

ONYX-192 Reliability Prediction Report (MTBF)

Report NO : 09P070007

05-21-2009

Issue Date

Wenyuan Yang

Manager

Jessica Chou

Test Engineer

Reliability Prediction (MTBF)

I . **Model Name:** TF-ONYX-192DTT-A1-1010

II . **Prediction Date:** May 21, 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: 24.9 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-192DTT-A1-1010 (Not include Touch, LCD and Inverter):
Failure Rate: 21.592558 ppm
MTBF: 46,312 Hours
- Below components MTBF value were provided by the suppliers:
Touch screen: (TF)Touch Screen.19".5-Wire.Abon.AT-190F-5RB-A01N-18R-300FH
- MTBF: 490,012 hours

LCD: (TF)LCD.19".HannStar.HSD190MEN3-A00.1280(H) x 1024(V).RGB Vertical
Stripe.396 * 324 * 16.5

- Operator lifetime: 6.5mA Min. 50,000 hours

Inverter: (TF)INVERTER.DC TO AC.FOR HYUNDAI 17" TFT LCD.(4LAMPS).QF132V1.16(S)

- MTBF: 929375.8033 hours

AAEON Reliability Prediction Report

Part Number System
Reference Des
Date 05. 21, 2009
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 24.90

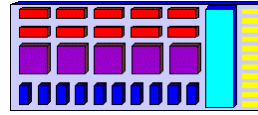


Description Top-level assembly
File Name ONYX-192.RPJ
Time 6:53 下午
Failure Rate 21.592558
MTBF 46,312

Assembly Name	Part Number	Model	Method	Environment	Duty Cycle	Qty	Failure Rate	MTBF
TF-ONYX-192DTT-A1-1010	System	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled	100.00	1.00	21.59	46312.25
OSD Board	9697Y01801-S	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	.16	6253262.98
AMP & USB HUB Board	9697T10900-DIP	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	1.40	714774.04
Power Board	9697P02D08	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	3.11	321377.92
GENE-8310-A11	9697831035-DIP	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	16.90	59185.72

AAEON Reliability Prediction Report

Part Number System
Reference Des
Date 05. 21, 2009
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 24.90



Description Top-level assembly
File Name ONYX-192.RPJ
Time 6:53 下午
Failure Rate 21.592558
MTBF 46,312

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
14S62O1920	Integrated Circuit		Telcordia Issue 1	Level I		1.00	0.026029	100.0000	38418616.55

AAEON Reliability Prediction Report

Part Number 9697T10900-DIP
Reference Des
Date 05. 21, 2009
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 24.90



Description
File Name ONYX-192.RPJ
Time 6:53 下午
Failure Rate 1.399044
MTBF 714,774

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
1129701690	Capacitor	C10,C11,C12,C15, C16,C17,C19,C21, C22,C23,C24,C25, C29,C31,C33,C5,C6, C7,C8,C9	Telcordia Issue 1	Level I		20.00	0.004527	6.4709	220919666.10
1121701080	Capacitor	C18,C20,C26	Telcordia Issue 1	Level I		3.00	0.004527	.9706	220919666.10
1124420080	Capacitor	C27,C28	Telcordia Issue 1	Level I		2.00	0.004527	.6471	220919666.10
105A700003	Resistor	FB1,FB2,FB3,FB4, FB5,FB8,R26,R27, R28,R9	Telcordia Issue 1	Level I		10.00	0.002263	1.6177	441839332.19
1122701680	Capacitor	C1,C2	Telcordia Issue 1	Level I		2.00	0.004527	.6471	220919666.10
105A710033	Resistor	R1,R11,R2,R3	Telcordia Issue 1	Level I		4.00	0.002263	.6471	441839332.19
105A747003	Resistor	R4,R5	Telcordia Issue 1	Level I		2.00	0.002263	.3235	441839332.19
105A701033	Resistor	R15,R8	Telcordia Issue 1	Level I		2.00	0.002263	.3235	441839332.19
105A751033	Resistor	R12	Telcordia Issue 1	Level I		1.00	0.002263	.1618	441839332.19
105A701533	Resistor	R13,R14,R17,R18, R22,R23,R24,R25	Telcordia Issue 1	Level I		8.00	0.002263	1.2942	441839332.19
105A704733	Resistor	R16	Telcordia Issue 1	Level I		1.00	0.002263	.1618	441839332.19
105A704723	Resistor	R19	Telcordia Issue 1	Level I		1.00	0.002263	.1618	441839332.19
105A568003	Resistor	R20	Telcordia Issue 1	Level I		1.00	0.002263	.1618	441839332.19
105A701053	Resistor	R21	Telcordia Issue 1	Level I		1.00	0.002263	.1618	441839332.19
14S1013200	Integrated Circuit	U1	Telcordia Issue 1	Level I		1.00	0.058933	4.2124	16968377.18
1314111715	Integrated Circuit	U2	Telcordia Issue 1	Level I		1.00	0.058933	4.2124	16968377.18
14S3522800	Integrated Circuit	U3,U4	Telcordia Issue 1	Level I		2.00	0.058933	8.4248	16968377.18
14S4850000	Integrated Circuit	U5	Telcordia Issue 1	Level I		1.00	0.026029	1.8605	38418616.55
1315970110	Semiconductor	U7,U8,U9	Telcordia Issue 1	Level I		3.00	0.158749	34.0410	6299233.11
1214309000	Inductor	CH1,CH2,CH3,CH4	Telcordia Issue 1	Level I		4.00	0.002263	.6471	441839332.19
11E9510051	Capacitor	C13	Telcordia Issue 1	Level I		1.00	0.004527	.3235	220919666.10
1655004011	Connection	CN1	Telcordia Issue 1	Level I		1.00	0.022640	1.6183	44169292.08
1655302020	Connection	CN2,CN4,CN7,CN8	Telcordia Issue 1	Level I		4.00	0.001132	.3237	883385841.65
1655308021	Connection	CN10,CN5	Telcordia Issue 1	Level I		2.00	0.004528	.6473	220846460.41
1655305020	Connection	CN6	Telcordia Issue 1	Level I		1.00	0.002830	.2023	353354336.66
1655304020	Connection	CN11,CN12,CN13,CN3, CN9	Telcordia Issue 1	Level I		5.00	0.002264	.8091	441692920.82
1112610190	Capacitor	C3	Telcordia Issue 1	Level I		1.00	0.042450	3.0342	23556955.78
1111610194	Capacitor	C14,C4	Telcordia Issue 1	Level I		2.00	0.042450	6.0685	23556955.78
1111622102	Capacitor	C30,C32,C34	Telcordia Issue 1	Level I		3.00	0.042450	9.1027	23556955.78
12311120A1	Miscellaneous	X1	Telcordia Issue 1	Level I		1.00	0.150000	10.7216	6666666.67

AAEON Reliability Prediction Report

Part Number 9697P02D08
Reference Des
Date 05. 21, 2009
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 24.90



Description
File Name ONYX-192.RPJ
Time 6:53 下午
Failure Rate 3.111601
MTBF 321,378

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1124501780	Capacitor	C18	Telcordia Issue 1	Level I		1.00	0.004527	.1455	220919666.10
1124701680	Capacitor	C1,C10,C12,C13,C14, C25,C27,C29,C31, C34,C36,C37,C7	Telcordia Issue 1	Level I		13.00	0.004527	1.8911	220919666.10
1124510280	Capacitor	C16,C17,C2,C22,C24	Telcordia Issue 1	Level I		5.00	0.005462	.8777	183081288.02
1124522180	Capacitor	C3	Telcordia Issue 1	Level I		1.00	0.004527	.1455	220919666.10
1124410180	Capacitor	C19,C21,C4	Telcordia Issue 1	Level I		3.00	0.004527	.4364	220919666.10
1122722780	Capacitor	C5	Telcordia Issue 1	Level I		1.00	0.004527	.1455	220919666.10
1129747650	Capacitor	C6	Telcordia Issue 1	Level I		1.00	0.005462	.1755	183081288.02
1121610060	Capacitor	C11,C30	Telcordia Issue 1	Level I		2.00	0.004527	.2909	220919666.10
1124518180	Capacitor	C15,C23	Telcordia Issue 1	Level I		2.00	0.004527	.2909	220919666.10
1124515281	Capacitor	C20	Telcordia Issue 1	Level I		1.00	0.004527	.1455	220919666.10
1121733780	Capacitor	C26	Telcordia Issue 1	Level I		1.00	0.005462	.1755	183081288.02
1129547661	Capacitor	C28	Telcordia Issue 1	Level I		1.00	0.004527	.1455	220919666.10
1301003640	Semiconductor	D1,D2,D3,D4,D5,D6, D7	Telcordia Issue 1	Level I		7.00	0.023812	5.3570	41994887.40
121230805H	Inductor	L4,L5,L6	Telcordia Issue 1	Level I		3.00	0.002263	.2182	441839332.19
1315700212	Semiconductor	Q1	Telcordia Issue 1	Level I		1.00	0.079375	2.5509	12598466.22
1315567010	Semiconductor	Q2,Q6,Q9	Telcordia Issue 1	Level I		3.00	0.047625	4.5917	20997443.70
1315441010	Semiconductor	Q3,Q4,Q8	Telcordia Issue 1	Level I		3.00	0.079375	7.6528	12598466.22
1315441010	Semiconductor	Q7	Telcordia Issue 1	Level I	51.00	1.00	0.277688	8.9243	3601168.91
105A701053	Resistor	R1,R20,R9	Telcordia Issue 1	Level I		3.00	0.002263	.2182	441839332.19
105A704733	Resistor	R2	Telcordia Issue 1	Level I		1.00	0.002263	.0727	441839332.19
105A501033	Resistor	R13,R3	Telcordia Issue 1	Level I		2.00	0.002263	.1455	441839332.19
105A515433	Resistor	R5	Telcordia Issue 1	Level I		1.00	0.002263	.0727	441839332.19
1059701133	Resistor	R4	Telcordia Issue 1	Level I		1.00	0.002263	.0727	441839332.19
105A705153	Resistor	R6,R7	Telcordia Issue 1	Level I		2.00	0.013580	.8728	73639888.70
1059700101	Resistor	R8	Telcordia Issue 1	Level I		1.00	0.002263	.0727	441839332.19
105A510033	Resistor	R12,R19	Telcordia Issue 1	Level I		2.00	0.002263	.1455	441839332.19
105A518223	Resistor	R11,R18	Telcordia Issue 1	Level I		2.00	0.002263	.1455	441839332.19
105A700003	Resistor	R14,R15,R24	Telcordia Issue 1	Level I		3.00	0.002263	.2182	441839332.19
105A508263	Resistor	R16	Telcordia Issue 1	Level I		1.00	0.002263	.0727	441839332.19
105A547513	Resistor	R17	Telcordia Issue 1	Level I		1.00	0.002263	.0727	441839332.19
105A701003	Resistor	R21	Telcordia Issue 1	Level I		1.00	0.002263	.0727	441839332.19
1054600289	Resistor	R22,R23	Telcordia Issue 1	Level I		2.00	0.016386	1.0532	61027096.01
1315177810	Semiconductor	U1	Telcordia Issue 1	Level I	57.50	1.00	0.634876	20.4035	1575110.45
1189615151	Capacitor	C35	Telcordia Issue 1	Level I		1.00	0.004527	.1455	220919666.10
14S3372801	Integrated Circuit	U2	Telcordia Issue 1	Level I	42.40	1.00	0.892081	28.6695	1120973.83

AAEON Reliability Prediction Report

Part Number 9697P02D08
Reference Des
Date 05. 21, 2009
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 24.90



Description
File Name ONYX-192.RPJ
Time 6:53 下午
Failure Rate 3.111601
MTBF 321,378

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
11B4747660	Capacitor	C32,C33,C8,C9	Telcordia Issue 1	Level I		4.00	0.004527	.5819	220919666.10
1181618110	Capacitor	CE8	Telcordia Issue 1	Level I		1.00	0.004527	.1455	220919666.10
1653003101	Connection	JP1	Telcordia Issue 1	Level I		1.00	0.001698	.0546	588923894.43
1655004011	Connection	JP2	Telcordia Issue 1	Level I		1.00	0.022640	.7276	44169292.08
1653002101	Connection	JP5	Telcordia Issue 1	Level I		1.00	0.001132	.0364	883385841.65
1656304022	Connection	JP4	Telcordia Issue 1	Level I		1.00	0.002264	.0728	441692920.82
1655305020	Connection	J1	Telcordia Issue 1	Level I		1.00	0.002830	.0910	353354336.66
1211101001	Inductor	L1	Telcordia Issue 1	Level I		1.00	0.002263	.0727	441839332.19
1652003101	Connection	PowerIn	Telcordia Issue 1	Level I		1.00	0.001698	.0546	588923894.43
1655103010	Connection	SW1	Telcordia Issue 1	Level I		1.00	0.022640	.7276	44169292.08
1653300102	Connection	JP1(1-2),JP5(1-2)	Telcordia Issue 1	Level I		2.00	0.001132	.0728	883385841.65
1211100600	Inductor	L2,L3	Telcordia Issue 1	Level I		2.00	0.086004	5.5280	11627350.85
1119622200	Capacitor	CE1	Telcordia Issue 1	Level I		1.00	0.070751	2.2738	14134173.47
1119622112	Capacitor	CE2,CE5	Telcordia Issue 1	Level I		2.00	0.042450	2.7285	23556955.78
1189647010	Capacitor	CE3	Telcordia Issue 1	Level I		1.00	0.004527	.1455	220919666.10

AAEON Reliability Prediction Report

Part Number 9697831035-DIP
Reference Des
Date 05. 21, 2009
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 24.90



Description
File Name ONYX-192.RPJ
Time 6:53 下午
Failure Rate 16.895967
MTBF 59,186

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1315993311	Semiconductor	U12	Telcordia Issue 1	Level I		1.00	0.158749	.9396	6299233.11
14S4150000	Integrated Circuit	U4	Telcordia Issue 1	Level I	44.80	1.00	0.257256	1.5226	3887171.25
1653925216	Connection	CFD1	Telcordia Issue 1	Level I		1.00	0.028300	.1675	35335433.67
105A542213	Resistor	R534	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
1214309000	Inductor	CH1,CH2,CH3,CH4	Telcordia Issue 1	Level I		4.00	0.002263	.0536	441839332.19
14S4048501	Integrated Circuit	U14,U15	Telcordia Issue 1	Level I		2.00	0.058933	.6976	16968377.18
14S5A12505	Integrated Circuit	U48,U50	Telcordia Issue 1	Level I		2.00	0.058933	.6976	16968377.18
14S5A12503	Integrated Circuit	U51	Telcordia Issue 1	Level I		1.00	0.058933	.3488	16968377.18
1231325058	Miscellaneous	Y3	Telcordia Issue 1	Level I		1.00	0.150000	.8878	6666666.67
1231324555	Miscellaneous	Y4	Telcordia Issue 1	Level I		1.00	0.150000	.8878	6666666.67
1059700001	Resistor	R474	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
1301005444	Semiconductor	D26	Telcordia Issue 1	Level I		1.00	0.023812	.1409	41994887.40
1121733780	Capacitor	C470,C485	Telcordia Issue 1	Level I		2.00	0.005462	.0647	183081288.02
105A704763	Resistor	R487	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
1174522180	Capacitor	CP1,CP2,CP3,CP4, CP5	Telcordia Issue 1	Level I		5.00	0.005462	.1616	183081288.02
1121722650	Capacitor	C1	Telcordia Issue 1	Level I		1.00	0.005462	.0323	183081288.02
1129701690	Capacitor	C100,C103,C104, C105,C107,C109,C11, C12,C120,C124,C125, C128,C13,C14,C142, C145,C146,C148,C15, C156,C157,C16,C165, C167,C170,C171, C173,C175,C177, C179,C18,C180,C184, C186,C187,C188, C189,C19,C190,C194, C196,C199,C2,C200, C201,C202,C203,	Telcordia Issue 1	Level I		246.00	0.004527	6.5905	220919666.10
1121701080	Capacitor	C111,C112,C113, C114,C115,C116, C122,C138,C139, C150,C151,C154, C183,C193,C216, C256,C272,C294, C385,C407,C416, C429,C450,C456, C467	Telcordia Issue 1	Level I		25.00	0.004527	.6698	220919666.10
1129722060	Capacitor	C101,C117,C481,C6, C91	Telcordia Issue 1	Level I		5.00	0.004527	.1340	220919666.10

AAEON Reliability Prediction Report

Part Number 9697831035-DIP
Reference Des
Date 05. 21, 2009
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 24.90

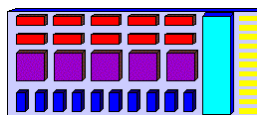


Description
File Name ONYX-192.RPJ
Time 6:53 下午
Failure Rate 16.895967
MTBF 59,186

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate,%	MTBF, Unit
1121701790	Capacitor	C153,C169,C17,C176, C191,C204,C205, C214,C228,C238,C31, C339,C347,C390, C391,C412,C457	Telcordia Issue 1	Level I		17.00	0.004527	.4554	220919666.10
1129710390	Capacitor	C149,C181,C422, C430,C445,C446	Telcordia Issue 1	Level I		6.00	0.004527	.1607	220919666.10
1124433190	Capacitor	C267,C386,C417, C418	Telcordia Issue 1	Level I		4.00	0.005462	.1293	183081288.02
1129710090	Capacitor	C152,C168,C275, C405,C64	Telcordia Issue 1	Level I		5.00	0.004527	.1340	220919666.10
1124427090	Capacitor	C106,C127,C239, C247,C374,C403, C404,C409,C410, C411,C413,C415, C421,C435,C436	Telcordia Issue 1	Level I		15.00	0.004527	.4019	220919666.10
1124410190	Capacitor	C108,C110,C121, C126,C360,C398, C399,C423	Telcordia Issue 1	Level I		8.00	0.004527	.2143	220919666.10
1122747880	Capacitor	C160	Telcordia Issue 1	Level I		1.00	0.005462	.0323	183081288.02
1129747650	Capacitor	C352	Telcordia Issue 1	Level I		1.00	0.005462	.0323	183081288.02
1129722091	Capacitor	C357,C358,C439, C441,C444	Telcordia Issue 1	Level I		5.00	0.004527	.1340	220919666.10
1124568280	Capacitor	C383	Telcordia Issue 1	Level I		1.00	0.004527	.0268	220919666.10
1124522880	Capacitor	C384	Telcordia Issue 1	Level I		1.00	0.005462	.0323	183081288.02
1129747090	Capacitor	C425,C426,C427, C432,C433,C434, C437,C438	Telcordia Issue 1	Level I		8.00	0.005462	.2586	183081288.02
1301003440	Semiconductor	D1	Telcordia Issue 1	Level I		1.00	0.023812	.1409	41994887.40
1301053040	Semiconductor	D10,D16,D17,D2,D38, D4,D9	Telcordia Issue 1	Level I		7.00	0.023812	.9865	41994887.40
1301005443	Semiconductor	D11,D15,D19,D20, D36,D5,D6	Telcordia Issue 1	Level I		7.00	0.027159	1.1252	36819944.35
1301005442	Semiconductor	D14,D37	Telcordia Issue 1	Level I		2.00	0.023812	.2819	41994887.40
1301005441	Semiconductor	D18,D21,D22,D23	Telcordia Issue 1	Level I		4.00	0.027159	.6430	36819944.35
1212306030	Inductor	FB19,FB2,FB23,FB24, FB25,FB26,FB27, FB29,FB3,FB30,FB31, FB32,FB34,FB36, FB39,FB4,FB40,FB43, FB5,FB6,FB7,FB9	Telcordia Issue 1	Level I		22.00	0.002263	.2947	441839332.19
1212306035	Inductor	FB10,FB11,FB12, FB35,FB37,FB38, FB44,FB8	Telcordia Issue 1	Level I		8.00	0.002263	.1072	441839332.19
121230603D	Inductor	FB14,FB15,FB16, FB17,FB18,FB33, FB41,FB42	Telcordia Issue 1	Level I		8.00	0.002263	.1072	441839332.19
121230603L	Inductor	FB28,FB45	Telcordia Issue 1	Level I		2.00	0.002263	.0268	441839332.19
1651203291	Connection	FWH1	Telcordia Issue 1	Level I		1.00	0.018112	.1072	55211615.10

AAEON Reliability Prediction Report

Part Number 9697831035-DIP
Reference Des
Date 05. 21, 2009
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 24.90



Description
File Name ONYX-192.RPJ
Time 6:53 下午
Failure Rate 16.895967
MTBF 59,186

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1213160008	Inductor	LP1,LP2,LP4,LP5	Telcordia Issue 1	Level I		4.00	0.002263	.0536	441839332.19
1213112008	Inductor	LP3	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
1211100102	Inductor	L7	Telcordia Issue 1	Level I		1.00	0.086004	.5090	11627350.85
1211100160	Inductor	L8,L9	Telcordia Issue 1	Level I		2.00	0.002263	.0268	441839332.19
1211106870	Inductor	L10	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
1654262300	Connection	MPC11	Telcordia Issue 1	Level I		1.00	0.070185	.4154	14248158.74
1315700212	Semiconductor	Q16,Q17,Q18,Q19,Q2, Q27,Q28,Q32,Q33, Q34,Q39,Q40,Q8,Q9	Telcordia Issue 1	Level I		14.00	0.079375	6.5770	12598466.22
1315030110	Semiconductor	Q10,Q11,Q22,Q24,Q3, Q31,Q4,Q6,Q7	Telcordia Issue 1	Level I		9.00	0.000000	.0000	.00
1311390610	Semiconductor	Q35,Q41,Q5	Telcordia Issue 1	Level I		3.00	0.023812	.4228	41994887.40
1310390411	Semiconductor	Q12,Q13,Q20,Q25, Q36,Q37,Q42	Telcordia Issue 1	Level I		7.00	0.023812	.9865	41994887.40
1540710084	Resistor	RP1,RP11,RP13,RP15, RP17,RP19,RP20, RP23,RP26,RP29,RP3, RP31,RP33,RP35, RP37,RP39,RP41, RP43,RP5,RP7,RP9	Telcordia Issue 1	Level I		21.00	0.006217	.7728	160836724.71
1540756081	Resistor	RP10,RP12,RP14, RP16,RP18,RP2,RP21, RP22,RP24,RP25, RP27,RP28,RP30, RP32,RP34,RP36, RP38,RP4,RP40,RP42, RP44,RP6,RP8	Telcordia Issue 1	Level I		23.00	0.006217	.8464	160836724.71
1540782282	Resistor	RP45,RP46,RP47, RP48,RP49,RP50, RP51,RP52,RP53, RP56,RP57,RP58, RP59,RP60	Telcordia Issue 1	Level I		14.00	0.012435	1.0304	80418362.36
1540722085	Resistor	RP54,RP55	Telcordia Issue 1	Level I		2.00	0.012435	.1472	80418362.36
105A510009	Resistor	R10,R11,R118,R12, R139,R141,R282, R296,R3,R322,R341, R384,R394,R4	Telcordia Issue 1	Level I		14.00	0.002263	.1875	441839332.19
105A700009	Resistor	R186,R216,R311, R327,R328,R393, R395,R419,R451, R464,R465,R471, R477,R491,R5,R50, R548,R6,R7,R74	Telcordia Issue 1	Level I		20.00	0.002263	.2679	441839332.19

AAEON Reliability Prediction Report

Part Number 9697831035-DIP
Reference Des
Date 05. 21, 2009
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 24.90



Description
File Name ONYX-192.RPJ
Time 6:53 下午
Failure Rate 16.895967
MTBF 59,186

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A710039	Resistor	R146,R148,R149, R159,R200,R348, R351,R373,R398, R399,R400,R404, R409,R412,R413, R414,R442	Telcordia Issue 1	Level I		17.00	0.002263	.2277	441839332.19
105A708229	Resistor	R15,R163,R164,R167, R172,R173,R176, R182,R187,R192, R309,R310,R378,R46, R47,R479,R480,R52, R9	Telcordia Issue 1	Level I		19.00	0.002263	.2545	441839332.19
105A540263	Resistor	R245,R410	Telcordia Issue 1	Level I		2.00	0.002263	.0268	441839332.19
105A701009	Resistor	R109,R111,R113, R115,R120,R122, R124,R126,R130, R132,R17,R19,R22, R25,R358,R42,R44, R63,R67,R80,R81	Telcordia Issue 1	Level I		21.00	0.002263	.2813	441839332.19
105A705609	Resistor	R110,R112,R114, R116,R121,R123, R125,R127,R131, R133,R18,R20,R23, R249,R253,R26,R269, R272,R43,R45,R64, R65,R68,R70	Telcordia Issue 1	Level I		24.00	0.002263	.3215	441839332.19
105A700003	Resistor	FB13,FB21,FB22, R135,R157,R195, R203,R21,R254,R265, R28,R284,R407,R438, R492	Telcordia Issue 1	Level I		15.00	0.002263	.2009	441839332.19
105A700139	Resistor	R105,R106,R160, R161,R199,R204, R234,R239,R242, R243,R246,R251, R274,R278,R280, R281,R286,R299,R30, R300,R308,R320, R323,R324,R35,R369, R371,R379,R391, R422,R432,R439, R473,R481,R513, R520,R521,R527, R528,R530,R69	Telcordia Issue 1	Level I		41.00	0.002263	.5492	441839332.19
105A500233	Resistor	R155,R229,R29	Telcordia Issue 1	Level I		3.00	0.002263	.0402	441839332.19
105A702263	Resistor	R165,R168,R210,R31, R335,R336,R359, R405	Telcordia Issue 1	Level I		8.00	0.002263	.1072	441839332.19

AAEON Reliability Prediction Report

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Description
File Name ONYX-192.RPJ
Time 6:53 下午
Failure Rate 16.895967
MTBF 59,186

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A702229	Resistor	R136,R183,R184, R370,R375,R376, R387,R388,R389, R390,R401,R408, R411,R425,R426, R440,R526	Telcordia Issue 1	Level I		17.00	0.002263	.2277	441839332.19
105A500133	Resistor	R137,R138,R156, R166,R362,R531,R8	Telcordia Issue 1	Level I		7.00	0.002263	.0938	441839332.19
105A560463	Resistor	R143,R144	Telcordia Issue 1	Level I		2.00	0.002263	.0268	441839332.19
105A507509	Resistor	R150,R151,R152, R364,R381,R430, R431,R496,R497, R498	Telcordia Issue 1	Level I		10.00	0.002263	.1340	441839332.19
105A554963	Resistor	R178,R207,R266	Telcordia Issue 1	Level I		3.00	0.002263	.0402	441839332.19
105A571533	Resistor	R179	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A527463	Resistor	R191,R222,R298, R329,R396,R447	Telcordia Issue 1	Level I		6.00	0.002263	.0804	441839332.19
105A710053	Resistor	R193,R194,R273	Telcordia Issue 1	Level I		3.00	0.013580	.2411	73639888.70
105A547523	Resistor	R201	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A518223	Resistor	R202	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A507523	Resistor	R209	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A701053	Resistor	R211	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A501133	Resistor	R213	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
106B501031	Resistor	R218,R352	Telcordia Issue 1	Level I		2.00	0.011320	.1340	88338584.16
105A548703	Resistor	R231	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A502033	Resistor	R208,R236	Telcordia Issue 1	Level I		2.00	0.002263	.0268	441839332.19
105A706203	Resistor	R237	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A530003	Resistor	R241	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A700103	Resistor	R338,R353,R354, R355,R365,R367, R368,R372,R486	Telcordia Issue 1	Level I		9.00	0.002263	.1206	441839332.19
105A747003	Resistor	R263	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A578703	Resistor	R268	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A705139	Resistor	R277	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A547503	Resistor	R285	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A551113	Resistor	R291	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A549969	Resistor	R295,R301,R302, R303,R304,R305, R306,R321,R342	Telcordia Issue 1	Level I		9.00	0.002263	.1206	441839332.19
105A530103	Resistor	R313,R334	Telcordia Issue 1	Level I		2.00	0.002263	.0268	441839332.19
105A560403	Resistor	R330,R340	Telcordia Issue 1	Level I		2.00	0.002263	.0268	441839332.19

AAEON Reliability Prediction Report

Part Number 9697831035-DIP
Reference Des
Date 05. 21, 2009
Environment GF, GU - Ground Fixed, Uncontrolled
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Description
File Name ONYX-192.RPJ
Time 6:53 下午
Failure Rate 16.895967
MTBF 59,186

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A515003	Resistor	R331,R339	Telcordia Issue 1	Level I		2.00	0.002263	.0268	441839332.19
105A568123	Resistor	R344,R346	Telcordia Issue 1	Level I		2.00	0.002263	.0268	441839332.19
105A517423	Resistor	R345	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A512033	Resistor	R347	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A516513	Resistor	R361	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A514003	Resistor	R363	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A501523	Resistor	R366	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A512703	Resistor	R374	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A512103	Resistor	R383	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A554903	Resistor	R386	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
1759100006	Miscellaneous	SP1	Telcordia Issue 1	Level I		1.00	0.150000	.8878	6666666.67
1189615190	Capacitor	TC1,TC16,TC5,TC6, TC9	Telcordia Issue 1	Level I		5.00	0.004527	.1340	220919666.10
1189633181	Capacitor	TC17,TC4	Telcordia Issue 1	Level I		2.00	0.004527	.0536	220919666.10
1189922180	Capacitor	TC10,TC11,TC12, TC13,TC15,TC18, TC19,TC8	Telcordia Issue 1	Level I		8.00	0.004527	.2143	220919666.10
1315992601	Semiconductor	U1,U30,U41	Telcordia Issue 1	Level I		3.00	0.158749	2.8187	6299233.11
1315970110	Semiconductor	U44	Telcordia Issue 1	Level I		1.00	0.158749	.9396	6299233.11
14S4280106	Integrated Circuit	U3	Telcordia Issue 1	Level I	38.20	1.00	0.190745	1.1289	5242592.80
14S3260100	Integrated Circuit	U6	Telcordia Issue 1	Level I	47.00	1.00	1.150753	6.8108	868995.96
14S5A00820	Integrated Circuit	U7	Telcordia Issue 1	Level I		1.00	0.025047	.1482	39924804.98
14S3156500	Semiconductor	U10,U11	Telcordia Issue 1	Level I		2.00	0.047625	.5637	20997443.70
14S4256200	Inductor	U13	Telcordia Issue 1	Level I		1.00	0.135796	.8037	7363988.87
14S3065500	Integrated Circuit	U16	Telcordia Issue 1	Level I	31.80	1.00	0.482889	2.8580	2070868.85
14S5A01400	Integrated Circuit	U17,U18	Telcordia Issue 1	Level I		2.00	0.058933	.6976	16968377.18
14S4148500	Integrated Circuit	U21	Telcordia Issue 1	Level I		1.00	0.058933	.3488	16968377.18
14S6334610	Integrated Circuit	U24	Telcordia Issue 1	Level I		1.00	0.022776	.1348	43906493.83
14S3033800	Integrated Circuit	U28	Telcordia Issue 1	Level I		1.00	0.058933	.3488	16968377.18
14S5A00700	Integrated Circuit	U32	Telcordia Issue 1	Level I		1.00	0.025097	.1485	39845032.76
14S4070610	Integrated Circuit	U34	Telcordia Issue 1	Level I		1.00	0.058933	.3488	16968377.18
14S4021310	Integrated Circuit	U36,U37	Telcordia Issue 1	Level I		2.00	0.058933	.6976	16968377.18
14S2705700	Integrated Circuit	U38	Telcordia Issue 1	Level I		1.00	0.058933	.3488	16968377.18
1315441012	Semiconductor	U39,U42,U58	Telcordia Issue 1	Level I		3.00	0.079375	1.4094	12598466.22
14S2303700	Integrated Circuit	U40	Telcordia Issue 1	Level I		1.00	0.058933	.3488	16968377.18
1231332721	Miscellaneous	Y1	Telcordia Issue 1	Level I		1.00	0.150000	.8878	6666666.67
1653005202	Connection	CN1,CN2,CN4,CN5, CN6	Telcordia Issue 1	Level I		5.00	0.141501	4.1874	7067086.73
1653004202	Connection	CN10	Telcordia Issue 1	Level I		1.00	0.004528	.0268	220846460.41

AAEON Reliability Prediction Report

Part Number 9697831035-DIP
Reference Des
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Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 24.90



Description
File Name ONYX-192.RPJ
Time 6:53 下午
Failure Rate 16.895967
MTBF 59,186

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1653010203	Connection	CN11	Telcordia Issue 1	Level I		1.00	0.283002	1.6750	3533543.37
14S5900600	Integrated Circuit	U33	Telcordia Issue 1	Level I		1.00	0.070090	.4148	14267332.26
105A524303	Resistor	R142	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A549963	Resistor	R140	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
11E9610190	Capacitor	C198,C326,C375, C454,TC3	Telcordia Issue 1	Level I		5.00	0.004527	.1340	220919666.10
1315030210	Semiconductor	Q21,Q29,Q30	Telcordia Issue 1	Level I		3.00	0.079375	1.4094	12598466.22
105A733009	Resistor	R1,R228,R240,R283, R293,R357,R380, R418,R424,R433, R441,R443,R547	Telcordia Issue 1	Level I		13.00	0.002263	.1741	441839332.19
1304101340	Semiconductor	D7	Telcordia Issue 1	Level I		1.00	0.004832	.0286	206947616.14
14S2533100	Integrated Circuit	U22	Telcordia Issue 1	Level I		1.00	0.058933	.3488	16968377.18
105A500333	Resistor	R456	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A545323	Resistor	R466	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
1124556180	Capacitor	C464	Telcordia Issue 1	Level I		1.00	0.004527	.0268	220919666.10
1124518280	Capacitor	C461	Telcordia Issue 1	Level I		1.00	0.004527	.0268	220919666.10
105A510033	Resistor	R454,R545	Telcordia Issue 1	Level I		2.00	0.002263	.0268	441839332.19
105A501223	Resistor	R455	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
1124522280	Capacitor	C462,C471	Telcordia Issue 1	Level I		2.00	0.004527	.0536	220919666.10
105A510513	Resistor	R470	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A554923	Resistor	R461	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A507533	Resistor	R467	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A520033	Resistor	R457	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A535713	Resistor	R468	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
14S4621800	Integrated Circuit	U47	Telcordia Issue 1	Level I	41.20	1.00	0.833805	4.9349	1199320.75
16515A0995	Connection	DIMM1	Telcordia Issue 1	Level I		1.00	0.113201	.6700	8833858.42
105A502833	Resistor	R196	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A703363	Resistor	R458,R459	Telcordia Issue 1	Level I		2.00	0.002263	.0268	441839332.19
14S47009B0	Integrated Circuit	U43	Telcordia Issue 1	Level I		1.00	0.026029	.1541	38418616.55
14S4871203	Integrated Circuit	U35	Telcordia Issue 1	Level I	33.80	1.00	0.155229	.9187	6442087.63
14S3128421	Integrated Circuit	U9	Telcordia Issue 1	Level I		1.00	0.058933	.3488	16968377.18
118961018A	Capacitor	C155	Telcordia Issue 1	Level I		1.00	0.004527	.0268	220919666.10
14S4285202	Integrated Circuit	U8	Telcordia Issue 1	Level I	38.60	1.00	0.194300	1.1500	5146684.47
123131435B	Miscellaneous	Y2	Telcordia Issue 1	Level I		1.00	0.150000	.8878	6666666.67
1315889611	Semiconductor	U19,U20,U23,U25, U26,U29	Telcordia Issue 1	Level I		6.00	0.079375	2.8187	12598466.22
1654030003	Connection	CN8	Telcordia Issue 1	Level I		1.00	0.016980	.1005	58892389.44
1315970211	Semiconductor	U52,U53,U54	Telcordia Issue 1	Level I		3.00	0.158749	2.8187	6299233.11

AAEON Reliability Prediction Report

Part Number 9697831035-DIP
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Description
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Time 6:53 下午
Failure Rate 16.895967
MTBF 59,186

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1305000140	Semiconductor	D27,D28,D29,D30, D31,D32,D33,D34	Telcordia Issue 1	Level I		8.00	0.023812	1.1275	41994887.40
105A747009	Resistor	R500,R501,R512	Telcordia Issue 1	Level I		3.00	0.002263	.0402	441839332.19
105A701059	Resistor	R62	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
14S1035801	Integrated Circuit	U56	Telcordia Issue 1	Level I		1.00	0.058933	.3488	16968377.18
1050703634	Resistor	R514	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A702239	Resistor	R515	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
14S2200900	Integrated Circuit	U57	Telcordia Issue 1	Level I		1.00	0.058933	.3488	16968377.18
1305099140	Semiconductor	D39,D40	Telcordia Issue 1	Level I		2.00	0.079375	.9396	12598466.22
14S4195710	Integrated Circuit	U59,U60	Telcordia Issue 1	Level I		2.00	0.058933	.6976	16968377.18
105A501033	Resistor	R535	Telcordia Issue 1	Level I		1.00	0.002263	.0134	441839332.19
105A501123	Resistor	R536,R537	Telcordia Issue 1	Level I		2.00	0.002263	.0268	441839332.19
11E9501091	Capacitor	C482	Telcordia Issue 1	Level I		1.00	0.004527	.0268	220919666.10
1121747780	Capacitor	C486	Telcordia Issue 1	Level I		1.00	0.004527	.0268	220919666.10
1304001340	Semiconductor	D41	Telcordia Issue 1	Level I		1.00	0.004832	.0286	206947616.14
1300001440	Semiconductor	D42,D43	Telcordia Issue 1	Level I		2.00	0.023812	.2819	41994887.40
121110336L	Inductor	L1,L3,L5,L6	Telcordia Issue 1	Level I		4.00	0.086004	2.0361	11627350.85
1211101067	Inductor	L2	Telcordia Issue 1	Level I	44.50	1.00	0.004835	.0286	206804736.85
1189633192	Capacitor	TC14	Telcordia Issue 1	Level I		1.00	0.004527	.0268	220919666.10
1189615150	Capacitor	C68,TC2	Telcordia Issue 1	Level I		2.00	0.004527	.0536	220919666.10
11E9510050	Capacitor	C10,C102,C119,C123, C129,C130,C131, C132,C133,C134, C135,C136,C137, C140,C141,C144, C159,C161,C162, C163,C164,C166, C174,C185,C192, C195,C208,C209, C210,C211,C212, C229,C237,C246, C254,C303,C306, C310,C314,C315,	Telcordia Issue 1	Level I		64.00	0.004527	1.7146	220919666.10
1075502570	Resistor	R485	Telcordia Issue 1	Level II		1.00	0.000754	.0045	1325517996.58
1124522881	Capacitor	C466	Telcordia Issue 1	Level I		1.00	0.004527	.0268	220919666.10
1653900034	Connection	CFD1	Telcordia Issue 1	Level I		1.00	0.013584	.0804	73615486.80
1653022201	Connection	CN3	Telcordia Issue 1	Level I		1.00	0.024904	.1474	40153901.89
1653013203	Connection	CN7	Telcordia Issue 1	Level I		1.00	0.014716	.0871	67952757.05

