

PFM-T800

Reliability Prediction Report

(MTBF)

Report NO : 07E070014

06-27-2007

Issue Date

Wenyuan Yang

Manager

Jessica Chou

Test Engineer

Reliability Prediction (MTBF)

I . **Model Name:** PFM-T800 (9697T80009)

II . **Prediction Date:** Jun. 27, 2007

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:

- Failure Rate: 2.531093 ppm
- MTBF: 395,086 Hours

AAEON Reliability Prediction Report

Part Number 9697T80008
Reference Des
Date 06. 27, 2007
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description Top-level assembly
File Name PFM-T800-A10.RPJ
Time 3:13 PM
Failure Rate 2.531093
MTBF 395,086

Assembly Name	Part Number	Model	Method	Environment	Duty Cycle	Qty	Failure Rate	MTBF
PFM-T800	9697T80008	Bellcore	Method I Case 3	GF, GU - Ground Fixed,	100.00	1.00	2.531093	395,086

AAEON Reliability Prediction Report

Part Number 9697T80008
Reference Des
Date 06. 27, 2007
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description Top-level assembly
File Name PFM-T800-A10.RPJ
Time 3:13 PM
Failure Rate 2.531093
MTBF 395,086

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1653120225	Connection	CN2	Bellcore Issue 6	Level I		0.022759	1.00	.8992	0.022759	43939013.54
1653132220	Connection	CN2	Bellcore Issue 6	Level I		0.022759	1.00	.8992	0.022759	43939013.54
1653300102	Connection	CN10-CN14,JP1,JP2	Bellcore Issue 6	Level I		0.001138	10.00	.4496	0.011379	878780270.71
1653130426	Connection	CN1	Bellcore Issue 6	Level I		0.022759	1.00	.8992	0.022759	43939013.54
1653300107	Connection	JP3	Bellcore Issue 6	Level I		0.001138	1.00	.0450	0.001138	878780270.71
105A512103	Resistor	R80,R81	Bellcore Issue 6	Level I		0.002268	2.00	.1792	0.004535	440974090.03
105A700003	Resistor	FB1,L1,R114,R115	Bellcore Issue 6	Level I		0.002268	4.00	.3584	0.009071	440974090.03
1059700001	Resistor	FB2-FB4,R108,R113	Bellcore Issue 6	Level I		0.002268	5.00	.4480	0.011339	440974090.03
1233314351	Miscellaneous	X1	Bellcore Issue 6	Level I		0.360000	1.00	14.2231	0.360000	2777777.78
1540700080	Resistor	LN1-LN8	Bellcore Issue 6	Level I		0.006246	8.00	1.9742	0.049968	160102772.00
1653003202	Connection	JP2	Bellcore Issue 6	Level I		0.001138	1.00	.0450	0.001138	878780270.71
1653004202	Connection	CN10-CN14,JP1,JP4	Bellcore Issue 6	Level I		0.001138	7.00	.3147	0.007966	878780270.71
14S4021310	Integrated Circuit	U3-U6	Bellcore Issue 6	Level I		0.059366	4.00	9.3819	0.237464	16844654.92
1540710382	Resistor	RN1-RN3,RP1,RP10-RP16,RP2-R-P9	Bellcore Issue 6	Level I		0.006246	19.00	4.6886	0.118674	160102772.00
105A704729	Resistor	R11,R117,R119,R120,R13,R16,R21-R95	Bellcore Issue 6	Level I		0.002268	8.00	.7168	0.018142	440974090.03
105A700009	Resistor	R1,R100,R103,R109,R111,R2,R28-R3,R30,R34,R36,R37,R39,R41,R43-R45,R49	Bellcore Issue 6	Level I		0.002268	18.00	1.6127	0.040819	440974090.03
105A700009	Resistor	R50,R51,R54,R56,R59,R93,R94	Bellcore Issue 6	Level I		0.002268	7.00	.6272	0.015874	440974090.03
105A701039	Resistor	R112,R124,R14,R17-R20,R23-R26-R32,R57,R6,R64-R66,R7-R9,R96	Bellcore Issue 6	Level I		0.002268	21.00	1.8815	0.047622	440974090.03
105A703309	Resistor	R116,R22,R60,R78	Bellcore Issue 6	Level I		0.002268	4.00	.3584	0.009071	440974090.03
1129701690	Capacitor	C110,C112,C118,C119,C124-C126-C16-C21,C2,C23,C25-C29,C3,C30-C36-C50,C5	Bellcore Issue 6	Level I		0.004535	38.00	6.8091	0.172346	220487045.01
1129701690	Capacitor	C53-C66,C6,C69,C70,C72,C73	Bellcore Issue 6	Level I		0.004535	19.00	3.4046	0.086173	220487045.01
1129710090	Capacitor	C51	Bellcore Issue 6	Level I		0.004535	1.00	.1792	0.004535	220487045.01
1129710050	Capacitor	C108,C111,C113,C15,C22,C24,C67-C68	Bellcore Issue 6	Level I		0.004535	8.00	1.4335	0.036283	220487045.01
105A701539	Resistor	R77,R84-R90	Bellcore Issue 6	Level I		0.002268	8.00	.7168	0.018142	440974090.03
1124405090	Capacitor	C31-C34	Bellcore Issue 6	Level I		0.004535	4.00	.7168	0.018142	220487045.01
1124420090	Capacitor	C116,C117	Bellcore Issue 6	Level I		0.004535	2.00	.3584	0.009071	220487045.01

AAEON Reliability Prediction Report

Part Number 9697T80008
Reference Des
Date 06. 27, 2007
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description Top-level assembly
File Name PFM-T800-A10.RPJ
Time 3:13 PM
Failure Rate 2.531093
MTBF 395,086

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
105A500139	Resistor	R121,R4	Bellcore Issue 6	Level I		0.002268	2.00	.1792	0.004535	440974090.03
1231324050	Miscellaneous	Y2	Bellcore Issue 6	Level I		0.150000	1.00	5.9263	0.150000	6666666.67
105A510213	Resistor	R83	Bellcore Issue 6	Level I		0.002268	1.00	.0896	0.002268	440974090.03
1653205205	Connection	CN3-CN8	Bellcore Issue 6	Level I		0.022759	6.00	5.3950	0.136553	43939013.54
1653002204	Connection	JP3	Bellcore Issue 6	Level I		0.001138	1.00	.0450	0.001138	878780270.71
14S4621200	Integrated Circuit	U7	Bellcore Issue 6	Level I		0.039296	1.00	1.5525	0.039296	25448028.36
1233318440	Miscellaneous	Y1	Bellcore Issue 6	Level I		0.360000	1.00	14.2231	0.360000	2777777.78
14S9095400	Integrated Circuit	U2	Bellcore Issue 6	Level I		0.039296	1.00	1.5525	0.039296	25448028.36
14S4888801	Integrated Circuit	U1	Bellcore Issue 6	Level I		0.039296	1.00	1.5525	0.039296	25448028.36
14S4848500	Integrated Circuit	U12,U13	Bellcore Issue 6	Level I		0.059366	2.00	4.6909	0.118732	16844654.92
1315970211	Semiconductor	U10,U11	Bellcore Issue 6	Level I		0.079603	2.00	6.2900	0.159207	12562298.27
1129647650	Capacitor	C4,C7	Bellcore Issue 6	Level I		0.004535	2.00	.3584	0.009071	220487045.01
118961018B	Capacitor	C120,C121	Bellcore Issue 6	Level I		0.004535	2.00	.3584	0.009071	220487045.01
131411171C	Integrated Circuit	U8	Bellcore Issue 6	Level I		0.059366	1.00	2.3455	0.059366	16844654.92
105A544213	Resistor	R82	Bellcore Issue 6	Level I		0.002268	1.00	.0896	0.002268	440974090.03
14S5A00401	Integrated Circuit	Q1	Bellcore Issue 6	Level I		0.039296	1.00	1.5525	0.039296	25448028.36
105A782009	Resistor	R122,R123	Bellcore Issue 6	Level I		0.002268	2.00	.1792	0.004535	440974090.03