

# AEC-6872

## Reliability Prediction Report (MTBF)

|         |   |
|---------|---|
| Summary | Failure Rate: 17.585310 ppm<br>MTBF: 56,866 Hours |
|---------|---|

|            |            |               |
|------------|------------|---------------|
| Issue date | Approval   | Test Engineer |
| 2011/06/23 | Jansin Lee | Clement Chien |

# Reliability Prediction (MTBF)

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- I . Model Name:** TF-AEC-6872HTT-A1-1010
- II . Prediction Date:** Jun. 23, 2011
- III . Prediction Site:** AAEON Q.E. Dept.
- IV . Predicted by:** Clement Chien
- V . Equipment:** Relex Ver.7.3 Visual Reliability Software
- VI. Simulation Environment:**
- Temperature: 25.0 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:**

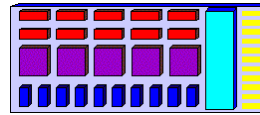
TF-AEC-6872HTT-A1-1010:

- Failure Rate: 17.585310 ppm

- MTBF: 56,866 Hours

### AAEON Reliability Prediction Report

**Part Number**  
**Reference Des**  
**Date** 06. 23, 2011  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00

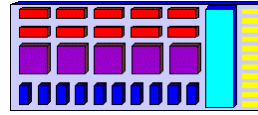


**Description** Top-level assembly  
**File Name** AEC-6872.RPJ  
**Time** 15:28  
**Failure Rate** 17.585310  
**MTBF** 56,866

| Assembly Name              | Part Number    | Model             | Method          | Environment                         | Duty Cycle | Qty  | Failure Rate | MTBF       |
|----------------------------|----------------|-------------------|-----------------|-------------------------------------|------------|------|--------------|------------|
| TF-AEC-6872-A1-1010        |                | Telcordia Issue 1 | Method I Case 3 | GF, GU - Ground Fixed, Uncontrolled | 100.00     | 1.00 | 17.59        | 56865.65   |
| ASS'Y EMB-LN9T             | 9697LN9T09-D   | Telcordia Issue 1 | Method I Case 3 | GF, GU - Ground Fixed, Uncontrolled | 100.00     | 1.00 | 15.96        | 62657.56   |
| ASS'Y POWER BOARD PER-P17D | 9697P17D01-DIP | Telcordia Issue 1 | Method I Case 3 | GF, GU - Ground Fixed, Uncontrolled | 100.00     | 1.00 | 1.12         | 892029.51  |
| ASS'Y.PER-R21X.Rev.-A0.1   | 9697R21X00-D   | Telcordia Issue 1 | Method I Case 3 | GF, GU - Ground Fixed, Uncontrolled | 100.00     | 1.00 | .36          | 2795107.75 |

### AAEON Reliability Prediction Report

**Part Number**  
**Reference Des**  
**Date** 06. 23, 2011  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



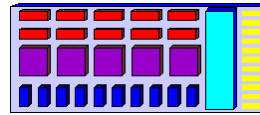
**Description** Top-level assembly  
**File Name** AEC-6872.RPJ  
**Time** 15:28  
**Failure Rate** 17.585310  
**MTBF** 56,866

| Part Number | Category           | Location       | Calculation Model | Quality | Tem. Rise | Quantity | Failure Rate, Unit | Failure Rate, % | MTBF, Unit |
|-------------|--------------------|----------------|-------------------|---------|-----------|----------|--------------------|-----------------|------------|
| 14D6B02G26  | Integrated Circuit | 2GB.DDR II.667 | Telcordia Issue 1 | Level I | 22.90     | 1.00     | 0.146737           | 100.0000        | 6814891.38 |



### AAEON Reliability Prediction Report

**Part Number** 9697LN9T09-D  
**Reference Des**  
**Date** 06. 23, 2011  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00

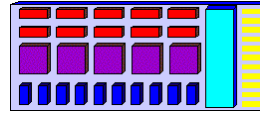


**Description**  
**File Name** AEC-6872.RPJ  
**Time** 15:28  
**Failure Rate** 15.959765  
**MTBF** 62,658

| Part Number | Category  | Location  | Calculation Model | Quality | Tem. Rise | Quantity | Failure Rate, Unit | Failure Rate,% | MTBF, Unit   |
|-------------|-----------|---|-------------------|---------|-----------|----------|--------------------|----------------|--------------|
| 1129701790  | Capacitor | C101,C107,C111,<br>C149,C15,C16,C219,<br>C223,C269,C27,C270,<br>C271,C272,C273,<br>C274,C275,C276,C28,<br>C349,C370,C41,C433,C94  | Telcordia Issue 1 | Level I |           | 23.00    | 0.004535           | .6536          | 220487045.01 |
| 1129610051  | Capacitor | C104,C201,C206,<br>C207,C208,C209,<br>C210,C211,C212,<br>C231,C238,C239,<br>C243,C254,C295,C30,<br>C31,C324,C325,C326,<br>C36,C37,C386,C395,<br>C405,C417,C423,<br>C426,C427,C432,<br>C462,C466,C495,C50,<br>C507,C511,C520,<br>C521,C538,C588,<br>C590,C610,C611,  | Telcordia Issue 1 | Level I |           | 44.00    | 0.004535           | 1.2504         | 220487045.01 |
| 11E9501090  | Capacitor | C112,C148,C182,<br>C183,C205,C217,<br>C245,C248,C249,<br>C252,C256,C280,<br>C282,C32,C323,C332,<br>C340,C347,C351,<br>C356,C359,C428,<br>C429,C44,C449,C457,<br>C458,C459,C463,<br>C465,C47,C470,C471,<br>C472,C475,C476,<br>C478,C48,C480,C484,<br>C485,C487,C499, | Telcordia Issue 1 | Level I |           | 60.00    | 0.004535           | 1.7051         | 220487045.01 |
| 1129710390  | Capacitor | C103,C329,C33,C34,<br>C345,C346,C35,C366,<br>C40,C49,C593,C596,C605,C67   | Telcordia Issue 1 | Level I |           | 14.00    | 0.004535           | .3978          | 220487045.01 |
| 1121610060  | Capacitor | C510,C57  | Telcordia Issue 1 | Level I |           | 2.00     | 0.004535           | .0568          | 220487045.01 |
| 1129622050  | Capacitor | C115,C116,C117,<br>C118,C121,C193,<br>C233,C416,C441,C493,C84   | Telcordia Issue 1 | Level I |           | 11.00    | 0.004535           | .3126          | 220487045.01 |
| 1124427080  | Capacitor | C106,C134,C135,<br>C155,C157,C194,C199,C599   | Telcordia Issue 1 | Level I |           | 8.00     | 0.004535           | .2273          | 220487045.01 |
| 1124533280  | Capacitor | C129,C328   | Telcordia Issue 1 | Level I |           | 2.00     | 0.004535           | .0568          | 220487045.01 |

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**Reference Des**  
**Date** 06. 23, 2011  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description**  
**File Name** AEC-6872.RPJ  
**Time** 15:28  
**Failure Rate** 15.959765  
**MTBF** 62,658

| Part Number | Category      | Location  | Calculation Model | Quality | Tem. Rise | Quantity | Failure Rate, Unit | Failure Rate, % | MTBF, Unit   |
|-------------|---------------|---|-------------------|---------|-----------|----------|--------------------|-----------------|--------------|
| 11C1647780  | Capacitor     | C214  | Telcordia Issue 1 | Level I |           | 1.00     | 0.004535           | .0284           | 220487045.01 |
| 1129622690  | Capacitor     | C266,C310,C311,<br>C331,C338,C341,<br>C344,C360,C362,<br>C422,C445,C460,<br>C477,C535,C536,<br>C565,C570,C574 | Telcordia Issue 1 | Level I |           | 18.00    | 0.004535           | .5115           | 220487045.01 |
| 1189633160  | Capacitor     | C284,C339,C438, C488,C572   | Telcordia Issue 1 | Level I |           | 5.00     | 0.004535           | .1421           | 220487045.01 |
| 1189633160  | Capacitor     | C452  | Telcordia Issue 1 | Level I |           | 1.00     | 0.004535           | .0284           | 220487045.01 |
| 11C1522650  | Capacitor     | C286,C300,C327  | Telcordia Issue 1 | Level I |           | 3.00     | 0.004535           | .0853           | 220487045.01 |
| 1189610151  | Capacitor     | C287,C439,C517  | Telcordia Issue 1 | Level I |           | 3.00     | 0.004535           | .0853           | 220487045.01 |
| 11C2510480  | Capacitor     | C343,C350,C357,<br>C385,C388,C389,<br>C396,C509,C553,<br>C564,C579,C582, C602,C607                            | Telcordia Issue 1 | Level I |           | 14.00    | 0.004535           | .3978           | 220487045.01 |
| 11E9647680  | Capacitor     | C421,C442   | Telcordia Issue 1 | Level I |           | 2.00     | 0.004535           | .0568           | 220487045.01 |
| 1124522881  | Capacitor     | C454,C503   | Telcordia Issue 1 | Level I |           | 2.00     | 0.004535           | .0568           | 220487045.01 |
| 1121647780  | Capacitor     | C479,C506   | Telcordia Issue 1 | Level I |           | 2.00     | 0.004535           | .0568           | 220487045.01 |
| 1124522280  | Capacitor     | C527  | Telcordia Issue 1 | Level I |           | 1.00     | 0.004535           | .0284           | 220487045.01 |
| 1124522680  | Capacitor     | C528  | Telcordia Issue 1 | Level I |           | 1.00     | 0.004535           | .0284           | 220487045.01 |
| 1124582180  | Capacitor     | C573  | Telcordia Issue 1 | Level I |           | 1.00     | 0.004535           | .0284           | 220487045.01 |
| 11E2501080  | Capacitor     | C584,C615   | Telcordia Issue 1 | Level I |           | 2.00     | 0.004535           | .0568           | 220487045.01 |
| 1124447180  | Capacitor     | C598  | Telcordia Issue 1 | Level I |           | 1.00     | 0.004535           | .0284           | 220487045.01 |
| 1301400642  | Semiconductor | D1,D14,D15,D16,D19,<br>D22,D25,D29,D4   | Telcordia Issue 1 | Level I |           | 9.00     | 0.023881           | 1.3467          | 41874327.58  |
| 1301400541  | Semiconductor | D2,D20,D21,D23,D24, D27,D28,D30   | Telcordia Issue 1 | Level I |           | 8.00     | 0.023881           | 1.1971          | 41874327.58  |
| 1305100541  | Semiconductor | D10,D11,D12,D26,<br>D31,D32,D33,D34,<br>D35,D36,D37,D38,D5, D6,D7,D8,D9                                       | Telcordia Issue 1 | Level I |           | 17.00    | 0.023881           | 2.5438          | 41874327.58  |
| 1305099140  | Semiconductor | D17,D18   | Telcordia Issue 1 | Level I |           | 2.00     | 0.079603           | .9975           | 12562298.27  |
| 1300001440  | Semiconductor | D39,D40,D41   | Telcordia Issue 1 | Level I |           | 3.00     | 0.023881           | .4489           | 41874327.58  |
| 1301400440  | Semiconductor | D42,D43,D44,D45, D46  | Telcordia Issue 1 | Level I |           | 5.00     | 0.023881           | .7482           | 41874327.58  |
| 1752001601  | Miscellaneous | FS1,FS3,FS4   | Telcordia Issue 1 | Level I |           | 3.00     | 0.003000           | .0564           | 33333333.33  |
| 1752000501  | Miscellaneous | FS2   | Telcordia Issue 1 | Level I |           | 1.00     | 0.003000           | .0188           | 33333333.33  |
| 1304101340  | Semiconductor | LED1  | Telcordia Issue 1 | Level I |           | 1.00     | 0.004877           | .0306           | 205063180.81 |
| 1304001340  | Semiconductor | LED2  | Telcordia Issue 1 | Level I |           | 1.00     | 0.004877           | .0306           | 205063180.81 |
| 165321320E  | Connection    | LPT1  | Telcordia Issue 1 | Level I |           | 1.00     | 0.014793           | .0927           | 67598482.36  |
| 12123C0006  | Inductor      | L1,L10,L11,L12,L13,<br>L15,L2,L20,L3,L4, L5,L6  | Telcordia Issue 1 | Level I |           | 12.00    | 0.002268           | .1705           | 440974090.03 |



### AAEON Reliability Prediction Report

**Part Number** 9697LN9T09-D  
**Reference Des**  
**Date** 06. 23, 2011  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description**  
**File Name** AEC-6872.RPJ  
**Time** 15:28  
**Failure Rate** 15.959765  
**MTBF** 62,658

| Part Number | Category           | Location  | Calculation Model | Quality | Tem. Rise | Quantity | Failure Rate, Unit | Failure Rate, % | MTBF, Unit   |
|-------------|--------------------|---|-------------------|---------|-----------|----------|--------------------|-----------------|--------------|
| 12123D0001  | Inductor           | L57,L58,L59,L7,L8, L9   | Telcordia Issue 1 | Level I |           | 6.00     | 0.002268           | .0853           | 440974090.03 |
| 12123C0010  | Inductor           | L14,L16,L17,L19,<br>L22,L27,L31,L32,<br>L33,L34,L37,L41,<br>L43,L45,L48,L50, L52,L55,L56                            | Telcordia Issue 1 | Level I |           | 19.00    | 0.002268           | .2700           | 440974090.03 |
| 12123D0000  | Inductor           | L24,L38,L40   | Telcordia Issue 1 | Level I |           | 3.00     | 0.002268           | .0426           | 440974090.03 |
| 121110106D  | Inductor           | L28,L29,L46,L51, L53,L54  | Telcordia Issue 1 | Level I |           | 6.00     | 0.086173           | 3.2396          | 11604581.32  |
| 121110106F  | Inductor           | L35   | Telcordia Issue 1 | Level I |           | 1.00     | 0.086173           | .5399           | 11604581.32  |
| 12123C0003  | Inductor           | L47,L49   | Telcordia Issue 1 | Level I |           | 2.00     | 0.002268           | .0284           | 440974090.03 |
| 1654262300  | Connection         | MPCI1   | Telcordia Issue 1 | Level I |           | 1.00     | 0.070552           | .4421           | 14173875.33  |
| 1315700216  | Semiconductor      | Q1,Q17,Q2,Q21,Q22,<br>Q23,Q24,Q26,Q27,<br>Q28,Q3,Q33,Q42,Q43,<br>Q46,Q47,Q48,Q5,Q8                                  | Telcordia Issue 1 | Level I |           | 19.00    | 0.079603           | 9.4767          | 12562298.27  |
| 1315230511  | Semiconductor      | Q18,Q4,Q7   | Telcordia Issue 1 | Level I |           | 3.00     | 0.079603           | 1.4963          | 12562298.27  |
| 1310390413  | Semiconductor      | Q10,Q16,Q25,Q38, Q44,Q6,Q9  | Telcordia Issue 1 | Level I |           | 7.00     | 0.023881           | 1.0474          | 41874327.58  |
| 1315441012  | Semiconductor      | Q11,Q12,Q13,Q14,<br>Q19,Q20,Q30,Q32,<br>Q35,Q36,Q37,Q39, Q40,Q41  | Telcordia Issue 1 | Level I |           | 14.00    | 0.079603           | 6.9828          | 12562298.27  |
| 1311390612  | Semiconductor      | Q15,Q45   | Telcordia Issue 1 | Level I |           | 2.00     | 0.023881           | .2993           | 41874327.58  |
| 1315R30310  | Integrated Circuit | Q29   | Telcordia Issue 1 | Level I |           | 1.00     | 0.059366           | .3720           | 16844654.92  |
| 1315050311  | Integrated Circuit | Q31   | Telcordia Issue 1 | Level I |           | 1.00     | 0.059366           | .3720           | 16844654.92  |
| 1315443510  | Semiconductor      | Q34   | Telcordia Issue 1 | Level I |           | 1.00     | 0.079603           | .4988           | 12562298.27  |
| 1540782282  | Resistor           | RN1,RN23,RN24,RN25, RN26,RN27   | Telcordia Issue 1 | Level I |           | 6.00     | 0.012492           | .4696           | 80051386.00  |
| 1540710382  | Resistor           | RN16,RN17,RN20  | Telcordia Issue 1 | Level I |           | 3.00     | 0.006246           | .1174           | 160102772.00 |
| 1540756081  | Resistor           | RN18,RN19,RN28,<br>RN29,RN30,RN31,<br>RN32,RN41,RN42,<br>RN43,RN44,RN49,<br>RN50,RN51,RN52,<br>RN53,RN54,RN55, RN56 | Telcordia Issue 1 | Level I |           | 19.00    | 0.006246           | .7436           | 160102772.00 |
| 1540733085  | Resistor           | RN21,RN22,RN45,<br>RN46,RN47,RN48   | Telcordia Issue 1 | Level I |           | 6.00     | 0.006246           | .2348           | 160102772.00 |
| 106B501032  | Resistor           | RT1,RT2   | Telcordia Issue 1 | Level I |           | 2.00     | 0.011379           | .1426           | 87878027.07  |
| 106B510030  | Resistor           | RT3   | Telcordia Issue 1 | Level I |           | 1.00     | 0.011379           | .0713           | 87878027.07  |





### AAEON Reliability Prediction Report

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**Reference Des**  
**Date** 06. 23, 2011  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description**  
**File Name** AEC-6872.RPJ  
**Time** 15:28  
**Failure Rate** 15.959765  
**MTBF** 62,658

| Part Number | Category | Location   | Calculation Model | Quality | Tem. Rise | Quantity | Failure Rate, Unit | Failure Rate, % | MTBF, Unit   |
|-------------|----------|--|-------------------|---------|-----------|----------|--------------------|-----------------|--------------|
| 105A505123  | Resistor | R518,R65   | Telcordia Issue 1 | Level I |           | 2.00     | 0.002268           | .0284           | 440974090.03 |
| 105A502033  | Resistor | R472,R678,R74  | Telcordia Issue 1 | Level I |           | 3.00     | 0.002268           | .0426           | 440974090.03 |
| 105A700003  | Resistor | R111,R118,R119,<br>R122,R308,R428,<br>R537,R540,R541,<br>R542,R544,R588,<br>R639,R686,R694 | Telcordia Issue 1 | Level I |           | 15.00    | 0.002268           | .2131           | 440974090.03 |
| 105A524913  | Resistor | R117,R120  | Telcordia Issue 1 | Level I |           | 2.00     | 0.002268           | .0284           | 440974090.03 |
| 105A501053  | Resistor | R125,R199,R201   | Telcordia Issue 1 | Level I |           | 3.00     | 0.002268           | .0426           | 440974090.03 |
| 105A540213  | Resistor | R149   | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 105A501533  | Resistor | R174,R177,R429   | Telcordia Issue 1 | Level I |           | 3.00     | 0.002268           | .0426           | 440974090.03 |
| 1059703623  | Resistor | R183,R184  | Telcordia Issue 1 | Level I |           | 2.00     | 0.002268           | .0284           | 440974090.03 |
| 1059710001  | Resistor | R185,R556  | Telcordia Issue 1 | Level I |           | 2.00     | 0.002268           | .0284           | 440974090.03 |
| 105A502133  | Resistor | R187   | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 105A524963  | Resistor | R200,R570,R576, R620   | Telcordia Issue 1 | Level I |           | 4.00     | 0.002268           | .0568           | 440974090.03 |
| 105A533033  | Resistor | R215,R226  | Telcordia Issue 1 | Level I |           | 2.00     | 0.002268           | .0284           | 440974090.03 |
| 105A506803  | Resistor | R216,R221  | Telcordia Issue 1 | Level I |           | 2.00     | 0.002268           | .0284           | 440974090.03 |
| 105A505109  | Resistor | R232,R244,R250, R565,R566  | Telcordia Issue 1 | Level I |           | 5.00     | 0.002268           | .0710           | 440974090.03 |
| 105A500233  | Resistor | R238,R271,R280, R396,R574  | Telcordia Issue 1 | Level I |           | 5.00     | 0.002268           | .0710           | 440974090.03 |
| 105A545303  | Resistor | R247   | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 105A501133  | Resistor | R249   | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 105A532413  | Resistor | R256   | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 105A549963  | Resistor | R284,R579,R590   | Telcordia Issue 1 | Level I |           | 3.00     | 0.002268           | .0426           | 440974090.03 |
| 105A514023  | Resistor | R289   | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 105A515033  | Resistor | R362,R474  | Telcordia Issue 1 | Level I |           | 2.00     | 0.002268           | .0284           | 440974090.03 |
| 105A580663  | Resistor | R371,R372  | Telcordia Issue 1 | Level I |           | 2.00     | 0.002268           | .0284           | 440974090.03 |
| 105A501413  | Resistor | R393   | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 105A505133  | Resistor | R427   | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 105A702263  | Resistor | R431,R433,R437,<br>R476,R630,R635  | Telcordia Issue 1 | Level I |           | 6.00     | 0.002268           | .0853           | 440974090.03 |
| 105A507533  | Resistor | R439,R478  | Telcordia Issue 1 | Level I |           | 2.00     | 0.002268           | .0284           | 440974090.03 |
| 105A501553  | Resistor | R440   | Telcordia Issue 1 | Level I |           | 1.00     | 0.013606           | .0853           | 73495681.67  |
| 105A590923  | Resistor | R443   | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 105A523713  | Resistor | R456,R599  | Telcordia Issue 1 | Level I |           | 2.00     | 0.002268           | .0284           | 440974090.03 |
| 105A501233  | Resistor | R457   | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 105A711033  | Resistor | R459,R491  | Telcordia Issue 1 | Level I |           | 2.00     | 0.002268           | .0284           | 440974090.03 |
| 105A549913  | Resistor | R470   | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |

### AAEON Reliability Prediction Report

**Part Number** 9697LN9T09-D  
**Reference Des**  
**Date** 06. 23, 2011  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description**  
**File Name** AEC-6872.RPJ  
**Time** 15:28  
**Failure Rate** 15.959765  
**MTBF** 62,658

| Part Number | Category           | Location                                 | Calculation Model | Quality | Tem. Rise | Quantity | Failure Rate, Unit | Failure Rate, % | MTBF, Unit   |
|-------------|--------------------|--|-------------------|---------|-----------|----------|--------------------|-----------------|--------------|
| 1059702033  | Resistor           | R471                                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 105A575033  | Resistor           | R475                                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 1059705633  | Resistor           | R480                                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 105A502039  | Resistor           | R506                                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 105A539223  | Resistor           | R519                                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 105A507523  | Resistor           | R539,R543                                | Telcordia Issue 1 | Level I |           | 2.00     | 0.002268           | .0284           | 440974090.03 |
| 1059722001  | Resistor           | R545                                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 105A700103  | Resistor           | R561,R573,R619, R623                     | Telcordia Issue 1 | Level I |           | 4.00     | 0.002268           | .0568           | 440974090.03 |
| 105A510053  | Resistor           | R562                                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.013606           | .0853           | 73495681.67  |
| 105A556263  | Resistor           | R564                                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 1059775003  | Resistor           | R580                                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 105A566503  | Resistor           | R597                                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 105A522663  | Resistor           | R622                                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 105A554923  | Resistor           | R626                                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 1059501001  | Resistor           | R627                                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 105A584523  | Resistor           | R628                                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 105A513033  | Resistor           | R631                                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 105A504763  | Resistor           | R677,R692                                | Telcordia Issue 1 | Level I |           | 2.00     | 0.002268           | .0284           | 440974090.03 |
| 105A517423  | Resistor           | R683,R693                                | Telcordia Issue 1 | Level I |           | 2.00     | 0.002268           | .0284           | 440974090.03 |
| 105A586603  | Resistor           | R685                                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 105A580623  | Resistor           | R687                                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 105A536533  | Resistor           | R688                                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .0142           | 440974090.03 |
| 1654907009  | Connection         | SATA1,SATA2                              | Telcordia Issue 1 | Level I |           | 2.00     | 0.001138           | .0143           | 878780270.71 |
| 16515A0996  | Connection         | SODIMM1                                  | Telcordia Issue 1 | Level I |           | 1.00     | 0.113794           | .7130           | 8787802.71   |
| 16515A099B  | Connection         | SODIMM2                                  | Telcordia Issue 1 | Level I |           | 1.00     | 0.113794           | .7130           | 8787802.71   |
| 165320520C  | Connection         | USB1,USB2                                | Telcordia Issue 1 | Level I |           | 2.00     | 0.005690           | .0713           | 175756054.14 |
| 14S1230400  | Integrated Circuit | U1                                       | Telcordia Issue 1 | Level I |           | 1.00     | 0.059366           | .3720           | 16844654.92  |
| 14S5A00401  | Integrated Circuit | U2                                       | Telcordia Issue 1 | Level I |           | 1.00     | 0.026183           | .1641           | 38193355.79  |
| 14S5812502  | Integrated Circuit | U3                                       | Telcordia Issue 1 | Level I |           | 1.00     | 0.026183           | .1641           | 38193355.79  |
| 14S4048503  | Integrated Circuit | U10,U4                                   | Telcordia Issue 1 | Level I |           | 2.00     | 0.059366           | .7439           | 16844654.92  |
| 14S2200900  | Integrated Circuit | U5                                       | Telcordia Issue 1 | Level I |           | 1.00     | 0.059366           | .3720           | 16844654.92  |
| 14S4021301  | Integrated Circuit | U36,U37,U40,U41, U47,U49,U51,U53, U54,U6 | Telcordia Issue 1 | Level I |           | 10.00    | 0.059366           | 3.7197          | 16844654.92  |
| 14S5A12506  | Integrated Circuit | U7                                       | Telcordia Issue 1 | Level I |           | 1.00     | 0.026183           | .1641           | 38193355.79  |
| 14S3524700  | Integrated Circuit | U8                                       | Telcordia Issue 1 | Level I |           | 1.00     | 0.059366           | .3720           | 16844654.92  |
| 14S3170800  | Integrated Circuit | U9                                       | Telcordia Issue 1 | Level I |           | 1.00     | 0.059366           | .3720           | 16844654.92  |

### AAEON Reliability Prediction Report

**Part Number** 9697LN9T09-D  
**Reference Des**  
**Date** 06. 23, 2011  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description**  
**File Name** AEC-6872.RPJ  
**Time** 15:28  
**Failure Rate** 15.959765  
**MTBF** 62,658

| Part Number | Category           | Location        | Calculation Model | Quality | Tem. Rise | Quantity | Failure Rate, Unit | Failure Rate, % | MTBF, Unit   |
|-------------|--------------------|-----------------|-------------------|---------|-----------|----------|--------------------|-----------------|--------------|
| 1315686110  | Semiconductor      | U11,U12,U35,U52 | Telcordia Issue 1 | Level I |           | 4.00     | 0.079603           | 1.9951          | 12562298.27  |
| 14S2041500  | Integrated Circuit | U15             | Telcordia Issue 1 | Level I | 20.00     | 1.00     | 0.233882           | 1.4654          | 4275661.99   |
| 14S4811100  | Integrated Circuit | U16,U17         | Telcordia Issue 1 | Level I | 22.20     | 2.00     | 0.088205           | 1.1053          | 11337285.51  |
| 14S5A00821  | Integrated Circuit | U18,U19,U20     | Telcordia Issue 1 | Level I |           | 3.00     | 0.026183           | .4922           | 38193355.79  |
| 14S6334610  | Integrated Circuit | U21,U22         | Telcordia Issue 1 | Level I |           | 2.00     | 0.022943           | .2875           | 43586356.53  |
| 14S5A00704  | Integrated Circuit | U24             | Telcordia Issue 1 | Level I |           | 1.00     | 0.026183           | .1641           | 38193355.79  |
| 14S3033800  | Integrated Circuit | U25             | Telcordia Issue 1 | Level I |           | 1.00     | 0.059366           | .3720           | 16844654.92  |
| 14S3050100  | Integrated Circuit | U26             | Telcordia Issue 1 | Level I | 26.90     | 1.00     | 0.360928           | 2.2615          | 2770631.97   |
| 14S4362706  | Integrated Circuit | U27             | Telcordia Issue 1 | Level I |           | 1.00     | 0.026183           | .1641           | 38193355.79  |
| 14S4166012  | Integrated Circuit | U28             | Telcordia Issue 1 | Level I | 22.90     | 1.00     | 0.091398           | .5727           | 10941169.84  |
| 14S4280121  | Integrated Circuit | U29             | Telcordia Issue 1 | Level I | 19.30     | 1.00     | 0.075994           | .4762           | 13158997.57  |
| 14S5A00703  | Integrated Circuit | U32             | Telcordia Issue 1 | Level I |           | 1.00     | 0.026183           | .1641           | 38193355.79  |
| 14S4195710  | Integrated Circuit | U33             | Telcordia Issue 1 | Level I |           | 1.00     | 0.059366           | .3720           | 16844654.92  |
| 14S4121602  | Integrated Circuit | U38             | Telcordia Issue 1 | Level I |           | 1.00     | 0.026183           | .1641           | 38193355.79  |
| 14S3128421  | Integrated Circuit | U39             | Telcordia Issue 1 | Level I |           | 1.00     | 0.059366           | .3720           | 16844654.92  |
| 14S4081102  | Integrated Circuit | U43             | Telcordia Issue 1 | Level I |           | 1.00     | 0.026183           | .1641           | 38193355.79  |
| 14S2048800  | Integrated Circuit | U44             | Telcordia Issue 1 | Level I |           | 1.00     | 0.032000           | .2005           | 31250122.20  |
| 14S2538000  | Integrated Circuit | U45             | Telcordia Issue 1 | Level I | 20.70     | 1.00     | 0.081689           | .5118           | 12241500.12  |
| 14S5912300  | Integrated Circuit | U48             | Telcordia Issue 1 | Level I |           | 1.00     | 0.026183           | .1641           | 38193355.79  |
| 123132505D  | Miscellaneous      | Y2,Y3           | Telcordia Issue 1 | Level I |           | 2.00     | 0.150000           | 1.8797          | 6666666.67   |
| 123131435J  | Miscellaneous      | Y4              | Telcordia Issue 1 | Level I |           | 1.00     | 0.150000           | .9399           | 6666666.67   |
| 1231332721  | Miscellaneous      | Y5              | Telcordia Issue 1 | Level I |           | 1.00     | 0.150000           | .9399           | 6666666.67   |
| 121110336X  | Inductor           | L18,L25         | Telcordia Issue 1 | Level I |           | 2.00     | 0.086173           | 1.0799          | 11604581.32  |
| 121110336Y  | Inductor           | L36,L39,L42     | Telcordia Issue 1 | Level I |           | 3.00     | 0.086173           | 1.6198          | 11604581.32  |
| 121110476V  | Inductor           | L23,L44         | Telcordia Issue 1 | Level I |           | 2.00     | 0.086173           | 1.0799          | 11604581.32  |
| 1652514210  | Connection         | AUDIO1          | Telcordia Issue 1 | Level I |           | 1.00     | 0.022759           | .1426           | 43939013.54  |
| 175011901H  | Miscellaneous      | BATTERY1        | Telcordia Issue 1 | Level I |           | 1.00     | 0.900000           | 5.6392          | 1111111.11   |
| 14S6203201  | Integrated Circuit | BIOS1           | Telcordia Issue 1 | Level I |           | 1.00     | 0.026183           | .1641           | 38193355.79  |
| 1750220323  | Connection         | BT1             | Telcordia Issue 1 | Level I |           | 1.00     | 0.001138           | .0071           | 878780270.71 |
| 1759100007  | Miscellaneous      | BUZZ1           | Telcordia Issue 1 | Level I |           | 1.00     | 0.150000           | .9399           | 6666666.67   |
| 1653900038  | Connection         | CFD1            | Telcordia Issue 1 | Level I |           | 1.00     | 0.001138           | .0071           | 878780270.71 |
| 1655303020  | Connection         | CN2             | Telcordia Issue 1 | Level I |           | 1.00     | 0.001707           | .0107           | 585853513.81 |
| 1655004020  | Connection         | CN3             | Telcordia Issue 1 | Level I |           | 1.00     | 0.002276           | .0143           | 439390135.35 |
| 1655906032  | Connection         | CN5             | Telcordia Issue 1 | Level I |           | 1.00     | 0.003414           | .0214           | 292926756.90 |
| 1655003010  | Connection         | CN6             | Telcordia Issue 1 | Level I |           | 1.00     | 0.001707           | .0107           | 585853513.81 |
| 1655305020  | Connection         | CN7             | Telcordia Issue 1 | Level I |           | 1.00     | 0.002845           | .0178           | 351512108.28 |

### AAEON Reliability Prediction Report

**Part Number** 9697LN9T09-D  
**Reference Des**  
**Date** 06. 23, 2011  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description**  
**File Name** AEC-6872.RPJ  
**Time** 15:28  
**Failure Rate** 15.959765  
**MTBF** 62,658

| Part Number | Category   | Location                                | Calculation Model | Quality | Tem. Rise | Quantity | Failure Rate, Unit | Failure Rate, % | MTBF, Unit   |
|-------------|------------|---|-------------------|---------|-----------|----------|--------------------|-----------------|--------------|
| 1655004017  | Connection | CN8                                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.001138           | .0071           | 878780270.71 |
| 1655404020  | Connection | CN9                                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.002276           | .0143           | 439390135.35 |
| 1653005200  | Connection | CN11                                    | Telcordia Issue 1 | Level I |           | 1.00     | 0.022759           | .1426           | 43939013.54  |
| 1654418103  | Connection | COM1                                    | Telcordia Issue 1 | Level I |           | 1.00     | 0.010241           | .0642           | 97642252.30  |
| 1119622196  | Capacitor  | C58,C59                                 | Telcordia Issue 1 | Level I |           | 2.00     | 0.071121           | .8913           | 14060484.33  |
| 1112610102  | Capacitor  | C110,C139,C322                          | Telcordia Issue 1 | Level I |           | 3.00     | 0.042673           | .8021           | 23434140.55  |
| 1112647110  | Capacitor  | C348,C367                               | Telcordia Issue 1 | Level I |           | 2.00     | 0.071121           | .8913           | 14060484.33  |
| 1653003101  | Connection | JP1,JP4,JP5                             | Telcordia Issue 1 | Level I |           | 3.00     | 0.001707           | .0321           | 585853513.81 |
| 1653003201  | Connection | JP2,JP3                                 | Telcordia Issue 1 | Level I |           | 2.00     | 0.001138           | .0143           | 878780270.71 |
| 1653300108  | Connection | JP5(1-2)                                | Telcordia Issue 1 | Level I |           | 1.00     | 0.001138           | .0071           | 878780270.71 |
| 1653300107  | Connection | JP1(2-3),JP2(3-5),<br>JP2(4-6),JP3(3-4) | Telcordia Issue 1 | Level I |           | 4.00     | 0.001138           | .0285           | 878780270.71 |
| 1653300102  | Connection | JP4(1-2)                                | Telcordia Issue 1 | Level I |           | 1.00     | 0.001138           | .0071           | 878780270.71 |
| 1654612307  | Connection | KBMS1                                   | Telcordia Issue 1 | Level I |           | 1.00     | 0.001138           | .0071           | 878780270.71 |
| 1654260207  | Connection | PC1                                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.068276           | .4278           | 14646337.85  |
| 1652522202  | Connection | USB RJ1, USB RJ2                        | Telcordia Issue 1 | Level I |           | 2.00     | 0.012517           | .1569           | 79889115.52  |
| 111961029D  | Capacitor  | C136,C285,C368, C369,C88                | Telcordia Issue 1 | Level I |           | 5.00     | 0.071121           | 2.2281          | 14060484.33  |
| 111961029H  | Capacitor  | C354,C355                               | Telcordia Issue 1 | Level I |           | 2.00     | 0.071121           | .8913           | 14060484.33  |
| 1654415308  | Connection | DVI+VGA1                                | Telcordia Issue 1 | Level I |           | 1.00     | 0.008535           | .0535           | 117170702.76 |

**AAEON Reliability Prediction Report**

**Part Number** 9697P17D01-DIP  
**Reference Des**  
**Date** 06. 23, 2011  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description**  
**File Name** AEC-6872.RPJ  
**Time** 15:28  
**Failure Rate** 1.121039  
**MTBF** 892,030

| Part Number | Category           | Location                | Calculation Model | Quality | Tem. Rise | Quantity | Failure Rate, Unit | Failure Rate, % | MTBF, Unit   |
|-------------|--------------------|-------------------------|-------------------|---------|-----------|----------|--------------------|-----------------|--------------|
| 1053500279  | Resistor           | CR1,CR2                 | Telcordia Issue 1 | Level I |           | 2.00     | 0.002268           | .4046           | 440974090.03 |
| 1121610060  | Capacitor          | C1,C2,C3                | Telcordia Issue 1 | Level I |           | 3.00     | 0.004535           | 1.2137          | 220487045.01 |
| 11C4501060  | Capacitor          | C4                      | Telcordia Issue 1 | Level I |           | 1.00     | 0.004535           | .4046           | 220487045.01 |
| 1121547661  | Capacitor          | C10,C5                  | Telcordia Issue 1 | Level I |           | 2.00     | 0.004535           | .8091           | 220487045.01 |
| 11C1522480  | Capacitor          | C13,C6                  | Telcordia Issue 1 | Level I |           | 2.00     | 0.004535           | .8091           | 220487045.01 |
| 1122501780  | Capacitor          | C12,C7                  | Telcordia Issue 1 | Level I |           | 2.00     | 0.004535           | .8091           | 220487045.01 |
| 1124522280  | Capacitor          | C11                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.004535           | .4046           | 220487045.01 |
| 1124522880  | Capacitor          | C14                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.004535           | .4046           | 220487045.01 |
| 1189610180  | Capacitor          | C17                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.004535           | .4046           | 220487045.01 |
| 1124701680  | Capacitor          | C18,C19,C22,C23,C8      | Telcordia Issue 1 | Level I |           | 5.00     | 0.004535           | 2.0229          | 220487045.01 |
| 1301005442  | Semiconductor      | D1                      | Telcordia Issue 1 | Level I |           | 1.00     | 0.023881           | 2.1303          | 41874327.58  |
| 1301003240  | Semiconductor      | D2                      | Telcordia Issue 1 | Level I |           | 1.00     | 0.023881           | 2.1303          | 41874327.58  |
| 1301003440  | Semiconductor      | D3                      | Telcordia Issue 1 | Level I |           | 1.00     | 0.023881           | 2.1303          | 41874327.58  |
| 1301003640  | Semiconductor      | D4                      | Telcordia Issue 1 | Level I |           | 1.00     | 0.023881           | 2.1303          | 41874327.58  |
| 121110336H  | Inductor           | L1                      | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .2023           | 440974090.03 |
| 1212308054  | Inductor           | L2,L3,L4                | Telcordia Issue 1 | Level I |           | 3.00     | 0.002268           | .6069           | 440974090.03 |
| 105A701003  | Resistor           | R1                      | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .2023           | 440974090.03 |
| 105A534823  | Resistor           | R4                      | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .2023           | 440974090.03 |
| 105A704723  | Resistor           | R5                      | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .2023           | 440974090.03 |
| 105A524913  | Resistor           | R6                      | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .2023           | 440974090.03 |
| 105A502033  | Resistor           | R7                      | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .2023           | 440974090.03 |
| 105A700003  | Resistor           | R10,R11,R12,R13, R15,R9 | Telcordia Issue 1 | Level I |           | 6.00     | 0.002268           | 1.2137          | 440974090.03 |
| 105A512413  | Resistor           | R14,R16                 | Telcordia Issue 1 | Level I |           | 2.00     | 0.002268           | .4046           | 440974090.03 |
| 1059710003  | Resistor           | R17                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .2023           | 440974090.03 |
| 105A700333  | Resistor           | R18                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .2023           | 440974090.03 |
| 105A700133  | Resistor           | R19                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.002268           | .2023           | 440974090.03 |
| 14S3378000  | Integrated Circuit | U1                      | Telcordia Issue 1 | Level I | 16.60     | 1.00     | 0.187547           | 16.7297         | 5331999.00   |
| 1314257610  | Integrated Circuit | U2                      | Telcordia Issue 1 | Level I | 12.70     | 1.00     | 0.144723           | 12.9097         | 6909741.80   |
| 1315567011  | Semiconductor      | Q1,Q3                   | Telcordia Issue 1 | Level I |           | 2.00     | 0.000000           | .0000           | .00          |
| 1315889612  | Semiconductor      | Q2,Q4                   | Telcordia Issue 1 | Level I | 15.10     | 2.00     | 0.120313           | 21.4645         | 8311659.55   |
| 1211103301  | Inductor           | L5                      | Telcordia Issue 1 | Level I |           | 1.00     | 0.086173           | 7.6869          | 11604581.32  |
| 1652003101  | Connection         | CN1                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.001138           | .1015           | 878780270.71 |
| 1655104005  | Connection         | CN2                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.001138           | .1015           | 878780270.71 |
| 1655004011  | Connection         | CN3                     | Telcordia Issue 1 | Level I |           | 1.00     | 0.001138           | .1015           | 878780270.71 |
| 1189618090  | Capacitor          | EC1,EC2                 | Telcordia Issue 1 | Level I |           | 2.00     | 0.004535           | .8091           | 220487045.01 |
| 1181647110  | Capacitor          | EC3,EC4                 | Telcordia Issue 1 | Level I |           | 2.00     | 0.004535           | .8091           | 220487045.01 |





