,C118, C138,C140,C141, C188,C189,C197,C20, C211,C212,C213, C214,C215,C216, C217,C234,C246, C254,C258,C259, C265,C266,C267, C271,C272,C278, C280,C282,C29,C305, C308,C309,C311, C312,C320,C323, C326,C327,C328,	Telcordia Issue 1	Level I		63.00	0.004562	1.8010	219195994.91
11E9510050	Capacitor	C146,C147,C169, C170,C2,C23,C237, C243,C361,C362, C364,C368,C4,C407, C419,C447,C452, C454,C475,C57,C70	Telcordia Issue 1	Level I		21.00	0.004562	.6003	219195994.91
11C4401880	Capacitor	C3	Telcordia Issue 1	Level I		1.00	0.004562	.0286	219195994.91

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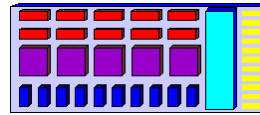


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Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1121501691	Capacitor	C101,C102,C104, C105,C106,C108,C11, C111,C112,C115, C119,C120,C121, C122,C123,C124, C125,C126,C127, C128,C129,C13,C130, C131,C132,C133, C134,C135,C136, C139,C14,C143,C144, C148,C149,C15,C150, C151,C152,C153, C154,C155,C156,	Telcordia Issue 1	Level I		213.00	0.004562	6.0891	219195994.91
11E2522060	Capacitor	C270,C6	Telcordia Issue 1	Level I		2.00	0.004562	.0572	219195994.91
11E1510050	Capacitor	C177,C226,C235,C27, C9	Telcordia Issue 1	Level I		5.00	0.004562	.1429	219195994.91
1122701680	Capacitor	C10	Telcordia Issue 1	Level I		1.00	0.004562	.0286	219195994.91
11C2510480	Capacitor	C12,C22,C244,C248, C256,C262	Telcordia Issue 1	Level I		6.00	0.004562	.1715	219195994.91
1124468090	Capacitor	C16,C39	Telcordia Issue 1	Level I		2.00	0.004562	.0572	219195994.91
1129622690	Capacitor	C103,C17,C299,C353, C43,C44,C77,C80, C81,C84	Telcordia Issue 1	Level I		10.00	0.004562	.2859	219195994.91
11C4522190	Capacitor	C166,C18,C49	Telcordia Issue 1	Level I		3.00	0.004562	.0858	219195994.91
11E1522680	Capacitor	C252,C32	Telcordia Issue 1	Level I		2.00	0.004562	.0572	219195994.91
1124427091	Capacitor	C167,C168,C190, C192,C193,C194, C387,C40,C42,C463, C464	Telcordia Issue 1	Level I		11.00	0.004562	.3145	219195994.91
11E9610080	Capacitor	C157,C219,C249, C261,C279,C281, C293,C295,C300, C333,C336,C352, C356,C366,C369, C375,C376,C397, C399,C400,C434, C443,C45,C457,C460, C481,C54,C67,C68, C76,C78,C83,C88, C90	Telcordia Issue 1	Level I		34.00	0.004562	.9720	219195994.91
1129701791	Capacitor	C110,C114,C163, C184,C185,C198, C200,C232,C238, C239,C241,C242,C52, C58,C59,C60,C61	Telcordia Issue 1	Level I		17.00	0.004562	.4860	219195994.91
1124418090	Capacitor	C92,C97	Telcordia Issue 1	Level I		2.00	0.004562	.0572	219195994.91

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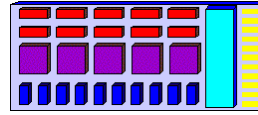


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11E9622050	Capacitor	C315,C319,C322, C325,C346,C401, C403,C416,C420, C468,C94	Telcordia Issue 1	Level I		11.00	0.004562	.3145	219195994.91
11C2501790	Capacitor	C137,C98	Telcordia Issue 1	Level I		2.00	0.004562	.0572	219195994.91
11C4547290	Capacitor	C100,C142	Telcordia Issue 1	Level I		2.00	0.004562	.0572	219195994.91
11E9647680	Capacitor	C107,C307,C318, C358,C405,C406	Telcordia Issue 1	Level I		6.00	0.004562	.1715	219195994.91
1124410191	Capacitor	C113,C225,C472, C473,C482,C483, C484	Telcordia Issue 1	Level I		7.00	0.004562	.2001	219195994.91
11C2539290	Capacitor	C117	Telcordia Issue 1	Level I		1.00	0.004562	.0286	219195994.91
1129710391	Capacitor	C159,C182,C209, C453,C474	Telcordia Issue 1	Level I		5.00	0.004562	.1429	219195994.91
1124547190	Capacitor	C171,C172,C174, C201,C202,C203, C204,C205,C206, C274,C321,C448, C458	Telcordia Issue 1	Level I		13.00	0.004562	.3716	219195994.91
11C1547890	Capacitor	C175,C183	Telcordia Issue 1	Level I		2.00	0.004562	.0572	219195994.91
1122522890	Capacitor	C191,C410,C411, C427	Telcordia Issue 1	Level I		4.00	0.004562	.1143	219195994.91
1129522790	Capacitor	C218,C221,C222	Telcordia Issue 1	Level I		3.00	0.004562	.0858	219195994.91
11C4547760	Capacitor	C231	Telcordia Issue 1	Level I		1.00	0.004562	.0286	219195994.91
1124510280	Capacitor	C247,C269	Telcordia Issue 1	Level I		2.00	0.004562	.0572	219195994.91
11C9501050	Capacitor	C257	Telcordia Issue 1	Level I		1.00	0.004562	.0286	219195994.91
1129710091	Capacitor	C276,C277,C445, C465,C466,C467	Telcordia Issue 1	Level I		6.00	0.004562	.1715	219195994.91
11E9722090	Capacitor	C424,C438,C469, C470,C471	Telcordia Issue 1	Level I		5.00	0.004562	.1429	219195994.91
16515A099S	Connection	DIMM1	Telcordia Issue 1	Level I		1.00	0.001156	.0072	865125403.57
1301005444	Semiconductor	D1,D16,D4,D5,D6	Telcordia Issue 1	Level I		5.00	0.024088	.7547	41515203.19
1304101340	Semiconductor	D2	Telcordia Issue 1	Level I		1.00	0.005012	.0314	199519584.34
1304001340	Semiconductor	D3	Telcordia Issue 1	Level I		1.00	0.005012	.0314	199519584.34
1304300140	Semiconductor	D10,D7	Telcordia Issue 1	Level I		2.00	0.005012	.0628	199519584.34
1301005442	Semiconductor	D18,D28,D8	Telcordia Issue 1	Level I		3.00	0.024088	.4528	41515203.19
1305080040	Semiconductor	D13,D17,D19,D20, D21,D22,D23,D24, D25,D26,D27,D29, D30,D31,D32,D33, D34,D37,D38,D39, D40,D42,D43,D44, D45,D47,D49,D50, D51,D52,D53,D54, D55	Telcordia Issue 1	Level I		33.00	0.024088	4.9809	41515203.19
1301053040	Semiconductor	D14	Telcordia Issue 1	Level I		1.00	0.024088	.1509	41515203.19

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**Description** Top-level assembly  
**File Name** GENE-CV05.RPJ  
**Time** 14:13  
**Failure Rate** 15.958623  
**MTBF** 62,662

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1305099140	Semiconductor	D35,D36	Telcordia Issue 1	Level I		2.00	0.080292	1.0063	12454560.96
1301005441	Semiconductor	D41	Telcordia Issue 1	Level I		1.00	0.027373	.1715	36532665.82
1301005443	Semiconductor	D48	Telcordia Issue 1	Level I		1.00	0.027373	.1715	36532665.82
1212306030	Resistor	FB1,FB10,FB12,FB13,FB14,FB15,FB16,FB17,FB18,FB19,FB2,FB20,FB21,FB22,FB23,FB29,FB3,FB30,FB4,FB6,FB9	Telcordia Issue 1	Level I		21.00	0.011559	1.5211	86512540.36
1212306031	Inductor	FB5	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
1212306035	Inductor	FB11,FB25,FB26,FB27,FB28,FB31,FB32,FB33,FB34,FB35,FB37,FB38,FB39,FB7,FB8	Telcordia Issue 1	Level I		15.00	0.002281	.2144	438391989.82
1212308054	Resistor	FB24,FB36	Telcordia Issue 1	Level I		2.00	0.011559	.1449	86512540.36
1752001601	Miscellaneous	FS1,FS3	Telcordia Issue 1	Level I		2.00	0.003000	.0376	333333333.33
1752000501	Miscellaneous	FS2	Telcordia Issue 1	Level I		1.00	0.003000	.0188	333333333.33
121110156K	Inductor	L1,L3,L4,L5	Telcordia Issue 1	Level I		4.00	0.086680	2.1726	11536631.31
121110336Y	Inductor	L2	Telcordia Issue 1	Level I		1.00	0.086680	.5432	11536631.31
121110226K	Inductor	L6	Telcordia Issue 1	Level I		1.00	0.086680	.5432	11536631.31
121110106M	Inductor	L7	Telcordia Issue 1	Level I	15.10	1.00	0.114812	.7194	8709906.14
1211100113	Inductor	L10,L12,L8	Telcordia Issue 1	Level I		3.00	0.002281	.0429	438391989.82
1211100160	Inductor	L14	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
121110476Q	Inductor	L15,L16	Telcordia Issue 1	Level I		2.00	0.086680	1.0863	11536631.31
1654226303	Connection	PCIE1A	Telcordia Issue 1	Level I		1.00	0.001156	.0072	865125403.57
1654926900	Connection	PCIE1B	Telcordia Issue 1	Level I		1.00	0.030053	.1883	33274053.98
1315700216	Semiconductor	Q1,Q10,Q11,Q14,Q15,Q22,Q23,Q25,Q30,Q31,Q32,Q33,Q35,Q37,Q39,Q4,Q40,Q41,Q42,Q44,Q45,Q48,Q5,Q6,Q8	Telcordia Issue 1	Level I		25.00	0.080292	12.5781	12454560.96
1311071710	Semiconductor	Q2	Telcordia Issue 1	Level I		1.00	0.024088	.1509	41515203.19
1315030110	Semiconductor	Q3,Q7	Telcordia Issue 1	Level I		2.00	0.000000	.0000	.00
1315762010	Semiconductor	Q12,Q9	Telcordia Issue 1	Level I		2.00	0.000000	.0000	.00
1315230410	Semiconductor	Q13	Telcordia Issue 1	Level I		1.00	0.160584	1.0063	6227280.48
1311390612	Semiconductor	Q16,Q21,Q43	Telcordia Issue 1	Level I		3.00	0.024088	.4528	41515203.19
1310390413	Semiconductor	Q17,Q18,Q19,Q20,Q34,Q36,Q38,Q46	Telcordia Issue 1	Level I		8.00	0.024088	1.2075	41515203.19
1315013810	Semiconductor	Q24,Q26	Telcordia Issue 1	Level I		2.00	0.080292	1.0063	12454560.96
1315700212	Semiconductor	Q27,Q28,Q29	Telcordia Issue 1	Level I		3.00	0.080292	1.5094	12454560.96







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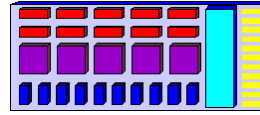


**Description** Top-level assembly  
**File Name** GENE-CV05.RPJ  
**Time** 14:13  
**Failure Rate** 15.958623  
**MTBF** 62,662

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A700139	Resistor	R100,R149,R15,R169, R183,R184,R187, R229,R260,R264, R272,R277,R29,R307, R308,R310,R311, R317,R326,R330, R334,R347,R35,R353, R359,R361,R407, R410,R417,R42,R420, R45,R46,R47,R48, R480,R491,R521,R54, R561,R615,R622,R74, R78,R79,R82,R86	Telcordia Issue 1	Level I		49.00	0.002281	.7004	438391989.82
105A702229	Resistor	R134,R143,R144, R145,R157,R164, R165,R17,R246,R287, R319,R324,R380, R381,R484,R485, R486,R487,R488, R489,R490,R508, R565,R81,R91,R92	Telcordia Issue 1	Level I		26.00	0.002281	.3716	438391989.82
1050510034	Resistor	R116,R138,R18,R286, R309,R354,R368, R395,R441,R452, R457,R471,R476, R610,R623,R628,R71, R84,R88	Telcordia Issue 1	Level I		19.00	0.002281	.2716	438391989.82
105A701059	Resistor	R127,R217,R24,R242, R297,R302,R31,R392, R404,R596,R621, R627,R638	Telcordia Issue 1	Level I		13.00	0.002281	.1858	438391989.82
105A705139	Resistor	R121,R28,R401,R402, R403,R464,R465, R466,R479,R482,R49, R504,R505,R511, R512,R517,R518, R519,R522,R569	Telcordia Issue 1	Level I		20.00	0.002281	.2859	438391989.82
1050702734	Resistor	R30	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
105A560423	Resistor	R32	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
105A502039	Resistor	R34,R362,R393	Telcordia Issue 1	Level I		3.00	0.002281	.0429	438391989.82
1050504764	Resistor	R108,R36	Telcordia Issue 1	Level I		2.00	0.002281	.0286	438391989.82
1050547004	Resistor	R331,R333,R37,R540, R543	Telcordia Issue 1	Level I		5.00	0.002281	.0715	438391989.82
105A561933	Resistor	R39	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82

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Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A739039	Resistor	R40	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
105A708229	Resistor	R106,R117,R177, R179,R327,R429, R430,R431,R432, R433,R434,R435, R440,R458,R467,R52, R55,R56,R57,R58, R59,R60,R61,R62, R63,R64,R65,R66, R67,R68	Telcordia Issue 1	Level I		30.00	0.002281	.4288	438391989.82
105A512039	Resistor	R69	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
105A704739	Resistor	R72	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
105A500239	Resistor	R73,R98	Telcordia Issue 1	Level I		2.00	0.002281	.0286	438391989.82
1050513034	Resistor	R124,R444,R77	Telcordia Issue 1	Level I		3.00	0.002281	.0429	438391989.82
105A500139	Resistor	R173,R182,R234, R237,R398,R422,R87, R95	Telcordia Issue 1	Level I		8.00	0.002281	.1143	438391989.82
1050524904	Resistor	R201,R89	Telcordia Issue 1	Level I		2.00	0.002281	.0286	438391989.82
105A522669	Resistor	R101,R205	Telcordia Issue 1	Level I		2.00	0.002281	.0286	438391989.82
105A703329	Resistor	R549	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
1050561934	Resistor	R107	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
1050590964	Resistor	R111,R118,R172, R174	Telcordia Issue 1	Level I		4.00	0.002281	.0572	438391989.82
105A704763	Resistor	R115,R439	Telcordia Issue 1	Level I		2.00	0.002281	.0286	438391989.82
105A551119	Resistor	R122	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
105A501529	Resistor	R125	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
105A505629	Resistor	R135,R21,R416,R438, R463	Telcordia Issue 1	Level I		5.00	0.002281	.0715	438391989.82
105A505109	Resistor	R142,R163,R167, R171,R181,R186	Telcordia Issue 1	Level I		6.00	0.002281	.0858	438391989.82
105A561924	Resistor	R156	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
1050502204	Resistor	R158,R161	Telcordia Issue 1	Level I		2.00	0.002281	.0286	438391989.82
105A560469	Resistor	R162,R190	Telcordia Issue 1	Level I		2.00	0.002281	.0286	438391989.82
105A533269	Resistor	R193	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
105A527403	Resistor	R199	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
105A507509	Resistor	R206,R386,R387, R388	Telcordia Issue 1	Level I		4.00	0.002281	.0572	438391989.82
1050507524	Resistor	R214,R276	Telcordia Issue 1	Level I		2.00	0.002281	.0286	438391989.82
105A568103	Resistor	R216	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
105A515009	Resistor	R220,R223,R226, R410,R635,R636, R637	Telcordia Issue 1	Level I		7.00	0.002281	.1001	438391989.82
1050501004	Resistor	R221,R415,R436, R548	Telcordia Issue 1	Level I		4.00	0.002281	.0572	438391989.82
105A523713	Resistor	R230	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82

### AAEON Reliability Prediction Report

**Part Number** 9697CV0502-D  
**Reference Des**  
**Date** 12. 20, 2011  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.30



**Description** Top-level assembly  
**File Name** GENE-CV05.RPJ  
**Time** 14:13  
**Failure Rate** 15.958623  
**MTBF** 62,662

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A703363	Resistor	R236	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
105A528723	Resistor	R238	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
1059700001	Resistor	R241,R318,R325	Telcordia Issue 1	Level I		3.00	0.002281	.0429	438391989.82
1050507530	Resistor	R244,R267	Telcordia Issue 1	Level I		2.00	0.002281	.0286	438391989.82
105A706829	Resistor	R245,R248,R252, R281,R285,R531, R601,R606,R612	Telcordia Issue 1	Level I		9.00	0.002281	.1286	438391989.82
1050512104	Resistor	R254	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
1050505124	Resistor	R259,R360,R446	Telcordia Issue 1	Level I		3.00	0.002281	.0429	438391989.82
105A573223	Resistor	R273	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
105A501233	Resistor	R278,R575	Telcordia Issue 1	Level I		2.00	0.002281	.0286	438391989.82
105A501539	Resistor	R294,R296,R585	Telcordia Issue 1	Level I		3.00	0.002281	.0429	438391989.82
1050514034	Resistor	R328,R613,R614, R624	Telcordia Issue 1	Level I		4.00	0.002281	.0572	438391989.82
105A524919	Resistor	R345,R346	Telcordia Issue 1	Level I		2.00	0.002281	.0286	438391989.82
105A722009	Resistor	R350,R351,R366, R367	Telcordia Issue 1	Level I		4.00	0.002281	.0572	438391989.82
105A540213	Resistor	R355	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
105A505163	Resistor	R356	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
105A702263	Resistor	R373,R449,R483	Telcordia Issue 1	Level I		3.00	0.002281	.0429	438391989.82
105A703909	Resistor	R382,R383	Telcordia Issue 1	Level I		2.00	0.002281	.0286	438391989.82
105A561909	Resistor	R405	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
105A571523	Resistor	R406	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
1059710003	Resistor	R418,R419	Telcordia Issue 1	Level I		2.00	0.002281	.0286	438391989.82
105A501413	Resistor	R423	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
1050505633	Resistor	R424	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
1050501834	Resistor	R443	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
1050522114	Resistor	R453	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
1050703334	Resistor	R460	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
105A747039	Resistor	R492	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
105A701069	Resistor	R499	Telcordia Issue 1	Level I		1.00	0.013686	.0858	73065331.64
105A549969	Resistor	R196,R207,R509, R510	Telcordia Issue 1	Level I		4.00	0.002281	.0572	438391989.82
105A503039	Resistor	R527	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
1050700002	Resistor	R592	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
1189633193	Capacitor	TC1,TC11,TC3,TC6, TC8	Telcordia Issue 1	Level I		5.00	0.004562	.1429	219195994.91
1189633160	Capacitor	TC17,TC2,TC4,TC5	Telcordia Issue 1	Level I		4.00	0.004562	.1143	219195994.91
1189615151	Capacitor	TC12,TC15,TC18, TC19,TC7	Telcordia Issue 1	Level I		5.00	0.004562	.1429	219195994.91
1189627150	Capacitor	TC10,TC14,TC16,TC9	Telcordia Issue 1	Level I		4.00	0.004562	.1143	219195994.91
1182622080	Capacitor	TC13	Telcordia Issue 1	Level I		1.00	0.004562	.0286	219195994.91

### AAEON Reliability Prediction Report

**Part Number** 9697CV0502-D  
**Reference Des**  
**Date** 12. 20, 2011  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.30



**Description** Top-level assembly  
**File Name** GENE-CV05.RPJ  
**Time** 14:13  
**Failure Rate** 15.958623  
**MTBF** 62,662

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
14S5A00821	Integrated Circuit	U1,U25,U34,U46,U50, U6	Telcordia Issue 1	Level I		6.00	0.026648	1.0019	37526359.19
14S4021301	Integrated Circuit	U11,U14,U18,U2,U23, U71	Telcordia Issue 1	Level I		6.00	0.060682	2.2815	16479361.92
1315667910	Semiconductor	U3	Telcordia Issue 1	Level I		1.00	0.160584	1.0063	6227280.48
1315970211	Semiconductor	U15,U5,U64	Telcordia Issue 1	Level I		3.00	0.160584	3.0188	6227280.48
14S4001000	Integrated Circuit	U7	Telcordia Issue 1	Level I		1.00	0.026648	.1670	37526359.19
1315482110	Semiconductor	U36,U8,U9	Telcordia Issue 1	Level I		3.00	0.080292	1.5094	12454560.96
14S2321900	Semiconductor	U10	Telcordia Issue 1	Level I		1.00	0.000000	.0000	.00
14S5A73200	Integrated Circuit	U12	Telcordia Issue 1	Level I		1.00	0.026648	.1670	37526359.19
14S3050100	Integrated Circuit	U13	Telcordia Issue 1	Level I	12.60	1.00	0.146683	.9191	6817422.03
14S4213000	Integrated Circuit	U17	Telcordia Issue 1	Level I	10.40	1.00	0.048053	.3011	20810457.54
1315446310	Semiconductor	U19,U43,U47,U48	Telcordia Issue 1	Level I		4.00	0.080292	2.0125	12454560.96
14S2362400	Integrated Circuit	U20	Telcordia Issue 1	Level I		1.00	0.060682	.3802	16479361.92
14S4878300	Integrated Circuit	U21	Telcordia Issue 1	Level I		1.00	0.026648	.1670	37526359.19
14S3112400	Integrated Circuit	U22	Telcordia Issue 1	Level I		1.00	0.060682	.3802	16479361.92
14S5A00601	Integrated Circuit	U24	Telcordia Issue 1	Level I		1.00	0.026648	.1670	37526359.19
14S5A12506	Integrated Circuit	U26	Telcordia Issue 1	Level I		1.00	0.026648	.1670	37526359.19
14S5A12503	Integrated Circuit	U27	Telcordia Issue 1	Level I		1.00	0.060682	.3802	16479361.92
1315422410	Semiconductor	U28,U55,U60	Telcordia Issue 1	Level I		3.00	0.080292	1.5094	12454560.96
14S9751100	Integrated Circuit	U29	Telcordia Issue 1	Level I		1.00	0.026648	.1670	37526359.19
14S4600004	Integrated Circuit	U30	Telcordia Issue 1	Level I		1.00	0.026648	.1670	37526359.19
14S9341101	Integrated Circuit	U31	Telcordia Issue 1	Level I		1.00	0.026648	.1670	37526359.19
14S4811102	Integrated Circuit	U32,U33	Telcordia Issue 1	Level I		2.00	0.026648	.3340	37526359.19
14S3524700	Integrated Circuit	U35	Telcordia Issue 1	Level I		1.00	0.060682	.3802	16479361.92
14S3524701	Integrated Circuit	U37	Telcordia Issue 1	Level I		1.00	0.060682	.3802	16479361.92
14S1230400	Integrated Circuit	U38	Telcordia Issue 1	Level I		1.00	0.060682	.3802	16479361.92
1315482410	Semiconductor	U39	Telcordia Issue 1	Level I		1.00	0.080292	.5031	12454560.96
14S3111600	Integrated Circuit	U40	Telcordia Issue 1	Level I		1.00	0.032709	.2050	30572432.40
14S2200900	Integrated Circuit	U41	Telcordia Issue 1	Level I		1.00	0.060682	.3802	16479361.92
14S3066200	Integrated Circuit	U42	Telcordia Issue 1	Level I	12.70	1.00	0.147672	.9253	6771770.53
14S4751100	Integrated Circuit	U44	Telcordia Issue 1	Level I		1.00	0.026648	.1670	37526359.19
14S3128421	Integrated Circuit	U45	Telcordia Issue 1	Level I		1.00	0.060682	.3802	16479361.92
14S4081110	Integrated Circuit	U49	Telcordia Issue 1	Level I		1.00	0.060682	.3802	16479361.92
14S4195710	Integrated Circuit	U51	Telcordia Issue 1	Level I		1.00	0.060682	.3802	16479361.92
14S5912300	Integrated Circuit	U52	Telcordia Issue 1	Level I		1.00	0.026648	.1670	37526359.19
14S9811500	Integrated Circuit	U53	Telcordia Issue 1	Level I		1.00	0.060682	.3802	16479361.92
14S4963501	Integrated Circuit	U56	Telcordia Issue 1	Level I		1.00	0.060682	.3802	16479361.92

### AAEON Reliability Prediction Report

**Part Number** 9697CV0502-D  
**Reference Des**  
**Date** 12. 20, 2011  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.30

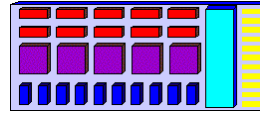


**Description** Top-level assembly  
**File Name** GENE-CV05.RPJ  
**Time** 14:13  
**Failure Rate** 15.958623  
**MTBF** 62,662

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
14S2591200	Integrated Circuit	U57	Telcordia Issue 1	Level I	15.80	1.00	0.181482	1.1372	5510184.25
14S4048503	Integrated Circuit	U58,U63	Telcordia Issue 1	Level I		2.00	0.060682	.7605	16479361.92
14S5A00704	Integrated Circuit	U59	Telcordia Issue 1	Level I		1.00	0.026648	.1670	37526359.19
1315155510	Semiconductor	U61,U62,U65	Telcordia Issue 1	Level I		3.00	0.160584	3.0188	6227280.48
14S5A01402	Integrated Circuit	U67,U70	Telcordia Issue 1	Level I		2.00	0.026648	.3340	37526359.19
14S6336600	Integrated Circuit	U68,U69	Telcordia Issue 1	Level I		2.00	0.031342	.3928	31905704.39
123131435J	Miscellaneous	Y1	Telcordia Issue 1	Level I		1.00	0.150000	.9399	6666666.67
1231332721	Miscellaneous	Y2	Telcordia Issue 1	Level I		1.00	0.150000	.9399	6666666.67
1231327053	Miscellaneous	Y3,Y6	Telcordia Issue 1	Level I		2.00	0.150000	1.8799	6666666.67
123132505D	Miscellaneous	Y4,Y5	Telcordia Issue 1	Level I		2.00	0.150000	1.8799	6666666.67
1050515034	Resistor	R113	Telcordia Issue 1	Level I		1.00	0.002281	.0143	438391989.82
14S6399040	Integrated Circuit	U66	Telcordia Issue 1	Level I		1.00	0.060682	.3802	16479361.92
105A554969	Resistor	R204,R412	Telcordia Issue 1	Level I		2.00	0.002281	.0286	438391989.82
14S3816700	Integrated Circuit	U4	Telcordia Issue 1	Level I		1.00	0.026648	.1670	37526359.19
1655902030	Connection	BAT1A,CN21,CN25	Telcordia Issue 1	Level I		3.00	0.001156	.0217	865125403.57
175011901M	Miscellaneous	BAT1B	Telcordia Issue 1	Level I		1.00	0.900000	5.6396	1111111.11
165390003B	Connection	CFD1B	Telcordia Issue 1	Level I		1.00	0.001156	.0072	865125403.57
1653005201	Connection	CN1	Telcordia Issue 1	Level I		1.00	0.005780	.0362	173025080.71
1655003022	Connection	CN2	Telcordia Issue 1	Level I		1.00	0.001734	.0109	576750269.05
1655003010	Connection	CN3	Telcordia Issue 1	Level I		1.00	0.001734	.0109	576750269.05
1655306020	Connection	CN4	Telcordia Issue 1	Level I		1.00	0.003468	.0217	288375134.52
1654907004	Connection	CN5	Telcordia Issue 1	Level I		1.00	0.004046	.0254	247178686.73
1652602105	Connection	CN6	Telcordia Issue 1	Level I		1.00	0.001156	.0072	865125403.57
1655302020	Connection	CN9	Telcordia Issue 1	Level I		1.00	0.001156	.0072	865125403.57
1655905032	Connection	CN10,CN12,CN14, CN15	Telcordia Issue 1	Level I		4.00	0.023118	.5794	43256270.18
1655909031	Connection	CN11,CN13,CN16, CN18,CN19	Telcordia Issue 1	Level I		5.00	0.005202	.1630	192250089.68
1655306023	Connection	CN23	Telcordia Issue 1	Level I		1.00	0.003468	.0217	288375134.52
1655305020	Connection	CN24,CN26	Telcordia Issue 1	Level I		2.00	0.002890	.0362	346050161.43
165251420B	Connection	CN28,CN29	Telcordia Issue 1	Level I		2.00	0.001156	.0145	865125403.57
1654808309	Connection	CN30	Telcordia Issue 1	Level I		1.00	0.001156	.0072	865125403.57
1655910131	Connection	CN31	Telcordia Issue 1	Level I		1.00	0.001156	.0072	865125403.57
1654445300	Connection	CN32	Telcordia Issue 1	Level I		1.00	0.026008	.1630	38450017.94
1654409103	Connection	CN33	Telcordia Issue 1	Level I		1.00	0.130039	.8149	7690003.59
1181627191	Capacitor	EC1	Telcordia Issue 1	Level I		1.00	0.004562	.0286	219195994.91
14S6203204	Integrated Circuit	U17	Telcordia Issue 1	Level I		1.00	0.026648	.1670	37526359.19

**AAEON Reliability Prediction Report**

**Part Number** 9697CV0502-D  
**Reference Des**  
**Date** 12. 20, 2011  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.30



**Description** Top-level assembly  
**File Name** GENE-CV05.RPJ  
**Time** 14:13  
**Failure Rate** 15.958623  
**MTBF** 62,662

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1653003101	Connection	JP1,JP10,JP11,JP2, JP5,JP6,JP7,JP8, JP9	Telcordia Issue 1	Level I		9.00	0.001734	.0978	576750269.05
1653003201	Connection	JP3	Telcordia Issue 1	Level I		1.00	0.001156	.0072	865125403.57
1653002101	Connection	JP4	Telcordia Issue 1	Level I		1.00	0.001156	.0072	865125403.57
175910000B	Miscellaneous	SP1	Telcordia Issue 1	Level I		1.00	0.150000	.9399	6666666.67