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ISO-14000 Certified  
ISO-17025 Certified  
**ADVANTECH CO., LTD.**

# QA Test Report

**AIMB-581QG2-00A1E**

**(Reliability Prediction)**

**Report No :11R186A0**

**Report Date : September , 09 , 2011**

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*Y. Z. Huang*  
**Issue Stamp    Manager of QA Department**

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*Edison Wang*  
**Approval**

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*Meei Chou*  
**Test Engineer**

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[www.advantech.com](http://www.advantech.com)

**Reliability Prediction**

**I. Date:** 2011/09/06

**II. Model Name:** AIMB-581QG2-00A1E

**III. Revision:** N/A

**IV. Description:** LGA1155 mATX VGA/DVI/LVDS/PCIe/2GbE/4 COM/Q67

**V. Equipment:** Relex Calculation Method:  
Telcordia Issue 2 ; Method I Case 3.

**VI: Prediction Result 1: GB, GC - Ground Benign, Controlled**

**.Environment :GB**

**.Temperature : 30°C**

**.Quality: Level II**

**.Stress : 50%**

**.Failure Rate : 1,933.493294 FITs.**

**.MTBF : 517,199 hours.**

**Reliability Prediction**

**VII. Prediction Result 2: GF, GU - Ground Fixed, Uncontrolled**

- .Environment :GF**
- .Temperature :30°C**
- .Quality :Level II**
- .Stress :50%**
- .Failure Rate : 3,834.396588 FITs.**
- .MTBF : 260,797 hours.**

- VIII. Index:**
- A. Failure Rate & Assembly MTBF**
  - B. Part Failure List**



# Reliability Prediction Summary

File Name: AIMB-581QG2-00A1E.rfp  
 Assembly: System  
 Ref Des:  
 Description:

Failure Rate: 1933.493294  
 MTBF (hrs): 517,199  
 Temperature: 30  
 Environment: GB, GC - Ground Benign, Controlled

Part Number	Category	Ref Des	Unit Failure Rate	Quantity	Total Failure Rate
1000000023	Resistor		0.424506	6	2.945996
1000000093	Resistor		0.332381	1	0.645908
1000000153	Resistor		0.424506	8	3.855755
1000000164	Resistor		0.424506	2	1.081698
1000000168	Resistor		0.424506	1	0.590303
1000000177	Resistor		0.424506	6	2.945996
1000000214	Resistor		0.332381	1	0.645908
1000000558	Resistor		0.424506	2	1.081698
1000000620	Resistor		0.424506	1	0.590303
1000000642	Resistor		0.424506	1	0.590303
1000000647	Resistor		0.424506	2	1.081698
1000000719	Resistor		0.424506	3	1.557330
1000000750	Resistor		0.424506	1	0.590303
1000000757	Resistor		0.424506	3	1.557330
1000000766	Resistor		0.424506	1	0.590303
1000000802	Resistor		0.424506	1	0.590303
1000000830	Resistor		0.424506	1	0.590303
1000000871	Resistor		0.424506	2	1.081698
1000000916	Resistor		0.332381	2	1.109506
1000001732	Resistor		0.332381	2	1.109506
1000001912	Resistor		0.332381	6	2.757099
1000001935	Resistor		0.424506	1	0.590303
1000001937	Resistor		0.424506	1	0.590303
1000001943	Resistor		0.424506	1	0.590303
1000001948	Resistor		0.424506	1	0.590303
1000001949	Resistor		0.424506	1	0.590303
1000002014	Resistor		0.332381	5	2.359665
1000002852	Resistor		0.332381	1	0.645908
1000003453	Resistor		0.332381	6	2.757099
1000003612	Resistor		0.332381	2	1.109506
1000004851	Resistor		0.424506	4	2.024871
1000004866	Resistor		0.424506	1	0.590303
1000004939	Resistor		0.332381	1	0.645908
1000006038	Resistor		0.332381	1	0.645908
1000006039	Resistor		0.424506	1	0.590303
1000006377	Resistor		0.424506	1	0.590303
1000008019	Resistor		0.332381	1	0.645908
1000008040	Resistor		0.424506	1	0.590303
1000008041	Resistor		0.332381	1	0.645908
1000009027	Resistor		0.332381	1	0.645908
1059700001	Resistor		0.424506	1	0.590303
1059722070	Resistor		0.424506	6	2.945996
105A501003	Resistor		0.424506	4	2.024871
105A50103A	Resistor		0.424506	14	6.541785
105A50330A	Resistor		0.424506	5	2.487260
105A510004	Resistor		0.424506	18	8.319972
105A510014	Resistor		0.424506	50	22.356750
105A510023	Resistor		0.424506	3	1.557330



## Reliability Prediction Summary

**File Name:** AIMB-581QG2-00A1E.rfp  
**Assembly:** System  
**Ref Des:**  
**Description:**

**Failure Rate:** 1933.493294  
**MTBF (hrs):** 517,199  
**Temperature:** 30  
**Environment:** GB, GC - Ground Benign, Controlled

Part Number	Category	Ref Des	Unit Failure Rate	Quantity	Total Failure Rate
105A510034	Resistor		0.424506	18	8.319972
105A510043	Resistor		0.424506	1	0.590303
105A510053	Resistor		0.998839	2	2.556356
105A511004	Resistor		0.424506	2	1.081698
105A512104	Resistor		0.424506	1	0.590303
105A515004	Resistor		0.424506	8	3.855755
105A515023	Resistor		0.424506	1	0.590303
105A51693A	Resistor		0.424506	2	1.081698
105A517803	Resistor		0.332381	1	0.645908
105A520004	Resistor		0.424506	4	2.024871
105A520014	Resistor		0.424506	4	2.024871
105A522004	Resistor		0.424506	1	0.590303
105A52206A	Resistor		0.424506	13	6.095501
105A52371A	Resistor		0.332381	1	0.645908
105A524904	Resistor		0.424506	1	0.590303
105A52700A	Resistor		0.424506	3	1.557330
105A528013	Resistor		0.424506	1	0.590303
105A530113	Resistor		0.424506	1	0.590303
105A53012A	Resistor		0.424506	1	0.590303
105A530133	Resistor		0.424506	1	0.590303
105A53746A	Resistor		0.424506	1	0.590303
105A54870A	Resistor		0.424506	1	0.590303
105A548713	Resistor		0.424506	1	0.590303
105A54873A	Resistor		0.424506	1	0.590303
105A549933	Resistor		0.424506	2	1.081698
105A549964	Resistor		0.424506	3	1.557330
105A55496A	Resistor		0.424506	1	0.590303
105A55601A	Resistor		0.424506	7	3.401969
105A55601B	Resistor		0.424506	1	0.590303
105A57151A	Resistor		0.424506	1	0.590303
105A575004	Resistor		0.424506	2	1.081698
105A575064	Resistor		0.424506	8	3.855755
105A59101A	Resistor		0.424506	4	2.024871
105A595313	Resistor		0.424506	1	0.590303
105A700004	Resistor		0.332381	91	33.114997
105A700009	Resistor		0.332381	34	13.085841
105A700109	Resistor		0.424506	5	2.487260
105A701004	Resistor		0.424506	6	2.945996
105A70470A	Resistor		0.424506	1	0.590303
105A705109	Resistor		0.424506	7	3.401969
105A710004	Resistor		0.424506	19	8.763081
105A710014	Resistor		0.424506	18	8.319972
105A710024	Resistor		0.424506	104	45.780439
105A710029	Resistor		0.424506	5	2.487260
105A710034	Resistor		0.424506	8	3.855755
105A710044	Resistor		0.424506	1	0.590303
105A711009	Resistor		0.424506	1	0.590303
105A715024	Resistor		0.424506	6	2.945996



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Description:

Failure Rate: 1933.493294
MTBF (hrs): 517,199
Temperature: 30
Environment: GB, GC - Ground Benign, Controlled

Table with 6 columns: Part Number, Category, Ref Des, Unit Failure Rate, Quantity, Total Failure Rate. Lists various components like resistors and capacitors with their respective failure rates and quantities.



# Reliability Prediction Summary

**File Name:** AIMB-581QG2-00A1E.rfp  
**Assembly:** System  
**Ref Des:**  
**Description:**

**Failure Rate:** 1933.493294  
**MTBF (hrs):** 517,199  
**Temperature:** 30  
**Environment:** GB, GC - Ground Benign, Controlled

Part Number	Category	Ref Des	Unit Failure Rate	Quantity	Total Failure Rate
1121610790	Capacitor		0.188134	54	10.504744
1124410190	Capacitor		0.188134	8	1.638054
1124418090	Capacitor		0.188134	4	0.846568
1124420090	Capacitor		0.188134	2	0.444101
1124422091	Capacitor		0.188134	7	1.441331
1124427091	Capacitor		0.188134	7	1.441331
1124433091	Capacitor		0.188134	6	1.243969
1124447091	Capacitor		0.188134	4	0.846568
1124447190	Capacitor		0.188134	3	0.647214
1124447280	Capacitor		0.920000	1	0.920000
1124468090	Capacitor		0.188134	2	0.444101
1124510291	Capacitor		0.188134	33	6.478515
1124518191	Capacitor		0.188134	48	9.356179
1124582280	Capacitor		0.188134	1	0.236414
1129510060	Capacitor		0.188134	3	0.647214
1169615194	Capacitor		0.790747	2	1.936871
1211000098	Inductor		0.824042	3	2.905459
1211004454	Inductor		1.914441	8	17.492952
1211100107	Inductor		0.824042	1	1.076930
1211147073	Inductor		0.824042	1	1.076930
1212000055	Inductor		0.824042	6	5.545223
1212000056	Inductor		0.824042	17	15.020298
1212000316	Inductor		0.824042	10	9.016270
1212000376	Inductor		0.824042	6	5.545223
1212001157	Inductor		0.824042	2	2.003180
1212002422	Inductor		0.824042	6	5.545223
1212301070	Inductor		0.824042	10	9.016270
1212302000	Inductor		0.824042	3	2.905459
1212309007	Inductor		0.824042	14	12.454586
1230000004	Miscellaneous		3.200000	1	6.989802
1230000012	Miscellaneous		3.200000	3	29.023340
1231000054	Miscellaneous		3.200000	2	18.823774
1231001703	Miscellaneous		3.200000	1	6.989802
1290001271	Miscellaneous		0.400000	8	3.905130
1290001272	Miscellaneous		0.400000	2	1.157852
1300000160	Semiconductor		1.298902	1	1.795836
1300000473	Semiconductor		1.298902	2	3.295234
1300002546	Semiconductor		2.830043	9	30.040753
1300003587	Semiconductor		2.830043	3	11.157654
1300005440	Semiconductor		2.830043	9	30.040753
1300414800	Semiconductor		1.298902	8	11.769296
1301005440	Semiconductor		1.298902	3	4.747410
1304100640	Optical Device		0.378027	3	1.336031
1305000040	Miscellaneous		0.400000	2	1.157852
1310000759	Semiconductor		3.743893	5	22.069678
1310002693	Semiconductor		2.830043	1	4.388153
1310003013	Semiconductor		3.743893	15	61.846934
1310003826	Semiconductor		0.000000	1	0.000000



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Part Number	Category	Ref Des	Unit Failure Rate	Quantity	Total Failure Rate
1310003933	Semiconductor		0.000000	14	0.000000
1310003934	Semiconductor		0.000000	10	0.000000
1310004023	Semiconductor		3.743893	5	22.069678
1310390410	Semiconductor		3.743893	23	93.153535
1311069100	Semiconductor		3.743893	1	5.267161
1311390610	Semiconductor		3.743893	1	5.267161
1314108414	Semiconductor		4.900000	1	6.893649
131411171A	Semiconductor		2.830043	1	4.388153
1315700214	Semiconductor		3.743893	2	9.625513
1410000194	Integrated Circuit		2.885542	5	18.368453
1410000770	Integrated Circuit		32.290415	1	62.795879
1410001012	Integrated Circuit		2.190000	3	6.570000
1410001139	Integrated Circuit		2.190000	2	4.380000
1410002819	Integrated Circuit		4.779346	1	6.854501
1410004099	Integrated Circuit		3.597387	1	5.404318
1410013561	Integrated Circuit		73.414527	1	142.770842
1410014796	Integrated Circuit		5.653686	1	8.051978
1410015202	Integrated Circuit		5.518325	1	10.731608
1410015383	Integrated Circuit		1.800000	2	3.600000
1410018571	Integrated Circuit		4.836287	1	7.011393
1410020296	Integrated Circuit		7.676165	1	14.928006
1410020328	Integrated Circuit		6.433376	1	9.207025
1410020448	Integrated Circuit		6.681887	1	9.538655
1410020536	Integrated Circuit		6.568369	1	9.386542
1410020568	Integrated Circuit		0.900000	1	0.900000
1410020643	Integrated Circuit		14.086714	1	27.394742
1410020645	Integrated Circuit		6.466352	1	12.575257
1410020723	Integrated Circuit		32.290415	1	62.795879
1410020868	Integrated Circuit		14.206724	1	25.008897
1410021352	Integrated Circuit		22.512477	1	39.629981
14S1035810	Integrated Circuit		1.270000	6	7.620000
14S4021300	Integrated Circuit		3.387799	6	25.100347
14S4048500	Integrated Circuit		2.508538	2	8.378988
14S5A00800	Integrated Circuit		3.135353	1	5.291659
14S5A01411	Integrated Circuit		3.879302	1	6.218573
14S5A08600	Integrated Circuit		3.135353	1	5.291659
14S5A10801	Integrated Circuit		2.160000	1	2.160000
1540782201	Resistor		0.677797	6	5.591742
1651000682	Connection		0.490450	1	0.799244
1651001749	Connection		14.713486	2	42.448587
1651001750	Connection		14.713486	2	42.448587
1651001838	Connection		70.808651	1	115.390829
1652000316	Connection		0.245225	1	0.401283
1652003674	Connection		0.245225	1	0.401283
1652005445	Connection		0.245225	1	0.401283
1653000020	Connection		0.245225	1	0.401283
1653000162	Connection		0.613062	1	0.999055
1653000303	Connection		0.613062	4	3.213673





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**Description:**

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**MTBF (hrs):** 517,199  
**Temperature:** 30  
**Environment:** GB, GC - Ground Benign, Controlled

Part Number	Category	Ref Des	Unit Failure Rate	Quantity	Total Failure Rate
1653002100	Connection		0.122612	1	0.199811
1653002625	Connection		0.245225	1	0.399622
1653003100	Connection		0.183919	7	1.587842
1653003101	Connection		0.183919	1	0.299716
1653003201	Connection		0.367837	1	0.599433
1653004300	Connection		0.735674	1	1.198866
1653004672	Connection		0.490450	1	0.799244
1653005100	Connection		0.306531	1	0.499527
1653005200	Connection		0.613062	1	0.999055
1653005201	Connection		0.613062	1	0.999055
1653007220	Connection		0.858287	1	1.398677
1653009260	Connection		1.103511	1	1.798299
1653213201	Connection		1.593961	1	2.597542
1653220260	Connection		2.452248	1	3.996219
1653920200	Connection		2.452248	1	3.996219
1654000396	Connection		0.245225	1	0.401283
1654002099	Connection		0.245225	2	0.709835
1654003198	Connection		0.245225	1	0.401283
1654004659	Connection		0.245225	4	1.288781
1654005955	Connection		0.245225	2	0.709835
1654009494	Connection		0.245225	1	0.401283
1654009600	Connection		0.245225	1	0.401283
1654009611	Connection		0.367837	1	0.599433
1655000077	Connection		32.369669	1	56.045029
1655000453	Connection		0.306531	1	0.499527
1655001153	Connection		0.183919	1	0.299716
1655002020	Connection		0.122612	1	0.199811
1655003010	Connection		0.183919	4	0.964102
1655003871	Connection		0.245225	1	0.399622
1655006020	Connection		0.367837	1	0.599433
1655008020	Connection		0.490450	1	0.799244
1655404090	Connection		5.394945	1	9.340838
1760000131	Miscellaneous		25.000000	1	34.963779
2200000002	Resistor		0.332381	1	0.645908
1653910261	Connection		1.226124	1	1.998110



## Reliability Prediction Summary

**File Name:** AIMB-581QG2-00A1E.rfp  
**Assembly:** System  
**Ref Des:**  
**Description:**

**Failure Rate:** 3834.396588  
**MTBF (hrs):** 260,797  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Unit Failure Rate	Quantity	Total Failure Rate
1000000023	Resistor		0.849013	6	5.891993
1000000093	Resistor		0.664762	1	1.291817
1000000153	Resistor		0.849013	8	7.711511
1000000164	Resistor		0.849013	2	2.163395
1000000168	Resistor		0.849013	1	1.180607
1000000177	Resistor		0.849013	6	5.891993
1000000214	Resistor		0.664762	1	1.291817
1000000558	Resistor		0.849013	2	2.163395
1000000620	Resistor		0.849013	1	1.180607
1000000642	Resistor		0.849013	1	1.180607
1000000647	Resistor		0.849013	2	2.163395
1000000719	Resistor		0.849013	3	3.114661
1000000750	Resistor		0.849013	1	1.180607
1000000757	Resistor		0.849013	3	3.114661
1000000766	Resistor		0.849013	1	1.180607
1000000802	Resistor		0.849013	1	1.180607
1000000830	Resistor		0.849013	1	1.180607
1000000871	Resistor		0.849013	2	2.163395
1000000916	Resistor		0.664762	2	2.219012
1000001732	Resistor		0.664762	2	2.219012
1000001912	Resistor		0.664762	6	5.514198
1000001935	Resistor		0.849013	1	1.180607
1000001937	Resistor		0.849013	1	1.180607
1000001943	Resistor		0.849013	1	1.180607
1000001948	Resistor		0.849013	1	1.180607
1000001949	Resistor		0.849013	1	1.180607
1000002014	Resistor		0.664762	5	4.719331
1000002852	Resistor		0.664762	1	1.291817
1000003453	Resistor		0.664762	6	5.514198
1000003612	Resistor		0.664762	2	2.219012
1000004851	Resistor		0.849013	4	4.049743
1000004866	Resistor		0.849013	1	1.180607
1000004939	Resistor		0.664762	1	1.291817
1000006038	Resistor		0.664762	1	1.291817
1000006039	Resistor		0.849013	1	1.180607
1000006377	Resistor		0.849013	1	1.180607
1000008019	Resistor		0.664762	1	1.291817
1000008040	Resistor		0.849013	1	1.180607
1000008041	Resistor		0.664762	1	1.291817
1000009027	Resistor		0.664762	1	1.291817
1059700001	Resistor		0.849013	1	1.180607
1059722070	Resistor		0.849013	6	5.891993
105A501003	Resistor		0.849013	4	4.049743
105A50103A	Resistor		0.849013	14	13.083570
105A50330A	Resistor		0.849013	5	4.974520
105A510004	Resistor		0.849013	18	16.639945
105A510014	Resistor		0.849013	50	44.713500
105A510023	Resistor		0.849013	3	3.114661



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**Description:**

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**MTBF (hrs):** 260,797  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Unit Failure Rate	Quantity	Total Failure Rate
105A510034	Resistor		0.849013	18	16.639945
105A510043	Resistor		0.849013	1	1.180607
105A510053	Resistor		1.997677	2	5.112712
105A511004	Resistor		0.849013	2	2.163395
105A512104	Resistor		0.849013	1	1.180607
105A515004	Resistor		0.849013	8	7.711511
105A515023	Resistor		0.849013	1	1.180607
105A51693A	Resistor		0.849013	2	2.163395
105A517803	Resistor		0.664762	1	1.291817
105A520004	Resistor		0.849013	4	4.049743
105A520014	Resistor		0.849013	4	4.049743
105A522004	Resistor		0.849013	1	1.180607
105A52206A	Resistor		0.849013	13	12.191001
105A52371A	Resistor		0.664762	1	1.291817
105A524904	Resistor		0.849013	1	1.180607
105A52700A	Resistor		0.849013	3	3.114661
105A528013	Resistor		0.849013	1	1.180607
105A530113	Resistor		0.849013	1	1.180607
105A53012A	Resistor		0.849013	1	1.180607
105A530133	Resistor		0.849013	1	1.180607
105A53746A	Resistor		0.849013	1	1.180607
105A54870A	Resistor		0.849013	1	1.180607
105A548713	Resistor		0.849013	1	1.180607
105A54873A	Resistor		0.849013	1	1.180607
105A549933	Resistor		0.849013	2	2.163395
105A549964	Resistor		0.849013	3	3.114661
105A55496A	Resistor		0.849013	1	1.180607
105A55601A	Resistor		0.849013	7	6.803938
105A55601B	Resistor		0.849013	1	1.180607
105A57151A	Resistor		0.849013	1	1.180607
105A575004	Resistor		0.849013	2	2.163395
105A575064	Resistor		0.849013	8	7.711511
105A59101A	Resistor		0.849013	4	4.049743
105A595313	Resistor		0.849013	1	1.180607
105A700004	Resistor		0.664762	91	66.229994
105A700009	Resistor		0.664762	34	26.171682
105A700109	Resistor		0.849013	5	4.974520
105A701004	Resistor		0.849013	6	5.891993
105A70470A	Resistor		0.849013	1	1.180607
105A705109	Resistor		0.849013	7	6.803938
105A710004	Resistor		0.849013	19	17.526162
105A710014	Resistor		0.849013	18	16.639945
105A710024	Resistor		0.849013	104	91.560877
105A710029	Resistor		0.849013	5	4.974520
105A710034	Resistor		0.849013	8	7.711511
105A710044	Resistor		0.849013	1	1.180607
105A711009	Resistor		0.849013	1	1.180607
105A715024	Resistor		0.849013	6	5.891993



# Reliability Prediction Summary

File Name: AIMB-581QG2-00A1E.rfp  
 Assembly: System  
 Ref Des:  
 Description:

Failure Rate: 3834.396588  
 MTBF (hrs): 260,797  
 Temperature: 30  
 Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Unit Failure Rate	Quantity	Total Failure Rate
105A718003	Resistor		0.849013	2	2.163395
105A720024	Resistor		0.849013	2	2.163395
105A720049	Resistor		1.997677	1	2.793854
105A72004A	Resistor		1.997677	1	2.793854
105A722004	Resistor		0.849013	9	8.601164
105A722014	Resistor		0.849013	23	21.062039
105A722024	Resistor		0.849013	16	14.864270
105A727014	Resistor		0.849013	12	11.296722
105A730033	Resistor		0.849013	2	2.163395
105A73301A	Resistor		0.849013	2	2.163395
105A733064	Resistor		0.849013	17	15.752679
105A739033	Resistor		0.849013	2	2.163395
105A747004	Resistor		0.849013	1	1.180607
105A747009	Resistor		0.849013	3	3.114661
105A747014	Resistor		0.849013	49	43.841744
105A747024	Resistor		0.849013	5	4.974520
105A75603A	Resistor		0.849013	2	2.163395
105A782024	Resistor		0.849013	27	24.586200
1061A10020	Resistor		2.574860	2	8.636335
1100000036	Capacitor		0.376269	4	1.693136
1100000056	Capacitor		0.376269	12	4.840955
1100000184	Capacitor		0.376269	7	2.882662
1100000213	Capacitor		0.920000	7	6.440000
1100000254	Capacitor		0.376269	64	24.833437
1100000295	Capacitor		0.376269	5	2.091602
1100000331	Capacitor		0.376269	2	0.888203
1100000332	Capacitor		0.376269	346	131.938021
1100000351	Capacitor		0.376269	1	0.472828
1100000372	Capacitor		0.376269	1	0.472828
1100000405	Capacitor		0.376269	20	7.945890
1100000409	Capacitor		6.658925	1	10.896576
1100000870	Capacitor		0.376269	37	14.493905
1100001370	Capacitor		0.376269	1	0.472828
1100003261	Capacitor		1.581495	3	5.611755
1100003845	Capacitor		6.658925	3	27.240321
1100003905	Capacitor		1.581495	2	3.873742
1100004124	Capacitor		6.658925	32	236.015845
1100004125	Capacitor		0.376269	2	0.888203
1100004184	Capacitor		0.376269	1	0.472828
1100005446	Capacitor		1.581495	8	14.039841
1100005707	Capacitor		6.658925	1	10.896576
1100005727	Capacitor		6.658925	2	19.275121
1100005865	Capacitor		6.658925	1	10.896576
1100006005	Capacitor		1.581495	19	32.187271
1100006276	Capacitor		6.658925	57	410.162226
1111610191	Capacitor		0.895070	11	26.878699
1119610190	Capacitor		17.165734	9	177.506884
1121510490	Capacitor		0.376269	15	6.008208



# Reliability Prediction Summary

**File Name:** AIMB-581QG2-00A1E.rfp  
**Assembly:** System  
**Ref Des:**  
**Description:**

**Failure Rate:** 3834.396588  
**MTBF (hrs):** 260,797  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Unit Failure Rate	Quantity	Total Failure Rate
1121610790	Capacitor		0.376269	54	21.009487
1124410190	Capacitor		0.376269	8	3.276108
1124418090	Capacitor		0.376269	4	1.693136
1124420090	Capacitor		0.376269	2	0.888203
1124422091	Capacitor		0.376269	7	2.882662
1124427091	Capacitor		0.376269	7	2.882662
1124433091	Capacitor		0.376269	6	2.487939
1124447091	Capacitor		0.376269	4	1.693136
1124447190	Capacitor		0.376269	3	1.294427
1124447280	Capacitor		0.920000	1	0.920000
1124468090	Capacitor		0.376269	2	0.888203
1124510291	Capacitor		0.376269	33	12.957029
1124518191	Capacitor		0.376269	48	18.712358
1124582280	Capacitor		0.376269	1	0.472828
1129510060	Capacitor		0.376269	3	1.294427
1169615194	Capacitor		1.581495	2	3.873742
1211000098	Inductor		1.648084	3	5.810918
1211004454	Inductor		3.828882	8	34.985903
1211100107	Inductor		1.648084	1	2.153859
1211147073	Inductor		1.648084	1	2.153859
1212000055	Inductor		1.648084	6	11.090446
1212000056	Inductor		1.648084	17	30.040597
1212000316	Inductor		1.648084	10	18.032540
1212000376	Inductor		1.648084	6	11.090446
1212001157	Inductor		1.648084	2	4.006359
1212002422	Inductor		1.648084	6	11.090446
1212301070	Inductor		1.648084	10	18.032540
1212302000	Inductor		1.648084	3	5.810918
1212309007	Inductor		1.648084	14	24.909172
1230000004	Miscellaneous		6.400000	1	13.979603
1230000012	Miscellaneous		6.400000	3	58.046680
1231000054	Miscellaneous		6.400000	2	37.647547
1231001703	Miscellaneous		6.400000	1	13.979603
1290001271	Miscellaneous		0.800000	8	7.810260
1290001272	Miscellaneous		0.800000	2	2.315704
1300000160	Semiconductor		2.597804	1	3.591671
1300000473	Semiconductor		2.597804	2	6.590468
1300002546	Semiconductor		5.660086	9	60.081505
1300003587	Semiconductor		5.660086	3	22.315308
1300005440	Semiconductor		5.660086	9	60.081505
1300414800	Semiconductor		2.597804	8	23.538591
1301005440	Semiconductor		2.597804	3	9.494821
1304100640	Optical Device		0.756054	3	2.672062
1305000040	Miscellaneous		0.800000	2	2.315704
1310000759	Semiconductor		7.487787	5	44.139356
1310002693	Semiconductor		5.660086	1	8.776306
1310003013	Semiconductor		7.487787	15	123.693868
1310003826	Semiconductor		0.000000	1	0.000000



# Reliability Prediction Summary

**File Name:** AIMB-581QG2-00A1E.rfp  
**Assembly:** System  
**Ref Des:**  
**Description:**

**Failure Rate:** 3834.396588  
**MTBF (hrs):** 260,797  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Unit Failure Rate	Quantity	Total Failure Rate
1310003933	Semiconductor		0.000000	14	0.000000
1310003934	Semiconductor		0.000000	10	0.000000
1310004023	Semiconductor		7.487787	5	44.139356
1310390410	Semiconductor		7.487787	23	186.307070
1311069100	Semiconductor		7.487787	1	10.534322
1311390610	Semiconductor		7.487787	1	10.534322
1314108414	Semiconductor		9.800000	1	13.787299
131411171A	Semiconductor		5.660086	1	8.776306
1315700214	Semiconductor		7.487787	2	19.251025
1410000194	Integrated Circuit		5.771084	5	36.736906
1410000770	Integrated Circuit		64.580831	1	125.591759
1410001012	Integrated Circuit		2.190000	3	6.570000
1410001139	Integrated Circuit		2.190000	2	4.380000
1410002819	Integrated Circuit		9.558691	1	13.709003
1410004099	Integrated Circuit		7.194774	1	10.808636
1410013561	Integrated Circuit		146.829054	1	285.541684
1410014796	Integrated Circuit		11.307372	1	16.103957
1410015202	Integrated Circuit		11.036650	1	21.463215
1410015383	Integrated Circuit		1.800000	2	3.600000
1410018571	Integrated Circuit		9.672574	1	14.022786
1410020296	Integrated Circuit		15.352329	1	29.856012
1410020328	Integrated Circuit		12.866753	1	18.414051
1410020448	Integrated Circuit		13.363775	1	19.077309
1410020536	Integrated Circuit		13.136738	1	18.773084
1410020568	Integrated Circuit		0.900000	1	0.900000
1410020643	Integrated Circuit		28.173428	1	54.789483
1410020645	Integrated Circuit		12.932704	1	25.150514
1410020723	Integrated Circuit		64.580831	1	125.591759
1410020868	Integrated Circuit		28.413448	1	50.017794
1410021352	Integrated Circuit		45.024953	1	79.259962
14S1035810	Integrated Circuit		1.270000	6	7.620000
14S4021300	Integrated Circuit		6.775598	6	50.200694
14S4048500	Integrated Circuit		5.017076	2	16.757976
14S5A00800	Integrated Circuit		6.270706	1	10.583317
14S5A01411	Integrated Circuit		7.758604	1	12.437145
14S5A08600	Integrated Circuit		6.270706	1	10.583317
14S5A10801	Integrated Circuit		2.160000	1	2.160000
1540782201	Resistor		1.355594	6	11.183484
1651000682	Connection		0.980899	1	1.598488
1651001749	Connection		29.426972	2	84.897173
1651001750	Connection		29.426972	2	84.897173
1651001838	Connection		141.617302	1	230.781659
1652000316	Connection		0.490450	1	0.802565
1652003674	Connection		0.490450	1	0.802565
1652005445	Connection		0.490450	1	0.802565
1653000020	Connection		0.490450	1	0.802565
1653000162	Connection		1.226124	1	1.998110
1653000303	Connection		1.226124	4	6.427346



## Reliability Prediction Summary

**File Name:** AIMB-581QG2-00A1E.rfp  
**Assembly:** System  
**Ref Des:**  
**Description:**

**Failure Rate:** 3834.396588  
**MTBF (hrs):** 260,797  
**Temperature:** 30  
**Environment:** GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Unit Failure Rate	Quantity	Total Failure Rate
1653002100	Connection		0.245225	1	0.399622
1653002625	Connection		0.490450	1	0.799244
1653003100	Connection		0.367837	7	3.175685
1653003101	Connection		0.367837	1	0.599433
1653003201	Connection		0.735674	1	1.198866
1653004300	Connection		1.471349	1	2.397732
1653004672	Connection		0.980899	1	1.598488
1653005100	Connection		0.613062	1	0.999055
1653005200	Connection		1.226124	1	1.998110
1653005201	Connection		1.226124	1	1.998110
1653007220	Connection		1.716573	1	2.797353
1653009260	Connection		2.207023	1	3.596597
1653213201	Connection		3.187922	1	5.195085
1653220260	Connection		4.904495	1	7.992438
1653920200	Connection		4.904495	1	7.992438
1654000396	Connection		0.490450	1	0.802565
1654002099	Connection		0.490450	2	1.419670
1654003198	Connection		0.490450	1	0.802565
1654004659	Connection		0.490450	4	2.577562
1654005955	Connection		0.490450	2	1.419670
1654009494	Connection		0.490450	1	0.802565
1654009600	Connection		0.490450	1	0.802565
1654009611	Connection		0.735674	1	1.198866
1655000077	Connection		64.739338	1	112.090058
1655000453	Connection		0.613062	1	0.999055
1655001153	Connection		0.367837	1	0.599433
1655002020	Connection		0.245225	1	0.399622
1655003010	Connection		0.367837	4	1.928204
1655003871	Connection		0.490450	1	0.799244
1655006020	Connection		0.735674	1	1.198866
1655008020	Connection		0.980899	1	1.598488
1655404090	Connection		10.789890	1	18.681676
1760000131	Miscellaneous		50.000000	1	69.927558
2200000002	Resistor		0.664762	1	1.291817
1653910261	Connection		2.452248	1	3.996219