

ONYX-172 Reliability Prediction Report (MTBF)

Report NO : 09P070006

05-21-2009

Issue Date

Wenyuan Yang

Manager

Jessica Chou

Test Engineer

Reliability Prediction (MTBF)

I . **Model Name:** TF-ONYX-172DTT-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: 25.1 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-172DTT-A1-1010 (Not include Touch, LCD and Inverter):
Failure Rate: 21.669903 ppm
MTBF: 46,147 Hours
- Below components MTBF value were provided by the suppliers:
Touch screen: (TF)Touch Screen.17".5-Wire.Abon.170F-5RB-A04X-28R-200FH
- MTBF: 490,012 hours

LCD: (TF)TFT LCD.17".CPT.CLAA170EA07.4 LAMP

- IL at 7.0 mA Lamp life time is Min. 40,000 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) 25.10



Description Top-level assembly
File Name ONYX-172.RPJ
Time 4:33 下午
Failure Rate 21.669903
MTBF 46,147

Assembly Name	Part Number	Model	Method	Environment	Duty Cycle	Qty	Failure Rate	MTBF
TF-ONYX-172DTT-A1-1010	System	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled	100.00	1.00	21.67	46146.95
OSD Board	9697Y01801-S	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	.16	6187350.26
AMP & USB HUB Board	9697T10900-DIP	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	1.41	709428.71
Power Board	9697P02D08	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	2.94	340286.23
GENE-8310-A11	9697831035-DIP	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	17.16	58275.07

AAEON Reliability Prediction Report

Part Number 9697T10900-DIP
Reference Des
Date 05. 21, 2009
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name ONYX-172.RPJ
Time 4:33 下午
Failure Rate 1.409585
MTBF 709,429

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	0.004544	6.4477	220055560.52
1121701080	Capacitor	C18,C20,C26	Telcordia Issue 1	Level I		3.00	0.004544	.9672	220055560.52
1124420080	Capacitor	C27,C28	Telcordia Issue 1	Level I		2.00	0.004544	.6448	220055560.52
105A700003	Resistor	FB1,FB2,FB3,FB4, FB5,FB8,R26,R27, R28,R9	Telcordia Issue 1	Level I		10.00	0.002272	1.6119	440111121.05
1122701680	Capacitor	C1,C2	Telcordia Issue 1	Level I		2.00	0.004544	.6448	220055560.52
105A710033	Resistor	R1,R11,R2,R3	Telcordia Issue 1	Level I		4.00	0.002272	.6448	440111121.05
105A747003	Resistor	R4,R5	Telcordia Issue 1	Level I		2.00	0.002272	.3224	440111121.05
105A701033	Resistor	R15,R8	Telcordia Issue 1	Level I		2.00	0.002272	.3224	440111121.05
105A751033	Resistor	R12	Telcordia Issue 1	Level I		1.00	0.002272	.1612	440111121.05
105A701533	Resistor	R13,R14,R17,R18, R22,R23,R24,R25	Telcordia Issue 1	Level I		8.00	0.002272	1.2895	440111121.05
105A704733	Resistor	R16	Telcordia Issue 1	Level I		1.00	0.002272	.1612	440111121.05
105A704723	Resistor	R19	Telcordia Issue 1	Level I		1.00	0.002272	.1612	440111121.05
105A568003	Resistor	R20	Telcordia Issue 1	Level I		1.00	0.002272	.1612	440111121.05
105A701053	Resistor	R21	Telcordia Issue 1	Level I		1.00	0.002272	.1612	440111121.05
14S1013200	Integrated Circuit	U1	Telcordia Issue 1	Level I		1.00	0.059802	4.2425	16721916.86
1314111715	Integrated Circuit	U2	Telcordia Issue 1	Level I		1.00	0.059802	4.2425	16721916.86
14S3522800	Integrated Circuit	U3,U4	Telcordia Issue 1	Level I		2.00	0.059802	8.4850	16721916.86
14S4850000	Integrated Circuit	U5	Telcordia Issue 1	Level I		1.00	0.026337	1.8684	37969565.62
1315970110	Semiconductor	U7,U8,U9	Telcordia Issue 1	Level I		3.00	0.159665	33.9812	6263129.16
1214309000	Inductor	CH1,CH2,CH3,CH4	Telcordia Issue 1	Level I		4.00	0.002272	.6448	440111121.05
11E9510051	Capacitor	C13	Telcordia Issue 1	Level I		1.00	0.004544	.3224	220055560.52
1655004011	Connection	CN1	Telcordia Issue 1	Level I		1.00	0.022878	1.6230	43710088.85
1655302020	Connection	CN2,CN4,CN7,CN8	Telcordia Issue 1	Level I		4.00	0.001144	.3246	874201776.95
1655308021	Connection	CN10,CN5	Telcordia Issue 1	Level I		2.00	0.004576	.6492	218550444.24
1655305020	Connection	CN6	Telcordia Issue 1	Level I		1.00	0.002860	.2029	349680710.78
1655304020	Connection	CN11,CN12,CN13,CN3, CN9	Telcordia Issue 1	Level I		5.00	0.002288	.8115	437100888.47
1112610190	Capacitor	C3	Telcordia Issue 1	Level I		1.00	0.042896	3.0432	23312047.39
1111610194	Capacitor	C14,C4	Telcordia Issue 1	Level I		2.00	0.042896	6.0864	23312047.39
1111622102	Capacitor	C30,C32,C34	Telcordia Issue 1	Level I		3.00	0.042896	9.1296	23312047.39
12311120A1	Miscellaneous	X1	Telcordia Issue 1	Level I		1.00	0.150000	10.6414	6666666.67

AAEON Reliability Prediction Report

Part Number 9697P02D08
Reference Des
Date 05. 21, 2009
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name ONYX-172.RPJ
Time 4:33 下午
Failure Rate 2.938703
MTBF 340,286

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	0.004544	.1546	220055560.52
1124701680	Capacitor	C1,C10,C12,C13,C14, C25,C27,C29,C31, C34,C36,C37,C7	Telcordia Issue 1	Level I		13.00	0.004544	2.0103	220055560.52
1124510280	Capacitor	C16,C17,C2,C22,C24	Telcordia Issue 1	Level I		5.00	0.005469	.9305	182842274.63
1124522180	Capacitor	C3	Telcordia Issue 1	Level I		1.00	0.004544	.1546	220055560.52
1124410180	Capacitor	C19,C21,C4	Telcordia Issue 1	Level I		3.00	0.004544	.4639	220055560.52
1122722780	Capacitor	C5	Telcordia Issue 1	Level I		1.00	0.004544	.1546	220055560.52
1129747650	Capacitor	C6	Telcordia Issue 1	Level I		1.00	0.005469	.1861	182842274.63
1121610060	Capacitor	C11,C30	Telcordia Issue 1	Level I		2.00	0.004544	.3093	220055560.52
1124518180	Capacitor	C15,C23	Telcordia Issue 1	Level I		2.00	0.004544	.3093	220055560.52
1124515281	Capacitor	C20	Telcordia Issue 1	Level I		1.00	0.004544	.1546	220055560.52
1121733780	Capacitor	C26	Telcordia Issue 1	Level I		1.00	0.005469	.1861	182842274.63
1129547661	Capacitor	C28	Telcordia Issue 1	Level I		1.00	0.004544	.1546	220055560.52
1301003640	Semiconductor	D1,D2,D3,D4,D5,D6, D7	Telcordia Issue 1	Level I		7.00	0.023950	5.7048	41754194.40
121230805H	Inductor	L4,L5,L6	Telcordia Issue 1	Level I		3.00	0.002272	.2320	440111121.05
1315700212	Semiconductor	Q1	Telcordia Issue 1	Level I		1.00	0.079832	2.7166	12526258.32
1315567010	Semiconductor	Q2,Q6,Q9	Telcordia Issue 1	Level I		3.00	0.047899	4.8898	20877097.20
1315441010	Semiconductor	Q3,Q4,Q8	Telcordia Issue 1	Level I		3.00	0.079832	8.1497	12526258.32
1315441010	Semiconductor	Q7	Telcordia Issue 1	Level I	47.90	1.00	0.261174	8.8874	3828868.13
105A701053	Resistor	R1,R20,R9	Telcordia Issue 1	Level I		3.00	0.002272	.2320	440111121.05
105A704733	Resistor	R2	Telcordia Issue 1	Level I		1.00	0.002272	.0773	440111121.05
105A501033	Resistor	R13,R3	Telcordia Issue 1	Level I		2.00	0.002272	.1546	440111121.05
105A515433	Resistor	R5	Telcordia Issue 1	Level I		1.00	0.002272	.0773	440111121.05
1059701133	Resistor	R4	Telcordia Issue 1	Level I		1.00	0.002272	.0773	440111121.05
105A705153	Resistor	R6,R7	Telcordia Issue 1	Level I		2.00	0.013633	.9278	73351853.51
1059700101	Resistor	R8	Telcordia Issue 1	Level I		1.00	0.002272	.0773	440111121.05
105A510033	Resistor	R12,R19	Telcordia Issue 1	Level I		2.00	0.002272	.1546	440111121.05
105A518223	Resistor	R11,R18	Telcordia Issue 1	Level I		2.00	0.002272	.1546	440111121.05
105A700003	Resistor	R14,R15,R24	Telcordia Issue 1	Level I		3.00	0.002272	.2320	440111121.05
105A508263	Resistor	R16	Telcordia Issue 1	Level I		1.00	0.002272	.0773	440111121.05
105A547513	Resistor	R17	Telcordia Issue 1	Level I		1.00	0.002272	.0773	440111121.05
105A701003	Resistor	R21	Telcordia Issue 1	Level I		1.00	0.002272	.0773	440111121.05
1054600289	Resistor	R22,R23	Telcordia Issue 1	Level I		2.00	0.016408	1.1167	60947424.88
1315177810	Semiconductor	U1	Telcordia Issue 1	Level I	55.70	1.00	0.614589	20.9136	1627103.09
1189615151	Capacitor	C35	Telcordia Issue 1	Level I		1.00	0.004544	.1546	220055560.52
14S3372801	Integrated Circuit	U2	Telcordia Issue 1	Level I	39.10	1.00	0.748485	25.4699	1336032.68

AAEON Reliability Prediction Report

Part Number 9697831035-DIP
Reference Des
Date 05. 21, 2009
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name ONYX-172.RPJ
Time 4:33 下午
Failure Rate 17.159996
MTBF 58,275

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	0.159665	.9304	6263129.16
14S4150000	Integrated Circuit	U4	Telcordia Issue 1	Level I	45.20	1.00	0.264198	1.5396	3785044.81
1653925216	Connection	CFD1	Telcordia Issue 1	Level I		1.00	0.028598	.1667	34968071.08
105A542213	Resistor	R534	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
1214309000	Inductor	CH1,CH2,CH3,CH4	Telcordia Issue 1	Level I		4.00	0.002272	.0530	440111121.05
14S4048501	Integrated Circuit	U14,U15	Telcordia Issue 1	Level I		2.00	0.059802	.6970	16721916.86
14S5A12505	Integrated Circuit	U48,U50	Telcordia Issue 1	Level I		2.00	0.059802	.6970	16721916.86
14S5A12503	Integrated Circuit	U51	Telcordia Issue 1	Level I		1.00	0.059802	.3485	16721916.86
1231325058	Miscellaneous	Y3	Telcordia Issue 1	Level I		1.00	0.150000	.8741	6666666.67
1231324555	Miscellaneous	Y4	Telcordia Issue 1	Level I		1.00	0.150000	.8741	6666666.67
1059700001	Resistor	R474	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
1301005444	Semiconductor	D26	Telcordia Issue 1	Level I		1.00	0.023950	.1396	41754194.40
1121733780	Capacitor	C470,C485	Telcordia Issue 1	Level I		2.00	0.005469	.0637	182842274.63
105A704763	Resistor	R487	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
1174522180	Capacitor	CP1,CP2,CP3,CP4, CP5	Telcordia Issue 1	Level I		5.00	0.005469	.1594	182842274.63
1121722650	Capacitor	C1	Telcordia Issue 1	Level I		1.00	0.005469	.0319	182842274.63
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	0.004544	6.5146	220055560.52
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	0.004544	.6620	220055560.52
1129722060	Capacitor	C101,C117,C481,C6, C91	Telcordia Issue 1	Level I		5.00	0.004544	.1324	220055560.52

AAEON Reliability Prediction Report

Part Number 9697831035-DIP
Reference Des
Date 05. 21, 2009
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name ONYX-172.RPJ
Time 4:33 下午
Failure Rate 17.159996
MTBF 58,275

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	0.004544	.4502	220055560.52
1129710390	Capacitor	C149,C181,C422, C430,C445,C446	Telcordia Issue 1	Level I		6.00	0.004544	.1589	220055560.52
1124433190	Capacitor	C267,C386,C417, C418	Telcordia Issue 1	Level I		4.00	0.005469	.1275	182842274.63
1129710090	Capacitor	C152,C168,C275, C405,C64	Telcordia Issue 1	Level I		5.00	0.004544	.1324	220055560.52
1124427090	Capacitor	C106,C127,C239, C247,C374,C403, C404,C409,C410, C411,C413,C415, C421,C435,C436	Telcordia Issue 1	Level I		15.00	0.004544	.3972	220055560.52
1124410190	Capacitor	C108,C110,C121, C126,C360,C398, C399,C423	Telcordia Issue 1	Level I		8.00	0.004544	.2119	220055560.52
1122747880	Capacitor	C160	Telcordia Issue 1	Level I		1.00	0.005469	.0319	182842274.63
1129747650	Capacitor	C352	Telcordia Issue 1	Level I		1.00	0.005469	.0319	182842274.63
1129722091	Capacitor	C357,C358,C439, C441,C444	Telcordia Issue 1	Level I		5.00	0.004544	.1324	220055560.52
1124568280	Capacitor	C383	Telcordia Issue 1	Level I		1.00	0.004544	.0265	220055560.52
1124522880	Capacitor	C384	Telcordia Issue 1	Level I		1.00	0.005469	.0319	182842274.63
1129747090	Capacitor	C425,C426,C427, C432,C433,C434, C437,C438	Telcordia Issue 1	Level I		8.00	0.005469	.2550	182842274.63
1301003440	Semiconductor	D1	Telcordia Issue 1	Level I		1.00	0.023950	.1396	41754194.40
1301053040	Semiconductor	D10,D16,D17,D2,D38, D4,D9	Telcordia Issue 1	Level I		7.00	0.023950	.9770	41754194.40
1301005443	Semiconductor	D11,D15,D19,D20, D36,D5,D6	Telcordia Issue 1	Level I		7.00	0.027266	1.1122	36675926.75
1301005442	Semiconductor	D14,D37	Telcordia Issue 1	Level I		2.00	0.023950	.2791	41754194.40
1301005441	Semiconductor	D18,D21,D22,D23	Telcordia Issue 1	Level I		4.00	0.027266	.6356	36675926.75
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	0.002272	.2913	440111121.05
1212306035	Inductor	FB10,FB11,FB12, FB35,FB37,FB38, FB44,FB8	Telcordia Issue 1	Level I		8.00	0.002272	.1059	440111121.05
121230603D	Inductor	FB14,FB15,FB16, FB17,FB18,FB33, FB41,FB42	Telcordia Issue 1	Level I		8.00	0.002272	.1059	440111121.05
121230603L	Inductor	FB28,FB45	Telcordia Issue 1	Level I		2.00	0.002272	.0265	440111121.05
1651203291	Connection	FWH1	Telcordia Issue 1	Level I		1.00	0.018302	.1067	54637611.06

AAEON Reliability Prediction Report

Part Number 9697831035-DIP
Reference Des
Date 05. 21, 2009
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name ONYX-172.RPJ
Time 4:33 下午
Failure Rate 17.159996
MTBF 58,275

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	0.002272	.0530	440111121.05
1213112008	Inductor	LP3	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
1211100102	Inductor	L7	Telcordia Issue 1	Level I		1.00	0.086342	.5032	11581871.61
1211100160	Inductor	L8,L9	Telcordia Issue 1	Level I		2.00	0.002272	.0265	440111121.05
1211106870	Inductor	L10	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
1654262300	Connection	MPC11	Telcordia Issue 1	Level I		1.00	0.070922	.4133	14100028.66
1315700212	Semiconductor	Q16,Q17,Q18,Q19,Q2, Q27,Q28,Q32,Q33, Q34,Q39,Q40,Q8,Q9	Telcordia Issue 1	Level I		14.00	0.079832	6.5131	12526258.32
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	0.023950	.4187	41754194.40
1310390411	Semiconductor	Q12,Q13,Q20,Q25, Q36,Q37,Q42	Telcordia Issue 1	Level I		7.00	0.023950	.9770	41754194.40
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	0.006275	.7679	159372657.61
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	0.006275	.8410	159372657.61
1540782282	Resistor	RP45,RP46,RP47, RP48,RP49,RP50, RP51,RP52,RP53, RP56,RP57,RP58, RP59,RP60	Telcordia Issue 1	Level I		14.00	0.012549	1.0238	79686328.81
1540722085	Resistor	RP54,RP55	Telcordia Issue 1	Level I		2.00	0.012549	.1463	79686328.81
105A510009	Resistor	R10,R11,R118,R12, R139,R141,R282, R296,R3,R322,R341, R384,R394,R4	Telcordia Issue 1	Level I		14.00	0.002272	.1854	440111121.05
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	0.002272	.2648	440111121.05

AAEON Reliability Prediction Report

Part Number 9697831035-DIP
Reference Des
Date 05. 21, 2009
Environment GF, GU - Ground Fixed, Uncontrolled
Temp. (°C) 25.10



Description
File Name ONYX-172.RPJ
Time 4:33 下午
Failure Rate 17.159996
MTBF 58,275

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	0.002272	.2251	440111121.05
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	0.002272	.2516	440111121.05
105A540263	Resistor	R245,R410	Telcordia Issue 1	Level I		2.00	0.002272	.0265	440111121.05
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	0.002272	.2781	440111121.05
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	0.002272	.3178	440111121.05
105A700003	Resistor	FB13,FB21,FB22, R135,R157,R195, R203,R21,R254,R265, R28,R284,R407,R438, R492	Telcordia Issue 1	Level I		15.00	0.002272	.1986	440111121.05
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	0.002272	.5429	440111121.05
105A500233	Resistor	R155,R229,R29	Telcordia Issue 1	Level I		3.00	0.002272	.0397	440111121.05
105A702263	Resistor	R165,R168,R210,R31, R335,R336,R359, R405	Telcordia Issue 1	Level I		8.00	0.002272	.1059	440111121.05

AAEON Reliability Prediction Report

Part Number 9697831035-DIP
Reference Des
Date 05. 21, 2009
Environment GF, GU - Ground Fixed, Uncontrolled
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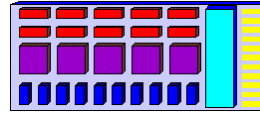


Description
File Name ONYX-172.RPJ
Time 4:33 下午
Failure Rate 17.159996
MTBF 58,275

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	0.002272	.2251	440111121.05
105A500133	Resistor	R137,R138,R156, R166,R362,R531,R8	Telcordia Issue 1	Level I		7.00	0.002272	.0927	440111121.05
105A560463	Resistor	R143,R144	Telcordia Issue 1	Level I		2.00	0.002272	.0265	440111121.05
105A507509	Resistor	R150,R151,R152, R364,R381,R430, R431,R496,R497, R498	Telcordia Issue 1	Level I		10.00	0.002272	.1324	440111121.05
105A554963	Resistor	R178,R207,R266	Telcordia Issue 1	Level I		3.00	0.002272	.0397	440111121.05
105A571533	Resistor	R179	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A527463	Resistor	R191,R222,R298, R329,R396,R447	Telcordia Issue 1	Level I		6.00	0.002272	.0794	440111121.05
105A710053	Resistor	R193,R194,R273	Telcordia Issue 1	Level I		3.00	0.013633	.2383	73351853.51
105A547523	Resistor	R201	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A518223	Resistor	R202	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A507523	Resistor	R209	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A701053	Resistor	R211	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A501133	Resistor	R213	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
106B501031	Resistor	R218,R352	Telcordia Issue 1	Level I		2.00	0.011439	.1333	87420177.69
105A548703	Resistor	R231	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A502033	Resistor	R208,R236	Telcordia Issue 1	Level I		2.00	0.002272	.0265	440111121.05
105A706203	Resistor	R237	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A530003	Resistor	R241	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A700103	Resistor	R338,R353,R354, R355,R365,R367, R368,R372,R486	Telcordia Issue 1	Level I		9.00	0.002272	.1192	440111121.05
105A747003	Resistor	R263	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A578703	Resistor	R268	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A705139	Resistor	R277	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A547503	Resistor	R285	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A551113	Resistor	R291	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A549969	Resistor	R295,R301,R302, R303,R304,R305, R306,R321,R342	Telcordia Issue 1	Level I		9.00	0.002272	.1192	440111121.05
105A530103	Resistor	R313,R334	Telcordia Issue 1	Level I		2.00	0.002272	.0265	440111121.05
105A560403	Resistor	R330,R340	Telcordia Issue 1	Level I		2.00	0.002272	.0265	440111121.05

AAEON Reliability Prediction Report

Part Number 9697831035-DIP
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Description
File Name ONYX-172.RPJ
Time 4:33 下午
Failure Rate 17.159996
MTBF 58,275

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	0.002272	.0265	440111121.05
105A568123	Resistor	R344,R346	Telcordia Issue 1	Level I		2.00	0.002272	.0265	440111121.05
105A517423	Resistor	R345	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A512033	Resistor	R347	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A516513	Resistor	R361	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A514003	Resistor	R363	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A501523	Resistor	R366	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A512703	Resistor	R374	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A512103	Resistor	R383	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A554903	Resistor	R386	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
1759100006	Miscellaneous	SP1	Telcordia Issue 1	Level I		1.00	0.150000	.8741	6666666.67
1189615190	Capacitor	TC1,TC16,TC5,TC6, TC9	Telcordia Issue 1	Level I		5.00	0.004544	.1324	220055560.52
1189633181	Capacitor	TC17,TC4	Telcordia Issue 1	Level I		2.00	0.004544	.0530	220055560.52
1189922180	Capacitor	TC10,TC11,TC12, TC13,TC15,TC18, TC19,TC8	Telcordia Issue 1	Level I		8.00	0.004544	.2119	220055560.52
1315992601	Semiconductor	U1,U30,U41	Telcordia Issue 1	Level I		3.00	0.159665	2.7913	6263129.16
1315970110	Semiconductor	U44	Telcordia Issue 1	Level I		1.00	0.159665	.9304	6263129.16
14S4280106	Integrated Circuit	U3	Telcordia Issue 1	Level I	37.00	1.00	0.182106	1.0612	5491313.76
14S3260100	Integrated Circuit	U6	Telcordia Issue 1	Level I	46.90	1.00	1.157053	6.7427	864264.51
14S5A00820	Integrated Circuit	U7	Telcordia Issue 1	Level I		1.00	0.025343	.1477	39458149.17
14S3156500	Semiconductor	U10,U11	Telcordia Issue 1	Level I		2.00	0.047899	.5583	20877097.20
14S4256200	Inductor	U13	Telcordia Issue 1	Level I		1.00	0.136329	.7945	7335185.35
14S3065500	Integrated Circuit	U16	Telcordia Issue 1	Level I	34.50	1.00	0.573405	3.3415	1743967.10
14S5A01400	Integrated Circuit	U17,U18	Telcordia Issue 1	Level I		2.00	0.059802	.6970	16721916.86
14S4148500	Integrated Circuit	U21	Telcordia Issue 1	Level I		1.00	0.059802	.3485	16721916.86
14S6334610	Integrated Circuit	U24	Telcordia Issue 1	Level I		1.00	0.023111	.1347	43268765.90
14S3033800	Integrated Circuit	U28	Telcordia Issue 1	Level I		1.00	0.059802	.3485	16721916.86
14S5A00700	Integrated Circuit	U32	Telcordia Issue 1	Level I		1.00	0.025394	.1480	39379309.36
14S4070610	Integrated Circuit	U34	Telcordia Issue 1	Level I		1.00	0.059802	.3485	16721916.86
14S4021310	Integrated Circuit	U36,U37	Telcordia Issue 1	Level I		2.00	0.059802	.6970	16721916.86
14S2705700	Integrated Circuit	U38	Telcordia Issue 1	Level I		1.00	0.059802	.3485	16721916.86
1315441012	Semiconductor	U39,U42,U58	Telcordia Issue 1	Level I		3.00	0.079832	1.3957	12526258.32
14S2303700	Integrated Circuit	U40	Telcordia Issue 1	Level I		1.00	0.059802	.3485	16721916.86
1231332721	Miscellaneous	Y1	Telcordia Issue 1	Level I		1.00	0.150000	.8741	6666666.67
1653005202	Connection	CN1,CN2,CN4,CN5, CN6	Telcordia Issue 1	Level I		5.00	0.142988	4.1663	6993614.22
1653004202	Connection	CN10	Telcordia Issue 1	Level I		1.00	0.004576	.0267	218550444.24

AAEON Reliability Prediction Report

Part Number 9697831035-DIP
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Description
File Name ONYX-172.RPJ
Time 4:33 下午
Failure Rate 17.159996
MTBF 58,275

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	0.285975	1.6665	3496807.11
14S5900600	Integrated Circuit	U33	Telcordia Issue 1	Level I		1.00	0.070734	.4122	14137459.36
105A524303	Resistor	R142	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A549963	Resistor	R140	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
11E9610190	Capacitor	C198,C326,C375, C454,TC3	Telcordia Issue 1	Level I		5.00	0.004544	.1324	220055560.52
1315030210	Semiconductor	Q21,Q29,Q30	Telcordia Issue 1	Level I		3.00	0.079832	1.3957	12526258.32
105A733009	Resistor	R1,R228,R240,R283, R293,R357,R380, R418,R424,R433, R441,R443,R547	Telcordia Issue 1	Level I		13.00	0.002272	.1721	440111121.05
1304101340	Semiconductor	D7	Telcordia Issue 1	Level I		1.00	0.004921	.0287	203197151.95
14S2533100	Integrated Circuit	U22	Telcordia Issue 1	Level I		1.00	0.059802	.3485	16721916.86
105A500333	Resistor	R456	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A545323	Resistor	R466	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
1124556180	Capacitor	C464	Telcordia Issue 1	Level I		1.00	0.004544	.0265	220055560.52
1124518280	Capacitor	C461	Telcordia Issue 1	Level I		1.00	0.004544	.0265	220055560.52
105A510033	Resistor	R454,R545	Telcordia Issue 1	Level I		2.00	0.002272	.0265	440111121.05
105A501223	Resistor	R455	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
1124522280	Capacitor	C462,C471	Telcordia Issue 1	Level I		2.00	0.004544	.0530	220055560.52
105A510513	Resistor	R470	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A554923	Resistor	R461	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A507533	Resistor	R467	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A520033	Resistor	R457	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A535713	Resistor	R468	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
14S4621800	Integrated Circuit	U47	Telcordia Issue 1	Level I	42.90	1.00	0.927735	5.4064	1077893.98
16515A0995	Connection	DIMM1	Telcordia Issue 1	Level I		1.00	0.114390	.6666	8742017.77
105A502833	Resistor	R196	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A703363	Resistor	R458,R459	Telcordia Issue 1	Level I		2.00	0.002272	.0265	440111121.05
14S47009B0	Integrated Circuit	U43	Telcordia Issue 1	Level I		1.00	0.026337	.1535	37969565.62
14S4871203	Integrated Circuit	U35	Telcordia Issue 1	Level I	34.40	1.00	0.161220	.9395	6202706.64
14S3128421	Integrated Circuit	U9	Telcordia Issue 1	Level I		1.00	0.059802	.3485	16721916.86
118961018A	Capacitor	C155	Telcordia Issue 1	Level I		1.00	0.004544	.0265	220055560.52
14S4285202	Integrated Circuit	U8	Telcordia Issue 1	Level I	36.80	1.00	0.180419	1.0514	5542639.71
123131435B	Miscellaneous	Y2	Telcordia Issue 1	Level I		1.00	0.150000	.8741	6666666.67
1315889611	Semiconductor	U19,U20,U23,U25, U26,U29	Telcordia Issue 1	Level I		6.00	0.079832	2.7913	12526258.32
1654030003	Connection	CN8	Telcordia Issue 1	Level I		1.00	0.017159	.1000	58280118.46
1315970211	Semiconductor	U52,U53,U54	Telcordia Issue 1	Level I		3.00	0.159665	2.7913	6263129.16

AAEON Reliability Prediction Report

Part Number 9697831035-DIP
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Description
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Time 4:33 下午
Failure Rate 17.159996
MTBF 58,275

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	0.023950	1.1165	41754194.40
105A747009	Resistor	R500,R501,R512	Telcordia Issue 1	Level I		3.00	0.002272	.0397	440111121.05
105A701059	Resistor	R62	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
14S1035801	Integrated Circuit	U56	Telcordia Issue 1	Level I		1.00	0.059802	.3485	16721916.86
1050703634	Resistor	R514	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A702239	Resistor	R515	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
14S2200900	Integrated Circuit	U57	Telcordia Issue 1	Level I		1.00	0.059802	.3485	16721916.86
1305099140	Semiconductor	D39,D40	Telcordia Issue 1	Level I		2.00	0.079832	.9304	12526258.32
14S4195710	Integrated Circuit	U59,U60	Telcordia Issue 1	Level I		2.00	0.059802	.6970	16721916.86
105A501033	Resistor	R535	Telcordia Issue 1	Level I		1.00	0.002272	.0132	440111121.05
105A501123	Resistor	R536,R537	Telcordia Issue 1	Level I		2.00	0.002272	.0265	440111121.05
11E9501091	Capacitor	C482	Telcordia Issue 1	Level I		1.00	0.004544	.0265	220055560.52
1121747780	Capacitor	C486	Telcordia Issue 1	Level I		1.00	0.004544	.0265	220055560.52
1304001340	Semiconductor	D41	Telcordia Issue 1	Level I		1.00	0.004921	.0287	203197151.95
1300001440	Semiconductor	D42,D43	Telcordia Issue 1	Level I		2.00	0.023950	.2791	41754194.40
121110336L	Inductor	L1,L3,L5,L6	Telcordia Issue 1	Level I		4.00	0.086342	2.0126	11581871.61
1211101067	Inductor	L2	Telcordia Issue 1	Level I	47.00	1.00	0.005032	.0293	198743096.36
1189633192	Capacitor	TC14	Telcordia Issue 1	Level I		1.00	0.004544	.0265	220055560.52
1189615150	Capacitor	C68,TC2	Telcordia Issue 1	Level I		2.00	0.004544	.0530	220055560.52
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	0.004544	1.6948	220055560.52
1075502570	Resistor	R485	Telcordia Issue 1	Level II		1.00	0.000757	.0044	1320333363.14
1124522881	Capacitor	C466	Telcordia Issue 1	Level I		1.00	0.004544	.0265	220055560.52
1653900034	Connection	CFD1	Telcordia Issue 1	Level I		1.00	0.013727	.0800	72850148.08
1653022201	Connection	CN3	Telcordia Issue 1	Level I		1.00	0.025166	.1467	39736444.41
1653013203	Connection	CN7	Telcordia Issue 1	Level I		1.00	0.014871	.0867	67246290.53

