

PER-C40L

Reliability Prediction Report (MTBF)

Summary	Failure Rate: 1295.453294 MTBF: 771,931 Hours
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Issue date	QE Manager	Test Engineer
2017-03-10	KJ Wang	Max Chang

Reliability Prediction (MTBF)

I . Model Name: PER-C40L

II . Prediction Date: March, 9, 2017

III . Prediction Site: AAEON Q.E. Dept.

IV . Predicted by: Max Chang

V . Equipment: Windchill Quality Solutions 10.1

VI. Simulation Environment:

- Temperature: 30 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 Failure rate multiplier is 1000000000.
- MTBF : MTBF is always specified in hours.

VIII. Prediction Result:

PER-C40L (9697C40L-D):

- Failure Rate: 1295.453294

- MTBF: 771,931 Hours

**Reliability Prediction
Summary**

File Name: PER-C40L.rfp
System: 9697C40L-D
Ref Des:
Description:

Failure Rate: 1295.453294
MTBF (hrs): 771,931
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Assembly Name	Part Number	Ref Des	Quantity	Failure Rate	MTBF
PER-C40L	9697C40L-D		1	1295.453294	771,931

File Name: PER-C40L.rfp
Assembly: 9697C40L-D
Ref Des:
Description:

Failure Rate: 1295.453294
MTBF (hrs): 771,931
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Unit Failure Rate	Quantity	Total Failure Rate
1050508224	Resistor	R392,R393,R394,R396,R397,R398,R399,R401,R402,R403,R404,R415	2.547039	12	33.890167
1050510034	Resistor	R345,R346,R8	2.547039	3	9.343982
1050516004	Resistor	R321,R322,R323,R324,R325,R326,R327,R328	2.547039	8	23.134533
1050551004	Resistor	R414,R416,R417,R419	2.547039	4	12.149228
105A500139	Resistor	R21,R22,R337	2.547039	3	9.343982
105A501039	Resistor	R332,R341,R342	2.547039	3	9.343982
105A501529	Resistor	R221	2.547039	1	3.541821
105A501539	Resistor	R347	2.547039	1	3.541821
105A503973	Resistor	R229,R231,R232,R233,R234,R235,R237	2.547039	7	20.411813
105A523713	Resistor	R214	2.547039	1	3.541821
105A530113	Resistor	R215	2.547039	1	3.541821

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Part Number	Category	Ref Des	Unit Failure Rate	Quantity	Total Failure Rate
105A700009	Resistor	R122,R123,R124,R125,R126,R127,R128,R129,R130,R131,R132,R133,R134,R135,R136,R137,R138,R139,R140,R141,R142,R143,R144,R145,R146,R147,R148,R149,R150,R151,R152,R153,R154,R155,R156,R157,R158,R159,R160,R161,R162,R163,R164,R165,R166,R167,R168,R169,R170,R171,R172,R173,R174,R175,R176,R177	2.547039	58	155.039752
105A700239	Resistor	R343,R344	2.547039	2	6.490186
105A701039	Resistor	R178,R180,R181,R182,R183,R184,R185,R186,R187,R188,R189,R190,R191,R192,R193,R194,R195,R196,R197,R198,R199,R200,R201,R202,R203,R204,R205,R206,R207,R208,R209,R210,R211,R212,R213,R214,R215,R216,R217,R218,R219,R220,R221,R222,R223,R224,R225,R226,R227,R228,R229,R230,R231,R232,R233,R234,R235,R236,R237,R238,R239	2.547039	18	49.919834
105A703309	Resistor	R177	2.547039	1	3.541821

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105A703329	Resistor	R201,R202,R205,R206,R208,R209,R211,R212,R213,R223,R224,R228,R364,R365,R366,R367,R368,R369,R370,R371,R395,R400,R405,R418	2.547039	24	65.832183
1121501690	Capacitor	C93,C95	1.128806	2	2.664608
1121610060	Capacitor	C224,C225,C229,C230,C260,C261,C270,C271,C280,C281,C317,C318	1.128806	12	14.522865
1124427090	Capacitor	C147,C149	1.128806	2	2.664608
1129601080	Capacitor	C153,C159,C165,C171,C174,C180,C185,C192,C197	1.128806	9	11.005528
1129710090	Capacitor	C148	1.128806	1	1.418485
1129710390	Capacitor	C155,C156,C161,C162,C163,C164,C167,C168,C169,C176,C177,C178,C187,C188,C189,C190,C199,C200	1.128806	18	21.515320
1149522180	Capacitor	C240	1.128806	1	1.418485
1181627194	Capacitor	C568	1.128806	1	1.418485
1189610151	Capacitor	C239	1.128806	1	1.418485
1189656196	Capacitor	C4,C6	1.128806	2	2.664608

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11C2510480	Capacitor	C226,C228,C569,C570,C571	1.128806	5	6.274805
11C4501790	Capacitor	C154,C160,C166,C170,C175,C179,C186,C191,C198,C227,C232,C234,C237	1.128806	13	15.691573
11C9510490	Capacitor	C115,C116,C117,C118,C119,C120,C121,C122,C231,C235,C245,C246,C263,C265,C272,C273,C275,C279,C282,C283,C284,C319,C320,C322,C326,C330	1.128806	26	30.787345
11E1510050	Capacitor	C94,C96	1.128806	2	2.664608
11E1547650	Capacitor	C223,C238,C241,C244,C248,C256,C257,C274,C276,C277,C278,C321,C323,C324,C325,C327,C328,C329,C331	1.128806	19	22.676921
11E9610080	Capacitor	C152,C158,C172,C181,C184,C193,C196	1.128806	7	8.647986

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11EA647010	Capacitor	C151,C157,C173,C182,C183,C194,C195	1.128806	7	8.647986
121110336X	Inductor	L33,L34	4.944252	2	12.019077
1212306030	Inductor	FB10,FB11,FB12,FB13,FB14,FB15,FB16,FB17,FB18,FB19,FB20,FB21,FB22,FB23,FB24,FB28, FB9	4.944252	17	90.121791
123132505D	Miscellaneous	Y2	19.200000	1	41.938810
1301005442	Semiconductor	D1	7.793411	1	10.775013
1304100250	Optical Device	LED1,LED2	79.003355	2	264.289989
1315733410	Semiconductor	Q21,Q22	22.463360	2	57.753076
1440038080	Integrated Circuit	U1	43.803003	1	85.184662
1440580EB0	Integrated Circuit	U12	43.803003	1	85.184662
14S4622700	Integrated Circuit	U13	43.803003	1	85.184662
14S5A12509	Integrated Circuit	U2	43.803003	1	85.184662
14S6325600	Integrated Circuit	U15	43.803003	1	85.184662
1654902036	Connection	CN2,CN3,CN4,CN5	16.184835	4	88.145664