

GES-5500F

Reliability Prediction Report (MTBF)

| | |
|---------|---------------------------------------------------|
| Summary | Failure Rate: 19.152664 ppm MTBF: 52,212 Hours |
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Issue date

2010/12/30

Approval

Jansin Lee

Test Engineer

Jessica Chou

Reliability Prediction (MTBF)

I . Model Name: TF-GES-5500F-A10

II . Prediction Date: Dec. 30, 2010

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

IV . Predicted by: Jessica Chou

V . Equipment: Relx Ver.7.3 Visual Reliability Software

VI . Simulation Environment:

- Temperature: 25.1 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:

TF-GES-5500F-A10:

- Failure Rate: 19.152664 ppm
- MTBF: 52,212 Hours

Below components value were provided by the suppliers:

- (TF)SPS.85W.10/30V.DC/DC ATX 1U HEIGHT.Magic Power.MPD-810H
MTBF: 139,421 hours (MIL-HDBK-217F at 50°C for GB environment)

AAEON Reliability Prediction Report

Part Number System
Reference Des
Date 12. 30, 2010
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description Top-level assembly
File Name GES-5500F.RPJ
Time 14:22
Failure Rate 19.152664
MTBF 52,212

| Assembly Name | Part Number | Model | Method | Environment | Duty Cycle | Qty | Failure Rate | MTBF |
|------------------|--------------|-------------------|-----------------|-------------------------------------|------------|------|--------------|----------|
| TF-GES-5500F-A10 | System | Telcordia Issue 1 | Method I Case 3 | GF, GU - Ground Fixed, Uncontrolled | 100.00 | 1.00 | 19.15 | 52212.06 |
| IMBI-QM57 | 9697QM5715-D | Telcordia Issue 1 | Method I Case 3 | GF, GU - Ground Fixed, Uncontrolled | | 1.00 | 19.15 | 52212.06 |

AAEON Reliability Prediction Report

Part Number 9697QM5715-D
Reference Des
Date 12. 30, 2010
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name GES-5500F.RPJ
Time 14:22
Failure Rate 19.152664
MTBF 52,212

| Part Number | Category | Location | Calculation Model | Quality | Tem. Rise | Quantity | Failure Rate, Unit | Failure Rate,% | MTBF, Unit |
|-------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------|-----------|----------|--------------------|----------------|--------------|
| 1129701790 | Capacitor | C113,C116,C117, C120,C121,C124, C125,C126,C127, C128,C129,C130, C131,C16,C166,C167, C168,C169,C170, C171,C173,C174, C175,C176,C177, C178,C179,C185,C19, C219,C22,C225,C226, C229,C263,C273,C33, C42,C85,C95 | Telcordia Issue 1 | Level I | | 40.00 | 0.004544 | .9491 | 220055560.52 |
| 1124420090 | Capacitor | C18,C84 | Telcordia Issue 1 | Level I | | 2.00 | 0.004544 | .0475 | 220055560.52 |
| 11C1522480 | Capacitor | C20,C234,C239,C244, C247,C248,C249, C254,C49,C51,C61, C74,C83,C86 | Telcordia Issue 1 | Level I | | 14.00 | 0.004544 | .3322 | 220055560.52 |
| 1124433090 | Capacitor | C25,C26 | Telcordia Issue 1 | Level I | | 2.00 | 0.004544 | .0475 | 220055560.52 |
| 1124418090 | Capacitor | C72,C73 | Telcordia Issue 1 | Level I | | 2.00 | 0.004544 | .0475 | 220055560.52 |
| 1129622050 | Capacitor | C157,C158,C182, C183,C195,C200, C207,C210,C213, C214,C215,C216, C221,C227,C228,C45, C46,C53,C54,C55, C58,C59,C60,C63, C64,C65,C67,C68, C69 | Telcordia Issue 1 | Level I | | 29.00 | 0.004544 | .6881 | 220055560.52 |
| 1121533480 | Capacitor | C47 | Telcordia Issue 1 | Level I | | 1.00 | 0.004544 | .0237 | 220055560.52 |
| 1124539180 | Capacitor | C48,C81 | Telcordia Issue 1 | Level I | | 2.00 | 0.004544 | .0475 | 220055560.52 |
| 1124515180 | Capacitor | C236,C56 | Telcordia Issue 1 | Level I | | 2.00 | 0.004544 | .0475 | 220055560.52 |
| 1124468090 | Capacitor | C57,C79 | Telcordia Issue 1 | Level I | | 2.00 | 0.004544 | .0475 | 220055560.52 |
| 1124501780 | Capacitor | C237,C82 | Telcordia Issue 1 | Level I | | 2.00 | 0.004544 | .0475 | 220055560.52 |
| 11E2647650 | Capacitor | C101,C102,C103, C104,C105,C11,C123, C144,C147,C156, C164,C165,C208, C209,C259,C284,C31, C7,C91,C94 | Telcordia Issue 1 | Level I | | 20.00 | 0.004544 | .4745 | 220055560.52 |
| 1129522650 | Capacitor | C111,C93,TC27,TC28, TC44 | Telcordia Issue 1 | Level I | | 5.00 | 0.004544 | .1186 | 220055560.52 |
| 11E9647060 | Capacitor | C96,C97 | Telcordia Issue 1 | Level I | | 2.00 | 0.004544 | .0475 | 220055560.52 |
| 1129710090 | Capacitor | C106,C266,C267, C278,C279,C282, C283,C98,C99 | Telcordia Issue 1 | Level I | | 9.00 | 0.004544 | .2135 | 220055560.52 |
| 1129722091 | Capacitor | C100,C108,C109, C251 | Telcordia Issue 1 | Level I | | 4.00 | 0.004544 | .0949 | 220055560.52 |

AAEON Reliability Prediction Report

Part Number 9697QM5715-D
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Date 12. 30, 2010
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name GES-5500F.RPJ
Time 14:22
Failure Rate 19.152664
MTBF 52,212

| Part Number | Category | Location | Calculation Model | Quality | Tem. Rise | Quantity | Failure Rate, Unit | Failure Rate, % | MTBF, Unit |
|-------------|---------------|-------------------------------------------------------------------------------------------------|-------------------|---------|-----------|----------|--------------------|-----------------|--------------|
| 1124427090 | Capacitor | C107,C256,C257, C260,C261,C270, C277,C280,C281 | Telcordia Issue 1 | Level I | | 9.00 | 0.004544 | .2135 | 220055560.52 |
| 11E9522680 | Capacitor | C122,C132,C133, C138,C139,C140, C143 | Telcordia Issue 1 | Level I | | 7.00 | 0.004544 | .1661 | 220055560.52 |
| 1124547190 | Capacitor | C149 | Telcordia Issue 1 | Level I | | 1.00 | 0.004544 | .0237 | 220055560.52 |
| 1124533180 | Capacitor | C245,C246 | Telcordia Issue 1 | Level I | | 2.00 | 0.004544 | .0475 | 220055560.52 |
| 11C4533880 | Capacitor | C250 | Telcordia Issue 1 | Level I | | 1.00 | 0.004544 | .0237 | 220055560.52 |
| 1121610180 | Capacitor | C285,C286,C287, C288,C289,C290 | Telcordia Issue 1 | Level I | | 6.00 | 0.004544 | .1424 | 220055560.52 |
| 1124510280 | Capacitor | C291,C292,C293 | Telcordia Issue 1 | Level I | | 3.00 | 0.004544 | .0712 | 220055560.52 |
| 1121647480 | Capacitor | C295,C296 | Telcordia Issue 1 | Level I | | 2.00 | 0.004544 | .0475 | 220055560.52 |
| 16515A099G | Connection | DIMM2 | Telcordia Issue 1 | Level I | | 1.00 | 0.001144 | .0060 | 874201776.95 |
| 165320520C | Connection | DIO1,USB3,USB4 | Telcordia Issue 1 | Level I | | 3.00 | 0.005720 | .0896 | 174840355.39 |
| 1301005440 | Semiconductor | D1,D10,D14,D27,D28, D29,D5,D9 | Telcordia Issue 1 | Level I | | 8.00 | 0.023950 | 1.0004 | 41754194.40 |
| 1301005442 | Semiconductor | D13,D2 | Telcordia Issue 1 | Level I | | 2.00 | 0.023950 | .2501 | 41754194.40 |
| 1301002240 | Semiconductor | D15,D16,D17,D18,D6 | Telcordia Issue 1 | Level I | | 5.00 | 0.023950 | .6252 | 41754194.40 |
| 1301053040 | Semiconductor | D11,D12 | Telcordia Issue 1 | Level I | | 2.00 | 0.023950 | .2501 | 41754194.40 |
| 1301400642 | Semiconductor | D47 | Telcordia Issue 1 | Level I | | 1.00 | 0.023950 | .1250 | 41754194.40 |
| 1305100541 | Semiconductor | D20,D21,D22,D23, D30,D31,D32,D33, D34,D35,D36,D37, D38,D39,D40,D41, D42,D43,D44,D45 | Telcordia Issue 1 | Level I | | 20.00 | 0.023950 | 2.5009 | 41754194.40 |
| 1212306030 | Inductor | FB1,FB2,FB20,FB3, FB33,FB34,FB35, FB36,FB37,FB38,FB4, FB5,FB6 | Telcordia Issue 1 | Level I | | 13.00 | 0.002272 | .1542 | 440111121.05 |
| 12123C0005 | Inductor | FB10,FB11,FB12,FB7, FB8,FB9 | Telcordia Issue 1 | Level I | | 6.00 | 0.002272 | .0712 | 440111121.05 |
| 121230603Z | Inductor | FB14,FB15,FB16, FB17,FB18,FB19 | Telcordia Issue 1 | Level I | | 6.00 | 0.002272 | .0712 | 440111121.05 |
| 12123C0007 | Inductor | FB29 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 440111121.05 |
| 1212308054 | Inductor | FB32 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 440111121.05 |
| 1752001601 | Miscellaneous | FS1,FS2,FS3,FS4, FS6,FS7,FS8,FS9 | Telcordia Issue 1 | Level I | | 8.00 | 0.003000 | .1253 | 333333333.33 |
| 1752011000 | Miscellaneous | FS10,FS11,FS5 | Telcordia Issue 1 | Level I | | 3.00 | 0.003000 | .0470 | 333333333.33 |
| 1211105673 | Inductor | L17,L5 | Telcordia Issue 1 | Level I | | 2.00 | 0.086342 | .9016 | 11581871.61 |
| 1211101064 | Inductor | L6 | Telcordia Issue 1 | Level I | | 1.00 | 0.086342 | .4508 | 11581871.61 |
| 1211103671 | Inductor | L10,L15,L16 | Telcordia Issue 1 | Level I | | 3.00 | 0.086342 | 1.3524 | 11581871.61 |
| 1211103671 | Inductor | L14 | Telcordia Issue 1 | Level I | 42.20 | 1.00 | 0.178075 | .9298 | 5615615.18 |

AAEON Reliability Prediction Report

Part Number 9697QM5715-D
Reference Des
Date 12. 30, 2010
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name GES-5500F.RPJ
Time 14:22
Failure Rate 19.152664
MTBF 52,212

| Part Number | Category | Location | Calculation Model | Quality | Tem. Rise | Quantity | Failure Rate, Unit | Failure Rate, % | MTBF, Unit |
|-------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------|-----------|----------|--------------------|-----------------|--------------|
| 1211101002 | Inductor | L12,L13 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 440111121.05 |
| 1211100160 | Inductor | L19 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 440111121.05 |
| 1310390410 | Semiconductor | Q1,Q14,Q26,Q27,Q31, Q39,Q44,Q73,Q8 | Telcordia Issue 1 | Level I | | 9.00 | 0.023950 | 1.1254 | 41754194.40 |
| 1315700217 | Semiconductor | Q10,Q100,Q101,Q102, Q11,Q12,Q16,Q19,Q2, Q23,Q24,Q25,Q29,Q3, Q30,Q35,Q42,Q43, Q46,Q47,Q54,Q55, Q57,Q58,Q59,Q61, Q62,Q63,Q64,Q65, Q69,Q70,Q71,Q72, Q83,Q84,Q85,Q94, Q95,Q96,Q97,Q98, Q99 | Telcordia Issue 1 | Level I | | 43.00 | 0.079832 | 17.9233 | 12526258.32 |
| 1315R30310 | Integrated Circuit | Q17 | Telcordia Issue 1 | Level I | | 1.00 | 0.059802 | .3122 | 16721916.86 |
| 1315889612 | Semiconductor | Q20,Q32,Q40,Q41, Q49,Q51 | Telcordia Issue 1 | Level I | | 6.00 | 0.079832 | 2.5009 | 12526258.32 |
| 1315888010 | Semiconductor | Q21,Q36,Q48,Q50, Q52,Q87 | Telcordia Issue 1 | Level I | | 6.00 | 0.079832 | 2.5009 | 12526258.32 |
| 1315441012 | Semiconductor | Q22,Q33,Q34,Q86 | Telcordia Issue 1 | Level I | | 4.00 | 0.079832 | 1.6673 | 12526258.32 |
| 14S3524700 | Integrated Circuit | Q37 | Telcordia Issue 1 | Level I | | 1.00 | 0.059802 | .3122 | 16721916.86 |
| 1315230511 | Semiconductor | Q38 | Telcordia Issue 1 | Level I | | 1.00 | 0.079832 | .4168 | 12526258.32 |
| 1311390610 | Semiconductor | Q45 | Telcordia Issue 1 | Level I | | 1.00 | 0.023950 | .1250 | 41754194.40 |
| 1311138610 | Semiconductor | Q56,Q60 | Telcordia Issue 1 | Level I | | 2.00 | 0.023950 | .2501 | 41754194.40 |
| 1315667910 | Semiconductor | Q74,Q75,Q76,Q79 | Telcordia Issue 1 | Level I | | 4.00 | 0.159665 | 3.3346 | 6263129.16 |
| 1315050311 | Integrated Circuit | Q78 | Telcordia Issue 1 | Level I | | 1.00 | 0.059802 | .3122 | 16721916.86 |
| 1540710280 | Resistor | RP1,RP2,RP6 | Telcordia Issue 1 | Level I | | 3.00 | 0.006275 | .0983 | 159372657.61 |
| 1540733085 | Resistor | RP16,RP17,RP18, RP19,RP20,RP21, RP22,RP23 | Telcordia Issue 1 | Level I | | 8.00 | 0.006275 | .2621 | 159372657.61 |
| 1540782282 | Resistor | RP10,RP11,RP12, RP13,RP9 | Telcordia Issue 1 | Level I | | 5.00 | 0.012549 | .3276 | 79686328.81 |
| 1540747282 | Resistor | RP14 | Telcordia Issue 1 | Level I | | 1.00 | 0.006275 | .0328 | 159372657.61 |
| 1540756080 | Resistor | RP15 | Telcordia Issue 1 | Level I | | 1.00 | 0.006275 | .0328 | 159372657.61 |
| 106B501032 | Resistor | RT1,RT2,RT3,RT4, RT6 | Telcordia Issue 1 | Level I | | 5.00 | 0.011439 | .2986 | 87420177.69 |
| 106B747030 | Resistor | RT5 | Telcordia Issue 1 | Level I | | 1.00 | 0.011439 | .0597 | 87420177.69 |
| 105A704729 | Resistor | R1,R169,R23,R301, R334,R336,R349, R454,R467,R51,R55, R551,R557,R567, R569,R841 | Telcordia Issue 1 | Level I | | 16.00 | 0.002272 | .1898 | 440111121.05 |

AAEON Reliability Prediction Report

Part Number 9697QM5715-D
Reference Des
Date 12. 30, 2010
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10

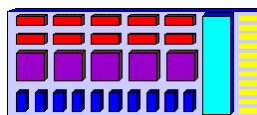


Description
File Name GES-5500F.RPJ
Time 14:22
Failure Rate 19.152664
MTBF 52,212

| Part Number | Category | Location | Calculation Model | Quality | Tem. Rise | Quantity | Failure Rate, Unit | Failure Rate, % | MTBF, Unit |
|-------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------|-----------|----------|--------------------|-----------------|--------------|
| 105A503309 | Resistor | R247,R251,R255,R3, R355,R46,R541,R64, R65,R68,R69,R70, R85,R86,R90,R91 | Telcordia Issue 1 | Level I | | 16.00 | 0.002272 | .1898 | 440111121.05 |
| 105A701039 | Resistor | R105,R106,R107, R119,R128,R140, R162,R163,R164, R165,R166,R168, R172,R173,R174, R193,R198,R199, R269,R270,R319,R32, R359,R361,R365, R382,R4,R424,R425, R43,R437,R504,R523, R524,R535,R536, R542,R546,R549,R58, R59,R590,R591,R | Telcordia Issue 1 | Level I | | 84.00 | 0.002272 | .9965 | 440111121.05 |
| 105A733003 | Resistor | R11,R12,R5,R560,R6, R884 | Telcordia Issue 1 | Level I | | 6.00 | 0.002272 | .0712 | 440111121.05 |
| 105A510009 | Resistor | R158,R160,R170, R171,R22,R322,R323, R400,R44,R8 | Telcordia Issue 1 | Level I | | 10.00 | 0.002272 | .1186 | 440111121.05 |
| 105A703329 | Resistor | R14,R857 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 440111121.05 |
| 105A501539 | Resistor | R15,R380 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 440111121.05 |
| 1050506224 | Resistor | R16,R381 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 440111121.05 |
| 105A705129 | Resistor | R17,R20,R398,R406 | Telcordia Issue 1 | Level I | | 4.00 | 0.002272 | .0475 | 440111121.05 |
| 105A702229 | Resistor | R131,R177,R18,R181, R197,R24,R280,R289, R290,R291,R388, R391,R392,R450, R451,R463,R464, R483,R650,R652, R654,R806,R885, R886,R905,R906, R967,R968 | Telcordia Issue 1 | Level I | | 28.00 | 0.002272 | .3322 | 440111121.05 |
| 105A500133 | Resistor | R19,R963 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 440111121.05 |

AAEON Reliability Prediction Report

Part Number 9697QM5715-D
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Date 12. 30, 2010
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name GES-5500F.RPJ
Time 14:22
Failure Rate 19.152664
MTBF 52,212

| Part Number | Category | Location | Calculation Model | Quality | Tem. Rise | Quantity | Failure Rate, Unit | Failure Rate, % | MTBF, Unit |
|-------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------|-----------|----------|--------------------|-----------------|--------------|
| 105A700009 | Resistor | BC236,BC237,R1000, R1001,R1002,R1003, R1004,R1005,R101, R103,R129,R146, R184,R185,R187, R189,R191,R200, R201,R202,R203, R206,R208,R210, R211,R213,R214, R215,R216,R219, R222,R225,R229, R230,R231,R232, R236,R238,R239, | Telcordia Issue 1 | Level I | | 194.00 | 0.002272 | 2.3015 | 440111121.05 |
| 105A501033 | Resistor | R33,R34,R35,R36, R37,R475,R478,R495, R497,R529,R530, R531,R695,R863,R89 | Telcordia Issue 1 | Level I | | 15.00 | 0.002272 | .1780 | 440111121.05 |
| 105A700139 | Resistor | R224,R284,R337, R340,R374,R389,R39, R41,R422,R435,R513, R517,R606,R611, R629,R651,R747, R794,R797,R798, R799,R816,R818, R820,R821,R873, R874,R966 | Telcordia Issue 1 | Level I | | 28.00 | 0.002272 | .3322 | 440111121.05 |
| 105A701009 | Resistor | R226,R227,R321,R40, R588,R594,R625, R814,R842 | Telcordia Issue 1 | Level I | | 9.00 | 0.002272 | .1068 | 440111121.05 |
| 105A708223 | Resistor | R45 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 440111121.05 |
| 105A701503 | Resistor | R57 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 440111121.05 |
| 1059700001 | Resistor | R133,R148,R31,R330, R370,R378,R417,R53, R595,R60,R657,R662, R682,R726,R740, R786,R789,R832, R860,R861,R871, R878,R879 | Telcordia Issue 1 | Level I | | 23.00 | 0.002272 | .2729 | 440111121.05 |
| 105A514733 | Resistor | R500,R79,R836 | Telcordia Issue 1 | Level I | | 3.00 | 0.002272 | .0356 | 440111121.05 |
| 105A510033 | Resistor | R100,R492,R501, R508,R80 | Telcordia Issue 1 | Level I | | 5.00 | 0.002272 | .0593 | 440111121.05 |
| 105A524923 | Resistor | R498,R88 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 440111121.05 |
| 105A701003 | Resistor | R275,R730,R92 | Telcordia Issue 1 | Level I | | 3.00 | 0.002272 | .0356 | 440111121.05 |
| 105A524033 | Resistor | R99 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 440111121.05 |

AAEON Reliability Prediction Report

Part Number 9697QM5715-D
Reference Des
Date 12. 30, 2010
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name GES-5500F.RPJ
Time 14:22
Failure Rate 19.152664
MTBF 52,212

| Part Number | Category | Location | Calculation Model | Quality | Tem. Rise | Quantity | Failure Rate, Unit | Failure Rate, % | MTBF, Unit |
|-------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------|-----------|----------|--------------------|-----------------|--------------|
| 105A702209 | Resistor | R102,R126,R127, R332,R333,R526, R543,R544,R771 | Telcordia Issue 1 | Level I | | 9.00 | 0.002272 | .1068 | 440111121.05 |
| 1050510034 | Resistor | R104,R114,R117, R154,R157,R205, R217,R272,R345, R516,R564,R589, R748,R752,R763, R764,R772,R781, R839 | Telcordia Issue 1 | Level I | | 19.00 | 0.002272 | .2254 | 440111121.05 |
| 105A701053 | Resistor | R116,R132,R828 | Telcordia Issue 1 | Level I | | 3.00 | 0.002272 | .0356 | 440111121.05 |
| 105A727033 | Resistor | R120,R124,R902, R916 | Telcordia Issue 1 | Level I | | 4.00 | 0.002272 | .0475 | 440111121.05 |
| 105A715033 | Resistor | R121,R125,R901, R931 | Telcordia Issue 1 | Level I | | 4.00 | 0.002272 | .0475 | 440111121.05 |
| 105A700003 | Resistor | FB13,FB30,FB31, FB41,FB42,FB49, FB50,R123,R147, R299,R325,R326, R353,R354,R367, R461,R522,R587, R676,R862,R870, R929,R939,R981 | Telcordia Issue 1 | Level I | | 24.00 | 0.002272 | .2847 | 440111121.05 |
| 1050505604 | Resistor | R143 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 440111121.05 |
| 105A500139 | Resistor | R149,R150,R218, R234,R242,R262, R266,R267,R277, R486,R487,R509, R511,R593,R784, R961 | Telcordia Issue 1 | Level I | | 16.00 | 0.002272 | .1898 | 440111121.05 |
| 1050520004 | Resistor | R151,R194,R195, R196,R233,R249, R265 | Telcordia Issue 1 | Level I | | 7.00 | 0.002272 | .0830 | 440111121.05 |
| 105A700133 | Resistor | R152,R364,R376, R403,R439,R440, R441,R442 | Telcordia Issue 1 | Level I | | 8.00 | 0.002272 | .0949 | 440111121.05 |
| 105A702033 | Resistor | R155,R156,R179 | Telcordia Issue 1 | Level I | | 3.00 | 0.002272 | .0356 | 440111121.05 |
| 1050524904 | Resistor | R161 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 440111121.05 |
| 1050701504 | Resistor | R175 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 440111121.05 |
| 105A513003 | Resistor | R176 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 440111121.05 |
| 105A532463 | Resistor | R178 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 440111121.05 |
| 105A708229 | Resistor | R180,R363,R368, R605,R858,R864, R969 | Telcordia Issue 1 | Level I | | 7.00 | 0.002272 | .0830 | 440111121.05 |
| 105A549969 | Resistor | R207,R268,R681, R705,R742 | Telcordia Issue 1 | Level I | | 5.00 | 0.002272 | .0593 | 440111121.05 |
| 105A533033 | Resistor | R209 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 440111121.05 |
| 105A710053 | Resistor | R212 | Telcordia Issue 1 | Level I | | 1.00 | 0.013633 | .0712 | 73351853.51 |

AAEON Reliability Prediction Report

Part Number 9697QM5715-D
Reference Des
Date 12. 30, 2010
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name GES-5500F.RPJ
Time 14:22
Failure Rate 19.152664
MTBF 52,212

| Part Number | Category | Location | Calculation Model | Quality | Tem. Rise | Quantity | Failure Rate, Unit | Failure Rate, % | MTBF, Unit |
|-------------|----------|-------------------------------------------|-------------------|---------|-----------|----------|--------------------|-----------------|-------------|
| 1059704761 | Resistor | R220 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 1059702261 | Resistor | R221,R303,R331, R833 | Telcordia Issue 1 | Level I | | 4.00 | 0.002272 | .0475 | 44011121.05 |
| 105A556203 | Resistor | R228,R327 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 44011121.05 |
| 105A702263 | Resistor | R240,R942,R943, R944 | Telcordia Issue 1 | Level I | | 4.00 | 0.002272 | .0475 | 44011121.05 |
| 105A522663 | Resistor | R241 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105A541233 | Resistor | R245,R831 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 44011121.05 |
| 1050519114 | Resistor | R252,R256 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 44011121.05 |
| 105A580613 | Resistor | R253,R314 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 44011121.05 |
| 105A502003 | Resistor | R254,R261 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 44011121.05 |
| 105A705103 | Resistor | R271,R273 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 44011121.05 |
| 1050502224 | Resistor | R279 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105A526113 | Resistor | R286,R845 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 44011121.05 |
| 105A505109 | Resistor | R292 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105A704709 | Resistor | R294 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105A515009 | Resistor | R295,R296,R297, R412,R413,R414 | Telcordia Issue 1 | Level I | | 6.00 | 0.002272 | .0712 | 44011121.05 |
| 105A502033 | Resistor | R304,R868,R875 | Telcordia Issue 1 | Level I | | 3.00 | 0.002272 | .0356 | 44011121.05 |
| 105A705133 | Resistor | R1024,R1025,R315, R324 | Telcordia Issue 1 | Level I | | 4.00 | 0.002272 | .0475 | 44011121.05 |
| 105A524913 | Resistor | R328 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105A582563 | Resistor | R329,R702 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 44011121.05 |
| 105A747003 | Resistor | R335,R348 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 44011121.05 |
| 105A501039 | Resistor | R343,R350 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 44011121.05 |
| 105A540213 | Resistor | R352 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105A533213 | Resistor | R362,R477 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 44011121.05 |
| 105A707509 | Resistor | R407,R415,R416 | Telcordia Issue 1 | Level I | | 3.00 | 0.002272 | .0356 | 44011121.05 |
| 105A549913 | Resistor | R408,R899,R932 | Telcordia Issue 1 | Level I | | 3.00 | 0.002272 | .0356 | 44011121.05 |
| 105A715009 | Resistor | R419,R420,R427, R430,R431,R433, R434,R903 | Telcordia Issue 1 | Level I | | 8.00 | 0.002272 | .0949 | 44011121.05 |
| 105A733009 | Resistor | R436 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105A707503 | Resistor | R443,R444 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 44011121.05 |
| 1050502204 | Resistor | R445,R446,R447, R448 | Telcordia Issue 1 | Level I | | 4.00 | 0.002272 | .0475 | 44011121.05 |
| 105A706823 | Resistor | R459,R460 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 44011121.05 |
| 105A501333 | Resistor | R476,R496 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 44011121.05 |
| 105A701033 | Resistor | R493,R494 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 44011121.05 |
| 105A512103 | Resistor | R481 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105A520003 | Resistor | R482 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105A703303 | Resistor | R485,R507 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 44011121.05 |

AAEON Reliability Prediction Report

Part Number 9697QM5715-D
Reference Des
Date 12. 30, 2010
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10

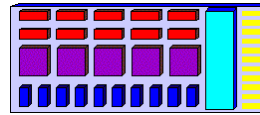


Description
File Name GES-5500F.RPJ
Time 14:22
Failure Rate 19.152664
MTBF 52,212

| Part Number | Category | Location | Calculation Model | Quality | Tem. Rise | Quantity | Failure Rate, Unit | Failure Rate, % | MTBF, Unit |
|-------------|----------|--------------------------------------------------|-------------------|---------|-----------|----------|--------------------|-----------------|-------------|
| 105A500233 | Resistor | R499,R518 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 44011121.05 |
| 105A747033 | Resistor | R519 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105A708209 | Resistor | R527,R545,R550 | Telcordia Issue 1 | Level I | | 3.00 | 0.002272 | .0356 | 44011121.05 |
| 105A503033 | Resistor | R532 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105A506823 | Resistor | R533,R534 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 44011121.05 |
| 105A747009 | Resistor | R1020,R1021,R558, R987,R989,R990, R991 | Telcordia Issue 1 | Level I | | 7.00 | 0.002272 | .0830 | 44011121.05 |
| 105A705623 | Resistor | R561 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 1050564924 | Resistor | R582,R584 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 44011121.05 |
| 105A501233 | Resistor | R586 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105270000A | Resistor | R601,R622 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 44011121.05 |
| 105A705603 | Resistor | R608 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105A554963 | Resistor | R623 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105A530113 | Resistor | R636,R866,R867 | Telcordia Issue 1 | Level I | | 3.00 | 0.002272 | .0356 | 44011121.05 |
| 105A501123 | Resistor | R638 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105A501523 | Resistor | R687,R697 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 44011121.05 |
| 105A501133 | Resistor | R600,R696,R844 | Telcordia Issue 1 | Level I | | 3.00 | 0.002272 | .0356 | 44011121.05 |
| 105A502133 | Resistor | R700 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105A536513 | Resistor | R701,R837,R846, R856 | Telcordia Issue 1 | Level I | | 4.00 | 0.002272 | .0475 | 44011121.05 |
| 105A575003 | Resistor | R709,R737 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 44011121.05 |
| 105A537463 | Resistor | R712 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105A706803 | Resistor | R736 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105A504733 | Resistor | R741 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105A590963 | Resistor | R745 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105A523713 | Resistor | R761 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105A700103 | Resistor | R826,R827,R835 | Telcordia Issue 1 | Level I | | 3.00 | 0.002272 | .0356 | 44011121.05 |
| 105A505133 | Resistor | R834,R843,R848 | Telcordia Issue 1 | Level I | | 3.00 | 0.002272 | .0356 | 44011121.05 |
| 1050525524 | Resistor | R849 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105A551003 | Resistor | R853 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 1050582514 | Resistor | R855 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105A505123 | Resistor | R877 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105A503423 | Resistor | R894,R898 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 44011121.05 |
| 105A702233 | Resistor | R921,R922 | Telcordia Issue 1 | Level I | | 2.00 | 0.002272 | .0237 | 44011121.05 |
| 105A501413 | Resistor | R959 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 44011121.05 |
| 105A730009 | Resistor | R1018,R1019,R1022, R1023,R983,R984, R985,R986 | Telcordia Issue 1 | Level I | | 8.00 | 0.002272 | .0949 | 44011121.05 |

AAEON Reliability Prediction Report

Part Number 9697QM5715-D
Reference Des
Date 12. 30, 2010
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name GES-5500F.RPJ
Time 14:22
Failure Rate 19.152664
MTBF 52,212

| Part Number | Category | Location | Calculation Model | Quality | Tem. Rise | Quantity | Failure Rate, Unit | Failure Rate, % | MTBF, Unit |
|-------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------|-----------|----------|--------------------|-----------------|--------------|
| 1129610051 | Capacitor | TC1,TC11,TC114,TC118,TC12,TC120,TC124,TC125,TC135,TC136,TC137,TC138,TC14,TC142,TC143,TC147,TC148,TC149,TC15,TC150,TC151,TC153,TC154,TC156,TC157,TC158,TC159,TC16,TC161,TC162,TC163,TC164,TC165,TC166,TC167,TC21,TC24,TC25,TC26, | Telcordia Issue 1 | Level I | | 62.00 | 0.004544 | 1.4711 | 220055560.52 |
| 1189633160 | Capacitor | TC115,TC116,TC123,TC127,TC128,TC129,TC13,TC130,TC131,TC132,TC133,TC17,TC19,TC22,TC23,TC40,TC49,TC60,TC62,TC71,TC72,TC77,TC88,TC93 | Telcordia Issue 1 | Level I | | 24.00 | 0.004544 | .5694 | 220055560.52 |
| 1129610080 | Capacitor | TC100,TC101,TC102,TC103,TC104,TC105,TC106,TC107,TC108,TC109,TC110,TC111,TC117,TC126,TC37,TC38,TC39,TC41,TC42,TC43,TC46,TC47,TC48,TC54,TC55,TC56,TC75,TC78,TC79,TC80,TC81,TC83,TC84,TC86,TC87,TC89,TC90,TC91,TC92, | Telcordia Issue 1 | Level I | | 44.00 | 0.004544 | 1.0440 | 220055560.52 |
| 11C2510190 | Capacitor | TC112,TC113,TC134,TC139,TC145,TC146,TC58,TC63,TC64, TC76 | Telcordia Issue 1 | Level I | | 10.00 | 0.004544 | .2373 | 220055560.52 |
| 1189622150 | Capacitor | TC121,TC122 | Telcordia Issue 1 | Level I | | 2.00 | 0.004544 | .0475 | 220055560.52 |
| 1142522080 | Capacitor | TC140,TC141,TC144 | Telcordia Issue 1 | Level I | | 3.00 | 0.004544 | .0712 | 220055560.52 |
| 1149610180 | Capacitor | TC152,TC155 | Telcordia Issue 1 | Level I | | 2.00 | 0.004544 | .0475 | 220055560.52 |
| 1189610151 | Capacitor | TC168,TC169,TC170, TC171 | Telcordia Issue 1 | Level I | | 4.00 | 0.004544 | .0949 | 220055560.52 |
| 14S4BD8200 | Integrated Circuit | U2 | Telcordia Issue 1 | Level I | 33.10 | 1.00 | 0.151584 | .7915 | 6596982.00 |

AAEON Reliability Prediction Report

Part Number 9697QM5715-D
Reference Des
Date 12. 30, 2010
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name GES-5500F.RPJ
Time 14:22
Failure Rate 19.152664
MTBF 52,212

| Part Number | Category | Location | Calculation Model | Quality | Tem. Rise | Quantity | Failure Rate, Unit | Failure Rate,% | MTBF, Unit |
|-------------|--------------------|--------------------------------------------------|-------------------|---------|-----------|----------|--------------------|----------------|--------------|
| 14S4878100 | Integrated Circuit | U5 | Telcordia Issue 1 | Level I | | 1.00 | 0.026337 | .1375 | 37969565.62 |
| 14S3050500 | Integrated Circuit | U6 | Telcordia Issue 1 | Level I | 38.00 | 1.00 | 0.702746 | 3.6692 | 1422988.36 |
| 14S5A00401 | Integrated Circuit | U50,U7 | Telcordia Issue 1 | Level I | | 2.00 | 0.026337 | .2750 | 37969565.62 |
| 14S2048800 | Integrated Circuit | U9 | Telcordia Issue 1 | Level I | | 1.00 | 0.032235 | .1683 | 31022419.16 |
| 14S5A00821 | Integrated Circuit | U10,U13,U36,U37, U38,U40,U41,U42, U43,U44,U53 | Telcordia Issue 1 | Level I | | 11.00 | 0.026337 | 1.5126 | 37969565.62 |
| 14S4288100 | Integrated Circuit | U11 | Telcordia Issue 1 | Level I | | 1.00 | 0.059802 | .3122 | 16721916.86 |
| 1314108412 | Integrated Circuit | U12 | Telcordia Issue 1 | Level I | 45.60 | 1.00 | 1.077510 | 5.6259 | 928066.04 |
| 1314108412 | Integrated Circuit | U32 | Telcordia Issue 1 | Level I | | 1.00 | 0.059802 | .3122 | 16721916.86 |
| 14S4288300 | Integrated Circuit | U14 | Telcordia Issue 1 | Level I | | 1.00 | 0.059802 | .3122 | 16721916.86 |
| 14S2041200 | Integrated Circuit | U15 | Telcordia Issue 1 | Level I | | 1.00 | 0.059802 | .3122 | 16721916.86 |
| 14S4048502 | Integrated Circuit | U17,U21 | Telcordia Issue 1 | Level I | | 2.00 | 0.059802 | .6245 | 16721916.86 |
| 14S3088801 | Integrated Circuit | U18 | Telcordia Issue 1 | Level I | | 1.00 | 0.059802 | .3122 | 16721916.86 |
| 14S4825740 | Integrated Circuit | U19 | Telcordia Issue 1 | Level I | | 1.00 | 0.026337 | .1375 | 37969565.62 |
| 14S4257701 | Integrated Circuit | U20 | Telcordia Issue 1 | Level I | | 1.00 | 0.026337 | .1375 | 37969565.62 |
| 14S2200900 | Integrated Circuit | U22 | Telcordia Issue 1 | Level I | | 1.00 | 0.059802 | .3122 | 16721916.86 |
| 14S3052400 | Integrated Circuit | U23,U24,U26,U30 | Telcordia Issue 1 | Level I | | 4.00 | 0.059802 | 1.2489 | 16721916.86 |
| 14S9144200 | Integrated Circuit | U25,U27 | Telcordia Issue 1 | Level I | | 2.00 | 0.026337 | .2750 | 37969565.62 |
| 14S4021301 | Integrated Circuit | U28 | Telcordia Issue 1 | Level I | | 1.00 | 0.059802 | .3122 | 16721916.86 |
| 14S5A23200 | Integrated Circuit | U29 | Telcordia Issue 1 | Level I | 44.80 | 1.00 | 0.259552 | 1.3552 | 3852786.22 |
| 14S5A23200 | Integrated Circuit | U58 | Telcordia Issue 1 | Level I | 46.10 | 1.00 | 0.274914 | 1.4354 | 3637499.39 |
| 14S5A23200 | Integrated Circuit | U59 | Telcordia Issue 1 | Level I | | 1.00 | 0.026337 | .1375 | 37969565.62 |
| 14S4195710 | Integrated Circuit | U34,U55 | Telcordia Issue 1 | Level I | | 2.00 | 0.059802 | .6245 | 16721916.86 |
| 14S5812300 | Integrated Circuit | U35 | Telcordia Issue 1 | Level I | | 1.00 | 0.026337 | .1375 | 37969565.62 |
| 14S2047500 | Integrated Circuit | U47 | Telcordia Issue 1 | Level I | | 1.00 | 0.059802 | .3122 | 16721916.86 |
| 14S9661200 | Integrated Circuit | U49 | Telcordia Issue 1 | Level I | | 1.00 | 0.059802 | .3122 | 16721916.86 |
| 14S5A12506 | Integrated Circuit | U51 | Telcordia Issue 1 | Level I | | 1.00 | 0.026337 | .1375 | 37969565.62 |
| 14S5812502 | Integrated Circuit | U52 | Telcordia Issue 1 | Level I | | 1.00 | 0.026337 | .1375 | 37969565.62 |
| 14S5A00702 | Integrated Circuit | U56 | Telcordia Issue 1 | Level I | | 1.00 | 0.059802 | .3122 | 16721916.86 |
| 123131435F | Miscellaneous | Y1 | Telcordia Issue 1 | Level I | | 1.00 | 0.150000 | .7832 | 6666666.67 |
| 1231332722 | Miscellaneous | Y2 | Telcordia Issue 1 | Level I | | 1.00 | 0.150000 | .7832 | 6666666.67 |
| 1231325058 | Miscellaneous | Y3,Y4,Y5 | Telcordia Issue 1 | Level I | | 3.00 | 0.150000 | 2.3495 | 6666666.67 |
| 1651609880 | Connection | U1 | Telcordia Issue 1 | Level I | | 1.00 | 0.022878 | .1195 | 43710088.85 |
| 1124568280 | Capacitor | C189 | Telcordia Issue 1 | Level I | | 1.00 | 0.004544 | .0237 | 220055560.52 |
| 11C2568880 | Capacitor | C188 | Telcordia Issue 1 | Level I | | 1.00 | 0.004544 | .0237 | 220055560.52 |
| 105A510523 | Resistor | R237 | Telcordia Issue 1 | Level I | | 1.00 | 0.002272 | .0119 | 440111121.05 |

