



AAEON Technology INC.
ISO-9001/ISO-14001 Certified
Industrial Automation PCs

PCM-3335

Reliability Prediction Report

(MTBF)

Release Date: Feb. 15, 2000

Issue Stamp

QA Manager

QE Manager

Test Engineer

Reliability Prediction (MTBF)

I . Model Name: PCM-3335

II . Description: Compact 386SX PC/104 CPU Module with LCD

III. Prediction Date: Feb. 15, 2000

IV. Prediction Site: AAEON QE Dept.

V. Predicted by : Chasel Wang

VI. Equipment: Relx Ver.7.0 Visual Reliability Software

VII. Simulation Environment:

- Temperature: 25 degrees C
- Standard: Telcordia (Bellcore) Standard

VIII. Prediction Result:

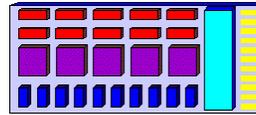
- Failure Rate: 4.789043 ppm
- MTBF: 208,810. hours

IX. 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.

AAEON Reliability Prediction Report

Part Number 9696333504
Reference Des
Date 02. 15, 2000
Environment GF, GU - Ground Fixed, Uncontrolled
Temperature 25.00

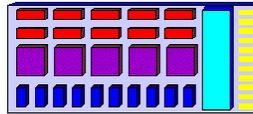


Description Top-level assembly
File Name 3335a2.RPJ
Time 2:18 PM
Failure Rate 4.789043
MTBF 208,810

Assembly Name	Part Number	Model	Method	Environment	Duty Cycle	Qty	Failure Rate	MTBF
PCM-3335	9696333504	Bellcore	Method I Case 3	GF, GU - Ground Fixed,	100.00	1.00	4.789043	208,810

AAEON Reliability Prediction Report

Part Number 9696333504
Reference Des
Date 02. 15, 2000
Environment GF, GU - Ground Fixed, Uncontrolled
Temperature 25.00

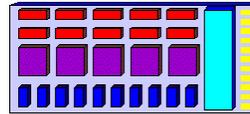


Description Top-level assembly
File Name 3335a2.RPJ
Time 2:18 PM
Failure Rate 4.789043
MTBF 208,810

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1019705601	Resistor	R168	Bellcore Issue 6	Level I		0.002268	1.00	.0474	0.002268	440974090.03
1019710007	Resistor	R152	Bellcore Issue 6	Level I		0.002268	1.00	.0474	0.002268	440974090.03
1019722007	Resistor	R41,R75,R95-96,R98,R100,R107,- R112,R121,R123,R125,R133	Bellcore Issue 6	Level I		0.002268	12.00	.5682	0.027212	440974090.03
1019733007	Resistor	R54	Bellcore Issue 6	Level I		0.002268	1.00	.0474	0.002268	440974090.03
1019733107	Resistor	R20,R47,R74,R108,R158	Bellcore Issue 6	Level I		0.002268	5.00	.2368	0.011339	440974090.03
1019747107	Resistor	R60,R165	Bellcore Issue 6	Level I		0.002268	2.00	.0947	0.004535	440974090.03
1059700001	Resistor	R147	Bellcore Issue 6	Level I		0.002268	1.00	.0474	0.002268	440974090.03
1059704701	Resistor	R122	Bellcore Issue 6	Level I		0.002268	1.00	.0474	0.002268	440974090.03
1059710011	Resistor	R31,R33,R72,R99,R109,R145-146- R150	Bellcore Issue 6	Level I		0.002268	8.00	.3788	0.018142	440974090.03
1059710021	Resistor	R1-9,R12-14,R18,R37,R39,R56-57- R66-68,R76-77,R79,R82,R92,R104- R119-120,R126-127,R143-144,R1- 49,R159	Bellcore Issue 6	Level I		0.002268	34.00	1.6100	0.077102	440974090.03
1059710051	Resistor	R53	Bellcore Issue 6	Level I		0.013606	1.00	.2841	0.013606	73495681.67
1059715107	Resistor	R80,R84,R91	Bellcore Issue 6	Level I		0.002268	3.00	.1421	0.006803	440974090.03
1059722001	Resistor	R10	Bellcore Issue 6	Level I		0.002268	1.00	.0474	0.002268	440974090.03
1059727000	Resistor	R136	Bellcore Issue 6	Level I		0.002268	1.00	.0474	0.002268	440974090.03
1059747011	Resistor	R101-103,R105-106,R11,R110-111- R113-118,R124,R128-132,R134-1- 35,R137-142,R148,R15,R151,R153- -157,R16,R160-064,R166-167,R17- R19,R21-30,R34-36,R38,R40,R42- -46,R48-52,R55,R58-59,R61-65,R6- 9-71,R73,R78,R81,R83,R85-90,R9- 3-94,R97	Bellcore Issue 6	Level I		0.002268	96.00	4.5458	0.217700	440974090.03
1124522005	Capacitor	C34,C43	Bellcore Issue 6	Level I		0.001060	2.00	.0443	0.002120	943198589.05
1124510205	Capacitor	C14-15	Bellcore Issue 6	Level I		0.001060	2.00	.0443	0.002120	943198589.05
1124510305	Capacitor	C12,C18	Bellcore Issue 6	Level I		0.001060	2.00	.0443	0.002120	943198589.05
1124515005	Capacitor	C9	Bellcore Issue 6	Level I		0.001060	1.00	.0221	0.001060	943198589.05
1124518150	Capacitor	C19-32,C37,C40,C44	Bellcore Issue 6	Level I		0.001060	17.00	.3764	0.018024	943198589.05
1124520050	Capacitor	C1-2	Bellcore Issue 6	Level I		0.001060	2.00	.0443	0.002120	943198589.05
1124522105	Capacitor	C10-11,C13	Bellcore Issue 6	Level I		0.001060	3.00	.0664	0.003181	943198589.05
1124547005	Capacitor	C7-8	Bellcore Issue 6	Level I		0.001060	2.00	.0443	0.002120	943198589.05

AAEON Reliability Prediction Report

Part Number 9696333504
Reference Des
Date 02. 15, 2000
Environment GF, GU - Ground Fixed, Uncontrolled
Temperature 25.00



Description Top-level assembly
File Name 3335a2.RPJ
Time 2:18 PM
Failure Rate 4.789043
MTBF 208,810

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1124710405	Capacitor	C17,C3,C33,C35-36,C39,C4,C41-4-2,C45,C5-6,F1-2,M1-19	Bellcore Issue 6	Level I		0.001060	33.00	.7306	0.034987	943198589.05
1141610050	Capacitor	C16,C38,F3-6	Bellcore Issue 6	Level I		0.002357	6.00	.2953	0.014142	424256814.77
1212303160	Inductor	L1-11	Bellcore Issue 6	Level I		0.002268	11.00	.5209	0.024945	440974090.03
1300414800	Semiconductor	D2-4	Bellcore Issue 6	Level I		0.023881	3.00	1.4960	0.071643	41874327.58
1440474004	Integrated Circuit	U10,U12	Bellcore Issue 6	Level I	17.00	0.136041	2.00	5.6813	0.272082	7350718.26
14S3485500	Integrated Circuit	U11	Bellcore Issue 6	Level I	17.00	0.192530	1.00	4.0202	0.192530	5193998.23
14S4021300	Integrated Circuit	U6-7	Bellcore Issue 6	Level I	17.00	0.192530	2.00	8.0404	0.385060	5193998.23
14S4554500	Integrated Circuit	U9	Bellcore Issue 6	Level I	35.00	0.247737	1.00	5.1730	0.247737	4036540.93
14S4611700	Integrated Circuit	U4	Bellcore Issue 6	Level I	29.00	0.185809	1.00	3.8799	0.185809	5381882.44
14S4866300	Integrated Circuit	U3	Bellcore Issue 6	Level I	19.00	0.112292	1.00	2.3448	0.112292	8905354.44
14S6125700	Integrated Circuit	U8	Bellcore Issue 6	Level I	19.00	0.275737	1.00	5.7577	0.275737	3626650.72
14S6181600	Integrated Circuit	U2,U1	Bellcore Issue 6	Level I	17.00	0.289675	1.00	6.0487	0.289675	3452145.52
14S6201010	Integrated Circuit	U5	Bellcore Issue 6	Level I	20.00	0.641333	1.00	13.3917	0.641333	1559253.00
1540710308	Resistor	RN6	Bellcore Issue 6	Level I		0.006246	1.00	.1304	0.006246	160102772.00
1540722008	Resistor	RN1-5,RN7-10	Bellcore Issue 6	Level I		0.006246	9.00	1.1738	0.056214	160102772.00
1231143180	Miscellaneous	X2	Bellcore Issue 6	Level I		0.150000	1.00	3.1322	0.150000	6666666.67
1231327680	Miscellaneous	X1	Bellcore Issue 6	Level I		0.150000	1.00	3.1322	0.150000	6666666.67
1304023000	Semiconductor	D1	Bellcore Issue 6	Level I		0.004877	1.00	.1018	0.004877	205063180.81
14D1605200	Semiconductor	Q1	Bellcore Issue 6	Level I		0.023881	1.00	.4987	0.023881	41874327.58
1653002100	Connection	J3-4	Bellcore Issue 6	Level I		0.001138	2.00	.0475	0.002276	878780270.71
1653003100	Connection	J2	Bellcore Issue 6	Level I		0.001707	1.00	.0356	0.001707	585853513.81
1653022201	Connection	CN11	Bellcore Issue 6	Level I		0.025035	1.00	.5227	0.025035	39944557.76
1653120226	Connection	CN2	Bellcore Issue 6	Level I		0.022759	1.00	.4752	0.022759	43939013.54
1653132221	Connection	CN3	Bellcore Issue 6	Level I		0.036414	1.00	.7604	0.036414	27461883.46
1653205200	Connection	CN9-10	Bellcore Issue 6	Level I		0.005690	2.00	.2376	0.011379	175756054.14
1653208200	Connection	CN5	Bellcore Issue 6	Level I		0.009104	1.00	.1901	0.009104	109847533.84
1653213201	Connection	CN8	Bellcore Issue 6	Level I		0.014793	1.00	.3089	0.014793	67598482.36
1653217202	Connection	CN7	Bellcore Issue 6	Level I		0.019345	1.00	.4039	0.019345	51692957.10
1653222200	Connection	CN12	Bellcore Issue 6	Level I		0.025035	1.00	.5227	0.025035	39944557.76
1655003000	Connection	CN4	Bellcore Issue 6	Level I		0.001707	1.00	.0356	0.001707	585853513.81

