



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

SBC-411E

Reliability Prediction Report

(MTBF)

Release Date: MAY.19, 2000

Issue Stamp

QA Manager

QE Manager

Test Engineer

Reliability Prediction (MTBF)

I . Model Name: SBC-411E

II . Description: Half-size CPU Card with Ethernet & SSD

III. Prediction Date: MAY. 19, 2000

IV. Prediction Site: AAEON QE Dept.

V. Predicted by : Milo Wang

VI. Equipment: Relx Ver.7.0 Visual Reliability Software

VII. Simulation Environment:

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

VIII. Prediction Result:

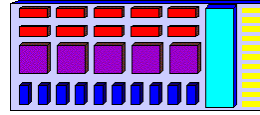
- **Failure Rate: 6.999337 ppm**
- **MTBF: 142,871. hours**

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 9697411003
Reference Des
Date 05. 19, 2000
Environment GF, GU - Ground Fixed, Uncontrolled
Temperature 25.00

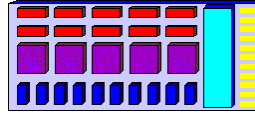


Description Top-level assembly
File Name Sbc411E.rpj
Time 9:51 AM
Failure Rate 6.999337
MTBF 142,871

Assembly Name	Part Number	Model	Method	Environment	Duty Cycle	Qty	Failure Rate	MTBF
SBC-411E	9697411003	Bellcore	Method I Case 3	GF, GU - Ground Fixed,	100.00	1.00	6.999337	142,871

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Reference Des
Date 05. 19, 2000
Environment GF, GU - Ground Fixed, Uncontrolled
Temperature 25.00



Description Top-level assembly
File Name Sbc411E.rpj
Time 9:51 AM
Failure Rate 6.999337
MTBF 142,871

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1124701650	Capacitor	BC14-24,BC31-35,BC37-44,BC47,- BC49,BC53-54,BC57-58,BC61-62,- BC64-65,BC67-69,BC71-78,BC80,- BC82-83,BC85-86,C24,C29,C57-59- ,C71	Bellcore Issue 6	Level I	.00	0.001060	53.00	.8028	0.056192	943198589.05
1141601090	Capacitor	TC33	Bellcore Issue 6	Level I	.00	0.002357	1.00	.0337	0.002357	424256814.77
1141610050	Capacitor	TC24-25,TC27-32,TC38-40,TC42-4- 5,TC47-50	Bellcore Issue 6	Level I	.00	0.002357	19.00	.6398	0.044784	424256814.77
1141647080	Capacitor	TC26,TC34,TC37,TC46	Bellcore Issue 6	Level I	.00	0.002357	4.00	.1347	0.009428	424256814.77
1142610060	Capacitor	TC41	Bellcore Issue 6	Level I	.00	0.001587	1.00	.0227	0.001587	630075050.70
1149610180	Capacitor	TC35-36	Bellcore Issue 6	Level I	.00	0.004535	2.00	.1296	0.009071	220487045.01
1212308050	Inductor	L2-L9	Bellcore Issue 6	Level I	.00	0.002268	8.00	.2592	0.018142	440974090.03
1300414840	Semiconductor	D2	Bellcore Issue 6	Level I	.00	0.023881	1.00	.3412	0.023881	41874327.58
1310390410	Semiconductor	Q2	Bellcore Issue 6	Level I	.00	0.015844	1.00	.2264	0.015844	63113712.43
14S5212500	Integrated Circuit	U6	Bellcore Issue 6	Level I	13.00	0.114774	1.00	1.6398	0.114774	8712810.69
14S5500401	Integrated Circuit	U26	Bellcore Issue 6	Level I	13.00	0.115258	1.00	1.6467	0.115258	8676209.89
14S4021100	Integrated Circuit	U17,U18	Bellcore Issue 6	Level I	8.00	0.104969	2.00	2.9994	0.209938	9526603.44
14S4046400	Integrated Circuit	U29	Bellcore Issue 6	Level I	13.00	0.147672	1.00	2.1098	0.147672	6771770.53
14S4066500	Integrated Circuit	U2	Bellcore Issue 6	Level I	9.00	0.065672	1.00	.9383	0.065672	15227088.64
14S4148700	Integrated Circuit	U7	Bellcore Issue 6	Level I	19.00	0.112292	1.00	1.6043	0.112292	8905354.44
14S4148910	Integrated Circuit	U4	Bellcore Issue 6	Level I	20.00	0.118260	1.00	1.6896	0.118260	8455912.86
14S4486500	Integrated Circuit	U12	Bellcore Issue 6	Level I	33.00	0.225347	1.00	3.2196	0.225347	4437595.93
14S4802910	Integrated Circuit	U1	Bellcore Issue 6	Level I	11.00	0.073313	1.00	1.0474	0.073313	13640096.66
14S5503200	Integrated Circuit	U28	Bellcore Issue 6	Level I	8.00	0.092724	1.00	1.3248	0.092724	10784640.85
14S6334600	Integrated Circuit	U21	Bellcore Issue 6	Level I	9.00	0.033819	1.00	.4832	0.033819	29568818.55
14S8203250	Integrated Circuit	U8	Bellcore Issue 6	Level I	9.00	0.065672	1.00	.9383	0.065672	15227088.64
14S8416800	Integrated Circuit	U11	Bellcore Issue 6	Level I	11.00	0.070828	1.00	1.0119	0.070828	14118791.86
14S9055500	Integrated Circuit	U25	Bellcore Issue 6	Level I	5.00	0.060449	1.00	.8636	0.060449	16543006.68
1540733082	Resistor	RN1-5	Bellcore Issue 6	Level I	.00	0.006246	5.00	.4462	0.031230	160102772.00
1540747282	Resistor	RN6-11	Bellcore Issue 6	Level I	.00	0.006246	1.00	.0892	0.006246	160102772.00
1651203291	Connection	U14	Bellcore Issue 6	Level I	.00	0.018207	1.00	.2601	0.018207	54923766.92
1231124050	Miscellaneous	Y2	Bellcore Issue 6	Level I	.00	0.150000	1.00	2.1431	0.150000	6666666.67
1231114350	Miscellaneous	X1	Bellcore Issue 6	Level I	.00	0.150000	1.00	2.1431	0.150000	6666666.67

