

# PCM-8152 Reliability Prediction Report (MTBF)

Report NO : 06E070022

**11-30-2006**

Issue Date

**Wenyuan Yang**

Manager

**Jessica Chou**

Test Engineer

## Reliability Prediction (MTBF)

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I . **Model Name:** PCM-8152-A10

II . **Prediction Date:** Nov. 30, 2006

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

IV . **Predicted by:** Jessica Chou

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

### VI. Simulation Environment:

- Temperature: 25 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:

- PCM-8152-A10
  - Failure Rate: 17.385709 ppm
  - MTBF: 57,519 Hours

### AAEON Reliability Prediction Report

**Part Number** 969781520A  
**Reference Des**  
**Date** 11. 30, 2006  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00

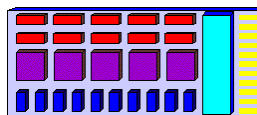


**Description** Top-level assembly  
**File Name** PCM-8152.RPJ  
**Time** 4:10 下午  
**Failure Rate** 17.385709  
**MTBF** 57,519

Assembly Name	Part Number	Model	Method	Environment	Duty Cycle	Qty	Failure Rate	MTBF
PCM-8152	969781520A	Bellcore	Method I Case 3	GF, GU - Ground Fixed,	100.00	1.00	17.385709	57,519

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**Part Number** 969781520A  
**Reference Des**  
**Date** 11. 30, 2006  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description** Top-level assembly  
**File Name** PCM-8152.RPJ  
**Time** 4:10 下午  
**Failure Rate** 17.385709  
**MTBF** 57,519

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1652508204	Connection	LAN1	Bellcore Issue 6	Level I		0.022759	1.00	.1309	0.022759	43939013.54
1653003100	Connection	JP6	Bellcore Issue 6	Level I		0.001707	1.00	.0098	0.001707	585853513.81
1653005100	Connection	CN17	Bellcore Issue 6	Level I		0.002845	1.00	.0164	0.002845	351512108.28
1653120225	Connection	PC104-2	Bellcore Issue 6	Level I		0.022759	1.00	.1309	0.022759	43939013.54
1653132220	Connection	PC104-1	Bellcore Issue 6	Level I		0.036414	1.00	.2094	0.036414	27461883.46
1653300100	Connection	JP6	Bellcore Issue 6	Level I		0.001138	1.00	.0065	0.001138	878780270.71
1653300101	Connection	JP3-2,JP4,JP5	Bellcore Issue 6	Level I		0.001138	4.00	.0262	0.004552	878780270.71
1653300102	Connection	JP2*2	Bellcore Issue 6	Level I		0.001138	2.00	.0131	0.002276	878780270.71
1750119011	Miscellaneous	BT1	Bellcore Issue 6	Level I		0.900000	1.00	5.1767	0.900000	1111111.11
1655003010	Connection	CN11,CN16	Bellcore Issue 6	Level I		0.001707	2.00	.0196	0.003414	585853513.81
1653900034	Connection	CFD1	Bellcore Issue 6	Level I		0.001138	1.00	.0065	0.001138	878780270.71
1161618110	Capacitor	C191,C192	Bellcore Issue 6	Level I		0.005466	2.00	.0629	0.010931	182961702.19
1169639190	Capacitor	C87	Bellcore Issue 6	Level I		0.005466	1.00	.0314	0.005466	182961702.19
1655417020	Connection	CN5	Bellcore Issue 6	Level I		0.022759	1.00	.1309	0.022759	43939013.54
1750220323	Connection	BT1	Bellcore Issue 6	Level I		0.001138	1.00	.0065	0.001138	878780270.71
1653005207	Connection	CN19	Bellcore Issue 6	Level I		0.005690	1.00	.0327	0.005690	175756054.14
165322020D	Connection	IDE1	Bellcore Issue 6	Level I		0.022759	1.00	.1309	0.022759	43939013.54
1653003207	Connection	CN9,JP3-JP5	Bellcore Issue 6	Level I		0.003414	4.00	.0785	0.013655	292926756.90
1119622195	Capacitor	C74,C77	Bellcore Issue 6	Level I		0.042673	2.00	.4909	0.085346	23434140.55
1653204205	Connection	CN1	Bellcore Issue 6	Level I		0.004552	1.00	.0262	0.004552	219695067.68
1653002104	Connection	JP1	Bellcore Issue 6	Level I		0.001138	1.00	.0065	0.001138	878780270.71
165320820C	Connection	VGA1	Bellcore Issue 6	Level I		0.009104	1.00	.0524	0.009104	109847533.84
1169656130	Capacitor	C104	Bellcore Issue 6	Level I	5.00	0.005644	1.00	.0325	0.005644	177178372.26
1169656130	Capacitor	C175,C190,C39,C62	Bellcore Issue 6	Level I		0.005466	4.00	.1257	0.021862	182961702.19
1119622196	Capacitor	C173,C182,C75	Bellcore Issue 6	Level I		0.042673	3.00	.7363	0.128018	23434140.55
1655902030	Connection	BT2	Bellcore Issue 6	Level I		0.022759	1.00	.1309	0.022759	43939013.54
1211100963	Inductor	L27	Bellcore Issue 6	Level I		0.002268	1.00	.0130	0.002268	440974090.03
1651592492	Connection	DIMM1	Bellcore Issue 6	Level I		0.104691	1.00	.6022	0.104691	9551959.46
121110010Y	Inductor	L24	Bellcore Issue 6	Level I	17.20	0.003119	1.00	.0179	0.003119	320646416.52
121110010Y	Inductor	L25	Bellcore Issue 6	Level I		0.002268	1.00	.0130	0.002268	440974090.03
1654260207	Connection	PC11	Bellcore Issue 6	Level I		0.068276	1.00	.3927	0.068276	14646337.85

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**Part Number** 969781520A  
**Reference Des**  
**Date** 11. 30, 2006  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description** Top-level assembly  
**File Name** PCM-8152.RPJ  
**Time** 4:10 下午  
**Failure Rate** 17.385709  
**MTBF** 57,519

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
121110336G	Inductor	L26	Bellcore Issue 6	Level I	15.40	0.003021	1.00	.0174	0.003021	330976433.48
175910000B	Miscellaneous	BUZZ1	Bellcore Issue 6	Level I		0.150000	1.00	.8628	0.150000	6666666.67
105A500233	Resistor	R473,R549,R683	Bellcore Issue 6	Level I		0.002268	3.00	.0391	0.006803	440974090.03
105A501033	Resistor	R134,R358,R364,R397,R466,R468- R481,R635,R734-R736,R752,R759- R767,R768	Bellcore Issue 6	Level I		0.002268	15.00	.1957	0.034016	440974090.03
105A501033	Resistor	R771,R815	Bellcore Issue 6	Level I		0.002268	2.00	.0261	0.004535	440974090.03
105A512103	Resistor	R643	Bellcore Issue 6	Level I		0.002268	1.00	.0130	0.002268	440974090.03
105A700003	Resistor	R157,R715	Bellcore Issue 6	Level I		0.002268	2.00	.0261	0.004535	440974090.03
105A701053	Resistor	R123	Bellcore Issue 6	Level I		0.002268	1.00	.0130	0.002268	440974090.03
1059700001	Resistor	R112,R144,R483,R494,R513,R576- R584,R598,R669,R709,R722,R743	Bellcore Issue 6	Level I		0.002268	12.00	.1565	0.027212	440974090.03
1059700101	Resistor	R106,R122,R124,R290,R369,R420- R435,R440,R445,R447,R448,R454- R459,R460	Bellcore Issue 6	Level I		0.002268	14.00	.1826	0.031748	440974090.03
1059700101	Resistor	R511,R560,R565,R745-R750,R761- R762,R765,R98	Bellcore Issue 6	Level I		0.002268	13.00	.1696	0.029480	440974090.03
105A710053	Resistor	R649,R650	Bellcore Issue 6	Level I		0.013606	2.00	.1565	0.027212	73495681.67
105A500133	Resistor	R55,R56,R682,R855,R858,R93,R94	Bellcore Issue 6	Level I		0.002268	7.00	.0913	0.015874	440974090.03
105A501523	Resistor	R449	Bellcore Issue 6	Level I		0.002268	1.00	.0130	0.002268	440974090.03
105A502033	Resistor	R349,R352,R482,R512	Bellcore Issue 6	Level I		0.002268	4.00	.0522	0.009071	440974090.03
105A502423	Resistor	R318,R323,R721,R760	Bellcore Issue 6	Level I		0.002268	4.00	.0522	0.009071	440974090.03
105A502833	Resistor	R151,R350,R351	Bellcore Issue 6	Level I		0.002268	3.00	.0391	0.006803	440974090.03
105A503033	Resistor	R738,R755	Bellcore Issue 6	Level I		0.002268	2.00	.0261	0.004535	440974090.03
105A507503	Resistor	R1,R10-R13,R2,R3,R342,R343,R8- 65-R867	Bellcore Issue 6	Level I		0.002268	12.00	.1565	0.027212	440974090.03
105A510003	Resistor	R480,R509,R51,R514,R516-R519,- R52,R533,R779	Bellcore Issue 6	Level I		0.002268	14.00	.1826	0.031748	440974090.03
105A515003	Resistor	R260,R478,R493,R497,R531,R553- R555,R609	Bellcore Issue 6	Level I		0.002268	8.00	.1043	0.018142	440974090.03
105A521033	Resistor	R279	Bellcore Issue 6	Level I		0.002268	1.00	.0130	0.002268	440974090.03
105A533003	Resistor	R848,R850,R851,R853	Bellcore Issue 6	Level I		0.002268	4.00	.0522	0.009071	440974090.03
105A549963	Resistor	R415,R416,R486,R488,R53,R534,- R597,R607,R611,R616,R619,R623	Bellcore Issue 6	Level I		0.002268	12.00	.1565	0.027212	440974090.03
105A554903	Resistor	R107	Bellcore Issue 6	Level I		0.002268	1.00	.0130	0.002268	440974090.03

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**Temp. (°C)** 25.00

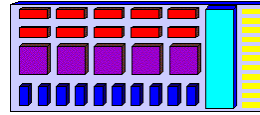


**Description** Top-level assembly  
**File Name** PCM-8152.RPJ  
**Time** 4:10 下午  
**Failure Rate** 17.385709  
**MTBF** 57,519

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
105A561903	Resistor	R109,R751	Bellcore Issue 6	Level I		0.002268	2.00	.0261	0.004535	440974090.03
105A571533	Resistor	R150	Bellcore Issue 6	Level I		0.002268	1.00	.0130	0.002268	440974090.03
105A705133	Resistor	R158,R284,R711	Bellcore Issue 6	Level I		0.002268	3.00	.0391	0.006803	440974090.03
105A514003	Resistor	R317,R322	Bellcore Issue 6	Level I		0.002268	2.00	.0261	0.004535	440974090.03
1231332721	Miscellaneous	Y4	Bellcore Issue 6	Level I		0.150000	1.00	.8628	0.150000	6666666.67
1121722650	Capacitor	C185,C188	Bellcore Issue 6	Level I		0.004535	2.00	.0522	0.009071	220487045.01
1121733780	Capacitor	C204-C209,C241,C251,C259,C261-C267,C324,C343,C344,C761	Bellcore Issue 6	Level I		0.004535	15.00	.3913	0.068031	220487045.01
1122747880	Capacitor	C613	Bellcore Issue 6	Level I		0.004535	1.00	.0261	0.004535	220487045.01
1124405080	Capacitor	C606,C608	Bellcore Issue 6	Level I		0.004535	2.00	.0522	0.009071	220487045.01
1124515180	Capacitor	C1,C5	Bellcore Issue 6	Level I		0.004535	2.00	.0522	0.009071	220487045.01
1124522280	Capacitor	C262,C266	Bellcore Issue 6	Level I		0.004535	2.00	.0522	0.009071	220487045.01
1124527180	Capacitor	C2,C3,C6	Bellcore Issue 6	Level I		0.004535	3.00	.0783	0.013606	220487045.01
1124547280	Capacitor	C668	Bellcore Issue 6	Level I		0.004535	1.00	.0261	0.004535	220487045.01
1129701080	Capacitor	C146,C152,C153,C155,C163,C170-C313,C325,C345-C350,C401,C449-C450,C471	Bellcore Issue 6	Level I		0.004535	18.00	.4696	0.081637	220487045.01
1129701080	Capacitor	C491,C495,C649,C692,C700,C701-C710,C748,C749,C752,C753,C783-C784,C787	Bellcore Issue 6	Level I		0.004535	14.00	.3652	0.063496	220487045.01
1129701080	Capacitor	C88,C95	Bellcore Issue 6	Level I		0.004535	2.00	.0522	0.009071	220487045.01
1129747650	Capacitor	C359,C402,C403,C419,C460,C501-C585,C646	Bellcore Issue 6	Level I		0.004535	8.00	.2087	0.036283	220487045.01
1301005440	Semiconductor	D1,D2,D26-D28,D31-D33,D8,D9	Bellcore Issue 6	Level I		0.023881	10.00	1.3736	0.238810	41874327.58
1174510180	Capacitor	CP1,CP10-CP12,CP2-CP9	Bellcore Issue 6	Level I		0.005466	12.00	.3772	0.065587	182961702.19
1301005441	Semiconductor	D10-D13	Bellcore Issue 6	Level I		0.023881	4.00	.5494	0.095524	41874327.58
1304100540	Semiconductor	PWR	Bellcore Issue 6	Level I		0.004877	1.00	.0280	0.004877	205063180.81
1310390410	Semiconductor	Q31,Q32,Q38,Q39	Bellcore Issue 6	Level I		0.023881	4.00	.5494	0.095524	41874327.58
14S1488000	Integrated Circuit	U27	Bellcore Issue 6	Level I		0.059366	1.00	.3415	0.059366	16844654.92
14S4070610	Integrated Circuit	U13	Bellcore Issue 6	Level I		0.059366	1.00	.3415	0.059366	16844654.92
1651203291	Connection	U7	Bellcore Issue 6	Level I	10.10	0.030334	1.00	.1745	0.030334	32966142.38
1653003202	Connection	JP2	Bellcore Issue 6	Level I		0.003414	1.00	.0196	0.003414	292926756.90
14S6334610	Integrated Circuit	U8	Bellcore Issue 6	Level I		0.030598	1.00	.1760	0.030598	32681842.61

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**Temp. (°C)** 25.00



**Description** Top-level assembly  
**File Name** PCM-8152.RPJ  
**Time** 4:10 下午  
**Failure Rate** 17.385709  
**MTBF** 57,519

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1540733082	Resistor	RN46-RN49	Bellcore Issue 6	Level I		0.006246	4.00	.1437	0.024984	160102772.00
1301005442	Semiconductor	D34,D6,D7	Bellcore Issue 6	Level I		0.023881	3.00	.4121	0.071643	41874327.58
14S4021310	Integrated Circuit	U30	Bellcore Issue 6	Level I	11.10	0.129877	1.00	.7470	0.129877	7699578.77
14S4021310	Integrated Circuit	U29,U34,U35	Bellcore Issue 6	Level I		0.059366	3.00	1.0244	0.178098	16844654.92
105A528723	Resistor	R278	Bellcore Issue 6	Level I		0.002268	1.00	.0130	0.002268	440974090.03
1129610260	Capacitor	HC1	Bellcore Issue 6	Level I		0.004535	1.00	.0261	0.004535	220487045.01
14S5A01400	Integrated Circuit	U39,U40	Bellcore Issue 6	Level I		0.059366	2.00	.6829	0.118732	16844654.92
105A556223	Resistor	R769,R770	Bellcore Issue 6	Level I		0.002268	2.00	.0261	0.004535	440974090.03
14S5A00700	Integrated Circuit	U11	Bellcore Issue 6	Level I		0.037889	1.00	.2179	0.037889	26392869.26
14S5A00600	Integrated Circuit	U12	Bellcore Issue 6	Level I	13.90	0.082712	1.00	.4757	0.082712	12090090.91
105A520003	Resistor	R644	Bellcore Issue 6	Level I		0.002268	1.00	.0130	0.002268	440974090.03
105A512033	Resistor	R740	Bellcore Issue 6	Level I		0.002268	1.00	.0130	0.002268	440974090.03
105A523233	Resistor	R739	Bellcore Issue 6	Level I		0.002268	1.00	.0130	0.002268	440974090.03
105A560463	Resistor	R324,R325,R413,R414,R48,R49	Bellcore Issue 6	Level I		0.002268	6.00	.0783	0.013606	440974090.03
105A524303	Resistor	R50	Bellcore Issue 6	Level I		0.002268	1.00	.0130	0.002268	440974090.03
105A533203	Resistor	R285,R753,R758	Bellcore Issue 6	Level I		0.002268	3.00	.0391	0.006803	440974090.03
105A540263	Resistor	R57,R596	Bellcore Issue 6	Level I		0.002268	2.00	.0261	0.004535	440974090.03
105A530103	Resistor	R485,R532	Bellcore Issue 6	Level I		0.002268	2.00	.0261	0.004535	440974090.03
105A527463	Resistor	R491,R515,R54,R593,R632,R671	Bellcore Issue 6	Level I		0.002268	6.00	.0783	0.013606	440974090.03
105A503300	Resistor	R188,R189,R191-R194,R196-R201-,R203,R205,R208,R209,R213,R214-,R218,R230	Bellcore Issue 6	Level I		0.002268	20.00	.2609	0.045354	440974090.03
105A503300	Resistor	R233,R234,R239,R245,R837	Bellcore Issue 6	Level I		0.002268	5.00	.0652	0.011339	440974090.03
105A547003	Resistor	R692	Bellcore Issue 6	Level I		0.002268	1.00	.0130	0.002268	440974090.03
1540710084	Resistor	RN1,RN11,RN13,RN15,RN17,RN19-,RN22,RN24,RN28,RN3,RN32,RN3-4,RN39,RN40	Bellcore Issue 6	Level I		0.006246	14.00	.5030	0.087444	160102772.00
1540710084	Resistor	RN42,RN5,RN7,RN9	Bellcore Issue 6	Level I		0.006246	4.00	.1437	0.024984	160102772.00
105A507523	Resistor	R477,R720	Bellcore Issue 6	Level I		0.002268	2.00	.0261	0.004535	440974090.03
105A551123	Resistor	R641,R658,R687,R689,R786,R839-,R840,R857,R860	Bellcore Issue 6	Level I		0.002268	9.00	.1174	0.020409	440974090.03
105A590963	Resistor	R693	Bellcore Issue 6	Level I		0.002268	1.00	.0130	0.002268	440974090.03
105A513003	Resistor	R437,R554	Bellcore Issue 6	Level I		0.002268	2.00	.0261	0.004535	440974090.03

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**Temp. (°C)** 25.00



**Description** Top-level assembly  
**File Name** PCM-8152.RPJ  
**Time** 4:10 下午  
**Failure Rate** 17.385709  
**MTBF** 57,519

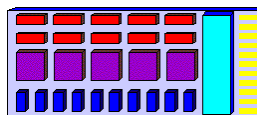
Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
105A506823	Resistor	R737,R741	Bellcore Issue 6	Level I		0.002268	2.00	.0261	0.004535	440974090.03
105A708229	Resistor	R166,R174,R254-R256,R258,R259- R265-R268,R291-R293,R421,R570- R573,R587	Bellcore Issue 6	Level I		0.002268	18.00	.2348	0.040819	440974090.03
105A708229	Resistor	R589,R604,R618,R651-R653,R662- R665,R727,R99	Bellcore Issue 6	Level I		0.002268	10.00	.1304	0.022677	440974090.03
105A700139	Resistor	R103,R160,R171,R219,R264,R299- R332,R356,R360,R401,R403,R423- R432,R46	Bellcore Issue 6	Level I		0.002268	14.00	.1826	0.031748	440974090.03
105A700139	Resistor	R472,R507,R521-R524,R530,R542- R545,R547,R566,R567,R577,R579- R629,R630	Bellcore Issue 6	Level I		0.002268	17.00	.2217	0.038551	440974090.03
105A700139	Resistor	R645,R655,R660,R701,R710,R716- R728,R781,R806,R816,R820,R827- R832,R834	Bellcore Issue 6	Level I		0.002268	14.00	.1826	0.031748	440974090.03
105A700139	Resistor	R846,R869	Bellcore Issue 6	Level I		0.002268	2.00	.0261	0.004535	440974090.03
105A704729	Resistor	R14,R15,R168,R170,R179,R182,R- 184,R253,R271,R275,R289,R296,R- 302,R303	Bellcore Issue 6	Level I		0.002268	14.00	.1826	0.031748	440974090.03
105A704729	Resistor	R305-R316,R337,R338,R347,R348- R354,R359,R361,R362,R378-R381- R551,R559	Bellcore Issue 6	Level I		0.002268	26.00	.3391	0.058960	440974090.03
105A704729	Resistor	R582,R590,R603,R625,R668,R704- R713,R717,R723,R730-R33,R742,- R79,R8,R801	Bellcore Issue 6	Level I		0.002268	17.00	.2217	0.038551	440974090.03
105A704729	Resistor	R802-R704,R817,R818,R856,R859- R861,R874,R9	Bellcore Issue 6	Level I		0.002268	10.00	.1304	0.022677	440974090.03
105A700009	Resistor	R204,R210,R216,R217,R231,R300- R320,R321,R344,R35,R355,R357,- R36,R37,R372	Bellcore Issue 6	Level I		0.002268	15.00	.1957	0.034016	440974090.03
105A700009	Resistor	R38-R43,R430,R44,R441,R499,R5- 25-R529,R543,R561-R546,R568,R- 569,R571,R572	Bellcore Issue 6	Level I		0.002268	24.00	.3130	0.054425	440974090.03
105A700009	Resistor	R578,R58,R588,R642,R666,R673,- R675,R679,R680,R688,R69,R694,- R70,R700,R71	Bellcore Issue 6	Level I		0.002268	15.00	.1957	0.034016	440974090.03
105A700009	Resistor	R72,R726,R729,R73-R77,R775,R78- R807-R814,R81,R826,R836,R84,R- 842,R868	Bellcore Issue 6	Level I		0.002268	24.00	.3130	0.054425	440974090.03
105A700009	Resistor	R87,R877,R878	Bellcore Issue 6	Level I		0.002268	3.00	.0391	0.006803	440974090.03





### AAEON Reliability Prediction Report

**Part Number** 969781520A  
**Reference Des**  
**Date** 11. 30, 2006  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description** Top-level assembly  
**File Name** PCM-8152.RPJ  
**Time** 4:10 下午  
**Failure Rate** 17.385709  
**MTBF** 57,519

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1129701690	Capacitor	C180,C183,C186,C187,C19,C193,- C194,C20,C212-C215,C217,C218,- C22,C226,C228	Bellcore Issue 6	Level I		0.004535	17.00	.4435	0.077102	220487045.01
1129701690	Capacitor	C23,C240,C245,C246,C249,C25,C- 250,C255,C258,C26,C264,C268,C2- 76,C279,C283	Bellcore Issue 6	Level I		0.004535	15.00	.3913	0.068031	220487045.01
1129701690	Capacitor	C289,C290,C293-C296,C30,C31,C- 311,C321,C322,C328,C33,C333-C- 336,C338,C339	Bellcore Issue 6	Level I		0.004535	19.00	.4957	0.086173	220487045.01
1129701690	Capacitor	C34,C340,C341,C357,C358,C36,C- 360,C364-C367,C369-C374,C382,- C385-C387,C389	Bellcore Issue 6	Level I		0.004535	22.00	.5739	0.099779	220487045.01
1129701690	Capacitor	C390,C391,C393,C395-C399,C40,- C404,C405,C408,C41,C410,C413,- C414,C416,C417	Bellcore Issue 6	Level I		0.004535	18.00	.4696	0.081637	220487045.01
1129701690	Capacitor	C420,C422-C426,C428-C433,C435- -C439,C44,C442-C444,C446,C448,- C451-C453	Bellcore Issue 6	Level I		0.004535	26.00	.6783	0.117921	220487045.01
1129701690	Capacitor	C455-C457,C459,C463-C468,C47,- C470,C472-C486,C488,C489,C492- C493,C496	Bellcore Issue 6	Level I		0.004535	32.00	.8348	0.145133	220487045.01
1129701690	Capacitor	C498,C500,C502-C509,C511,C512- C517,C520-C525,C528,C530,C531- C536,C537	Bellcore Issue 6	Level I		0.004535	24.00	.6261	0.108850	220487045.01
1129701690	Capacitor	C54,C542-C545,C548,C549,C550,- C552-C557,C56,C564,C565,C566,- C57,C570-C573	Bellcore Issue 6	Level I		0.004535	23.00	.6000	0.104315	220487045.01
1129701690	Capacitor	C575,C581,C582,C587-C594,C59,- C596-C598,C60,C600-C605,C609,- C61,C612,C616	Bellcore Issue 6	Level I		0.004535	26.00	.6783	0.117921	220487045.01
1129701690	Capacitor	C617,C618,C621,C622,C625-C632- C638,C641-C645,C647,C65,C650,- C653,C658	Bellcore Issue 6	Level I		0.004535	23.00	.6000	0.104315	220487045.01
1129701690	Capacitor	C659,C66,C660,C662-C667,C669,- C67,C678,C679,C68,C688,C689,C- 691,C693,C694	Bellcore Issue 6	Level I		0.004535	19.00	.4957	0.086173	220487045.01
1129701690	Capacitor	C696,C698,C699,C7,C70,C702-C7- 09,C71,C715-C719,C72,C720-C722- C725,C754	Bellcore Issue 6	Level I		0.004535	25.00	.6522	0.113385	220487045.01
1129701690	Capacitor	C759,C76,C760,C766,C768-C771,- C773-C776,C84,C91,C99	Bellcore Issue 6	Level I		0.004535	15.00	.3913	0.068031	220487045.01

### AAEON Reliability Prediction Report

**Part Number** 969781520A  
**Reference Des**  
**Date** 11. 30, 2006  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00

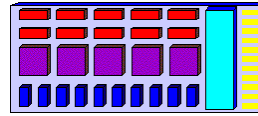


**Description** Top-level assembly  
**File Name** PCM-8152.RPJ  
**Time** 4:10 下午  
**Failure Rate** 17.385709  
**MTBF** 57,519

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1129710090	Capacitor	C103,C176,C219,C220,C695	Bellcore Issue 6	Level I		0.004535	5.00	.1304	0.022677	220487045.01
1129722091	Capacitor	C314	Bellcore Issue 6	Level I		0.004535	1.00	.0261	0.004535	220487045.01
1129710390	Capacitor	C150,C151,C166,C171,C287,C299-C400,C441,C462,C494	Bellcore Issue 6	Level I		0.004535	10.00	.2609	0.045354	220487045.01
1129701790	Capacitor	C109,C116,C119,C127,C137,C142-C237,C291,C354,C355,C368,C384-C412,C497	Bellcore Issue 6	Level I		0.004535	14.00	.3652	0.063496	220487045.01
1129701790	Capacitor	C513,C514,C526,C533,C541,C560-C652,C690,C728,C93,C98	Bellcore Issue 6	Level I		0.004535	11.00	.2870	0.049890	220487045.01
1129747090	Capacitor	C10-C14,C203,C222,C27-C29,C71-1-C714,C8,C9	Bellcore Issue 6	Level I		0.004535	16.00	.4174	0.072567	220487045.01
105A551113	Resistor	R764	Bellcore Issue 6	Level I		0.002268	1.00	.0130	0.002268	440974090.03
14S5A00401	Integrated Circuit	U10	Bellcore Issue 6	Level I	15.20	0.091955	1.00	.5289	0.091955	10874910.61
1315030110	Semiconductor	Q18,Q19,Q28-Q30,Q33	Bellcore Issue 6	Level I		0.079603	6.00	2.7472	0.477620	12562298.27
1301053040	Semiconductor	D14-D17,D29,D3,D30,D4	Bellcore Issue 6	Level I		0.023881	8.00	1.0989	0.191048	41874327.58
1315970110	Semiconductor	F1,F4	Bellcore Issue 6	Level I		0.079603	2.00	.9157	0.159207	12562298.27
105A560403	Resistor	R479,R496	Bellcore Issue 6	Level I		0.002268	2.00	.0261	0.004535	440974090.03
14S3020101	Integrated Circuit	U16	Bellcore Issue 6	Level I	22.20	0.269126	1.00	1.5480	0.269126	3715729.90
105A547503	Resistor	R283,R615	Bellcore Issue 6	Level I		0.002268	2.00	.0261	0.004535	440974090.03
1121610060	Capacitor	C184,C189,C726,C785,C788	Bellcore Issue 6	Level I		0.004535	5.00	.1304	0.022677	220487045.01
14S5A12502	Integrated Circuit	U45	Bellcore Issue 6	Level I	12.60	0.122375	1.00	.7039	0.122375	8171626.90
1314108412	Integrated Circuit	Q41	Bellcore Issue 6	Level I	16.00	0.180291	1.00	1.0370	0.180291	5546598.71
1129710050	Capacitor	C105,C120,C122,C134,C135,C15-C177,C181,C195,C196,C210,C211-C227,C236,C24	Bellcore Issue 6	Level I		0.004535	15.00	.3913	0.068031	220487045.01
1129710050	Capacitor	C243,C253,C263,C278,C288,C310-C312,C32,C323,C331,C332,C337-C342,C35,C380	Bellcore Issue 6	Level I		0.004535	15.00	.3913	0.068031	220487045.01
1129710050	Capacitor	C381,C392,C394,C406,C409,C411-C418,C42,C421,C43,C458,C487,C490,C499,C51	Bellcore Issue 6	Level I		0.004535	15.00	.3913	0.068031	220487045.01
1129710050	Capacitor	C519,C52,C534,C539,C540,C559-C561-C563,C577-C580,C586,C614-C615,C623,C63	Bellcore Issue 6	Level I		0.004535	18.00	.4696	0.081637	220487045.01
1129710050	Capacitor	C634-C637,C64,C648,C651,C654-C656,C657,C670-C677,C683-C687-C69,C723,C724	Bellcore Issue 6	Level I		0.004535	26.00	.6783	0.117921	220487045.01

### AAEON Reliability Prediction Report

**Part Number** 969781520A  
**Reference Des**  
**Date** 11. 30, 2006  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00

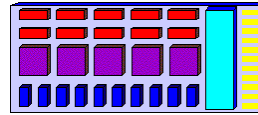


**Description** Top-level assembly  
**File Name** PCM-8152.RPJ  
**Time** 4:10 下午  
**Failure Rate** 17.385709  
**MTBF** 57,519

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1129710050	Capacitor	C73,C750,C751,C755,C756,C772,-C777,C97	Bellcore Issue 6	Level I		0.004535	8.00	.2087	0.036283	220487045.01
106B501031	Resistor	RT1,RT2	Bellcore Issue 6	Level I		0.011379	2.00	.1309	0.022759	87878027.07
1654262300	Connection	MPC11	Bellcore Issue 6	Level I		0.070552	1.00	.4058	0.070552	14173875.33
105A522663	Resistor	R558	Bellcore Issue 6	Level I		0.002268	1.00	.0130	0.002268	440974090.03
105A710039	Resistor	R304,R319,R535,R375,R385-R387-,R400,R422,R436,R443,R502,R544-,R637,R638	Bellcore Issue 6	Level I		0.002268	15.00	.1957	0.034016	440974090.03
105A710039	Resistor	R80,R824,R835,R879,R880	Bellcore Issue 6	Level I		0.002268	5.00	.0652	0.011339	440974090.03
1124427090	Capacitor	C238,C239,C244,C247,C351,C388	Bellcore Issue 6	Level I		0.004535	6.00	.1565	0.027212	220487045.01
1124418090	Capacitor	C130,C139	Bellcore Issue 6	Level I		0.004535	2.00	.0522	0.009071	220487045.01
1124547190	Capacitor	C197-C202,C242,C252,C260,C280-C282,C297,C326	Bellcore Issue 6	Level I		0.004535	14.00	.3652	0.063496	220487045.01
1653925216	Connection	CFD1	Bellcore Issue 6	Level I		0.028449	1.00	.1636	0.028449	35151210.83
1304900140	Semiconductor	S3-S5	Bellcore Issue 6	Level I		0.004877	3.00	.0841	0.014630	205063180.81
1124410190	Capacitor	C165,C169,C216,C229,C230,C681	Bellcore Issue 6	Level I		0.004535	6.00	.1565	0.027212	220487045.01
105A705609	Resistor	R100,R102,R105,R111,R114,R117-,R119,R129,R132,R137,R139,R145-,R154,R159	Bellcore Issue 6	Level I		0.002268	14.00	.1826	0.031748	440974090.03
105A705609	Resistor	R161,R164,R167,R177,R178,R185-,R187,R190,R202,R206,R215,R220-,R225,R238	Bellcore Issue 6	Level I		0.002268	14.00	.1826	0.031748	440974090.03
105A705609	Resistor	R241,R244,R247,R249,R270,R272-,R286,R288,R45,R47,R580,R583,R586,R599,R601	Bellcore Issue 6	Level I		0.002268	15.00	.1957	0.034016	440974090.03
105A705609	Resistor	R605,R95,R97	Bellcore Issue 6	Level I		0.002268	3.00	.0391	0.006803	440974090.03
1054600289	Resistor	SR2,SR3	Bellcore Issue 6	Level I		0.002268	2.00	.0261	0.004535	440974090.03
1189922180	Capacitor	C639	Bellcore Issue 6	Level I	21.30	0.006696	1.00	.0385	0.006696	149351445.55
1189922180	Capacitor	C454	Bellcore Issue 6	Level I	17.80	0.006303	1.00	.0363	0.006303	158650360.09
1189922180	Capacitor	C379,C567,C568,C640	Bellcore Issue 6	Level I		0.004535	4.00	.1043	0.018142	220487045.01
14S4147600	Integrated Circuit	U37	Bellcore Issue 6	Level I	18.40	0.210926	1.00	1.2132	0.210926	4740997.72
14S4148500	Integrated Circuit	U5	Bellcore Issue 6	Level I	13.50	0.152707	1.00	.8783	0.152707	6548478.11
1540756081	Resistor	RN10,RN12,RN14,RN16,RN18,RN2-,RN20,RN21,RN23,RN25,RN31,RN33,RN38,RN4	Bellcore Issue 6	Level I		0.006246	14.00	.5030	0.087444	160102772.00
1540756081	Resistor	RN41,RN43,RN6,RN8	Bellcore Issue 6	Level I		0.006246	4.00	.1437	0.024984	160102772.00

### AAEON Reliability Prediction Report

**Part Number** 969781520A  
**Reference Des**  
**Date** 11. 30, 2006  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description** Top-level assembly  
**File Name** PCM-8152.RPJ  
**Time** 4:10 下午  
**Failure Rate** 17.385709  
**MTBF** 57,519

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
14S3033800	Integrated Circuit	U6	Bellcore Issue 6	Level I		0.059366	1.00	.3415	0.059366	16844654.92
1124533190	Capacitor	C154,C164,C167,C168,C174,C4,C-440,C574	Bellcore Issue 6	Level I		0.004535	8.00	.2087	0.036283	220487045.01
14S4255101	Integrated Circuit	U3	Bellcore Issue 6	Level I		0.039296	1.00	.2260	0.039296	25448028.36
105A518223	Resistor	R277,R461	Bellcore Issue 6	Level I		0.002268	2.00	.0261	0.004535	440974090.03
105A554963	Resistor	R557,R595,R631,R672	Bellcore Issue 6	Level I		0.002268	4.00	.0522	0.009071	440974090.03
1315441012	Semiconductor	Q15	Bellcore Issue 6	Level I	14.90	0.119688	1.00	.6884	0.119688	8355077.54
1315441012	Semiconductor	Q23,Q25,Q26,Q36,Q63,Q66,Q8	Bellcore Issue 6	Level I		0.079603	7.00	3.2051	0.557223	12562298.27
1189615187	Capacitor	C148	Bellcore Issue 6	Level I	13.60	0.005852	1.00	.0337	0.005852	170882222.30
1189615187	Capacitor	C110,C415	Bellcore Issue 6	Level I		0.004535	2.00	.0522	0.009071	220487045.01
1189615187	Capacitor	C111	Bellcore Issue 6	Level I	15.80	0.006086	1.00	.0350	0.006086	164321082.92
165322020B	Connection	CN10	Bellcore Issue 6	Level I		0.022759	1.00	.1309	0.022759	43939013.54
105A547523	Resistor	R121	Bellcore Issue 6	Level I		0.002268	1.00	.0130	0.002268	440974090.03
105A548703	Resistor	R556	Bellcore Issue 6	Level I		0.002268	1.00	.0130	0.002268	440974090.03
105A578703	Resistor	R608,R754,R756,R757	Bellcore Issue 6	Level I		0.002268	4.00	.0522	0.009071	440974090.03
105A519623	Resistor	R702	Bellcore Issue 6	Level I		0.002268	1.00	.0130	0.002268	440974090.03
105A501133	Resistor	R140	Bellcore Issue 6	Level I		0.002268	1.00	.0130	0.002268	440974090.03
1653205205	Connection	CN12,CN13,USB1,USB2	Bellcore Issue 6	Level I		0.005690	4.00	.1309	0.022759	175756054.14
1653207205	Connection	CN2,CN8	Bellcore Issue 6	Level I		0.007966	2.00	.0916	0.015931	125540038.67
1653210204	Connection	CN7	Bellcore Issue 6	Level I		0.011379	1.00	.0655	0.011379	87878027.07
1653213208	Connection	LPT1	Bellcore Issue 6	Level I		0.014793	1.00	.0851	0.014793	67598482.36
165321720A	Connection	FDD1	Bellcore Issue 6	Level I		0.022759	1.00	.1309	0.022759	43939013.54
14S4280106	Integrated Circuit	U18	Bellcore Issue 6	Level I	15.10	0.091467	1.00	.5261	0.091467	10932959.32
1315700310	Semiconductor	Q61,Q62	Bellcore Issue 6	Level I		0.079603	2.00	.9157	0.159207	12562298.27
105A548763	Resistor	R552	Bellcore Issue 6	Level I		0.002268	1.00	.0130	0.002268	440974090.03
14S2200900	Integrated Circuit	U23	Bellcore Issue 6	Level I		0.059366	1.00	.3415	0.059366	16844654.92
14S3065500	Integrated Circuit	U1	Bellcore Issue 6	Level I	14.80	0.166534	1.00	.9579	0.166534	6004784.89
14S2705700	Integrated Circuit	U21	Bellcore Issue 6	Level I	16.30	0.183886	1.00	1.0577	0.183886	5438138.00
14S2705700	Integrated Circuit	U22	Bellcore Issue 6	Level I	14.00	0.157897	1.00	.9082	0.157897	6333229.12
14S5812502	Integrated Circuit	U32	Bellcore Issue 6	Level I		0.039296	1.00	.2260	0.039296	25448028.36
14S4048502	Integrated Circuit	U14,U15	Bellcore Issue 6	Level I		0.059366	2.00	.6829	0.118732	16844654.92

**AAEON Reliability Prediction Report**

**Part Number** 969781520A  
**Reference Des**  
**Date** 11. 30, 2006  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description** Top-level assembly  
**File Name** PCM-8152.RPJ  
**Time** 4:10 下午  
**Failure Rate** 17.385709  
**MTBF** 57,519

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1315230111	Semiconductor	Q1,Q14,Q27,Q40,Q43,Q48,Q54,Q6-9,Q70,Q73	Bellcore Issue 6	Level I		0.000000	10.00	.0000	0.000000	.00
14S5A00830	Integrated Circuit	U28,U31	Bellcore Issue 6	Level I		0.059366	2.00	.6829	0.118732	16844654.92
1315422010	Semiconductor	Q9	Bellcore Issue 6	Level I		0.079603	1.00	.4579	0.079603	12562298.27
14S2533100	Integrated Circuit	Q4	Bellcore Issue 6	Level I	14.30	0.161087	1.00	.9266	0.161087	6207810.10
1119622181	Capacitor	C106,C37,C38,C49,C50,C786,C94	Bellcore Issue 6	Level I		0.042673	7.00	1.7181	0.298709	23434140.55
14S4871203	Integrated Circuit	U38	Bellcore Issue 6	Level I	6.30	0.056475	1.00	.3248	0.056475	17706910.61
14S4871203	Integrated Circuit	U41	Bellcore Issue 6	Level I	14.50	0.088585	1.00	.5095	0.088585	11288615.25
14S4081110	Integrated Circuit	U46	Bellcore Issue 6	Level I		0.059366	1.00	.3415	0.059366	16844654.92
1304002640	Semiconductor	IDE	Bellcore Issue 6	Level I		0.004877	1.00	.0280	0.004877	205063180.81
1213906008	Inductor	LN1-LN8	Bellcore Issue 6	Level I		0.002268	8.00	.1043	0.018142	440974090.03
121230603S	Inductor	L12,L23,L40,L43,L55,L56,L61,L62,-L74,L8,L9	Bellcore Issue 6	Level I		0.002268	11.00	.1435	0.024945	440974090.03
121230603T	Inductor	L1,L2,L20,L21,L28,L29,L3,L30-L35,-L38,L39,L4,L41,L44,L46-L49,L5,L50,-L52,L6,L63	Bellcore Issue 6	Level I		0.002268	25.00	.3261	0.056693	440974090.03
121230603T	Inductor	L64,L67-L73,L7	Bellcore Issue 6	Level I		0.002268	9.00	.1174	0.020409	440974090.03
121230603U	Inductor	L51,L65	Bellcore Issue 6	Level I		0.002268	2.00	.0261	0.004535	440974090.03
121230805X	Inductor	L18,L19,L59,L60,L66	Bellcore Issue 6	Level I		0.002268	5.00	.0652	0.011339	440974090.03
121230805Z	Inductor	L14,L15,L36,L37,L45,L53	Bellcore Issue 6	Level I		0.002268	6.00	.0783	0.013606	440974090.03
1315446310	Semiconductor	Q67,Q68	Bellcore Issue 6	Level I		0.079603	2.00	.9157	0.159207	12562298.27
1211100161	Inductor	L54,L58	Bellcore Issue 6	Level I		0.086173	2.00	.9913	0.172346	11604581.32
1211106871	Inductor	L57	Bellcore Issue 6	Level I		0.086173	1.00	.4957	0.086173	11604581.32
121110010P	Inductor	L11	Bellcore Issue 6	Level I		0.086173	1.00	.4957	0.086173	11604581.32
14S4888801	Integrated Circuit	U48	Bellcore Issue 6	Level I	10.60	0.071725	1.00	.4126	0.071725	13942087.52
1315731210	Semiconductor	Q10	Bellcore Issue 6	Level I		0.079603	1.00	.4579	0.079603	12562298.27
123131435B	Miscellaneous	Y3	Bellcore Issue 6	Level I		0.150000	1.00	.8628	0.150000	6666666.67
1231325058	Miscellaneous	Y2	Bellcore Issue 6	Level I		0.150000	1.00	.8628	0.150000	6666666.67
121110336C	Inductor	L16,L17,L22	Bellcore Issue 6	Level I		0.086173	3.00	1.4870	0.258519	11604581.32
1315700214	Semiconductor	Q13,Q16,Q17,Q2,Q20,Q24,Q42,Q4-4-Q47,Q5,Q50-Q53,Q55,Q57,Q58,-Q6,Q7,Q71	Bellcore Issue 6	Level I		0.079603	22.00	10.0731	1.751272	12562298.27
1315700214	Semiconductor	Q72,Q74-Q78	Bellcore Issue 6	Level I		0.079603	6.00	2.7472	0.477620	12562298.27



