

# ONYX-195X Reliability Prediction Report (MTBF)

Report NO : 09P070012

**06-19-2009**

Issue Date

**Wenyuan Yang**

Manager

**Jessica Chou**

Test Engineer

## Reliability Prediction (MTBF)

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I . **Model Name:** TF-ONYX-195XT-A1-1010

II . **Prediction Date:** Jun. 19, 2009

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: 25.3 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.

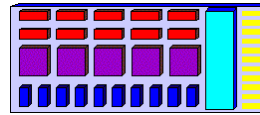
### VIII. Prediction Result:

- TF-ONYX-175XT-A1-1010 (Not include Power supply, LCD, Inverter, system FAN, MXM Module):  
Failure Rate: 23.661572 ppm  
MTBF: 42,263 Hours
- Below component MTBF value was provided by the supplier:
  - Power supply: (TF)SPS.100 ~240V.180W.ATX.全漢.9PA1802909  
MTBF: 100,000 hours

- LCD: (TF)TFT LCD.19".AUO.M190EN04.1.400 nits  
CCFL life time: 7.0mA Min. 40,000 hours
  
- Inverter: (TF)INVERTER.DC TO AC.FOR HYUNDAI 17"  
TFT LCD.(4LAMPS).QF132V1.16(S)  
MTBF: 929375.8033 hours
  
- System FAN: (TF)System FAN.12VDC.70\*70\*15mm.for ONYX-175/195.  
MTTF: 606,120 hours
  
- ATI E2400 MXM: (TF)Embedded.ATI RADEON MXM Module.AMD.  
E2400.LVDS+DVI (100-K00119)  
MTBF: 216,104 hours

**AAEON Reliability Prediction Report**

**Part Number** System  
**Reference Des**  
**Date** 06. 19, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.30

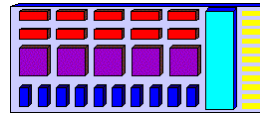


**Description** Top-level assembly  
**File Name** TF-ONYX-195XT-A1-1010.RPJ  
**Time** 2:12 下午  
**Failure Rate** 23.661572  
**MTBF** 42,263

Assembly Name	Part Number	Model	Method	Environment	Duty Cycle	Qty	Failure Rate	MTBF
TF-ONYX-195XT-A1-1010	System	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled	100.00	1.00	23.66	42262.62
I/O Board T070-A13	9697T0700D-D	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	10.49	95370.67
COM-945-A10	9697945006	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	11.42	87601.93
8 in 1 Card Reader T066-A10	9697T06600	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	.49	2051583.00
OSD Board Y011-A11	9697Y01102	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	.02	66548107.97
SDVO to LVDS Board T079-A10	9697T07904	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	.77	1293886.91
RISER Board PER-R08P-A10	9697R08P00	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	.29	3431732.64
USB Board YC03-A10	9697YC0300	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	.03	36086879.01
CD-ROM Transfer Board T023-A11	9697T02300	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	.07	13562670.06

### AAEON Reliability Prediction Report

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**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.30



**Description** Top-level assembly  
**File Name** TF-ONYX-195XT-A1-1010.RPJ  
**Time** 2:12 下午  
**Failure Rate** 23.661572  
**MTBF** 42,263

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
14D4200004	Integrated Circuit	CPU	Telcordia Issue 1	Level II	44.20	1.00	0.066085	71.2637	15132060.53
14S6201955	Integrated Circuit		Telcordia Issue 1	Level I		1.00	0.026648	28.7363	37526359.19

### AAEON Reliability Prediction Report

**Part Number** 9697T0700D-D  
**Reference Des**  
**Date** 06. 19, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.30



**Description**  
**File Name** TF-ONYX-195XT-A1-1010.RPJ  
**Time** 2:12 下午  
**Failure Rate** 10.485404  
**MTBF** 95,371

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
1231325058	Miscellaneous	Y2	Telcordia Issue 1	Level I		1.00	0.150000	1.4306	6666666.67
1315030210	Semiconductor	Q3	Telcordia Issue 1	Level I		1.00	0.080292	.7657	12454560.96
1311006910	Semiconductor	Q15,Q16	Telcordia Issue 1	Level I		2.00	0.024088	.4594	41515203.19
1311390610	Semiconductor	Q7	Telcordia Issue 1	Level I		1.00	0.024088	.2297	41515203.19
1315700211	Semiconductor	Q1,Q5	Telcordia Issue 1	Level I		2.00	0.080292	1.5315	12454560.96
1540782280	Resistor	RP1,RP10,RP11	Telcordia Issue 1	Level I		3.00	0.006332	.1812	157923867.87
1540710080	Resistor	RP2,RP3,RP4,RP5,RP6,RP7,RP8,RP9	Telcordia Issue 1	Level I		8.00	0.006332	.4831	157923867.87
106B501031	Resistor	RT1,RT2,RT3	Telcordia Issue 1	Level I		3.00	0.011559	.3307	86512540.36
105A733003	Resistor	R154,R235,R295,R357,R358,R359,R76, R79	Telcordia Issue 1	Level I		8.00	0.002281	.1740	438391989.82
14S5A12505	Integrated Circuit	U26	Telcordia Issue 1	Level I		1.00	0.060682	.5787	16479361.92
14S5A12503	Integrated Circuit	U30	Telcordia Issue 1	Level I		1.00	0.060682	.5787	16479361.92
14S4021310	Integrated Circuit	U34,U35,U36,U40	Telcordia Issue 1	Level I		4.00	0.060682	2.3149	16479361.92
14S3065500	Integrated Circuit	U28	Telcordia Issue 1	Level I		1.00	0.060682	.5787	16479361.92
1651203291	Connection	U24	Telcordia Issue 1	Level I		1.00	0.018494	.1764	54070337.72
1121701680	Capacitor	C179,C196,C254,C31	Telcordia Issue 1	Level I		4.00	0.004562	.1740	219195994.91
14S6334610	Integrated Circuit	U15	Telcordia Issue 1	Level I	22.20	1.00	0.106002	1.0110	9433760.12
14S6334610	Integrated Circuit	U9	Telcordia Issue 1	Level I		1.00	0.023452	.2237	42641143.29
1540775080	Resistor	RN2	Telcordia Issue 1	Level I		1.00	0.006332	.0604	157923867.87
14S5705300	Integrated Circuit	U14	Telcordia Issue 1	Level I		1.00	0.026648	.2541	37526359.19
105A704733	Resistor	R82	Telcordia Issue 1	Level I		1.00	0.002281	.0218	438391989.82
1124420080	Capacitor	C61,C68	Telcordia Issue 1	Level I		2.00	0.004562	.0870	219195994.91
105A502033	Resistor	R120,R121	Telcordia Issue 1	Level I		2.00	0.002281	.0435	438391989.82
1121710090	Capacitor	C30,C65,C8	Telcordia Issue 1	Level I		3.00	0.004562	.1305	219195994.91
1213103008	Inductor	LN1,LN2	Telcordia Issue 1	Level I		2.00	0.002281	.0435	438391989.82
105A703903	Resistor	R129,R132,R134,R137,R138,R141,R143,R146,R316, R317	Telcordia Issue 1	Level I		10.00	0.002281	.2175	438391989.82
105A503300	Resistor	R161,R49,R51,R56,R57,R60,R65,R66	Telcordia Issue 1	Level I		8.00	0.002281	.1740	438391989.82
105A549963	Resistor	R176,R177,R245,R246,R247,R248,R249,R250,R251,R252,R347,R348,R349,R350,R351,R352,R353,R354,R48,R50,R67,R68,R73, R74	Telcordia Issue 1	Level I		24.00	0.002281	.5221	438391989.82

**AAEON Reliability Prediction Report**

**Part Number** 9697T0700D-D  
**Reference Des**  
**Date** 06. 19, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.30



**Description**  
**File Name** TF-ONYX-195XT-A1-1010.RPJ  
**Time** 2:12 下午  
**Failure Rate** 10.485404  
**MTBF** 95,371

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
105A700003	Resistor	FB1,FB11,FB12,FB13,FB14,FB16,FB18,FB2,FB20,FB21,FB22,FB23,FB24,FB25,FB3,FB4,FB45,FB46,FB47,FB48,FB49,FB5,FB50,FB51,FB52,FB53,FB54,FB55,FB56,FB57,FB59,FB6,FB60,FB7,FB8,FB9,R114,R126,R135,R15,R16,R168,R180,R182,R190,R210,R224,	Telcordia Issue 1	Level I		88.00	0.002281	1.9144	438391989.82
14S4910400	Integrated Circuit	U7	Telcordia Issue 1	Level I		1.00	0.026648	.2541	37526359.19
14S4121601	Integrated Circuit	U25	Telcordia Issue 1	Level I		1.00	0.026648	.2541	37526359.19
14S1013200	Integrated Circuit	U6	Telcordia Issue 1	Level I	22.50	1.00	0.279535	2.6659	3577371.55
1315970110	Semiconductor	U11,U2,U32,U33,U38	Telcordia Issue 1	Level I		5.00	0.160584	7.6575	6227280.48
14S5A01400	Integrated Circuit	U31	Telcordia Issue 1	Level I		1.00	0.060682	.5787	16479361.92
14S4871203	Integrated Circuit	U16	Telcordia Issue 1	Level I		1.00	0.026648	.2541	37526359.19
14S4911216	Integrated Circuit	U20	Telcordia Issue 1	Level I		1.00	0.060682	.5787	16479361.92
14S4650601	Integrated Circuit	U17	Telcordia Issue 1	Level I		1.00	0.060682	.5787	16479361.92
105A506823	Resistor	R142,R153	Telcordia Issue 1	Level I		2.00	0.002281	.0435	438391989.82
105A501033	Resistor	R139,R144,R149,R157,R215,R72,R80	Telcordia Issue 1	Level I		7.00	0.002281	.1523	438391989.82
105A549913	Resistor	R23,R390	Telcordia Issue 1	Level I		2.00	0.002281	.0435	438391989.82
105A708223	Resistor	R236,R259,R261, R379	Telcordia Issue 1	Level I		4.00	0.002281	.0870	438391989.82
105A710053	Resistor	R106	Telcordia Issue 1	Level I		1.00	0.013686	.1305	73065331.64
105A547503	Resistor	R64	Telcordia Issue 1	Level I		1.00	0.002281	.0218	438391989.82
105A504703	Resistor	R382,R384,R386	Telcordia Issue 1	Level I		3.00	0.002281	.0653	438391989.82
105A751003	Resistor	R83	Telcordia Issue 1	Level I		1.00	0.002281	.0218	438391989.82
105A702233	Resistor	R22,R280,R281,R282,R283,R284,R309, R343,R63	Telcordia Issue 1	Level I		9.00	0.002281	.1958	438391989.82
105A510003	Resistor	R119,R228,R41,R8	Telcordia Issue 1	Level I		4.00	0.002281	.0870	438391989.82
105A715003	Resistor	R275,R296	Telcordia Issue 1	Level I		2.00	0.002281	.0435	438391989.82
105A756033	Resistor	R263,R264,R3,R96	Telcordia Issue 1	Level I		4.00	0.002281	.0870	438391989.82
105A747033	Resistor	R2,R262,R266,R97	Telcordia Issue 1	Level I		4.00	0.002281	.0870	438391989.82
105A515003	Resistor	R276,R277,R289,R321,R322,R325	Telcordia Issue 1	Level I		6.00	0.002281	.1305	438391989.82





### AAEON Reliability Prediction Report

**Part Number** 9697T0700D-D  
**Reference Des**  
**Date** 06. 19, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.30



**Description**  
**File Name** TF-ONYX-195XT-A1-1010.RPJ  
**Time** 2:12 下午  
**Failure Rate** 10.485404  
**MTBF** 95,371

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1121701080	Capacitor	C104,C133,C205, C249,C252,C255, C258,C260,C263, C264,C265,C266, C292,C293,C296, C347,C348,C360, C361,C362,C371, C372,C406,C439, C440,C48,C56,C63, C66,C82,C83,C84, C86,C92,C94,C96	Telcordia Issue 1	Level I		36.00	0.004562	1.5663	219195994.91
1129747650	Capacitor	C143	Telcordia Issue 1	Level I		1.00	0.005476	.0522	182603895.42
1124533180	Capacitor	C55	Telcordia Issue 1	Level I		1.00	0.004562	.0435	219195994.91
1129701690	Capacitor	C102,C103,C106, C110,C111,C112, C116,C117,C120, C121,C122,C123, C124,C125,C126, C128,C129,C13,C130, C131,C132,C134, C135,C136,C137, C138,C14,C140,C148, C15,C159,C16,C17, C18,C195,C199,C202, C206,C215,C216, C217,C220,C221,	Telcordia Issue 1	Level I		149.00	0.004562	6.4829	219195994.91
1310390410	Semiconductor	Q17,Q18,Q19,Q6	Telcordia Issue 1	Level I		4.00	0.024088	.9189	41515203.19
1315442910	Semiconductor	Q8	Telcordia Issue 1	Level I		1.00	0.080292	.7657	12454560.96
1315700310	Semiconductor	Q10	Telcordia Issue 1	Level I		1.00	0.080292	.7657	12454560.96
1315441012	Semiconductor	Q9	Telcordia Issue 1	Level I		1.00	0.080292	.7657	12454560.96
1233324050	Miscellaneous	OSC1	Telcordia Issue 1	Level I		1.00	0.360000	3.4333	2777777.78
1654262300	Connection	MPC11	Telcordia Issue 1	Level I		1.00	0.071666	.6835	13953635.54
1212306032	Inductor	FB26,FB27,FB28, FB29,FB30,FB31, FB32,FB33,FB36, FB37,FB38,FB39, FB40,FB41,FB42, FB43	Telcordia Issue 1	Level I		16.00	0.002281	.3481	438391989.82
1301005440	Semiconductor	D11,D3,D6,D7	Telcordia Issue 1	Level I		4.00	0.024088	.9189	41515203.19
1301005442	Semiconductor	D26,D9	Telcordia Issue 1	Level I		2.00	0.024088	.4594	41515203.19
1304101340	Semiconductor	D25	Telcordia Issue 1	Level I		1.00	0.005012	.0478	199519584.34
1174610380	Capacitor	CP1	Telcordia Issue 1	Level I		1.00	0.005476	.0522	182603895.42

### AAEON Reliability Prediction Report

**Part Number** 9697T0700D-D  
**Reference Des**  
**Date** 06. 19, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.30



**Description**  
**File Name** TF-ONYX-195XT-A1-1010.RPJ  
**Time** 2:12 下午  
**Failure Rate** 10.485404  
**MTBF** 95,371

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
14S2488500	Integrated Circuit	U37	Telcordia Issue 1	Level I		1.00	0.060682	.5787	16479361.92
14S4850000	Integrated Circuit	U10	Telcordia Issue 1	Level I		1.00	0.026648	.2541	37526359.19
14S4070610	Integrated Circuit	U23	Telcordia Issue 1	Level I		1.00	0.060682	.5787	16479361.92
1301005441	Semiconductor	D13,D14,D15,D16, D17,D18,D19,D20, D21,D22,D27,D28, D29,D8	Telcordia Issue 1	Level I		14.00	0.027373	3.6548	36532665.82
14S4050100	Integrated Circuit	U13	Telcordia Issue 1	Level I		1.00	0.026648	.2541	37526359.19
105A503323	Resistor	R103,R374,R377, R380,R381,R392, R400	Telcordia Issue 1	Level I		7.00	0.002281	.1523	438391989.82
14S5A00401	Integrated Circuit	U1	Telcordia Issue 1	Level I		1.00	0.026648	.2541	37526359.19
1301002240	Semiconductor	D23,D24	Telcordia Issue 1	Level I		2.00	0.024088	.4594	41515203.19
1124547180	Capacitor	C326,C327,C328, C329	Telcordia Issue 1	Level I		4.00	0.005476	.2089	182603895.42
1124701780	Capacitor	C10,C33,C45	Telcordia Issue 1	Level I		3.00	0.004562	.1305	219195994.91
1654226300	Connection	CN21	Telcordia Issue 1	Level I		1.00	0.030053	.2866	33274053.98
1654926900	Connection	CN21	Telcordia Issue 1	Level I		1.00	0.030053	.2866	33274053.98
1121610180	Capacitor	C317,C318,C319, C320,C321,C322	Telcordia Issue 1	Level I		6.00	0.004562	.2611	219195994.91
1124547280	Capacitor	C19,C20,C21,C22, C23,C24,C25,C26	Telcordia Issue 1	Level I		8.00	0.005476	.4178	182603895.42
1059710003	Resistor	R77	Telcordia Issue 1	Level I		1.00	0.002281	.0218	438391989.82
105A502200	Resistor	R193	Telcordia Issue 1	Level I		1.00	0.002281	.0218	438391989.82
105A511503	Resistor	R198	Telcordia Issue 1	Level I		1.00	0.002281	.0218	438391989.82
105A700133	Resistor	R170,R171,R172, R173,R181,R183, R216,R223,R226, R258,R344,R37,R62, R75,R98	Telcordia Issue 1	Level I		15.00	0.002281	.3263	438391989.82
105A701003	Resistor	R318,R319	Telcordia Issue 1	Level I		2.00	0.002281	.0435	438391989.82
105A701033	Resistor	R100,R102,R104, R105,R110,R113, R116,R123,R124, R125,R185,R186, R202,R214,R217, R232,R233,R238,R24, R268,R272,R273, R274,R307,R308, R310,R324,R326, R327,R328,R38,R39, R40,R401,R402,R406, R408,R410,R44,R45, R52,R58,R7,R70,	Telcordia Issue 1	Level I		46.00	0.002281	1.0007	438391989.82

### AAEON Reliability Prediction Report

**Part Number** 9697T0700D-D  
**Reference Des**  
**Date** 06. 19, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.30



**Description**  
**File Name** TF-ONYX-195XT-A1-1010.RPJ  
**Time** 2:12 下午  
**Failure Rate** 10.485404  
**MTBF** 95,371

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A702263	Resistor	R163,R240	Telcordia Issue 1	Level I		2.00	0.002281	.0435	438391989.82
1181647080	Capacitor	EC15,EC16,EC17,EC2, EC4,EC5,EC7,EC8	Telcordia Issue 1	Level I		8.00	0.004562	.3481	219195994.91
14S4048501	Integrated Circuit	U27,U29	Telcordia Issue 1	Level I		2.00	0.060682	1.1575	16479361.92
1174618180	Capacitor	CP2,CP3,CP4,CP5, CP6,CP7,CP8,CP9	Telcordia Issue 1	Level I		8.00	0.005476	.4178	182603895.42
11A4427080	Capacitor	C9	Telcordia Issue 1	Level I		1.00	0.004562	.0435	219195994.91
1059700201	Resistor	R396,R397	Telcordia Issue 1	Level I		2.00	0.002281	.0435	438391989.82
105A500233	Resistor	R403,R407,R409, R411,R414,R415	Telcordia Issue 1	Level I		6.00	0.002281	.1305	438391989.82
105A722003	Resistor	R404,R412,R413	Telcordia Issue 1	Level I		3.00	0.002281	.0653	438391989.82
105A705623	Resistor	R405	Telcordia Issue 1	Level I		1.00	0.002281	.0218	438391989.82
14S6308001	Integrated Circuit	U41	Telcordia Issue 1	Level I		1.00	0.036678	.3498	27264461.71
14S5A00601	Integrated Circuit	U42	Telcordia Issue 1	Level I		1.00	0.026648	.2541	37526359.19
14S4825730	Integrated Circuit	U44	Telcordia Issue 1	Level I		1.00	0.026648	.2541	37526359.19
14S5207402	Integrated Circuit	U43	Telcordia Issue 1	Level I		1.00	0.025843	.2465	38695291.35
1124422080	Capacitor	C415,C416	Telcordia Issue 1	Level I		2.00	0.005476	.1045	182603895.42
1129647650	Capacitor	C420,C421,C424, C429,C433,C434, C437	Telcordia Issue 1	Level I		7.00	0.004562	.3046	219195994.91
121230805L	Inductor	L28,L29	Telcordia Issue 1	Level I		2.00	0.002281	.0435	438391989.82
1301400640	Semiconductor	D35,D36	Telcordia Issue 1	Level I		2.00	0.024088	.4594	41515203.19
105A503033	Resistor	R147	Telcordia Issue 1	Level I		1.00	0.002281	.0218	438391989.82
1189647184	Capacitor	EC10,EC13,EC6,EC9	Telcordia Issue 1	Level I		4.00	0.004562	.1740	219195994.91
14S3115001	Integrated Circuit	U21	Telcordia Issue 1	Level I		1.00	0.060682	.5787	16479361.92
16540M0201	Connection	CN16,CN17	Telcordia Issue 1	Level I		2.00	0.127149	2.4253	7864776.40
1654030003	Connection	CN10	Telcordia Issue 1	Level I		1.00	0.017339	.1654	57675026.90
16549B5301	Connection	CNB1	Telcordia Issue 1	Level I		1.00	0.132929	1.2678	7522829.60
11E9510050	Capacitor	C11,C118,C119,C127, C144,C149,C150, C151,C162,C176, C182,C197,C2,C203, C225,C235,C236, C250,C262,C32,C34, C35,C423,C436,C49, C72	Telcordia Issue 1	Level I		26.00	0.004562	1.1312	219195994.91
1315230300	Semiconductor	Q2,Q4	Telcordia Issue 1	Level I		2.00	0.080292	1.5315	12454560.96
1655308021	Connection	CN3	Telcordia Issue 1	Level I		1.00	0.004624	.0441	216281350.89
1655302020	Connection	CN4,CN9	Telcordia Issue 1	Level I		2.00	0.001156	.0220	865125403.57
1655306020	Connection	CN22	Telcordia Issue 1	Level I		1.00	0.086693	.8268	11535005.38

### AAEON Reliability Prediction Report

**Part Number** 9697T0700D-D  
**Reference Des**  
**Date** 06. 19, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.30



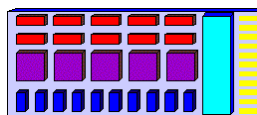
**Description**  
**File Name** TF-ONYX-195XT-A1-1010.RPJ  
**Time** 2:12 下午  
**Failure Rate** 10.485404  
**MTBF** 95,371

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
1651028220	Connection	U8	Telcordia Issue 1	Level I		1.00	0.016183	.1543	61794671.68
1655003010	Connection	CN12,CN8	Telcordia Issue 1	Level I		2.00	0.001734	.0331	576750269.05
1111610194	Capacitor	C101,C139,C180, C269,C270,C278, C279,C28,C284,C29, C300,C316,C338,C77, C80,C88	Telcordia Issue 1	Level I		16.00	0.043346	6.6143	23070010.76
111961029H	Capacitor	EC11	Telcordia Issue 1	Level I		1.00	0.072244	.6890	13842006.46
1653222200	Connection	CN20	Telcordia Issue 1	Level I		1.00	0.025430	.2425	39323881.98
1654260207	Connection	PCI1	Telcordia Issue 1	Level I		1.00	0.069354	.6614	14418756.73
1654218202	Connection	PCIE1	Telcordia Issue 1	Level I		1.00	0.020806	.1984	48062522.42
1653003100	Connection	JP1,JP12,JP13,JP3, JP4,JP5,JP6,JP7, JP8	Telcordia Issue 1	Level I		9.00	0.001734	.1488	576750269.05
1653003101	Connection	JP14,JP15,JP16,JP2	Telcordia Issue 1	Level I		4.00	0.001734	.0661	576750269.05
1653003201	Connection	JP10,JP11,JP9	Telcordia Issue 1	Level I		3.00	0.001156	.0331	865125403.57
1231124550	Miscellaneous	Y3	Telcordia Issue 1	Level I		1.00	0.150000	1.4306	6666666.67
1653300100	Connection	J12(2-3),J13(2-3), J4(1-2)	Telcordia Issue 1	Level I		3.00	0.001156	.0331	865125403.57
1653300101	Connection	J1(2-3),J3(2-3), J5(2-3),J6(1-2), J7(2-3),J8(1-2)	Telcordia Issue 1	Level I		6.00	0.001156	.0661	865125403.57
1653300102	Connection	J16(1-2),J10(5-6), J11(5-6),J14(2-3), J15(1-2),J2(1-2), J9(5-6)	Telcordia Issue 1	Level I		7.00	0.001156	.0772	865125403.57
1655310023	Connection	CN7	Telcordia Issue 1	Level I		1.00	0.005780	.0551	173025080.71
1655305020	Connection	CN15,CN6	Telcordia Issue 1	Level I		2.00	0.002890	.0551	346050161.43
1111610211	Capacitor	EC14	Telcordia Issue 1	Level I		1.00	0.072244	.6890	13842006.46
1654543500	Connection	CN27	Telcordia Issue 1	Level I		1.00	0.024852	.2370	40238390.86
1653008100	Connection	CN31	Telcordia Issue 1	Level I		1.00	0.004624	.0441	216281350.89
1655304020	Connection	CN1,CN2	Telcordia Issue 1	Level I		2.00	0.002312	.0441	432562701.78
1231316053	Miscellaneous	Y1	Telcordia Issue 1	Level I		1.00	0.150000	1.4306	6666666.67
12311120A1	Miscellaneous	X1	Telcordia Issue 1	Level I		1.00	0.150000	1.4306	6666666.67
1652905201	Connection	CN5	Telcordia Issue 1	Level I		1.00	0.002890	.0276	346050161.43
1652522205	Connection	CN26,CN30	Telcordia Issue 1	Level I		2.00	0.012715	.2425	78647763.96
1653205203	Connection	CN14	Telcordia Issue 1	Level I		1.00	0.005780	.0551	173025080.71
1655420020	Connection	CN19	Telcordia Issue 1	Level I		1.00	0.011559	.1102	86512540.36
1654907004	Connection	SATA1,SATA2	Telcordia Issue 1	Level I		2.00	0.004046	.0772	247178686.73
165300420J	Connection	CN18	Telcordia Issue 1	Level I		1.00	0.004624	.0441	216281350.89
1112610190	Capacitor	EC1	Telcordia Issue 1	Level I		1.00	0.043346	.4134	23070010.76
1759100002	Miscellaneous	BZ1,BZ2	Telcordia Issue 1	Level I		2.00	0.150000	2.8611	6666666.67
1750220323	Connection	BT1	Telcordia Issue 1	Level I		1.00	0.001156	.0110	865125403.57



### AAEON Reliability Prediction Report

**Part Number** 9697945006  
**Reference Des**  
**Date** 06. 19, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.30



**Description**  
**File Name** TF-ONYX-195XT-A1-1010.RPJ  
**Time** 2:12 下午  
**Failure Rate** 11.415274  
**MTBF** 87,602

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A516923	Resistor	R476	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
1124522280	Capacitor	C1	Telcordia Issue 1	Level I		1.00	0.004562	.0400	219195994.91
1129701690	Capacitor	C101,C106,C127, C129,C141,C143, C146,C197,C198,C2, C222,C224,C227, C231,C232,C234, C236,C237,C239, C240,C242,C243, C245,C246,C247, C248,C249,C250, C251,C252,C253, C254,C256,C257, C258,C260,C262, C263,C264,C266,	Telcordia Issue 1	Level I		124.00	0.004562	4.9557	219195994.91
1129622050	Capacitor	C10,C11,C12,C13, C14,C148,C15,C155, C16,C17,C18,C23, C24,C25,C26,C3,C4, C5,C6,C618,C7,C8, C9	Telcordia Issue 1	Level I		23.00	0.004562	.9192	219195994.91
1189633160	Capacitor	C104,C145,C183,C19, C259,C261,C265,C30, C31,C32,C33,C34, C35,C36,C37,C513, C514,C75,C85,C86, C87	Telcordia Issue 1	Level I		21.00	0.004562	.8393	219195994.91
1121501690	Capacitor	C100,C107,C108, C110,C112,C114, C117,C124,C132, C134,C135,C144, C147,C152,C154, C157,C167,C168, C169,C170,C171, C172,C173,C174, C175,C176,C177, C178,C184,C185, C187,C188,C190, C191,C192,C193, C194,C195,C196,	Telcordia Issue 1	Level I		70.00	0.004562	2.7976	219195994.91
1129701790	Capacitor	C109,C38	Telcordia Issue 1	Level I		2.00	0.004562	.0799	219195994.91

### AAEON Reliability Prediction Report

**Part Number** 9697945006  
**Reference Des**  
**Date** 06. 19, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.30



**Description**  
**File Name** TF-ONYX-195XT-A1-1010.RPJ  
**Time** 2:12 下午  
**Failure Rate** 11.415274  
**MTBF** 87,602

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1129610051	Capacitor	C105,C116,C123, C133,C136,C156, C159,C186,C39,C78, C80,C89,C90,C95, C99	Telcordia Issue 1	Level I		15.00	0.004562	.5995	219195994.91
1129522790	Capacitor	C121,C122,C151, C413,C417,C425,C76, C79,C83	Telcordia Issue 1	Level I		9.00	0.004562	.3597	219195994.91
1121647480	Capacitor	C119,C120,C142, C150,C77,C81,C84, C88,C91,C92,C93, C94	Telcordia Issue 1	Level I		12.00	0.004562	.4796	219195994.91
1121701080	Capacitor	C189,C215,C217, C218,C219,C221, C292,C395,C398, C407,C450,C499, C501,C510,C512, C556,C82	Telcordia Issue 1	Level I		17.00	0.004562	.6794	219195994.91
1129647650	Capacitor	C102,C103,C201, C415	Telcordia Issue 1	Level I		4.00	0.004562	.1599	219195994.91
1129722680	Capacitor	C118,C223,C225, C233,C235,C238, C241,C244	Telcordia Issue 1	Level I		8.00	0.004562	.3197	219195994.91
11E9647680	Capacitor	C128,C130,C255	Telcordia Issue 1	Level I		3.00	0.004562	.1199	219195994.91
1129710050	Capacitor	C149,C268,C272, C285,C288,C289, C327,C328,C348, C350,C361,C435, C451,C491,C492, C496,C508,C607	Telcordia Issue 1	Level I		18.00	0.005476	.8635	182603895.42
123131435B	Miscellaneous	Y2	Telcordia Issue 1	Level I		1.00	0.150000	1.3140	6666666.67
1124533190	Capacitor	C230	Telcordia Issue 1	Level I		1.00	0.005476	.0480	182603895.42
1124533080	Capacitor	C282,C283	Telcordia Issue 1	Level I		2.00	0.004562	.0799	219195994.91
1129710390	Capacitor	C332,C340,C352, C354	Telcordia Issue 1	Level I		4.00	0.004562	.1599	219195994.91
118961018A	Capacitor	C399	Telcordia Issue 1	Level I		1.00	0.004562	.0400	219195994.91
1121710090	Capacitor	C402,C403,C409, C414,C609	Telcordia Issue 1	Level I		5.00	0.004562	.1998	219195994.91
1121701790	Capacitor	C411,C426,C430, C431	Telcordia Issue 1	Level I		4.00	0.004562	.1599	219195994.91
1122722780	Capacitor	C412,C416	Telcordia Issue 1	Level I		2.00	0.004562	.0799	219195994.91
1124547180	Capacitor	C419	Telcordia Issue 1	Level I		1.00	0.005476	.0480	182603895.42
1121733380	Capacitor	C420,C421	Telcordia Issue 1	Level I		2.00	0.004562	.0799	219195994.91
1124539180	Capacitor	C423	Telcordia Issue 1	Level I		1.00	0.004562	.0400	219195994.91
1122747080	Capacitor	C424	Telcordia Issue 1	Level I		1.00	0.004562	.0400	219195994.91
1124518180	Capacitor	C427	Telcordia Issue 1	Level I		1.00	0.004562	.0400	219195994.91
1121610060	Capacitor	C438,C447	Telcordia Issue 1	Level I		2.00	0.004562	.0799	219195994.91
1121722650	Capacitor	C439,C440,C441, C445,C446	Telcordia Issue 1	Level I		5.00	0.005476	.2399	182603895.42

### AAEON Reliability Prediction Report

**Part Number** 9697945006  
**Reference Des**  
**Date** 06. 19, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.30



**Description**  
**File Name** TF-ONYX-195XT-A1-1010.RPJ  
**Time** 2:12 下午  
**Failure Rate** 11.415274  
**MTBF** 87,602

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1124501750	Capacitor	C504	Telcordia Issue 1	Level I		1.00	0.004562	.0400	219195994.91
1124427090	Capacitor	C610,C611	Telcordia Issue 1	Level I		2.00	0.004562	.0799	219195994.91
1121501680	Capacitor	C612	Telcordia Issue 1	Level I		1.00	0.005476	.0480	182603895.42
16515A0997	Connection	DIMM1	Telcordia Issue 1	Level I		1.00	0.115590	1.0126	8651254.04
1301053040	Semiconductor	D16,D17,D18,D19, D24,D5	Telcordia Issue 1	Level I		6.00	0.024088	1.2661	41515203.19
1301005440	Semiconductor	D3,D4,D6	Telcordia Issue 1	Level I		3.00	0.024088	.6330	41515203.19
1300581940	Semiconductor	D1,D11,D12,D2	Telcordia Issue 1	Level I		4.00	0.080292	2.8135	12454560.96
1301005442	Semiconductor	D20,D21,D22,D23	Telcordia Issue 1	Level I		4.00	0.024088	.8440	41515203.19
1212306033	Inductor	L1,L10,L11,L12,L2, L3,L4,L9	Telcordia Issue 1	Level I		8.00	0.002281	.1599	438391989.82
1211101005	Inductor	L5,L7	Telcordia Issue 1	Level I		2.00	0.002281	.0400	438391989.82
1212308054	Inductor	L22,L6	Telcordia Issue 1	Level I		2.00	0.002281	.0400	438391989.82
1211100102	Inductor	L14,L8	Telcordia Issue 1	Level I		2.00	0.086680	1.5187	11536631.31
121230805Z	Inductor	L13	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
121230805X	Inductor	L15,L16	Telcordia Issue 1	Level I		2.00	0.002281	.0400	438391989.82
121110156A	Inductor	L17,L31,L32	Telcordia Issue 1	Level I		3.00	0.086680	2.2780	11536631.31
1231325058	Miscellaneous	Y3	Telcordia Issue 1	Level I		1.00	0.150000	1.3140	6666666.67
1315700212	Semiconductor	Q1,Q13,Q15,Q2,Q28, Q29,Q3,Q33,Q36,Q37, Q4,Q7,Q8	Telcordia Issue 1	Level I		13.00	0.080292	9.1438	12454560.96
1315441014	Semiconductor	Q10,Q34,Q35,Q9	Telcordia Issue 1	Level I		4.00	0.080292	2.8135	12454560.96
14S2591200	Integrated Circuit	Q21	Telcordia Issue 1	Level I		1.00	0.060682	.5316	16479361.92
1315230111	Semiconductor	Q32	Telcordia Issue 1	Level I		1.00	0.000000	.0000	.00
105A705609	Resistor	R1,R13,R14,R17,R18, R221,R222,R223, R224,R225,R226, R227,R228,R229, R230,R231,R232, R233,R234,R235, R236,R237,R238, R239,R240,R241, R242,R243,R244, R245,R246,R95,R98	Telcordia Issue 1	Level I		33.00	0.002281	.6594	438391989.82
105A707503	Resistor	R2	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82





### AAEON Reliability Prediction Report

**Part Number** 9697945006  
**Reference Des**  
**Date** 06. 19, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.30



**Description**  
**File Name** TF-ONYX-195XT-A1-1010.RPJ  
**Time** 2:12 下午  
**Failure Rate** 11.415274  
**MTBF** 87,602

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A701039	Resistor	R100,R156,R165, R172,R174,R176, R177,R179,R180, R184,R208,R209, R300,R412,R413, R414,R458,R482, R548,R549,R55,R550, R551,R554,R57,R59, R60,R61,R62	Telcordia Issue 1	Level I		29.00	0.002281	.5795	438391989.82
105A501529	Resistor	R56	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
105A702229	Resistor	R293,R294,R295,R63, R64,R83	Telcordia Issue 1	Level I		6.00	0.002281	.1199	438391989.82
105A710039	Resistor	R191,R410,R504,R65, R759	Telcordia Issue 1	Level I		5.00	0.002281	.0999	438391989.82
105A701003	Resistor	R439,R440,R443,R66, R665,R68	Telcordia Issue 1	Level I		6.00	0.002281	.1199	438391989.82
1059700001	Resistor	L21,L25,R334,R335, R336,R446,R447, R546,R547,R555, R557,R566,R567,R67, R692,R736	Telcordia Issue 1	Level I		16.00	0.002281	.3197	438391989.82
105A510053	Resistor	R289,R87	Telcordia Issue 1	Level I		2.00	0.013686	.2398	73065331.64
105A708229	Resistor	R110,R111,R112, R113,R114,R115, R116,R117,R118, R119,R123,R124, R127,R128,R130, R131,R133,R134, R136,R138,R140, R142,R148,R149, R150,R151,R152, R153,R154,R159, R161,R168,R173, R193,R194,R195, R196,R283,R302,	Telcordia Issue 1	Level I		45.00	0.002281	.8992	438391989.82
105A702033	Resistor	R92	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
105A701059	Resistor	R96	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
1050533034	Resistor	R102	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
105A703309	Resistor	R120,R129,R249, R250,R251,R252, R256,R258,R260, R261,R264,R266, R267,R270,R272, R274,R275,R278, R281,R282,R285, R288,R290,R387, R403	Telcordia Issue 1	Level I		25.00	0.002281	.4996	438391989.82

### AAEON Reliability Prediction Report

**Part Number** 9697945006  
**Reference Des**  
**Date** 06. 19, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.30



**Description**  
**File Name** TF-ONYX-195XT-A1-1010.RPJ  
**Time** 2:12 下午  
**Failure Rate** 11.415274  
**MTBF** 87,602

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A522669	Resistor	R145	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
105A702233	Resistor	R189	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
1059710003	Resistor	R200,R201	Telcordia Issue 1	Level I		2.00	0.002281	.0400	438391989.82
105A700003	Resistor	R202,R203,R672, R675,R697	Telcordia Issue 1	Level I		5.00	0.002281	.0999	438391989.82
105A501123	Resistor	R205,R206,R434	Telcordia Issue 1	Level I		3.00	0.002281	.0599	438391989.82
105A549969	Resistor	R247,R248,R253, R254,R255,R257, R259,R262,R263, R265,R268,R269, R271,R273,R276, R277,R279,R280	Telcordia Issue 1	Level I		18.00	0.002281	.3597	438391989.82
1050512164	Resistor	R287	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
105A547509	Resistor	R291	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
105A503423	Resistor	R337	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
105A500133	Resistor	R435,R543,R545	Telcordia Issue 1	Level I		3.00	0.002281	.0599	438391989.82
105A747009	Resistor	R436	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
1050519114	Resistor	R218,R441	Telcordia Issue 1	Level I		2.00	0.002281	.0400	438391989.82
105A702263	Resistor	R448,R464	Telcordia Issue 1	Level I		2.00	0.002281	.0400	438391989.82
105A700103	Resistor	R204,R449,R451, R483,R669,R670	Telcordia Issue 1	Level I		6.00	0.002281	.1199	438391989.82
105A514733	Resistor	R450	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
105A536513	Resistor	R457,R481	Telcordia Issue 1	Level I		2.00	0.002281	.0400	438391989.82
1050549904	Resistor	R471	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
105A518213	Resistor	R474	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
105A501413	Resistor	R475	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
105A561923	Resistor	R480	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
105A505623	Resistor	R486	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
1059700101	Resistor	R552,R563	Telcordia Issue 1	Level I		2.00	0.002281	.0400	438391989.82
105A701053	Resistor	R553	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
105A571533	Resistor	R559	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
105A516523	Resistor	R562	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
105A507523	Resistor	R561,R674	Telcordia Issue 1	Level I		2.00	0.002281	.0400	438391989.82
105A503033	Resistor	R560	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
105A701533	Resistor	R564,R565	Telcordia Issue 1	Level I		2.00	0.002281	.0400	438391989.82
105A710033	Resistor	R656	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
105A702423	Resistor	R673	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
105A511503	Resistor	R676	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82

**AAEON Reliability Prediction Report**

**Part Number** 9697945006  
**Reference Des**  
**Date** 06. 19, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.30



**Description**  
**File Name** TF-ONYX-195XT-A1-1010.RPJ  
**Time** 2:12 下午  
**Failure Rate** 11.415274  
**MTBF** 87,602

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A518703	Resistor	R677	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
105A527413	Resistor	R338	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
14S9103200	Integrated Circuit	U2	Telcordia Issue 1	Level I		1.00	0.060682	.5316	16479361.92
14S4294501	Integrated Circuit	U3	Telcordia Issue 1	Level I	47.80	1.00	0.298784	2.6174	3346899.80
14S428010D	Integrated Circuit	U4	Telcordia Issue 1	Level I	33.90	1.00	0.158950	1.3924	6291278.92
14S5A00700	Integrated Circuit	U5	Telcordia Issue 1	Level I		1.00	0.025694	.2251	38919647.44
14S1826100	Integrated Circuit	U6	Telcordia Issue 1	Level I		1.00	0.060682	.5316	16479361.92
14S2705700	Integrated Circuit	U8	Telcordia Issue 1	Level I		1.00	0.060682	.5316	16479361.92
14S3422600	Integrated Circuit	U10	Telcordia Issue 1	Level I	47.20	1.00	1.189018	10.4160	841030.39
14S4148500	Integrated Circuit	U18	Telcordia Issue 1	Level I	51.40	1.00	1.490274	13.0551	671017.69
14S4081110	Integrated Circuit	U21	Telcordia Issue 1	Level I		1.00	0.060682	.5316	16479361.92
14S4081110	Integrated Circuit	U25	Telcordia Issue 1	Level I	33.40	1.00	0.543808	4.7639	1838885.81
14S3626200	Integrated Circuit	U24	Telcordia Issue 1	Level I		1.00	0.026648	.2334	37526359.19
14S2533100	Integrated Circuit	U32	Telcordia Issue 1	Level I		1.00	0.060682	.5316	16479361.92
1315313800	Semiconductor	U33	Telcordia Issue 1	Level I		1.00	0.080292	.7034	12454560.96
14S2712000	Semiconductor	U34	Telcordia Issue 1	Level I		1.00	0.048175	.4220	20757601.59
1231332721	Miscellaneous	Y1	Telcordia Issue 1	Level I		1.00	0.150000	1.3140	6666666.67
1122522890	Capacitor	C111,C113,C125, C126,C153,C158,C97	Telcordia Issue 1	Level I		7.00	0.004562	.2798	219195994.91
1124515880	Capacitor	C408	Telcordia Issue 1	Level I		1.00	0.004562	.0400	219195994.91
1121533480	Capacitor	C422	Telcordia Issue 1	Level I		1.00	0.004562	.0400	219195994.91
1315441012	Semiconductor	Q30,Q31	Telcordia Issue 1	Level I		2.00	0.080292	1.4067	12454560.96
105A703329	Resistor	R708,R712,R713, R723,R728,R729	Telcordia Issue 1	Level I		6.00	0.002281	.1199	438391989.82
105A704709	Resistor	R731,R733,R734	Telcordia Issue 1	Level I		3.00	0.002281	.0599	438391989.82
14S6308001	Integrated Circuit	U37	Telcordia Issue 1	Level I		1.00	0.036678	.3213	27264461.71
14S5A00601	Integrated Circuit	U41	Telcordia Issue 1	Level I		1.00	0.026648	.2334	37526359.19
1311006910	Semiconductor	Q11,Q12	Telcordia Issue 1	Level I		2.00	0.024088	.4220	41515203.19
131411171C	Integrated Circuit	U35	Telcordia Issue 1	Level I		1.00	0.060682	.5316	16479361.92
1189622850	Capacitor	C115,C131,C138, C139,C140,C199	Telcordia Issue 1	Level I		6.00	0.004562	.2398	219195994.91
14S4825730	Integrated Circuit	U36	Telcordia Issue 1	Level I		1.00	0.026648	.2334	37526359.19
1124418090	Capacitor	C161,C162	Telcordia Issue 1	Level I		2.00	0.004562	.0799	219195994.91
14S4751100	Integrated Circuit	U39	Telcordia Issue 1	Level I		1.00	0.026648	.2334	37526359.19
14S62C9451	Integrated Circuit	FWH1	Telcordia Issue 1	Level I		1.00	0.026648	.2334	37526359.19
1315889612	Semiconductor	Q22,Q23,Q24,Q25	Telcordia Issue 1	Level I		4.00	0.080292	2.8135	12454560.96
1651611994	Connection	U1	Telcordia Issue 1	Level I		1.00	0.276261	2.4201	3619771.56

### AAEON Reliability Prediction Report

**Part Number** 9697945006  
**Reference Des**  
**Date** 06. 19, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.30



**Description**  
**File Name** TF-ONYX-195XT-A1-1010.RPJ  
**Time** 2:12 下午  
**Failure Rate** 11.415274  
**MTBF** 87,602

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
16540M0001	Connection	CN2,CN3	Telcordia Issue 1	Level I		2.00	0.127149	2.2277	7864776.40
121110336L	Inductor	L23	Telcordia Issue 1	Level I		1.00	0.086680	.7593	11536631.31
105A501139	Resistor	R478	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
1189633191	Capacitor	C286	Telcordia Issue 1	Level I		1.00	0.004562	.0400	219195994.91
1124522760	Capacitor	C404,C410	Telcordia Issue 1	Level I		2.00	0.004562	.0799	219195994.91
105A518713	Resistor	R484	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
1211108870	Inductor	L24	Telcordia Issue 1	Level I	52.70	1.00	0.005477	.0480	182592038.27
1211108870	Inductor	L26	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
1059747031	Resistor	RT1	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
1059501031	Resistor	RT2	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
105A540213	Resistor	R462	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
105A526113	Resistor	R479	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
105A502033	Resistor	R671	Telcordia Issue 1	Level I		1.00	0.002281	.0200	438391989.82
1189615161	Capacitor	C400	Telcordia Issue 1	Level I		1.00	0.043346	.3797	23070010.76
1189622160	Capacitor	C604	Telcordia Issue 1	Level I		1.00	0.004562	.0400	219195994.91
2057250800	Integrated Circuit	U37	Telcordia Issue 1	Level I		1.00	0.023452	.2054	42641143.29

**AAEON Reliability Prediction Report**

**Part Number** 9697T06600  
**Reference Des**  
**Date** 06. 19, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.30



**Description**  
**File Name** TF-ONYX-195XT-A1-1010.RPJ  
**Time** 2:12 下午  
**Failure Rate** 0.487428  
**MTBF** 2,051,583

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
165392521C	Connection	CON1	Telcordia Issue 1	Level I		1.00	0.001156	.2371	865125403.57
1653910110	Connection	CON2	Telcordia Issue 1	Level I		1.00	0.005780	1.1857	173025080.71
1314880511	Integrated Circuit	U2	Telcordia Issue 1	Level I		1.00	0.060682	12.4494	16479361.92
1653946110	Connection	CON4	Telcordia Issue 1	Level I		1.00	0.026586	5.4543	37614147.98
1653909110	Connection	CON3	Telcordia Issue 1	Level I		1.00	0.028898	5.9286	34605016.14
14S4819000	Integrated Circuit	U1	Telcordia Issue 1	Level I		1.00	0.026648	5.4670	37526359.19
1121501680	Capacitor	C1,C11,C12,C16,C18, C2,C20,C21,C23,C3, C4,C6,C7,C8,C9	Telcordia Issue 1	Level I		15.00	0.005476	16.8527	182603895.42
1129747650	Capacitor	C10,C5	Telcordia Issue 1	Level I		2.00	0.005476	2.2470	182603895.42
1124420080	Capacitor	C14,C15	Telcordia Issue 1	Level I		2.00	0.004562	1.8719	219195994.91
11C1501080	Capacitor	C17	Telcordia Issue 1	Level I		1.00	0.004562	.9360	219195994.91
1129710060	Capacitor	C19,C22	Telcordia Issue 1	Level I		2.00	0.004562	1.8719	219195994.91
1124601660	Capacitor	C24,C25,C26	Telcordia Issue 1	Level I		3.00	0.004562	2.8079	219195994.91
1214309000	Inductor	CM1	Telcordia Issue 1	Level I		1.00	0.002281	.4680	438391989.82
121231206B	Inductor	L1,L2	Telcordia Issue 1	Level I		2.00	0.002281	.9360	438391989.82
105A747003	Resistor	R1,R3	Telcordia Issue 1	Level I		2.00	0.002281	.9360	438391989.82
105A700133	Resistor	R2	Telcordia Issue 1	Level I		1.00	0.002281	.4680	438391989.82
105A768003	Resistor	R4	Telcordia Issue 1	Level I		1.00	0.002281	.4680	438391989.82
105A704733	Resistor	R14,R5	Telcordia Issue 1	Level I		2.00	0.002281	.9360	438391989.82
105A524033	Resistor	R6	Telcordia Issue 1	Level I		1.00	0.002281	.4680	438391989.82
105A701053	Resistor	R13,R7	Telcordia Issue 1	Level I		2.00	0.002281	.9360	438391989.82
105A700003	Resistor	R10,R11,R9	Telcordia Issue 1	Level I		3.00	0.002281	1.4039	438391989.82
105A701033	Resistor	R15,R17	Telcordia Issue 1	Level I		2.00	0.002281	.9360	438391989.82
105A702223	Resistor	R16	Telcordia Issue 1	Level I		1.00	0.002281	.4680	438391989.82
105A710033	Resistor	R12,R18	Telcordia Issue 1	Level I		2.00	0.002281	.9360	438391989.82
1315035610	Semiconductor	U3	Telcordia Issue 1	Level I		1.00	0.000000	.0000	.00
1122501780	Capacitor	C13	Telcordia Issue 1	Level I		1.00	0.004562	.9360	219195994.91
1655005121	Connection	USB1	Telcordia Issue 1	Level I		1.00	0.002890	.5929	346050161.43
1304451400	Semiconductor	D1	Telcordia Issue 1	Level I		1.00	0.005012	1.0283	199519584.34
12311120A1	Miscellaneous	Y1	Telcordia Issue 1	Level I		1.00	0.150000	30.7737	6666666.67



### AAEON Reliability Prediction Report

**Part Number** 9697T07904  
**Reference Des**  
**Date** 06. 19, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.30



**Description**  
**File Name** TF-ONYX-195XT-A1-1010.RPJ  
**Time** 2:12 下午  
**Failure Rate** 0.772865  
**MTBF** 1,293,887

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
14S4702100	Integrated Circuit	U4	Telcordia Issue 1	Level I		1.00	0.071383	9.2362	14008941.67
1122701680	Capacitor	C10,C11,C12,C16, C17,C18,C19,C20, C22,C24,C26,C28, C29,C30,C31,C32, C36,C37,C38,C39,C4, C40,C41,C43,C44, C45,C7	Telcordia Issue 1	Level I		27.00	0.004562	15.9378	219195994.91
1124422080	Capacitor	C5,C6	Telcordia Issue 1	Level I		2.00	0.005476	1.4172	182603895.42
1124427080	Capacitor	C23,C25	Telcordia Issue 1	Level I		2.00	0.004562	1.1806	219195994.91
1212306033	Inductor	L1,L10,L11,L2,L3, L4,L5,L6,L7,L8,L9	Telcordia Issue 1	Level I		11.00	0.002281	3.2466	438391989.82
105A502200	Resistor	R1,R2	Telcordia Issue 1	Level I		2.00	0.002281	.5903	438391989.82
105A504723	Resistor	R4,R5,R6,R7	Telcordia Issue 1	Level I		4.00	0.002281	1.1806	438391989.82
105A501033	Resistor	R17,R18,R20,R22, R23,R24,R9	Telcordia Issue 1	Level I		7.00	0.002281	2.0660	438391989.82
105A700003	Resistor	R10	Telcordia Issue 1	Level I		1.00	0.002281	.2951	438391989.82
105A501223	Resistor	R11	Telcordia Issue 1	Level I		1.00	0.002281	.2951	438391989.82
105A507503	Resistor	R12,R13,R14,R15, R16	Telcordia Issue 1	Level I		5.00	0.002281	1.4757	438391989.82
105A502423	Resistor	R19	Telcordia Issue 1	Level I		1.00	0.002281	.2951	438391989.82
14S3115001	Integrated Circuit	U1	Telcordia Issue 1	Level I		1.00	0.060682	7.8516	16479361.92
14S4730802	Integrated Circuit	U3	Telcordia Issue 1	Level I		1.00	0.060682	7.8516	16479361.92
11E9510050	Capacitor	C1,C13,C14,C15,C2, C21,C27,C3,C33,C34, C35,C42,C8,C9	Telcordia Issue 1	Level I		14.00	0.004562	8.2640	219195994.91
1231114350	Miscellaneous	Y1	Telcordia Issue 1	Level I		1.00	0.150000	19.4083	6666666.67
1231127051	Miscellaneous	Y2	Telcordia Issue 1	Level I		1.00	0.150000	19.4083	6666666.67



### AAEON Reliability Prediction Report

**Part Number** 9697R08P00  
**Reference Des**  
**Date** 06. 19, 2009  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.30



**Description**  
**File Name** TF-ONYX-195XT-A1-1010.RPJ  
**Time** 2:12 下午  
**Failure Rate** 0.291398  
**MTBF** 3,431,733

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
1124701680	Capacitor	C1,C10,C11,C12,C14, C15,C2,C3,C4,C5,C6, C9	Telcordia Issue 1	Level I		12.00	0.004562	18.7872	219195994.91
105A504723	Resistor	R2,R4,R6,R7	Telcordia Issue 1	Level I		4.00	0.002281	3.1312	438391989.82
1129610051	Capacitor	C13,C7,C8	Telcordia Issue 1	Level I		3.00	0.004562	4.6968	219195994.91
111961029D	Capacitor	EC3	Telcordia Issue 1	Level I		1.00	0.072244	24.7922	13842006.46
111961029H	Capacitor	EC1	Telcordia Issue 1	Level I		1.00	0.072244	24.7922	13842006.46
1654260203	Connection	PCI1	Telcordia Issue 1	Level I		1.00	0.069354	23.8005	14418756.73



