

ONYX-1922 Reliability Prediction Report (MTBF)

Report NO : 10P070004

02-11-2010

Issue Date

Wenyuan Yang

Manager

Jessica Chou

Test Engineer

Reliability Prediction (MTBF)

I . **Model Name:** TF-ONYX-1922DT-A1-1010

II . **Prediction Date:** Feb. 11, 2010

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:

- TF-ONYX-1922DT-A1-1010 (Not include Inverter, LCD)
Failure Rate: 20.709728 ppm
MTBF: 48,286 Hours

Below components MTBF value were provided by the suppliers:

- (TF)INVERTER.DC TO AC.FOR HYUNDAI 17" TFT LCD.(4LAMPS).QF132V1.16(S)
MTBF: 929,375.8033 hours

- (TF)TFT LCD.19".300 nits.AUO.M190EG01 V2
CCFL Life Time: 40,000hours (CCFL at 7.5 mA lamp current).

AAEON Reliability Prediction Report

Part Number System
Reference Des
Date 02. 11, 2010
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00

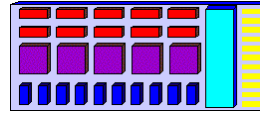


Description Top-level assembly
File Name TF-ONYX-1922DT-A1-1010.RPJ
Time 4:03 下午
Failure Rate 20.709728
MTBF 48,286

Assembly Name	Part Number	Model	Method	Environment	Duty Cycle	Qty	Failure Rate	MTBF
TF-ONYX-1922DT-A1-1010	System	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled	100.00	1.00	20.71	48286.49
ASSY OSD Board	9697Y01801-S	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	.16	6220210.15
A'SSY PER-T142 Rev.A0.2	9697T14202-D	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	1.28	783383.29
A'SSY POWER BOARD PER-P17D	9697P17D01-DIP	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	2.60	385219.46
GENE-9310-A10	9697931067-D	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	16.61	60195.55

AAEON Reliability Prediction Report

Part Number System
Reference Des
Date 02. 11, 2010
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description Top-level assembly
File Name TF-ONYX-1922DT-A1-1010.RPJ
Time 4:03 下午
Failure Rate 20.709728
MTBF 48,286

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
14D6A01G08	Integrated Circuit	DDR II	Telcordia Issue 1	Level I		1.00	0.032000	50.0000	31250122.20
14S6200800	Integrated Circuit		Telcordia Issue 1	Level I		1.00	0.032000	50.0000	31250122.20

AAEON Reliability Prediction Report

Part Number 9697T14202-D
Reference Des
Date 02. 11, 2010
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description
File Name TF-ONYX-1922DT-A1-1010.RPJ
Time 4:03 下午
Failure Rate 1.276514
MTBF 783,383

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1759100006	Miscellaneous	BZ1	Telcordia Issue 1	Level I		1.00	0.150000	11.7507	6666666.67
16540E0001	Connection	CN1	Telcordia Issue 1	Level I		1.00	0.001138	.0891	878780270.71
1654030003	Connection	CN2	Telcordia Issue 1	Level I		1.00	0.017069	1.3372	58585351.38
1174618180	Capacitor	CP1,CP2	Telcordia Issue 1	Level I		2.00	0.005466	.8563	182961702.19
1129610051	Capacitor	C1,C12,C17,C20,C21, C29,C31,C35,C41, C43,C47,C5,C8	Telcordia Issue 1	Level I		13.00	0.004535	4.6189	220487045.01
1122701680	Capacitor	C10,C11,C13,C14, C18,C19,C2,C22,C23, C24,C25,C26,C27, C28,C3,C30,C33,C36, C4,C40,C42,C44,C45, C46,C48,C49,C50, C51,C52,C6,C7,C73, C74,C75,C76,C77, C78,C79,C80,C9	Telcordia Issue 1	Level I		40.00	0.004535	14.2119	220487045.01
1124422080	Capacitor	C15,C16	Telcordia Issue 1	Level I		2.00	0.005466	.8563	182961702.19
1121710090	Capacitor	C32	Telcordia Issue 1	Level I		1.00	0.004535	.3553	220487045.01
1121701080	Capacitor	C34,C37,C39	Telcordia Issue 1	Level I		3.00	0.004535	1.0659	220487045.01
1129722680	Capacitor	C38	Telcordia Issue 1	Level I		1.00	0.004535	.3553	220487045.01
1301005440	Semiconductor	D1	Telcordia Issue 1	Level I		1.00	0.023881	1.8708	41874327.58
105A700003	Resistor	FB1,FB2,FB3,FB4, FB5,FB6,FB7,R11, R12,R13,R15,R27, R29	Telcordia Issue 1	Level I		13.00	0.002268	2.3094	440974090.03
1315230111	Semiconductor	Q1	Telcordia Issue 1	Level I		1.00	0.000000	.0000	.00
1310390410	Semiconductor	Q2	Telcordia Issue 1	Level I		1.00	0.023881	1.8708	41874327.58
1540700080	Resistor	RN1,RN2	Telcordia Issue 1	Level I		2.00	0.012492	1.9572	80051386.00
105A501033	Resistor	R1,R21,R30,R45	Telcordia Issue 1	Level I		4.00	0.002268	.7106	440974090.03
105A504723	Resistor	R10,R14,R2,R3,R6, R7	Telcordia Issue 1	Level I		6.00	0.002268	1.0659	440974090.03
105A502423	Resistor	R5	Telcordia Issue 1	Level I		1.00	0.002268	.1776	440974090.03
105A703933	Resistor	R25	Telcordia Issue 1	Level I		1.00	0.002268	.1776	440974090.03
105A708223	Resistor	R28	Telcordia Issue 1	Level I		1.00	0.002268	.1776	440974090.03
105A710033	Resistor	R31,R33	Telcordia Issue 1	Level I		2.00	0.002268	.3553	440974090.03
105A502403	Resistor	R36,R37,R42,R44	Telcordia Issue 1	Level I		4.00	0.002268	.7106	440974090.03
105A500133	Resistor	R32,R34,R35	Telcordia Issue 1	Level I		3.00	0.002268	.5329	440974090.03
14S4730802	Integrated Circuit	U1	Telcordia Issue 1	Level I		1.00	0.059366	4.6506	16844654.92
1315970211	Semiconductor	U5	Telcordia Issue 1	Level I		1.00	0.159207	12.4720	6281149.14
14S1206800	Integrated Circuit	U8	Telcordia Issue 1	Level I		1.00	0.059366	4.6506	16844654.92

AAEON Reliability Prediction Report

Part Number 9697T14202-D
Reference Des
Date 02. 11, 2010
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00

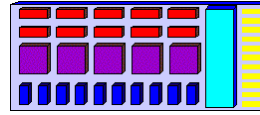


Description
File Name TF-ONYX-1922DT-A1-1010.RPJ
Time 4:03 下午
Failure Rate 1.276514
MTBF 783,383

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
14S3522800	Integrated Circuit	U10,U9	Telcordia Issue 1	Level I		2.00	0.059366	9.3013	16844654.92
123131435B	Miscellaneous	Y1	Telcordia Issue 1	Level I		1.00	0.150000	11.7507	6666666.67
1653105223	Connection	CN6	Telcordia Issue 1	Level I		1.00	0.001138	.0891	878780270.71
1655304121	Connection	CN4	Telcordia Issue 1	Level I		1.00	0.002276	.1783	439390135.35
1655305120	Connection	CN7	Telcordia Issue 1	Level I		1.00	0.001138	.0891	878780270.71
1655308122	Connection	CN13,CN8	Telcordia Issue 1	Level I		2.00	0.001138	.1783	878780270.71
1655302120	Connection	CN11,CN9	Telcordia Issue 1	Level I		2.00	0.001138	.1783	878780270.71
1653107220	Connection	CN10	Telcordia Issue 1	Level I		1.00	0.001138	.0891	878780270.71
1654409106	Connection	COM1	Telcordia Issue 1	Level I		1.00	0.001138	.0891	878780270.71
1111610192	Capacitor	CE1,CE2	Telcordia Issue 1	Level I		2.00	0.042673	6.6858	23434140.55
1654804101	Connection	USB1	Telcordia Issue 1	Level I		1.00	0.022759	1.7829	43939013.54
1653003100	Connection	JP1	Telcordia Issue 1	Level I		1.00	0.001707	.1337	585853513.81
1653003108	Connection	JP2,JP3	Telcordia Issue 1	Level I		2.00	0.001707	.2674	585853513.81

AAEON Reliability Prediction Report

Part Number 9697P17D01-DIP
Reference Des
Date 02. 11, 2010
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description
File Name TF-ONYX-1922DT-A1-1010.RPJ
Time 4:03 下午
Failure Rate 2.595923
MTBF 385,219

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
1053500279	Resistor	CR1,CR2	Telcordia Issue 1	Level I		2.00	0.002268	.1747	440974090.03
1121610060	Capacitor	C1,C2,C3	Telcordia Issue 1	Level I		3.00	0.004535	.5241	220487045.01
11C4501060	Capacitor	C4	Telcordia Issue 1	Level I		1.00	0.004535	.1747	220487045.01
1121547661	Capacitor	C10,C5	Telcordia Issue 1	Level I		2.00	0.004535	.3494	220487045.01
11C1522480	Capacitor	C13,C6	Telcordia Issue 1	Level I		2.00	0.004535	.3494	220487045.01
1122501780	Capacitor	C12,C7	Telcordia Issue 1	Level I		2.00	0.004535	.3494	220487045.01
1124522280	Capacitor	C11	Telcordia Issue 1	Level I		1.00	0.004535	.1747	220487045.01
1124522880	Capacitor	C14	Telcordia Issue 1	Level I		1.00	0.005466	.2105	182961702.19
1189610180	Capacitor	C17	Telcordia Issue 1	Level I		1.00	0.004535	.1747	220487045.01
1124701680	Capacitor	C18,C19,C22,C23,C8	Telcordia Issue 1	Level I		5.00	0.004535	.8736	220487045.01
1301005442	Semiconductor	D1	Telcordia Issue 1	Level I		1.00	0.023881	.9199	41874327.58
1301003240	Semiconductor	D2	Telcordia Issue 1	Level I		1.00	0.023881	.9199	41874327.58
1301003440	Semiconductor	D3	Telcordia Issue 1	Level I		1.00	0.023881	.9199	41874327.58
1301003640	Semiconductor	D4	Telcordia Issue 1	Level I		1.00	0.023881	.9199	41874327.58
121110336H	Inductor	L1	Telcordia Issue 1	Level I		1.00	0.086173	3.3195	11604581.32
1212308054	Inductor	L2,L3,L4	Telcordia Issue 1	Level I		3.00	0.002268	.2621	440974090.03
1315301111	Semiconductor	Q1,Q2,Q3,Q4	Telcordia Issue 1	Level I		4.00	0.079603	12.2659	12562298.27
105A701003	Resistor	R1	Telcordia Issue 1	Level I		1.00	0.002268	.0874	440974090.03
105A534823	Resistor	R4	Telcordia Issue 1	Level I		1.00	0.002268	.0874	440974090.03
105A704723	Resistor	R5	Telcordia Issue 1	Level I		1.00	0.002268	.0874	440974090.03
105A524913	Resistor	R6	Telcordia Issue 1	Level I		1.00	0.002268	.0874	440974090.03
105A502033	Resistor	R7	Telcordia Issue 1	Level I		1.00	0.002268	.0874	440974090.03
105A700003	Resistor	R10,R11,R12,R13, R15,R9	Telcordia Issue 1	Level I		6.00	0.002268	.5241	440974090.03
105A512413	Resistor	R14,R16	Telcordia Issue 1	Level I		2.00	0.002268	.1747	440974090.03
1059710003	Resistor	R17	Telcordia Issue 1	Level I		1.00	0.002268	.0874	440974090.03
105A700333	Resistor	R18	Telcordia Issue 1	Level I		1.00	0.002268	.0874	440974090.03
105A700133	Resistor	R19	Telcordia Issue 1	Level I		1.00	0.002268	.0874	440974090.03
14S3378000	Integrated Circuit	U1	Telcordia Issue 1	Level I	49.10	1.00	1.296675	49.9504	771203.31
1314257610	Integrated Circuit	U2	Telcordia Issue 1	Level I	27.80	1.00	0.381426	14.6933	2621743.49
1211103301	Inductor	L5	Telcordia Issue 1	Level I		1.00	0.086173	3.3195	11604581.32
1652003101	Connection	CN1	Telcordia Issue 1	Level I		1.00	0.001707	.0658	585853513.81
1655104005	Connection	CN2	Telcordia Issue 1	Level I		1.00	0.002276	.0877	439390135.35
1655004011	Connection	CN3	Telcordia Issue 1	Level I		1.00	0.022759	.8767	43939013.54
1189618090	Capacitor	EC1,EC2	Telcordia Issue 1	Level I		2.00	0.004535	.3494	220487045.01
1181647110	Capacitor	EC3,EC4	Telcordia Issue 1	Level I		2.00	0.004535	.3494	220487045.01
1111610194	Capacitor	C20	Telcordia Issue 1	Level I		1.00	0.042673	1.6438	23434140.55

AAEON Reliability Prediction Report

Part Number 9697931067-D
Reference Des
Date 02. 11, 2010
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description
File Name TF-ONYX-1922DT-A1-1010.RPJ
Time 4:03 下午
Failure Rate 16.612525
MTBF 60,196

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1189633160	Capacitor	C124,C136,C138, C146,C465,C47,C482, C538,C540,C542, C562,C567,C568, C589,C613,C614, C624,C625,C630, C637,C73,C90	Telcordia Issue 1	Level I		22.00	0.004535	.6006	220487045.01
1124527080	Capacitor	C240,C241,C242, C246,C56,C62	Telcordia Issue 1	Level I		6.00	0.005466	.1974	182961702.19
1129710090	Capacitor	C243,C244,C245, C287,C288,C289,C38, C58,C59	Telcordia Issue 1	Level I		9.00	0.004535	.2457	220487045.01
1129610051	Capacitor	C114,C125,C342, C343,C403,C406, C417,C435,C445, C476,C515,C537, C605,C66,C746,C762, C773,C83,C85	Telcordia Issue 1	Level I		19.00	0.004535	.5187	220487045.01
11E9647680	Capacitor	C158,C404,C484, C560,C565,C68,C784, C789,C793,C795, C797,C800,C804	Telcordia Issue 1	Level I		13.00	0.004535	.3549	220487045.01
1122522890	Capacitor	C443,C456,C457, C458,C471,C475,C72	Telcordia Issue 1	Level I		7.00	0.004535	.1911	220487045.01
1121647480	Capacitor	C104,C107,C108, C377,C378,C411, C432,C452,C489, C493,C518,C78	Telcordia Issue 1	Level I		12.00	0.004535	.3276	220487045.01
1129701790	Capacitor	C128,C272,C274, C275,C277,C316, C389,C619	Telcordia Issue 1	Level I		8.00	0.004535	.2184	220487045.01
1189622190	Capacitor	C137	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
1189633192	Capacitor	C148	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
1129601080	Capacitor	C154,C412,C554, C558,C569,C570, C591	Telcordia Issue 1	Level I		7.00	0.004535	.1911	220487045.01
1124547290	Capacitor	C159,C162,C166, C167,C174,C180, C184,C185	Telcordia Issue 1	Level I		8.00	0.004535	.2184	220487045.01
1124547080	Capacitor	C168	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
1124515880	Capacitor	C169	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
1121701790	Capacitor	C172,C173,C659, C663,C745	Telcordia Issue 1	Level I		5.00	0.004535	.1365	220487045.01
1124533190	Capacitor	C191,C192,C196, C197,C201,C202, C203,C267,C268, C269,C687,C690	Telcordia Issue 1	Level I		12.00	0.005466	.3948	182961702.19
1121615080	Capacitor	C309,C310,C311, C312,C313,C314	Telcordia Issue 1	Level I		6.00	0.004535	.1638	220487045.01

AAEON Reliability Prediction Report

Part Number 9697931067-D
Reference Des
Date 02. 11, 2010
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description
File Name TF-ONYX-1922DT-A1-1010.RPJ
Time 4:03 下午
Failure Rate 16.612525
MTBF 60,196

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
1124433080	Capacitor	C748,C749	Telcordia Issue 1	Level I		2.00	0.004535	.0546	220487045.01
1189622850	Capacitor	C393,C394,C415,C77, C80	Telcordia Issue 1	Level I		5.00	0.004535	.1365	220487045.01
1129647650	Capacitor	C399,C407,C440, C604,C695,C771, C785	Telcordia Issue 1	Level I		7.00	0.004535	.1911	220487045.01
1129522790	Capacitor	C423,C424,C492, C509,C519,C522, C671,C696,C698	Telcordia Issue 1	Level I		9.00	0.004535	.2457	220487045.01
1189615160	Capacitor	C248,C428,C504, C523,C532,C533, C657	Telcordia Issue 1	Level I		7.00	0.004535	.1911	220487045.01
118961018A	Capacitor	C520	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
1124539180	Capacitor	C649	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
1121733380	Capacitor	C651,C677	Telcordia Issue 1	Level I		2.00	0.004535	.0546	220487045.01
1124447180	Capacitor	C652	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
1124518180	Capacitor	C665	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
1122722780	Capacitor	C673,C685	Telcordia Issue 1	Level I		2.00	0.004535	.0546	220487045.01
1124522180	Capacitor	C743,C744	Telcordia Issue 1	Level I		2.00	0.004535	.0546	220487045.01
1129701690	Capacitor	C750,C755,C758, C759,C767,C768	Telcordia Issue 1	Level I		6.00	0.004535	.1638	220487045.01
1122701680	Capacitor	C747,C752,C756, C763,C772	Telcordia Issue 1	Level I		5.00	0.004535	.1365	220487045.01
11C2510190	Capacitor	C612,C636,C753, C754,C757,C761, C764,C765,C766	Telcordia Issue 1	Level I		9.00	0.004535	.2457	220487045.01
1189633181	Capacitor	C774	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
16515A0996	Connection	DIMM1	Telcordia Issue 1	Level I		1.00	0.113794	.6850	8787802.71
14S3006000	Integrated Circuit	DN1	Telcordia Issue 1	Level I		1.00	0.059366	.3574	16844654.92
1301005442	Semiconductor	D2,D3,D31	Telcordia Issue 1	Level I		3.00	0.023881	.4313	41874327.58
1301005440	Semiconductor	D11,D14,D15,D16, D19,D20,D21,D4	Telcordia Issue 1	Level I		8.00	0.023881	1.1500	41874327.58
1300581940	Semiconductor	D12,D13,D17,D18	Telcordia Issue 1	Level I		4.00	0.079603	1.9167	12562298.27
1301002240	Semiconductor	D38,D39,D40,D41	Telcordia Issue 1	Level I		4.00	0.023881	.5750	41874327.58
1059700001	Resistor	FB10,FB2,FB3,FB4, FB7,L13,L25,L32,L4, L40,L42,L44,L47,L5, L80,R337,R472,R847, R850,R854,R855	Telcordia Issue 1	Level I		21.00	0.002268	.2867	440974090.03
1304101340	Semiconductor	LED1,LED2	Telcordia Issue 1	Level I		2.00	0.004877	.0587	205063180.81
1304001340	Semiconductor	LED3	Telcordia Issue 1	Level I		1.00	0.004877	.0294	205063180.81

AAEON Reliability Prediction Report

Part Number 9697931067-D
Reference Des
Date 02. 11, 2010
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description
File Name TF-ONYX-1922DT-A1-1010.RPJ
Time 4:03 下午
Failure Rate 16.612525
MTBF 60,196

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1212306033	Inductor	L1,L10,L11,L12,L30, L31,L35,L36,L37, L38,L41,L50,L51, L52,L53,L54,L55, L64,L65,L71,L73, L74,L75,L76	Telcordia Issue 1	Level I		24.00	0.002268	.3276	440974090.03
121230805X	Inductor	L45,L46,L7,L70,L8	Telcordia Issue 1	Level I		5.00	0.002268	.0683	440974090.03
1211101005	Inductor	L67,L9	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
121110156A	Inductor	L14	Telcordia Issue 1	Level I		1.00	0.086173	.5187	11604581.32
1211105673	Inductor	L15	Telcordia Issue 1	Level I	37.50	1.00	0.165512	.9963	6041852.63
1211105673	Inductor	L17	Telcordia Issue 1	Level I	34.20	1.00	0.157200	.9463	6361309.36
1211100160	Inductor	L16,L69	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
1211101060	Inductor	L18,L21	Telcordia Issue 1	Level I		2.00	0.086173	1.0374	11604581.32
105A700003	Resistor	L68,R701,R702,R838, R841,R865,R867, R927,R928,R942	Telcordia Issue 1	Level I		10.00	0.002268	.1365	440974090.03
121230603S	Inductor	L60,L61,L62	Telcordia Issue 1	Level I		3.00	0.002268	.0410	440974090.03
121230805Z	Inductor	L72,L77,L78,R705, R706	Telcordia Issue 1	Level I		5.00	0.002268	.0683	440974090.03
1211105660	Inductor	L84	Telcordia Issue 1	Level I	34.60	1.00	0.158194	.9523	6321361.01
121110476B	Inductor	L85	Telcordia Issue 1	Level I		1.00	0.086173	.5187	11604581.32
1654262300	Connection	MPC11	Telcordia Issue 1	Level I		1.00	0.070552	.4247	14173875.33
1311006910	Semiconductor	Q5,Q6	Telcordia Issue 1	Level I		2.00	0.023881	.2875	41874327.58
14S2591200	Integrated Circuit	Q7	Telcordia Issue 1	Level I		1.00	0.059366	.3574	16844654.92
1315700211	Semiconductor	Q21,Q22,Q25,Q26, Q27,Q28,Q33,Q35, Q52,Q53,Q54,Q55, Q56,Q57,Q8	Telcordia Issue 1	Level I		15.00	0.079603	7.1876	12562298.27
1315600210	Semiconductor	Q10	Telcordia Issue 1	Level I	36.90	1.00	0.409056	2.4623	2444655.37
1315600210	Semiconductor	Q12	Telcordia Issue 1	Level I		1.00	0.159207	.9584	6281149.14
1310390410	Semiconductor	Q23,Q40	Telcordia Issue 1	Level I		2.00	0.023881	.2875	41874327.58
1315230111	Semiconductor	Q24,Q37	Telcordia Issue 1	Level I		2.00	0.000000	.0000	.00
1315441014	Semiconductor	Q31	Telcordia Issue 1	Level I		1.00	0.079603	.4792	12562298.27
1315700310	Semiconductor	Q36	Telcordia Issue 1	Level I	45.10	1.00	0.245388	1.4771	4075186.09
1315700310	Semiconductor	Q38	Telcordia Issue 1	Level I		1.00	0.079603	.4792	12562298.27
1540710080	Resistor	RN3,RN4,RN5,RN6	Telcordia Issue 1	Level I		4.00	0.006246	.1504	160102772.00
106B747030	Resistor	RT1	Telcordia Issue 1	Level I		1.00	0.011379	.0685	87878027.07
106B501032	Resistor	RT2,RT3,RT4,RT5	Telcordia Issue 1	Level I		4.00	0.002268	.0546	440974090.03
105A505629	Resistor	R2	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03

AAEON Reliability Prediction Report

Part Number 9697931067-D
Reference Des
Date 02. 11, 2010
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description
File Name TF-ONYX-1922DT-A1-1010.RPJ
Time 4:03 下午
Failure Rate 16.612525
MTBF 60,196

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A704729	Resistor	R205,R223,R227, R229,R244,R250,R28, R282,R283,R29,R30, R31,R32,R33,R330, R331,R332,R333,R34, R35,R354,R387,R388, R392,R396,R404, R407,R418,R428, R550,R582,R63,R735, R775,R782,R864, R941,R952	Telcordia Issue 1	Level I		38.00	0.002268	.5187	440974090.03
105A700139	Resistor	R130,R155,R40,R425, R464,R467,R48,R486, R487,R49,R499,R50, R522,R554,R556, R569,R584,R619, R628,R713,R732	Telcordia Issue 1	Level I		21.00	0.002268	.2867	440974090.03
105A500139	Resistor	R157,R197,R199,R45, R47,R872	Telcordia Issue 1	Level I		6.00	0.002268	.0819	440974090.03
105A708229	Resistor	R136,R164,R169, R173,R174,R175, R176,R177,R188, R189,R200,R210, R211,R212,R213, R228,R381,R382, R384,R420,R501,R56, R576,R578,R581, R586,R587,R588, R589,R590,R591, R592,R593,R594, R595,R600,R601, R606,R607,R609,	Telcordia Issue 1	Level I		53.00	0.002268	.7235	440974090.03
105A733009	Resistor	R100,R190,R218, R258,R259,R67,R772, R774,R93	Telcordia Issue 1	Level I		9.00	0.002268	.1229	440974090.03
1050512164	Resistor	R69,R71,R74,R77, R81	Telcordia Issue 1	Level I		5.00	0.002268	.0683	440974090.03
105A703309	Resistor	R102,R105,R109, R113,R114,R116, R118,R119,R123, R203,R419,R468, R491,R536,R551, R552,R553,R575, R633,R70,R72,R73, R75,R79,R84,R86, R88,R89,R91,R94, R96,R98,R99	Telcordia Issue 1	Level I		33.00	0.002268	.4505	440974090.03

AAEON Reliability Prediction Report

Part Number 9697931067-D
Reference Des
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Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description
File Name TF-ONYX-1922DT-A1-1010.RPJ
Time 4:03 下午
Failure Rate 16.612525
MTBF 60,196

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A702229	Resistor	R445,R446,R469, R507,R524,R725,R76	Telcordia Issue 1	Level I		7.00	0.002268	.0956	440974090.03
105A705609	Resistor	R103,R106,R108, R110,R117,R120, R127,R129,R132, R137,R139,R147, R231,R326,R327, R328,R329,R471, R477,R485,R525, R540,R543,R546, R560,R644,R690, R691,R692,R696,R82, R83,R90,R92,R95, R97,Rework	Telcordia Issue 1	Level I		37.00	0.002268	.5051	440974090.03
1050568124	Resistor	R148	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
1050522104	Resistor	R149,R566	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A554969	Resistor	R150,R196,R567, R697,R726	Telcordia Issue 1	Level I		5.00	0.002268	.0683	440974090.03
1050524904	Resistor	R151,R152,R216, R426,R611	Telcordia Issue 1	Level I		5.00	0.002268	.0683	440974090.03
1050580664	Resistor	R153,R154	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
1050547004	Resistor	R577,R711	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A512039	Resistor	R159	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A702239	Resistor	R160,R276,R278, R280,R284,R627, R720,R733	Telcordia Issue 1	Level I		8.00	0.002268	.1092	440974090.03
105A710039	Resistor	R167,R245,R389, R400,R441,R759	Telcordia Issue 1	Level I		6.00	0.002268	.0819	440974090.03
105A522669	Resistor	R192	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A505109	Resistor	R194	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A527469	Resistor	R195,R727	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A500239	Resistor	R198	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A510213	Resistor	R204	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A502033	Resistor	R234,R853	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A540213	Resistor	R237	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A514733	Resistor	R242	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A701003	Resistor	R731,R745,R753, R837	Telcordia Issue 1	Level I		4.00	0.002268	.0546	440974090.03
1050502204	Resistor	R343,R344,R345, R346	Telcordia Issue 1	Level I		4.00	0.002268	.0546	440974090.03
105A515009	Resistor	R357,R358,R359, R376,R377,R378, R458,R459,R460, R482,R483,R500	Telcordia Issue 1	Level I		12.00	0.002268	.1638	440974090.03
105A705139	Resistor	R360,R379	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03

AAEON Reliability Prediction Report

Part Number 9697931067-D
Reference Des
Date 02. 11, 2010
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description
File Name TF-ONYX-1922DT-A1-1010.RPJ
Time 4:03 下午
Failure Rate 16.612525
MTBF 60,196

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1124427080	Capacitor	C433,C434	Telcordia Issue 1	Level I		2.00	0.004535	.0546	220487045.01
1124547190	Capacitor	BC350,BC351,BC372, BC524	Telcordia Issue 1	Level I		4.00	0.004535	.1092	220487045.01
105A501529	Resistor	R417	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A503039	Resistor	R422	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A501039	Resistor	R423,R424,R437, R438,R439,R447, R478,R667,R757, R763,R770	Telcordia Issue 1	Level I		11.00	0.002268	.1502	440974090.03
105A701059	Resistor	R431,R646	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A506829	Resistor	R432,R435	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A510053	Resistor	R453,R658	Telcordia Issue 1	Level I		2.00	0.013606	.1638	73495681.67
105A549919	Resistor	R466,R920	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
1050525504	Resistor	R475	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A701009	Resistor	R476,R573	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A547509	Resistor	R511	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
1050520004	Resistor	R516	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A507509	Resistor	R643,R934,R935, R936	Telcordia Issue 1	Level I		4.00	0.002268	.0546	440974090.03
1050533034	Resistor	R647	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A702263	Resistor	R669,R670,R683, R688,R750,R767	Telcordia Issue 1	Level I		6.00	0.002268	.0819	440974090.03
105A532413	Resistor	R678	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A500233	Resistor	R679	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A501623	Resistor	R680	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A511313	Resistor	R682	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A500133	Resistor	R685,R743	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A503633	Resistor	R689	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A544213	Resistor	R708	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
1050549904	Resistor	R714	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A516923	Resistor	R717	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A561923	Resistor	R728,R848	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A501413	Resistor	R730	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A505623	Resistor	R737	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A518213	Resistor	R738	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A700103	Resistor	R219,R751,R756, R762	Telcordia Issue 1	Level I		4.00	0.002268	.0546	440974090.03
105A536513	Resistor	R752,R771	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
105A501133	Resistor	R754	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A526113	Resistor	R755	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A701053	Resistor	R833,R943	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03

AAEON Reliability Prediction Report

Part Number 9697931067-D
Reference Des
Date 02. 11, 2010
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description
File Name TF-ONYX-1922DT-A1-1010.RPJ
Time 4:03 下午
Failure Rate 16.612525
MTBF 60,196

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A501539	Resistor	R842,R843	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03
1054600289	Resistor	R846,R851	Telcordia Issue 1	Level I		2.00	0.016397	.1974	60987234.06
105A511823	Resistor	R849	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A563423	Resistor	R852	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
105A547003	Resistor	R863	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
14S3065500	Integrated Circuit	U1	Telcordia Issue 1	Level I	39.50	1.00	0.761413	4.5834	1313347.16
14S1826100	Integrated Circuit	U2	Telcordia Issue 1	Level I		1.00	0.059366	.3574	16844654.92
1129722091	Capacitor	C778,C779	Telcordia Issue 1	Level I		2.00	0.004535	.0546	220487045.01
14S4871204	Integrated Circuit	U4	Telcordia Issue 1	Level I		1.00	0.026183	.1576	38193355.79
105A703329	Resistor	R883,R890,R906, R907,R919,R926	Telcordia Issue 1	Level I		6.00	0.002268	.0819	440974090.03
14S3020100	Integrated Circuit	U7	Telcordia Issue 1	Level I		1.00	0.059366	.3574	16844654.92
14S4294501	Integrated Circuit	U8	Telcordia Issue 1	Level I	37.50	1.00	0.185520	1.1167	5390260.76
1651203291	Connection	U9	Telcordia Issue 1	Level I		1.00	0.018207	.1096	54923766.92
14S3422600	Integrated Circuit	U10	Telcordia Issue 1	Level I	45.50	1.00	1.065716	6.4151	938336.00
14S5A00700	Integrated Circuit	U11	Telcordia Issue 1	Level I		1.00	0.025245	.1520	39611408.47
105A515034	Resistor	R240	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
14S3156500	Semiconductor	U13	Telcordia Issue 1	Level I		1.00	0.047762	.2875	20937163.79
14S4081110	Integrated Circuit	U14,U18,U41	Telcordia Issue 1	Level I		3.00	0.059366	1.0721	16844654.92
14S428010D	Integrated Circuit	U15	Telcordia Issue 1	Level I	30.70	1.00	0.134459	.8094	7437199.99
14S4653700	Integrated Circuit	U17	Telcordia Issue 1	Level I	47.10	1.00	1.163384	7.0031	859561.54
14S3626200	Integrated Circuit	U19	Telcordia Issue 1	Level I	38.20	1.00	0.191629	1.1535	5218427.49
1315970211	Semiconductor	U20,U27	Telcordia Issue 1	Level I		2.00	0.159207	1.9167	6281149.14
14S4021310	Integrated Circuit	U23,U25	Telcordia Issue 1	Level I		2.00	0.059366	.7147	16844654.92
14S5812502	Integrated Circuit	U31,U35	Telcordia Issue 1	Level I		2.00	0.026183	.3152	38193355.79
14S4048501	Integrated Circuit	U32,U33	Telcordia Issue 1	Level I		2.00	0.059366	.7147	16844654.92
14S5A12505	Integrated Circuit	U34	Telcordia Issue 1	Level I		1.00	0.059366	.3574	16844654.92
14S1035801	Integrated Circuit	U37	Telcordia Issue 1	Level I		1.00	0.059366	.3574	16844654.92
14S3372800	Integrated Circuit	U44	Telcordia Issue 1	Level I	41.50	1.00	0.852840	5.1337	1172552.63
14S5A00602	Integrated Circuit	U45	Telcordia Issue 1	Level I		1.00	0.026183	.1576	38193355.79
1231325058	Miscellaneous	Y1	Telcordia Issue 1	Level I		1.00	0.150000	.9029	6666666.67
123131435B	Miscellaneous	Y2	Telcordia Issue 1	Level I		1.00	0.150000	.9029	6666666.67
1231332721	Miscellaneous	Y3	Telcordia Issue 1	Level I		1.00	0.150000	.9029	6666666.67
105A704709	Resistor	R908,R911,R912	Telcordia Issue 1	Level I		3.00	0.002268	.0410	440974090.03
1050519114	Resistor	R243	Telcordia Issue 1	Level I		1.00	0.002268	.0137	440974090.03
1059700201	Resistor	R929,R930	Telcordia Issue 1	Level I		2.00	0.002268	.0273	440974090.03

AAEON Reliability Prediction Report

Part Number 9697931067-D
Reference Des
Date 02. 11, 2010
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.00



Description
File Name TF-ONYX-1922DT-A1-1010.RPJ
Time 4:03 下午
Failure Rate 16.612525
MTBF 60,196

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
14S4825730	Integrated Circuit	U49	Telcordia Issue 1	Level I	39.00	1.00	0.198824	1.1968	5029573.06
14S6308001	Integrated Circuit	U50	Telcordia Issue 1	Level I		1.00	0.035882	.2160	27868824.73
1124418090	Capacitor	C577,C578	Telcordia Issue 1	Level I		2.00	0.004535	.0546	220487045.01
1121533480	Capacitor	C676	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
1654030003	Connection	CN12	Telcordia Issue 1	Level I		1.00	0.017069	.1027	58585351.38
1752001601	Miscellaneous	FS1,FS2	Telcordia Issue 1	Level I		2.00	0.003000	.0361	333333333.33
1315442010	Integrated Circuit	Q29,Q30,Q32,Q34, Q48,Q49,Q50,Q51	Telcordia Issue 1	Level I		8.00	0.059366	2.8589	16844654.92
11E1647650	Capacitor	C296,C635	Telcordia Issue 1	Level I		2.00	0.004535	.0546	220487045.01
14S4010602	Integrated Circuit	U16	Telcordia Issue 1	Level I	38.20	1.00	0.191629	1.1535	5218427.49
11E9501091	Capacitor	C751	Telcordia Issue 1	Level I		1.00	0.004535	.0273	220487045.01
1653925216	Connection	CN24	Telcordia Issue 1	Level I		1.00	0.028449	.1712	35151210.83
1315667910	Semiconductor	U47,U51	Telcordia Issue 1	Level I		2.00	0.159207	1.9167	6281149.14
1189647186	Capacitor	C760,C769,C770	Telcordia Issue 1	Level I		3.00	0.004535	.0819	220487045.01
11E9622050	Capacitor	C105,C106,C583, C584,C587,C588, C597,C598,C608, C609,C610,C611, C615,C616,C617, C618,C621,C622, C626,C627,C628, C629	Telcordia Issue 1	Level I		22.00	0.004535	.6006	220487045.01
1124510280	Capacitor	C4	Telcordia Issue 1	Level I		1.00	0.005466	.0329	182961702.19
175011901G	Miscellaneous	BAT1	Telcordia Issue 1	Level I		1.00	0.900000	5.4176	1111111.11
1655902030	Connection	BAT1	Telcordia Issue 1	Level I		1.00	0.001138	.0068	878780270.71
1653005201	Connection	CN2,CN20,CN23,CN9	Telcordia Issue 1	Level I		4.00	0.005690	.1370	175756054.14
1653004201	Connection	CN3	Telcordia Issue 1	Level I		1.00	0.004552	.0274	219695067.68
1653007201	Connection	CN6	Telcordia Issue 1	Level I		1.00	0.007966	.0479	125540038.67
1654409103	Connection	CN11	Telcordia Issue 1	Level I		1.00	0.128018	.7706	7811380.18
1655003010	Connection	CN15	Telcordia Issue 1	Level I		1.00	0.001707	.0103	585853513.81
1652002100	Connection	CN19	Telcordia Issue 1	Level I		1.00	0.001138	.0068	878780270.71
1654606306	Connection	CN21	Telcordia Issue 1	Level I		1.00	0.003414	.0205	292926756.90
1654415305	Connection	CN26	Telcordia Issue 1	Level I		1.00	0.008535	.0514	117170702.76
1655303020	Connection	CN28	Telcordia Issue 1	Level I		1.00	0.001707	.0103	585853513.81
1181627191	Capacitor	EC5,EC7	Telcordia Issue 1	Level I		2.00	0.004535	.0546	220487045.01
1653003101	Connection	JP1	Telcordia Issue 1	Level I		1.00	0.001707	.0103	585853513.81
1653003201	Connection	JP3	Telcordia Issue 1	Level I		1.00	0.001138	.0068	878780270.71
1653003100	Connection	JP6	Telcordia Issue 1	Level I		1.00	0.001707	.0103	585853513.81

