

ONYX-150 Reliability Prediction Report (MTBF)

Report NO : 07P070010

10-11-2007

Issue Date

Wenyuan Yang

Manager

Jessica Chou

Test Engineer

Reliability Prediction (MTBF)

I . **Model Name:** TF-ONYX-150DTT-A1-1110

II . **Prediction Date:** Oct. 11, 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:

The MTBF Failure Rate of TF-ONYX-150DTT-A1-1110 16.478080 ppm, and the MTBF should be 60,687 Hours, excepting below key parts were provided by the suppliers.

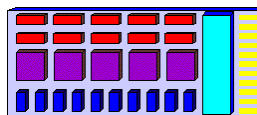
- Inverter (DC to AC 12V.4 LAMP.FOR CPT 15"CLAA150XP03 TFT LCD. QF83V3.21(S)):
MTBF 893196.079 Hours
- Touch Screen (15".5 Wire Resistive. AMT.2513):
Touch panel is hit 36 millions times with a silicone rubber of R8 finger, hitting rate is by 250g 2 times per second.
- Power supply (SPS.15-24V.150W.DC.IN ATX.EPD-146-3):
MTBF 188,380.7 Hours

(According to MIL-HDBK-217F part count method base on estimated design stress condition)

- LCD (15".CPT.CLAA150XP03.Ver1.0-040206.4LAMP): Lamp 50,000 hours

AAEON Reliability Prediction Report

Part Number System
Reference Des
Date 09. 17, 2007
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description Top-level assembly
File Name TF-ONYX-150DTT-A1-1110-
Time 2:33 PM
Failure Rate 16.478080
MTBF 60,687

Assembly Name	Part Number	Model	Method	Environment	Duty Cycle	Qty	Failure Rate	MTBF
TF-ONYX-150DTT-A1-1110	System	Bellcore	Method I Case 3	GF, GU - Ground Fixed,	100.00	1.00	16.478080	60,687
EMB-852T	9697852T1G	Bellcore	Method I Case 3	GF, GU - Ground Fixed,		1.00	14.661997	68,204
ASS'Y Card Reader Board	9697C20006	Bellcore	Method I Case 3	GF, GU - Ground Fixed,		1.00	1.561346	640,473
ASS'Y CD-ROM Transfer Board T023	9697T02302	Bellcore	Method I Case 3	GF, GU - Ground Fixed,		1.00	0.075031	13,327,909

AAEON Reliability Prediction Report

Part Number 9697852T1G
Reference Des
Date 09. 17, 2007
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00

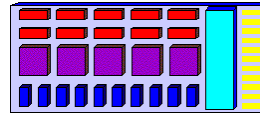


Description
File Name TF-ONYX-150DTT-A1-1110-
Time 2:33 PM
Failure Rate 14.661997
MTBF 68,204

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1750220323	Connection	BAT1	Bellcore Issue 6	Level I		0.001138	1.00	.0078	0.001138	878780270.71
1655417020	Connection	CN1	Bellcore Issue 6	Level I		0.011379	1.00	.0776	0.011379	87878027.07
1655305020	Connection	CN3	Bellcore Issue 6	Level I		0.002845	1.00	.0194	0.002845	351512108.28
1654530300	Connection	CN8	Bellcore Issue 6	Level I		0.017069	1.00	.1164	0.017069	58585351.38
1653213220	Connection	CN11	Bellcore Issue 6	Level I		0.014793	1.00	.1009	0.014793	67598482.36
1654543500	Connection	CN14	Bellcore Issue 6	Level I		0.024466	1.00	.1669	0.024466	40873500.96
1654612307	Connection	CN15	Bellcore Issue 6	Level I		0.003414	1.00	.0233	0.003414	292926756.90
1655004022	Connection	CN19	Bellcore Issue 6	Level I		0.002276	1.00	.0155	0.002276	439390135.35
1653005200	Connection	CN23	Bellcore Issue 6	Level I		0.005690	1.00	.0388	0.005690	175756054.14
1653009100	Connection	CN28	Bellcore Issue 6	Level I		0.005121	1.00	.0349	0.005121	195284504.60
1655004020	Connection	CN29	Bellcore Issue 6	Level I		0.002276	1.00	.0155	0.002276	439390135.35
14S6200400	Integrated Circuit	PWH1	Bellcore Issue 6	Level I		0.160483	1.00	1.0946	0.160483	6231185.16
1653004302	Connection	JP3	Bellcore Issue 6	Level I		0.006828	1.00	.0466	0.006828	146463378.45
1653003201	Connection	JP4,JP5	Bellcore Issue 6	Level I		0.003414	2.00	.0466	0.006828	292926756.90
1654260206	Connection	PC11	Bellcore Issue 6	Level I		0.068276	1.00	.4657	0.068276	14646337.85
1750119011	Miscellaneous	BAT1	Bellcore Issue 6	Level I		0.900000	1.00	6.1383	0.900000	1111111.11
1652522203	Connection	CN2	Bellcore Issue 6	Level I		0.012517	1.00	.0854	0.012517	79889115.52
1653006101	Connection	CN9	Bellcore Issue 6	Level I		0.003414	1.00	.0233	0.003414	292926756.90
1655003010	Connection	CN12,CN13	Bellcore Issue 6	Level I		0.001707	2.00	.0233	0.003414	585853513.81
1653220208	Connection	CN21	Bellcore Issue 6	Level I		0.022759	1.00	.1552	0.022759	43939013.54
1651592490	Connection	DIMM1	Bellcore Issue 6	Level I		0.104691	1.00	.7140	0.104691	9551959.46
1653003101	Connection	JP1,JP2,JP6	Bellcore Issue 6	Level I		0.001707	3.00	.0349	0.005121	585853513.81
1653002202	Connection	JP7	Bellcore Issue 6	Level I		0.002276	1.00	.0155	0.002276	439390135.35
1653205203	Connection	CN16,CN17	Bellcore Issue 6	Level I		0.005690	2.00	.0776	0.011379	175756054.14
1211103360	Inductor	L3,L4	Bellcore Issue 6	Level I		0.086173	2.00	1.1755	0.172346	11604581.32
1211100160	Inductor	L8,L9	Bellcore Issue 6	Level I		0.086173	2.00	1.1755	0.172346	11604581.32
1211106870	Inductor	L10	Bellcore Issue 6	Level I		0.086173	1.00	.5877	0.086173	11604581.32
1211100102	Inductor	L11	Bellcore Issue 6	Level I		0.086173	1.00	.5877	0.086173	11604581.32
1211101009	Inductor	L12	Bellcore Issue 6	Level I		0.086173	1.00	.5877	0.086173	11604581.32
1654262300	Connection	MPC11	Bellcore Issue 6	Level I		0.070552	1.00	.4812	0.070552	14173875.33
1315450010	Semiconductor	M1-M3	Bellcore Issue 6	Level I		0.000000	3.00	.0000	0.000000	.00

AAEON Reliability Prediction Report

Part Number 9697852T1G
Reference Des
Date 09. 17, 2007
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description
File Name TF-ONYX-150DTT-A1-1110-
Time 2:33 PM
Failure Rate 14.661997
MTBF 68,204

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1213103018	Inductor	NL1	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
1315700212	Semiconductor	Q11,Q12,Q19,Q36,Q38,Q41,Q42,Q-49,Q5,Q50-Q53,Q6	Bellcore Issue 6	Level I		0.079603	14.00	7.6009	1.114446	12562298.27
1315668012	Semiconductor	Q10,Q15,Q16,Q9,Q54-Q56,Q58-Q-60	Bellcore Issue 6	Level I		0.023881	6.00	.9773	0.143286	41874327.58
1315889611	Semiconductor	Q13,Q14,Q17,Q18	Bellcore Issue 6	Level I		0.079603	4.00	2.1717	0.318413	12562298.27
1315889611	Semiconductor	U17	Bellcore Issue 6	Level I	12.40	0.112078	1.00	.7644	0.112078	8922389.68
1315889611	Semiconductor	U18	Bellcore Issue 6	Level I	10.90	0.107691	1.00	.7345	0.107691	9285841.73
1315030110	Semiconductor	Q21-Q24,Q30-Q33	Bellcore Issue 6	Level I		0.000000	8.00	.0000	0.000000	.00
1315030210	Semiconductor	Q34	Bellcore Issue 6	Level I		0.000000	1.00	.0000	0.000000	.00
1311390610	Semiconductor	Q35,Q37	Bellcore Issue 6	Level I		0.023881	2.00	.3258	0.047762	41874327.58
1310390411	Semiconductor	Q43-Q45	Bellcore Issue 6	Level I		0.023881	3.00	.4886	0.071643	41874327.58
1540710084	Resistor	RP1,RP11,RP12,RP15,RP16,RP19- RP20,RP23,RP24,RP26,RP28,RP- 30,RP32	Bellcore Issue 6	Level I		0.006246	13.00	.5538	0.081198	160102772.00
1540710084	Resistor	RP33,RP35,RP4,RP7,RP70,RP71,- RP9	Bellcore Issue 6	Level I		0.006246	7.00	.2982	0.043722	160102772.00
105A720009	Resistor	R663	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
1124701680	Capacitor	C642	Bellcore Issue 6	Level I		0.001060	1.00	.0072	0.001060	943198589.05
1122722080	Capacitor	C613	Bellcore Issue 6	Level I		0.001060	1.00	.0072	0.001060	943198589.05
1653205201	Connection	CN27	Bellcore Issue 6	Level I		0.005690	1.00	.0388	0.005690	175756054.14
1231373740	Miscellaneous	Y7	Bellcore Issue 6	Level I		0.150000	1.00	1.0231	0.150000	6666666.67
1315667910	Semiconductor	U64	Bellcore Issue 6	Level I		0.079603	1.00	.5429	0.079603	12562298.27
14S3033800	Integrated Circuit	U20	Bellcore Issue 6	Level I		0.059366	1.00	.4049	0.059366	16844654.92
14S3260100	Integrated Circuit	U22	Bellcore Issue 6	Level I	18.80	0.111131	1.00	.7579	0.111131	8998423.05
14S4285201	Integrated Circuit	U24	Bellcore Issue 6	Level I	19.00	0.112292	1.00	.7659	0.112292	8905354.44
14S4280106	Integrated Circuit	U25	Bellcore Issue 6	Level I	13.70	0.084867	1.00	.5788	0.084867	11783144.75
14S47009B0	Integrated Circuit	U31	Bellcore Issue 6	Level I	11.40	0.116325	1.00	.7934	0.116325	8596621.93
14S4810001	Integrated Circuit	U27	Bellcore Issue 6	Level I		0.039296	1.00	.2680	0.039296	25448028.36
14S3020100	Integrated Circuit	U33	Bellcore Issue 6	Level I		0.059366	1.00	.4049	0.059366	16844654.92
14S4021310	Integrated Circuit	U35,U36,U58	Bellcore Issue 6	Level I		0.059366	3.00	1.2147	0.178098	16844654.92
14S4021310	Integrated Circuit	U44	Bellcore Issue 6	Level I	6.20	0.092577	1.00	.6314	0.092577	10801793.63
14S4021310	Integrated Circuit	U45	Bellcore Issue 6	Level I	6.30	0.093229	1.00	.6359	0.093229	10726252.10

AAEON Reliability Prediction Report

Part Number 9697852T1G
Reference Des
Date 09. 17, 2007
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00

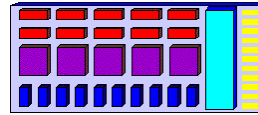


Description
File Name TF-ONYX-150DTT-A1-1110-
Time 2:33 PM
Failure Rate 14.661997
MTBF 68,204

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1129701690	Capacitor	C304,C306,C308,C310,C32,C324,-C326,C328	Bellcore Issue 6	Level I		0.002539	8.00	.1385	0.020312	393852661.82
1129701690	Capacitor	C33,C337-C340,C342-C349,C35,C-351,C352,C354,C355,C358,C359,C-36	Bellcore Issue 6	Level I		0.002539	21.00	.3637	0.053319	393852661.82
1129701690	Capacitor	C361,C369-C398,C400,C402,C405-C413,C41,C418,C419,C421,C422,-C424	Bellcore Issue 6	Level I		0.002539	48.00	.8312	0.121873	393852661.82
1129701690	Capacitor	C428,C429,C432-C437,C439,C44,-C440,C441,C443,C446,C447,C449-C45	Bellcore Issue 6	Level I		0.002539	17.00	.2944	0.043163	393852661.82
1129701690	Capacitor	C450,C452,C453,C459,C469,C47,-C470,C477,C48,C482,C483,C488-C494	Bellcore Issue 6	Level I		0.002539	18.00	.3117	0.045702	393852661.82
1129701690	Capacitor	C497-C503,C50,C508-C511,C520,-C523,C524,C549,C55,C569,C57,C-585	Bellcore Issue 6	Level I		0.002539	20.00	.3463	0.050780	393852661.82
1129701690	Capacitor	C586,C587,C59,C590,C592-C596,-C61,C626-C632,C63,C635,C643,C7	Bellcore Issue 6	Level I		0.002539	21.00	.3637	0.053319	393852661.82
1129701690	Capacitor	C89,C9,C90-C93,C95-C98,C414,C-415	Bellcore Issue 6	Level I		0.002539	12.00	.2078	0.030468	393852661.82
105A530103	Resistor	R191,R192	Bellcore Issue 6	Level I		0.002268	2.00	.0309	0.004535	440974090.03
105A501523	Resistor	R199	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
105A702229	Resistor	R213-R215,R218,R221,R222,R229-R230,R340,R341,R354,R402,R430-R432	Bellcore Issue 6	Level I		0.002268	14.00	.2165	0.031748	440974090.03
105A702229	Resistor	R450,R451,R544,R731,R732	Bellcore Issue 6	Level I		0.002268	5.00	.0773	0.011339	440974090.03
105A701009	Resistor	R240-R251,R254,R257-R261,R268-R269,R276,R277,R284,R286,R302-R303	Bellcore Issue 6	Level I		0.002268	26.00	.4021	0.058960	440974090.03
105A701009	Resistor	R305,R307-R309,R312,R313,R726-R727	Bellcore Issue 6	Level I		0.002268	8.00	.1237	0.018142	440974090.03
105A706203	Resistor	R327	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
105A701533	Resistor	R375	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
105A513003	Resistor	R334	Bellcore Issue 6	Level 0		0.004535	1.00	.0309	0.004535	220487045.01
105A708223	Resistor	R351	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
105A700003	Resistor	FB29,FB30,R365,R479,R490,R608-R654,FB6,R674	Bellcore Issue 6	Level I		0.002268	9.00	.1392	0.020409	440974090.03
105A506823	Resistor	R476,R478	Bellcore Issue 6	Level I		0.002268	2.00	.0309	0.004535	440974090.03

AAEON Reliability Prediction Report

Part Number 9697852T1G
Reference Des
Date 09. 17, 2007
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description
File Name TF-ONYX-150DTT-A1-1110-
Time 2:33 PM
Failure Rate 14.661997
MTBF 68,204

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
105A501039	Resistor	R5,R51,R537,R540-R542,R545,R5-46,R567,R568,R634,R638,R641,R6-42,R74	Bellcore Issue 6	Level I		0.002268	15.00	.2320	0.034016	440974090.03
105A501039	Resistor	R76,R78,R79,R86,R87,R89,R99,R-714,R728	Bellcore Issue 6	Level I		0.002268	9.00	.1392	0.020409	440974090.03
105A700009	Resistor	R211,R364,R366-R368,R378,R39,-R393,R399,R403,R404,R420,R374- R665	Bellcore Issue 6	Level I		0.002268	14.00	.2165	0.031748	440974090.03
105A700009	Resistor	R421,R422,R433,R465,R470,R505- R507,R508,R510,R55,R669,R710,- R712	Bellcore Issue 6	Level I		0.002268	12.00	.1856	0.027212	440974090.03
105A700009	Resistor	R59,R616,R623,R625,R627,R629,- R631,R635-R637,R639,R640,R652	Bellcore Issue 6	Level I		0.002268	13.00	.2011	0.029480	440974090.03
105A700009	Resistor	R655,R7,R84,R720,R734	Bellcore Issue 6	Level I		0.002268	5.00	.0773	0.011339	440974090.03
105A501003	Resistor	R17,R35,R44,R46,R83	Bellcore Issue 6	Level I		0.002268	5.00	.0773	0.011339	440974090.03
1059702261	Resistor	R105,R108,R19,R22,R36,R37,R49- R52,R58,R62,R82,R88	Bellcore Issue 6	Level I		0.002268	12.00	.1856	0.027212	440974090.03
105A517423	Resistor	R23	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
105A551113	Resistor	R38	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
1059700001	Resistor	R109,R110,R173,R175-R177,R390- R391,R45,R64,R67	Bellcore Issue 6	Level I		0.002268	11.00	.1701	0.024945	440974090.03
105A571533	Resistor	R53,R57	Bellcore Issue 6	Level I		0.002268	2.00	.0309	0.004535	440974090.03
105A502833	Resistor	R63	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
105A500233	Resistor	R154,R70,R71	Bellcore Issue 6	Level I		0.002268	3.00	.0464	0.006803	440974090.03
105A533203	Resistor	R77,R90,R93,R98	Bellcore Issue 6	Level I		0.002268	4.00	.0619	0.009071	440974090.03
105A578703	Resistor	R172,R92,R97	Bellcore Issue 6	Level I		0.002268	3.00	.0464	0.006803	440974090.03
105A561903	Resistor	R407,R96	Bellcore Issue 6	Level I		0.002268	2.00	.0309	0.004535	440974090.03
105A521033	Resistor	R107	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
105A503309	Resistor	R117-R120,R122-R125,R127,R129- R131,R133,R135,R137,R139,R140- R142	Bellcore Issue 6	Level I		0.002268	18.00	.2784	0.040819	440974090.03
105A503309	Resistor	R144-R148,R347,R348,R460-R463- R466,R487,R497,R551,R552,R559- R560	Bellcore Issue 6	Level I		0.002268	18.00	.2784	0.040819	440974090.03
105A503309	Resistor	R562,R646	Bellcore Issue 6	Level I		0.002268	2.00	.0309	0.004535	440974090.03
105A547503	Resistor	R149	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03

AAEON Reliability Prediction Report

Part Number 9697852T1G
Reference Des
Date 09. 17, 2007
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00

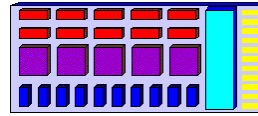


Description
File Name TF-ONYX-150DTT-A1-1110-
Time 2:33 PM
Failure Rate 14.661997
MTBF 68,204

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
105A733009	Resistor	R156,R440,R441,R467,R469,R565-R566,R576,R577,R578	Bellcore Issue 6	Level I		0.002268	10.00	.1547	0.022677	440974090.03
105A554963	Resistor	R163-R165,R168,R171	Bellcore Issue 6	Level I		0.002268	5.00	.0773	0.011339	440974090.03
1124568280	Capacitor	C13	Bellcore Issue 6	Level I		0.001060	1.00	.0072	0.001060	943198589.05
123131435B	Miscellaneous	Y1	Bellcore Issue 6	Level I		0.150000	1.00	1.0231	0.150000	6666666.67
1231325058	Miscellaneous	Y4	Bellcore Issue 6	Level I		0.150000	1.00	1.0231	0.150000	6666666.67
1759100006	Miscellaneous	BU1	Bellcore Issue 6	Level I		0.150000	1.00	1.0231	0.150000	6666666.67
1653010203	Connection	CN5	Bellcore Issue 6	Level I		0.011379	1.00	.0776	0.011379	87878027.07
1654030003	Connection	CN6	Bellcore Issue 6	Level I		0.017069	1.00	.1164	0.017069	58585351.38
1653004202	Connection	CN7	Bellcore Issue 6	Level I		0.004552	1.00	.0310	0.004552	219695067.68
1653005202	Connection	CN10,CN24	Bellcore Issue 6	Level I		0.005690	2.00	.0776	0.011379	175756054.14
1653022202	Connection	CN22	Bellcore Issue 6	Level I		0.025035	1.00	.1707	0.025035	39944557.76
1174522180	Capacitor	CP1	Bellcore Issue 6	Level I		0.001060	1.00	.0072	0.001060	943198589.05
1129722060	Capacitor	C190,C286,C287,C314,C315,C401-C5,TC32	Bellcore Issue 6	Level I		0.002722	8.00	.1485	0.021778	367335960.60
1124522880	Capacitor	C12	Bellcore Issue 6	Level I		0.001060	1.00	.0072	0.001060	943198589.05
105A549963	Resistor	R182	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
105A512703	Resistor	R197	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
105A540263	Resistor	R209,R318,R319	Bellcore Issue 6	Level I		0.002268	3.00	.0464	0.006803	440974090.03
105A560403	Resistor	R217,R227	Bellcore Issue 6	Level I		0.002268	2.00	.0309	0.004535	440974090.03
105A560463	Resistor	R220,R228	Bellcore Issue 6	Level I		0.002268	2.00	.0309	0.004535	440974090.03
105A705609	Resistor	R160,R167,R169,R170,R252,R253-R255,R256,R262-R267,R270-R275-R278	Bellcore Issue 6	Level I		0.002268	21.00	.3248	0.047622	440974090.03
105A705609	Resistor	R279-R283,R285,R287-R293,R296-R298,R300,R304,R306,R310,R311-R314	Bellcore Issue 6	Level I		0.002268	22.00	.3403	0.049890	440974090.03
105A705609	Resistor	R315	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
105A506803	Resistor	R329	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
105A548703	Resistor	R332	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
105A522663	Resistor	R350	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
105A733003	Resistor	R352,R379,R389	Bellcore Issue 6	Level I		0.002268	3.00	.0464	0.006803	440974090.03
105A510033	Resistor	R355	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03

AAEON Reliability Prediction Report

Part Number 9697852T1G
Reference Des
Date 09. 17, 2007
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description
File Name TF-ONYX-150DTT-A1-1110-
Time 2:33 PM
Failure Rate 14.661997
MTBF 68,204

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
105A554903	Resistor	R406	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
105A507509	Resistor	R431,R454,R455-R459,R715-R717	Bellcore Issue 6	Level I		0.002268	10.00	.1547	0.022677	440974090.03
105A514003	Resistor	R434	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
105A702233	Resistor	R547,R548	Bellcore Issue 6	Level I		0.002268	2.00	.0309	0.004535	440974090.03
105A756033	Resistor	R581,R582	Bellcore Issue 6	Level I		0.002268	2.00	.0309	0.004535	440974090.03
105A504723	Resistor	R607,R609,R611	Bellcore Issue 6	Level I		0.002268	3.00	.0464	0.006803	440974090.03
105A523233	Resistor	R613	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
1189633181	Capacitor	TC5	Bellcore Issue 6	Level I		0.004933	1.00	.0336	0.004933	202722669.92
1189633181	Capacitor	TC7	Bellcore Issue 6	Level I	12.20	0.006206	1.00	.0423	0.006206	161124709.54
11E9610190	Capacitor	TC10	Bellcore Issue 6	Level I		0.006031	1.00	.0411	0.006031	165815676.81
1189922180	Capacitor	TC21	Bellcore Issue 6	Level I	12.80	0.005768	3.00	.1180	0.017305	173356321.63
1189922180	Capacitor	TC20	Bellcore Issue 6	Level I	12.90	0.005779	2.00	.0788	0.011558	173044403.31
1189922180	Capacitor	TC23	Bellcore Issue 6	Level I	11.30	0.005614	1.00	.0383	0.005614	178127915.81
1189922180	Capacitor	TC22	Bellcore Issue 6	Level I	11.60	0.005645	1.00	.0385	0.005645	177159477.42
1189922180	Capacitor	TC24	Bellcore Issue 6	Level I	13.30	0.005821	1.00	.0397	0.005821	171804355.43
1189922180	Capacitor	TC25	Bellcore Issue 6	Level I	14.40	0.005936	1.00	.0405	0.005936	168455822.73
1189922180	Capacitor	TC11	Bellcore Issue 6	Level I	11.60	0.005645	1.00	.0385	0.005645	177159477.42
14S4070610	Integrated Circuit	U1	Bellcore Issue 6	Level I		0.059366	1.00	.4049	0.059366	16844654.92
14S5900600	Integrated Circuit	U3	Bellcore Issue 6	Level I	9.80	0.108654	1.00	.7411	0.108654	9203522.60
14S5A01400	Integrated Circuit	U38,U4,U5	Bellcore Issue 6	Level I		0.059366	3.00	1.2147	0.178098	16844654.92
14S2303700	Integrated Circuit	U7	Bellcore Issue 6	Level I	11.30	0.131654	1.00	.8979	0.131654	7595645.96
14S2705700	Integrated Circuit	U11	Bellcore Issue 6	Level I	16.20	0.182681	1.00	1.2459	0.182681	5474030.45
1314331010	Integrated Circuit	U13	Bellcore Issue 6	Level I	17.70	0.201539	1.00	1.3746	0.201539	4961829.46
14S4148500	Integrated Circuit	U15	Bellcore Issue 6	Level I	13.80	0.155802	1.00	1.0626	0.155802	6418384.17
14S5A00820	Integrated Circuit	U19,U70	Bellcore Issue 6	Level I		0.039296	2.00	.5360	0.078592	25448028.36
1540756081	Resistor	RP10,RP13,RP14,RP17,RP18,RP2-,RP21,RP22,RP25,RP27,RP29,RP3-,RP31	Bellcore Issue 6	Level I		0.006246	13.00	.5538	0.081198	160102772.00
1540756081	Resistor	RP34,RP36,RP5,RP6,RP8	Bellcore Issue 6	Level I		0.006246	5.00	.2130	0.031230	160102772.00
1540782280	Resistor	RP37-RP44,RP46-RP48,RP54-RP5-6,RP61	Bellcore Issue 6	Level I		0.006246	15.00	.6390	0.093690	160102772.00
1540700080	Resistor	RP49,RP72	Bellcore Issue 6	Level I		0.006246	2.00	.0852	0.012492	160102772.00

AAEON Reliability Prediction Report

Part Number 9697852T1G
Reference Des
Date 09. 17, 2007
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description
File Name TF-ONYX-150DTT-A1-1110-
Time 2:33 PM
Failure Rate 14.661997
MTBF 68,204

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1540715180	Resistor	RP69	Bellcore Issue 6	Level I		0.006246	1.00	.0426	0.006246	160102772.00
105A705623	Resistor	R371	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
105A704729	Resistor	R1, R316, R345, R358-R361, R452, R-453, R646, R481, R483, R492, R494	Bellcore Issue 6	Level I		0.002268	14.00	.2165	0.031748	440974090.03
105A704729	Resistor	R501, R509, R511-R513, R515-R518- R520, R554, R555, R557, R558, R569- R570	Bellcore Issue 6	Level I		0.002268	16.00	.2475	0.036283	440974090.03
105A704729	Resistor	R603-R605, R624, R626, R628, R630- R645, R651	Bellcore Issue 6	Level I		0.002268	9.00	.1392	0.020409	440974090.03
105A500139	Resistor	R10-R12, R121, R13, R132, R134, R1- 41, R143, R151, R155, R2, R203-R205- R212	Bellcore Issue 6	Level I		0.002268	16.00	.2475	0.036283	440974090.03
105A500139	Resistor	R3, R346, R349, R363, R395, R4, R416- R447, R472, R482, R489, R493, R500- R514	Bellcore Issue 6	Level I		0.002268	14.00	.2165	0.031748	440974090.03
105A500139	Resistor	R564, R575, R66, R660, R662, R8, R3- 73	Bellcore Issue 6	Level I		0.002268	7.00	.1083	0.015874	440974090.03
105A710039	Resistor	R14, R200-R202, R223, R400, R419, - R42, R43, R535, R536, R538, R539, R- 553	Bellcore Issue 6	Level I		0.002268	14.00	.2165	0.031748	440974090.03
105A710039	Resistor	R556, R6, R722-R724	Bellcore Issue 6	Level I		0.002268	5.00	.0773	0.011339	440974090.03
105A503033	Resistor	R477, R9, R94	Bellcore Issue 6	Level I		0.002268	3.00	.0464	0.006803	440974090.03
105A516513	Resistor	R15	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
105A512033	Resistor	R18	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
105A700133	Resistor	R20, R353, R606	Bellcore Issue 6	Level I		0.002268	3.00	.0464	0.006803	440974090.03
105A568123	Resistor	R21, R24	Bellcore Issue 6	Level I		0.002268	2.00	.0309	0.004535	440974090.03
105A708229	Resistor	R206, R320-R323, R325, R326, R33, - R330, R336, R338, R34, R343, R344, - R572	Bellcore Issue 6	Level I		0.002268	15.00	.2320	0.034016	440974090.03
105A708229	Resistor	R600, R658, R659	Bellcore Issue 6	Level I		0.002268	3.00	.0464	0.006803	440974090.03
105A502423	Resistor	R40, R436	Bellcore Issue 6	Level I		0.002268	2.00	.0309	0.004535	440974090.03
105A518223	Resistor	R100, R48	Bellcore Issue 6	Level I		0.002268	2.00	.0309	0.004535	440974090.03
105A547523	Resistor	R50	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
105A507523	Resistor	R60	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
105A502033	Resistor	R65, R72	Bellcore Issue 6	Level I		0.002268	2.00	.0309	0.004535	440974090.03
1059701133	Resistor	R69	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03

AAEON Reliability Prediction Report

Part Number 9697852T1G
Reference Des
Date 09. 17, 2007
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00

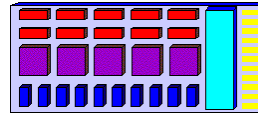


Description
File Name TF-ONYX-150DTT-A1-1110-
Time 2:33 PM
Failure Rate 14.661997
MTBF 68,204

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
105A501033	Resistor	R16,R495,R496,R498,R73,R75,R6-73,R676	Bellcore Issue 6	Level I		0.002268	8.00	.1237	0.018142	440974090.03
105A705133	Resistor	R488,R499,R80	Bellcore Issue 6	Level I		0.002268	3.00	.0464	0.006803	440974090.03
1059700101	Resistor	R104,R231-R239,R85	Bellcore Issue 6	Level I		0.002268	11.00	.1701	0.024945	440974090.03
105A519103	Resistor	R95	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
105A519623	Resistor	R102	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
105A528723	Resistor	R103	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
105A549969	Resistor	R111-R116,R185,R187,R188,R381-R384	Bellcore Issue 6	Level I		0.002268	13.00	.2011	0.029480	440974090.03
105A510053	Resistor	R126,R356,R357	Bellcore Issue 6	Level I		0.013606	3.00	.2784	0.040819	73495681.67
105A515003	Resistor	R152,R161,R193,R194,R219,R226-R333,R335	Bellcore Issue 6	Level I		0.002268	8.00	.1237	0.018142	440974090.03
105A500133	Resistor	R153,R216,R225	Bellcore Issue 6	Level I		0.002268	3.00	.0464	0.006803	440974090.03
105A527463	Resistor	R162,R166,R184,R195,R196	Bellcore Issue 6	Level I		0.002268	5.00	.0773	0.011339	440974090.03
105A524303	Resistor	R180	Bellcore Issue 6	Level I		0.002268	1.00	.0155	0.002268	440974090.03
105A510009	Resistor	R181,R183,R186,R189,R190,R198-R571,R573,R574,R649,R650,R661-R733	Bellcore Issue 6	Level I		0.002268	13.00	.2011	0.029480	440974090.03
1121722780	Capacitor	C8	Bellcore Issue 6	Level I		0.004535	1.00	.0309	0.004535	220487045.01
1121701080	Capacitor	C17,C173,C175,C18-C20,C301,C3-03,C305,C307,C309,C311	Bellcore Issue 6	Level I		0.002539	12.00	.2078	0.030468	393852661.82
1121701080	Capacitor	C34,C353,C356,C38,C40,C416,C4-17,C42,C512-C519,C52	Bellcore Issue 6	Level I		0.002539	17.00	.2944	0.043163	393852661.82
1121701080	Capacitor	C521,C522,C525-C532,C54,C552--C556,C559,C561-C563,C567,C573-C574	Bellcore Issue 6	Level I		0.002539	23.00	.3983	0.058397	393852661.82
1121701080	Capacitor	C577,C580,C581,C584,C607,C608-C614,C616,C617-C623,C69-C72,C-76,C78	Bellcore Issue 6	Level I		0.002539	21.00	.3637	0.053319	393852661.82
1121701080	Capacitor	C83,C87	Bellcore Issue 6	Level I		0.002539	2.00	.0346	0.005078	393852661.82
1129701790	Capacitor	C122,C124,C126,C128,C167,C169-C224,C228,C325,C327,C360,C504-C506	Bellcore Issue 6	Level I		0.001598	13.00	.1416	0.020768	625953979.55
1129701790	Capacitor	C636-C639,C64,C640,C641,C65	Bellcore Issue 6	Level I		0.001598	8.00	.0872	0.012780	625953979.55
1124433190	Capacitor	C29,C462,C467,C468,C66,C67,C77-C82	Bellcore Issue 6	Level I		0.001060	8.00	.0578	0.008482	943198589.05
1124547280	Capacitor	C75	Bellcore Issue 6	Level I		0.001060	1.00	.0072	0.001060	943198589.05

AAEON Reliability Prediction Report

Part Number 9697C20006
Reference Des
Date 09. 17, 2007
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00

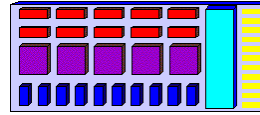


Description
File Name TF-ONYX-150DTT-A1-1110-
Time 2:33 PM
Failure Rate 1.561346
MTBF 640,473

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
1653002101	Connection	J1	Bellcore Issue 6	Level I		0.001138	1.00	.0729	0.001138	878780270.71
1653900034	Connection	CON1	Bellcore Issue 6	Level I		0.001138	1.00	.0729	0.001138	878780270.71
1059751001	Resistor	R27	Bellcore Issue 6	Level I		0.002268	1.00	.1452	0.002268	440974090.03
105A700003	Resistor	R32,R34	Bellcore Issue 6	Level I		0.002268	2.00	.2905	0.004535	440974090.03
105A701053	Resistor	R1,R11,R25,R28,R30	Bellcore Issue 6	Level I		0.002268	5.00	.7262	0.011339	440974090.03
105A701033	Resistor	R16,R22-R24,R29,R3,R31	Bellcore Issue 6	Level I		0.002268	7.00	1.0167	0.015874	440974090.03
105A701523	Resistor	R10	Bellcore Issue 6	Level I		0.002268	1.00	.1452	0.002268	440974090.03
105A705133	Resistor	R2	Bellcore Issue 6	Level I		0.002268	1.00	.1452	0.002268	440974090.03
105A710033	Resistor	R12,R15,R18,R19,R26	Bellcore Issue 6	Level I		0.002268	5.00	.7262	0.011339	440974090.03
1211101261	Inductor	L2,L3	Bellcore Issue 6	Level I		0.086173	2.00	11.0383	0.172346	11604581.32
105A501003	Resistor	R6,R8	Bellcore Issue 6	Level I		0.002268	2.00	.2905	0.004535	440974090.03
105A503633	Resistor	R4	Bellcore Issue 6	Level I		0.002268	1.00	.1452	0.002268	440974090.03
1212308054	Inductor	L1	Bellcore Issue 6	Level I		0.002268	1.00	.1452	0.002268	440974090.03
1121701060	Capacitor	C10	Bellcore Issue 6	Level I		0.004535	1.00	.2905	0.004535	220487045.01
1122701680	Capacitor	C12,C13,C16,C18,C2,C21-C24,C27-C28,C3,C31,C32,C35,C37,C38,C7-C9	Bellcore Issue 6	Level I		0.004535	19.00	5.5191	0.086173	220487045.01
1124501780	Capacitor	C8	Bellcore Issue 6	Level I		0.004535	1.00	.2905	0.004535	220487045.01
1124420080	Capacitor	C1,C6	Bellcore Issue 6	Level I		0.004535	2.00	.5810	0.009071	220487045.01
1129747650	Capacitor	C30	Bellcore Issue 6	Level I		0.004535	1.00	.2905	0.004535	220487045.01
1121633180	Capacitor	C5	Bellcore Issue 6	Level I		0.004535	1.00	.2905	0.004535	220487045.01
105A503300	Resistor	R7,R9	Bellcore Issue 6	Level I		0.002268	2.00	.2905	0.004535	440974090.03
105A547003	Resistor	R13,R14,R17,R20,R21	Bellcore Issue 6	Level I		0.002268	5.00	.7262	0.011339	440974090.03
105A524033	Resistor	R5	Bellcore Issue 6	Level I		0.002268	1.00	.1452	0.002268	440974090.03
1129710050	Capacitor	C11,C14,C15,C20,C25,C29,C36,C4	Bellcore Issue 6	Level I		0.004535	8.00	2.3238	0.036283	220487045.01
1129710060	Capacitor	C19	Bellcore Issue 6	Level I		0.004535	1.00	.2905	0.004535	220487045.01
1304101340	Semiconductor	D2-D6	Bellcore Issue 6	Level I		0.004877	5.00	1.5616	0.024383	205063180.81
1653925216	Connection	CON1	Bellcore Issue 6	Level I		0.028449	1.00	1.8221	0.028449	35151210.83
14S6334605	Integrated Circuit	U11	Bellcore Issue 6	Level I		0.030598	1.00	1.9597	0.030598	32681842.61
1301052041	Semiconductor	D1	Bellcore Issue 6	Level I		0.023881	1.00	1.5295	0.023881	41874327.58
1315230111	Semiconductor	U10,U4,U5,U7,U9	Bellcore Issue 6	Level I		0.159207	5.00	50.9837	0.796033	6281149.14

AAEON Reliability Prediction Report

Part Number 9697C20006
Reference Des
Date 09. 17, 2007
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description
File Name TF-ONYX-150DTT-A1-1110-
Time 2:33 PM
Failure Rate 1.561346
MTBF 640,473

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Failure Rate, Unit	Quantity	Failure Rate, %	Failure Rate	MTBF, Unit
14S4081600	Integrated Circuit	U2	Bellcore Issue 6	Level I		0.039296	1.00	2.5168	0.039296	25448028.36
1314880511	Integrated Circuit	U1	Bellcore Issue 6	Level I		0.059366	1.00	3.8022	0.059366	16844654.92
1651948991	Connection	U6	Bellcore Issue 6	Level I		0.001138	1.00	.0729	0.001138	878780270.71
1653002211	Connection	CN1	Bellcore Issue 6	Level I		0.002276	1.00	.1458	0.002276	439390135.35
12311120A1	Miscellaneous	Y1	Bellcore Issue 6	Level I		0.150000	1.00	9.6071	0.150000	6666666.67

