

# APC-8122

## Reliability Prediction Report

### (MTBF)

Summary	Failure Rate: 15.275524 ppm MTBF: 65,464 Hours
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Issue date	Approval	Test Engineer
2010/06/18	Jansin Lee	Jessica Chou

## Reliability Prediction (MTBF)

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**I . Model Name:** TF-APC-8122-C1-1110

**II . Prediction Date:** Jun. 18, 2010

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

**IV . Predicted by:** Jessica Chou

**V . Equipment:** Relx 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-APC-8122-C1-1110

(without component temperature rise and not include FAN, power supply, LCD, Inverter, Touch screen)

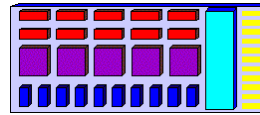
- Failure Rate: 15.275524 ppm
- MTBF: 65,464 Hours

Below components MTBF value were provided by the suppliers:

- FAN ((TF)Fan.12V.60\*60\*15mm.SUNON.KDE1206PHV2-MS.AR.GN.For Tiger)  
MTBF: 606,120 hours
- Power supply ((TF)SPS.ATX.100-240V.250W.AC with PFC.SPI(全漢).FSP250-50PLB)  
MTBF: 100,000 hours/25 degree
- LCD ((TF)TFT LCD.12".TOSHIBA.LTD121C30S.800\*600.18 Bits TTL)  
MTBF: 50,000 hours
- Inverter ((TF)INVERTER.DC TO AC.TOSHIBA.12" 2LAMP.華元.QF63V2.02(S))  
MTBF: 108,817 hours
- Touch ((TF) Touch Screen.12".5 Wire.Resistive.ABON.AT-121F-5RB-018N-16R-150FH)  
Knock Test: 35,000,000 times

### AAEON Reliability Prediction Report

**Part Number** System  
**Reference Des**  
**Date** 06. 18, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description** Top-level assembly  
**File Name** TF-APC-8122HTT-C1-1110.RPJ  
**Time** 10:19 上午  
**Failure Rate** 15.275524  
**MTBF** 65,464

Assembly Name	Part Number	Model	Method	Environment	Duty Cycle	Qty	Failure Rate	MTBF
TF-APC-8122HTT-C1-1110	System	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled	100.00	1.00	15.28	65464.20
Transfer Board TB-901A	969B901A30	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	.05	18700310.89
I/O Board Y009-A11	9697Y00905-DIP	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	2.28	439393.09
M/B PCM-8500-A11	969785000U	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	12.14	82344.28
Riser Card Board PER-1105	9697110502	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	.45	2221141.99
Card Reader C200-A12	9697C20012-DIP	Telcordia Issue 1	Method I Case 3	GF, GU - Ground Fixed, Uncontrolled		1.00	.35	2842288.08



**AAEON Reliability Prediction Report**

**Part Number** 9697Y00905-DIP  
**Reference Des**  
**Date** 06. 18, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00

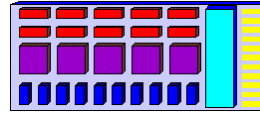


**Description**  
**File Name** TF-APC-8122HTT-C1-1110.RPJ  
**Time** 10:19 上午  
**Failure Rate** 2.275866  
**MTBF** 439,393

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
121230603E	Inductor	L1,L2,L3,L4	Telcordia Issue 1	Level I		4.00	0.002268	.3986	440974090.03
165322020E	Connection	CN8	Telcordia Issue 1	Level I		1.00	0.022759	1.0000	43939013.54
1654930330	Connection	CN31	Telcordia Issue 1	Level I		1.00	0.017069	.7500	58585351.38
1174510180	Capacitor	CP1,CP10,CP11,CP12, CP13,CP14,CP2,CP3, CP4,CP5,CP6,CP7, CP8,CP9	Telcordia Issue 1	Level I		14.00	0.005466	3.3622	182961702.19
1174510380	Capacitor	CP15	Telcordia Issue 1	Level I		1.00	0.005466	.2402	182961702.19
1122701680	Capacitor	C1,C16,C17,C21,C22, C27,C28,C29,C30, C31,C32,C33,C37, C39,C4,C40,C42,C43, C45,C47,C49,C50, C51,C52,C54,C6	Telcordia Issue 1	Level I		26.00	0.004535	5.1814	220487045.01
1129701080	Capacitor	C11,C3,C9	Telcordia Issue 1	Level I		3.00	0.005466	.7205	182961702.19
1189610186	Capacitor	C38,C5,C7	Telcordia Issue 1	Level I		3.00	0.004535	.5978	220487045.01
1124410180	Capacitor	C12,C91	Telcordia Issue 1	Level I		2.00	0.004535	.3986	220487045.01
1124510280	Capacitor	C13,C14	Telcordia Issue 1	Level I		2.00	0.004535	.3986	220487045.01
1121733380	Capacitor	C20	Telcordia Issue 1	Level I		1.00	0.004535	.1993	220487045.01
1122501780	Capacitor	C23,C34	Telcordia Issue 1	Level I		2.00	0.004535	.3986	220487045.01
1124410080	Capacitor	C24	Telcordia Issue 1	Level I		1.00	0.004535	.1993	220487045.01
1124405080	Capacitor	C25,C26	Telcordia Issue 1	Level I		2.00	0.004535	.3986	220487045.01
1301005441	Semiconductor	D1,D2,D3,D4,D5,D6, D7,D8,D9	Telcordia Issue 1	Level I		9.00	0.027212	10.7613	36747840.84
1301400640	Semiconductor	D10,D11	Telcordia Issue 1	Level I		2.00	0.023881	2.0986	41874327.58
1752001500	Miscellaneous	F1	Telcordia Issue 1	Level I		1.00	0.003000	.1318	333333333.33
1304101340	Semiconductor	LED1	Telcordia Issue 1	Level I		1.00	0.004877	.2143	205063180.81
1213103008	Inductor	LN1,LN2	Telcordia Issue 1	Level I		2.00	0.002268	.1993	440974090.03
105A700003	Resistor	L10,L11,L13,L14, L17,L19,L20,L21, L22,L23,L24,L25, L26,L27,L28,L29,L5, L6,L7,L9,R12,R13, R24	Telcordia Issue 1	Level I		23.00	0.002268	2.2918	440974090.03
121230805L	Inductor	L12,L15,L16,L18, L30,L31,L38,L39,L8	Telcordia Issue 1	Level I		9.00	0.002268	.8968	440974090.03
1211104763	Inductor	L32,L33,L34	Telcordia Issue 1	Level I		3.00	0.086173	11.3591	11604581.32
1310390411	Semiconductor	Q1,Q2,Q3	Telcordia Issue 1	Level I		3.00	0.023881	3.1479	41874327.58
1540747282	Resistor	RN1	Telcordia Issue 1	Level I		1.00	0.006246	.2744	160102772.00
1540700080	Resistor	RN2,RN3,RN4,RN6	Telcordia Issue 1	Level I		4.00	0.012492	2.1956	80051386.00
1540775080	Resistor	RN5	Telcordia Issue 1	Level I		1.00	0.006246	.2744	160102772.00

### AAEON Reliability Prediction Report

**Part Number** 9697Y00905-DIP  
**Reference Des**  
**Date** 06. 18, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00

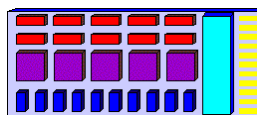


**Description**  
**File Name** TF-APC-8122HTT-C1-1110.RPJ  
**Time** 10:19 上午  
**Failure Rate** 2.275866  
**MTBF** 439,393

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A701033	Resistor	R1,R10,R14,R15,R19, R20,R27,R28,R7,R9	Telcordia Issue 1	Level I		10.00	0.002268	.9964	440974090.03
105A710053	Resistor	R2	Telcordia Issue 1	Level I		1.00	0.013606	.5978	73495681.67
105A703323	Resistor	R3	Telcordia Issue 1	Level I		1.00	0.002268	.0996	440974090.03
105A502033	Resistor	R4,R5	Telcordia Issue 1	Level I		2.00	0.002268	.1993	440974090.03
105A510003	Resistor	R33,R34,R39,R40,R6	Telcordia Issue 1	Level I		5.00	0.002268	.4982	440974090.03
105A722003	Resistor	R16,R26,R31	Telcordia Issue 1	Level I		3.00	0.002268	.2989	440974090.03
105A505623	Resistor	R17	Telcordia Issue 1	Level I		1.00	0.002268	.0996	440974090.03
105A500233	Resistor	R18,R21,R25,R29, R30,R32	Telcordia Issue 1	Level I		6.00	0.002268	.5978	440974090.03
105A747003	Resistor	R23	Telcordia Issue 1	Level I		1.00	0.002268	.0996	440974090.03
105A702233	Resistor	R35	Telcordia Issue 1	Level I		1.00	0.002268	.0996	440974090.03
105A733003	Resistor	R36,R37,R38,R41	Telcordia Issue 1	Level I		4.00	0.002268	.3986	440974090.03
14S4050100	Integrated Circuit	U1	Telcordia Issue 1	Level I		1.00	0.026183	1.1504	38193355.79
14S4138100	Integrated Circuit	U2	Telcordia Issue 1	Level I		1.00	0.059366	2.6085	16844654.92
14S6334610	Integrated Circuit	U3	Telcordia Issue 1	Level I		1.00	0.022943	1.0081	43586356.53
14S5705300	Integrated Circuit	U4	Telcordia Issue 1	Level I		1.00	0.026183	1.1504	38193355.79
14S5207402	Integrated Circuit	U5	Telcordia Issue 1	Level I		1.00	0.025392	1.1157	39383064.65
14S4636400	Integrated Circuit	U6	Telcordia Issue 1	Level I		1.00	0.059366	2.6085	16844654.92
11E9647680	Capacitor	C35,C36	Telcordia Issue 1	Level I		2.00	0.004535	.3986	220487045.01
11E9510050	Capacitor	C10,C2,C41,C44,C46, C48,C53,C8	Telcordia Issue 1	Level I		8.00	0.004535	1.5943	220487045.01
1654040002	Connection	CN23	Telcordia Issue 1	Level I		1.00	0.022759	1.0000	43939013.54
1655302020	Connection	J6,J8	Telcordia Issue 1	Level I		2.00	0.001138	.1000	878780270.71
1653300102	Connection	CN2,J5,JP4,JP5,JP6	Telcordia Issue 1	Level I		5.00	0.001138	.2500	878780270.71
1653204204	Connection	CN1	Telcordia Issue 1	Level I		1.00	0.004552	.2000	219695067.68
1653003101	Connection	CN2,JP4	Telcordia Issue 1	Level I		2.00	0.001707	.1500	585853513.81
1655304020	Connection	CN30	Telcordia Issue 1	Level I		1.00	0.002276	.1000	439390135.35
165321320B	Connection	CN6	Telcordia Issue 1	Level I		1.00	0.014793	.6500	67598482.36
1653208209	Connection	CN7	Telcordia Issue 1	Level I		1.00	0.009104	.4000	109847533.84
1654543500	Connection	CN10,CN13,CN9	Telcordia Issue 1	Level I		1.00	0.024466	1.0750	40873500.96
1654903300	Connection	CN16	Telcordia Issue 1	Level I		1.00	0.022759	1.0000	43939013.54
1652508201	Connection	CN17,CN18	Telcordia Issue 1	Level I		2.00	0.004552	.4000	219695067.68
1653004200	Connection	CN24	Telcordia Issue 1	Level I		1.00	0.004552	.2000	219695067.68
1655003000	Connection	CN26	Telcordia Issue 1	Level I		1.00	0.001707	.0750	585853513.81
1653008201	Connection	CN27	Telcordia Issue 1	Level I		1.00	0.009104	.4000	109847533.84
1653210222	Connection	CN29	Telcordia Issue 1	Level I		1.00	0.011379	.5000	87878027.07
1112610190	Capacitor	C19	Telcordia Issue 1	Level I		1.00	0.042673	1.8750	23434140.55

### AAEON Reliability Prediction Report

**Part Number** 9697Y00905-DIP  
**Reference Des**  
**Date** 06. 18, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description**  
**File Name** TF-APC-8122HTT-C1-1110.RPJ  
**Time** 10:19 上午  
**Failure Rate** 2.275866  
**MTBF** 439,393

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1653003100	Connection	JP1,JP2,JP3	Telcordia Issue 1	Level I		3.00	0.001707	.2250	585853513.81
1653002101	Connection	J5,JP5,JP6	Telcordia Issue 1	Level I		3.00	0.001138	.1500	878780270.71
1656304022	Connection	J2	Telcordia Issue 1	Level I		1.00	0.002276	.1000	439390135.35
1655308021	Connection	J3,J4	Telcordia Issue 1	Level I		2.00	0.004552	.4000	219695067.68
1652915200	Connection	PHONE1	Telcordia Issue 1	Level I		1.00	0.213364	9.3751	4686828.11
1654425500	Connection	PT2	Telcordia Issue 1	Level I		1.00	0.014224	.6250	70302421.66
1654515309	Connection	PT2	Telcordia Issue 1	Level I		1.00	0.008535	.3750	117170702.76
165440910E	Connection	PT2	Telcordia Issue 1	Level I		1.00	0.005121	.2250	195284504.60
1601632R02	Connection	S1	Telcordia Issue 1	Level I		1.00	0.022759	1.0000	43939013.54
1231316053	Miscellaneous	Y1	Telcordia Issue 1	Level I		1.00	0.150000	6.5909	6666666.67
165322020G	Connection	CN20	Telcordia Issue 1	Level I		1.00	0.022759	1.0000	43939013.54
1653205208	Connection	CN28	Telcordia Issue 1	Level I		1.00	0.005690	.2500	175756054.14
1653300100	Connection	JP1,JP2,JP3	Telcordia Issue 1	Level I		3.00	0.001138	.1500	878780270.71
1112647100	Capacitor	C18	Telcordia Issue 1	Level I		1.00	0.071121	3.1250	14060484.33
1653005200	Connection	CN33	Telcordia Issue 1	Level I		1.00	0.022759	1.0000	43939013.54
1653222200	Connection	CN21	Telcordia Issue 1	Level I		1.00	0.025035	1.1000	39944557.76
1655305020	Connection	CN25	Telcordia Issue 1	Level I		1.00	0.002845	.1250	351512108.28
1653205223	Connection	CN11,CN12,CN3,CN4, CN5	Telcordia Issue 1	Level I		5.00	0.005690	1.2500	175756054.14
1653207222	Connection	CN14,CN15	Telcordia Issue 1	Level I		2.00	0.007966	.7000	125540038.67
1654612307	Connection	PT1	Telcordia Issue 1	Level I		1.00	0.001138	.0500	878780270.71
1654808309	Connection	USB1,USB2	Telcordia Issue 1	Level I		2.00	0.001138	.1000	878780270.71



**AAEON Reliability Prediction Report**

**Part Number** 969785000U  
**Reference Des**  
**Date** 06. 18, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description**  
**File Name** TF-APC-8122HTT-C1-1110.RPJ  
**Time** 10:19 上午  
**Failure Rate** 12.144134  
**MTBF** 82,344

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1315993311	Semiconductor	Q31	Telcordia Issue 1	Level I		1.00	0.159207	1.3110	6281149.14
121230805X	Inductor	L10,L100,L101,L102, L103,L11,L112,L14, L17,L18,L21,L22, L23,L41,L42,L44, L67,L7,L8,L84,L89, L9,L90,L91,L92,L93, L94,L95,L96,L97, L98,L99	Telcordia Issue 1	Level I		32.00	0.002268	.5975	440974090.03
1315700214	Semiconductor	Q2,Q22,Q24,Q25,Q28, Q3,Q30,Q36,Q37,Q38, Q39	Telcordia Issue 1	Level I		11.00	0.079603	7.2104	12562298.27
14S2533100	Integrated Circuit	Q35	Telcordia Issue 1	Level I		1.00	0.059366	.4888	16844654.92
1189633081	Capacitor	C250,C254,C259,C40, C41,C59,EC13	Telcordia Issue 1	Level I		7.00	0.004535	.2614	220487045.01
1189615187	Capacitor	C204,C205,C43,C44, C495,C498,C500, C504,C644	Telcordia Issue 1	Level I		9.00	0.004535	.3361	220487045.01
1301005440	Semiconductor	D1,D15,D22	Telcordia Issue 1	Level I		3.00	0.023881	.5899	41874327.58
121230603S	Inductor	L110,L111,L24,L25, L26,L27,L28,L29, L30,L66	Telcordia Issue 1	Level I		10.00	0.002268	.1867	440974090.03
121230603U	Inductor	L31,L32,L33,L34, L35,L36,L38,L43, L53	Telcordia Issue 1	Level I		9.00	0.002268	.1681	440974090.03
1314108610	Integrated Circuit	Q20	Telcordia Issue 1	Level I		1.00	0.059366	.4888	16844654.92
14S3110300	Integrated Circuit	U17	Telcordia Issue 1	Level I		1.00	0.059366	.4888	16844654.92
14S4871203	Integrated Circuit	U18,U25	Telcordia Issue 1	Level I		2.00	0.026183	.4312	38193355.79
14S4048500	Integrated Circuit	U22,U24	Telcordia Issue 1	Level I		2.00	0.059366	.9777	16844654.92
1213906008	Inductor	NL1,NL2,NL3,NL4, NL5,NL6,NL7,NL8, NL9	Telcordia Issue 1	Level I		9.00	0.002268	.1681	440974090.03
1174510180	Capacitor	CP1,CP10,CP11,CP12, CP13,CP14,CP2,CP3, CP4,CP5,CP6,CP7, CP8,CP9	Telcordia Issue 1	Level I		14.00	0.005466	.6301	182961702.19
1124522180	Capacitor	C37	Telcordia Issue 1	Level I		1.00	0.004535	.0373	220487045.01
1129701080	Capacitor	C209,C238,C278, C280,C284,C286, C288,C289,C294, C295,C302,C304, C305,C309,C311, C314,C316,C317, C320,C321,C326,C38, C417,C457,C497, C499,C501,C505, C629,C630,C634, C647	Telcordia Issue 1	Level I		32.00	0.005466	1.4402	182961702.19

### AAEON Reliability Prediction Report

**Part Number** 969785000U  
**Reference Des**  
**Date** 06. 18, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description**  
**File Name** TF-APC-8122HTT-C1-1110.RPJ  
**Time** 10:19 上午  
**Failure Rate** 12.144134  
**MTBF** 82,344

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1129701690	Capacitor	C100,C103,C105, C106,C107,C108, C109,C110,C111, C119,C131,C133, C134,C135,C136, C137,C138,C139, C140,C141,C142, C143,C144,C145, C146,C147,C148, C149,C150,C151, C152,C153,C154, C155,C156,C157, C158,C159,C160,	Telcordia Issue 1	Level I		252.00	0.004535	9.4113	220487045.01
1129747650	Capacitor	C130,C132,C179, C180,C181,C246, C369,C45,C623,C625	Telcordia Issue 1	Level I		10.00	0.005466	.4501	182961702.19
1121547661	Capacitor	C494	Telcordia Issue 1	Level I		1.00	0.004535	.0373	220487045.01
1129710090	Capacitor	C118,C213,C214, C554,C556,C560, C562,C563,C575, C578	Telcordia Issue 1	Level I		10.00	0.004535	.3735	220487045.01
1121722650	Capacitor	C210,C488,C489, C490	Telcordia Issue 1	Level I		4.00	0.005466	.1800	182961702.19
1122747880	Capacitor	C211,C287	Telcordia Issue 1	Level I		2.00	0.005466	.0900	182961702.19
1124433090	Capacitor	C249,C515,C521, C526	Telcordia Issue 1	Level I		4.00	0.004535	.1494	220487045.01
1129710390	Capacitor	C253,C257,C262, C272,C273,C274, C275,C276,C277, C322,C327	Telcordia Issue 1	Level I		11.00	0.004535	.4108	220487045.01
1124547190	Capacitor	C258,C263,C292, C293,C297,C298, C300,C301,C303, C306,C307,C308, C315,C318,C319, C323,C325,C328, C577	Telcordia Issue 1	Level I		19.00	0.004535	.7096	220487045.01
1124527190	Capacitor	C282,C283,C518, C524,C530	Telcordia Issue 1	Level I		5.00	0.004535	.1867	220487045.01
1124410190	Capacitor	C299,C390,C519, C525,C529,C533	Telcordia Issue 1	Level I		6.00	0.004535	.2241	220487045.01
1129722091	Capacitor	C374,C375,C522, C523,C555,C559	Telcordia Issue 1	Level I		6.00	0.004535	.2241	220487045.01
1129610260	Capacitor	C378	Telcordia Issue 1	Level I		1.00	0.004535	.0373	220487045.01
1122722780	Capacitor	C553,C558	Telcordia Issue 1	Level I		2.00	0.004535	.0747	220487045.01
1301005441	Semiconductor	D16,D17,D18	Telcordia Issue 1	Level I		3.00	0.027212	.6722	36747840.84
1301005442	Semiconductor	D19,D20	Telcordia Issue 1	Level I		2.00	0.023881	.3933	41874327.58



### AAEON Reliability Prediction Report

**Part Number** 969785000U  
**Reference Des**  
**Date** 06. 18, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description**  
**File Name** TF-APC-8122HTT-C1-1110.RPJ  
**Time** 10:19 上午  
**Failure Rate** 12.144134  
**MTBF** 82,344

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A700009	Resistor	R207,R23,R29,R3, R347,R354,R358, R362,R371,R372, R444,R445,R447, R448,R466,R589, R590,R591,R592, R593,R594,R595, R596,R597,R598, R599,R600,R601, R604,R617,R628, R650,R654	Telcordia Issue 1	Level I		33.00	0.002268	.6162	440974090.03
105A549969	Resistor	R143,R144,R49,R57, R58,R59,R60,R61, R62,R8	Telcordia Issue 1	Level I		10.00	0.002268	.1867	440974090.03
105A515003	Resistor	R13,R19,R360,R45, R9	Telcordia Issue 1	Level I		5.00	0.002268	.0934	440974090.03
105A530003	Resistor	R10,R221	Telcordia Issue 1	Level I		2.00	0.002268	.0373	440974090.03
105A510009	Resistor	R11,R341,R47,R48, R482,R50,R545	Telcordia Issue 1	Level I		7.00	0.002268	.1307	440974090.03
105A561963	Resistor	R12,R151,R159	Telcordia Issue 1	Level I		3.00	0.002268	.0560	440974090.03
105A568003	Resistor	R14	Telcordia Issue 1	Level I		1.00	0.002268	.0187	440974090.03
105A539263	Resistor	R17	Telcordia Issue 1	Level I		1.00	0.002268	.0187	440974090.03
105A507509	Resistor	R25,R26,R343,R344, R345,R346,R416, R418,R422,R424, R441,R442,R443	Telcordia Issue 1	Level I		13.00	0.002268	.2428	440974090.03
105A527463	Resistor	R27	Telcordia Issue 1	Level I		1.00	0.002268	.0187	440974090.03
105A733009	Resistor	R204,R28,R364,R435, R483,R655,R82	Telcordia Issue 1	Level I		7.00	0.002268	.1307	440974090.03
105A708229	Resistor	R157,R160,R161, R162,R163,R164, R165,R166,R169, R170,R171,R172, R173,R174,R175, R176,R177,R178, R179,R180,R181, R182,R185,R186, R189,R190,R192, R195,R199,R203, R214,R216,R217, R218,R30,R34,R425, R426,R427,R428,	Telcordia Issue 1	Level I		45.00	0.002268	.8403	440974090.03
105A700103	Resistor	R31,R35	Telcordia Issue 1	Level I		2.00	0.002268	.0373	440974090.03
105A513703	Resistor	R32	Telcordia Issue 1	Level I		1.00	0.002268	.0187	440974090.03



### AAEON Reliability Prediction Report

**Part Number** 969785000U  
**Reference Des**  
**Date** 06. 18, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description**  
**File Name** TF-APC-8122HTT-C1-1110.RPJ  
**Time** 10:19 上午  
**Failure Rate** 12.144134  
**MTBF** 82,344

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A705609	Resistor	R1,R100,R103,R105, R107,R108,R109, R110,R111,R112, R115,R116,R123, R124,R125,R126, R127,R128,R129, R130,R133,R134, R137,R138,R141, R142,R582,R89,R91, R93,R96,R99	Telcordia Issue 1	Level I		32.00	0.002268	.5975	440974090.03
105A704729	Resistor	R146,R193,R194, R215,R238,R239, R242,R243,R246, R247,R251,R252, R258,R259,R260, R261,R265,R268, R349,R350,R351, R352,R353,R356, R359,R361,R366, R367,R368,R369, R370,R373,R379, R434,R450,R451, R474,R475,R480,	Telcordia Issue 1	Level I		59.00	0.002268	1.1017	440974090.03
105A706809	Resistor	R147,R148,R149, R150,R152,R153, R154,R155,R156	Telcordia Issue 1	Level I		9.00	0.002268	.1681	440974090.03
105A702729	Resistor	R183,R187,R198, R201,R249,R253	Telcordia Issue 1	Level I		6.00	0.002268	.1120	440974090.03
105A702239	Resistor	R535,R538,R546	Telcordia Issue 1	Level I		3.00	0.002268	.0560	440974090.03
105A522663	Resistor	R202	Telcordia Issue 1	Level I		1.00	0.002268	.0187	440974090.03
105A702203	Resistor	R206,R409,R454	Telcordia Issue 1	Level I		3.00	0.002268	.0560	440974090.03
105A710053	Resistor	R210,R211,R363	Telcordia Issue 1	Level I		3.00	0.013606	.3361	73495681.67
105A747009	Resistor	R220,R222,R223, R452,R453,R481	Telcordia Issue 1	Level I		6.00	0.002268	.1120	440974090.03
105A501003	Resistor	R235	Telcordia Issue 1	Level I		1.00	0.002268	.0187	440974090.03
105A704703	Resistor	R236,R515,R516	Telcordia Issue 1	Level I		3.00	0.002268	.0560	440974090.03
105A500233	Resistor	R240,R245,R396	Telcordia Issue 1	Level I		3.00	0.002268	.0560	440974090.03
105A710039	Resistor	R241,R244,R652	Telcordia Issue 1	Level I		3.00	0.002268	.0560	440974090.03
105A503033	Resistor	R248,R257,R460	Telcordia Issue 1	Level I		3.00	0.002268	.0560	440974090.03
105A701533	Resistor	R254,R255	Telcordia Issue 1	Level I		2.00	0.002268	.0373	440974090.03
105A702223	Resistor	R339	Telcordia Issue 1	Level I		1.00	0.002268	.0187	440974090.03
105A561903	Resistor	R335	Telcordia Issue 1	Level I		1.00	0.002268	.0187	440974090.03

### AAEON Reliability Prediction Report

**Part Number** 969785000U  
**Reference Des**  
**Date** 06. 18, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description**  
**File Name** TF-APC-8122HTT-C1-1110.RPJ  
**Time** 10:19 上午  
**Failure Rate** 12.144134  
**MTBF** 82,344

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A554903	Resistor	R336	Telcordia Issue 1	Level I		1.00	0.002268	.0187	440974090.03
105A512103	Resistor	R342	Telcordia Issue 1	Level I		1.00	0.002268	.0187	440974090.03
1059704761	Resistor	R377,R402	Telcordia Issue 1	Level I		2.00	0.002268	.0373	440974090.03
105A556003	Resistor	R407,R411	Telcordia Issue 1	Level I		2.00	0.002268	.0373	440974090.03
105A511503	Resistor	R408,R412	Telcordia Issue 1	Level I		2.00	0.002268	.0373	440974090.03
105A514003	Resistor	R421	Telcordia Issue 1	Level I		1.00	0.002268	.0187	440974090.03
105A702423	Resistor	R423	Telcordia Issue 1	Level I		1.00	0.002268	.0187	440974090.03
105A537463	Resistor	R438,R439,R440	Telcordia Issue 1	Level I		3.00	0.002268	.0560	440974090.03
105A504723	Resistor	R455	Telcordia Issue 1	Level I		1.00	0.002268	.0187	440974090.03
105A506823	Resistor	R459,R463	Telcordia Issue 1	Level I		2.00	0.002268	.0373	440974090.03
105A523233	Resistor	R461	Telcordia Issue 1	Level I		1.00	0.002268	.0187	440974090.03
105A512033	Resistor	R400,R462	Telcordia Issue 1	Level I		2.00	0.002268	.0373	440974090.03
105A505633	Resistor	R469,R470	Telcordia Issue 1	Level I		2.00	0.002268	.0373	440974090.03
105A704733	Resistor	R472,R473,R477	Telcordia Issue 1	Level I		3.00	0.002268	.0560	440974090.03
1651608990	Connection	U1	Telcordia Issue 1	Level I		1.00	0.001138	.0094	878780270.71
14S3020101	Integrated Circuit	U7	Telcordia Issue 1	Level I		1.00	0.059366	.4888	16844654.92
14S5A00700	Integrated Circuit	U9	Telcordia Issue 1	Level I		1.00	0.025245	.2079	39611408.47
1651203291	Connection	U10	Telcordia Issue 1	Level I		1.00	0.018207	.1499	54923766.92
14S3065001	Integrated Circuit	U11	Telcordia Issue 1	Level I		1.00	0.026183	.2156	38193355.79
14S1488000	Integrated Circuit	U12	Telcordia Issue 1	Level I		1.00	0.059366	.4888	16844654.92
14S4256200	Inductor	U15	Telcordia Issue 1	Level I		1.00	0.136062	1.1204	7349568.17
14S6334610	Integrated Circuit	U16	Telcordia Issue 1	Level I		1.00	0.022943	.1889	43586356.53
14S4021310	Integrated Circuit	U20,U21,U26,U27	Telcordia Issue 1	Level I		4.00	0.059366	1.9554	16844654.92
14S5A01400	Integrated Circuit	U23,U40,U41	Telcordia Issue 1	Level I		3.00	0.059366	1.4665	16844654.92
14S9660200	Integrated Circuit	U29	Telcordia Issue 1	Level I		1.00	0.026183	.2156	38193355.79
14S9660100	Integrated Circuit	U30	Telcordia Issue 1	Level I		1.00	0.059366	.4888	16844654.92
14S4650100	Integrated Circuit	U31	Telcordia Issue 1	Level I		1.00	0.059366	.4888	16844654.92
14S4701700	Integrated Circuit	U35	Telcordia Issue 1	Level I		1.00	0.026183	.2156	38193355.79
14S3020100	Integrated Circuit	U36	Telcordia Issue 1	Level I		1.00	0.059366	.4888	16844654.92
14S5900600	Integrated Circuit	U39	Telcordia Issue 1	Level I		1.00	0.070411	.5798	14202225.56
14S4070610	Integrated Circuit	U42	Telcordia Issue 1	Level I		1.00	0.059366	.4888	16844654.92
14S5812500	Integrated Circuit	U43,U46	Telcordia Issue 1	Level I		2.00	0.025195	.4149	39690712.96
1231332721	Miscellaneous	Y2	Telcordia Issue 1	Level I		1.00	0.150000	1.2352	6666666.67
14S4280106	Integrated Circuit	U8	Telcordia Issue 1	Level I		1.00	0.026183	.2156	38193355.79
14S4284505	Integrated Circuit	U2	Telcordia Issue 1	Level I		1.00	0.026183	.2156	38193355.79
1653005202	Connection	CN18,CN26	Telcordia Issue 1	Level I		2.00	0.142243	2.3426	7030242.17

### AAEON Reliability Prediction Report

**Part Number** 969785000U  
**Reference Des**  
**Date** 06. 18, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description**  
**File Name** TF-APC-8122HTT-C1-1110.RPJ  
**Time** 10:19 上午  
**Failure Rate** 12.144134  
**MTBF** 82,344

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1129610051	Capacitor	C1,C10,C101,C102, C104,C11,C12,C13, C14,C15,C16,C17, C18,C19,C2,C20, C200,C201,C202, C203,C21,C22,C23, C24,C241,C25,C26, C265,C267,C27,C28, C29,C3,C30,C31, C310,C312,C32,C33, C34,C35,C36,C364, C383,C4,C472,C473, C474,C475,C476,	Telcordia Issue 1	Level I		83.00	0.004535	3.0998	220487045.01
1315700310	Semiconductor	Q12,Q14,Q16	Telcordia Issue 1	Level I		3.00	0.079603	1.9665	12562298.27
1315600311	Semiconductor	Q11,Q13,Q15	Telcordia Issue 1	Level I		3.00	0.159207	3.9329	6281149.14
105A700003	Resistor	L109,R395,R401, R588	Telcordia Issue 1	Level I		4.00	0.002268	.0747	440974090.03
1653003202	Connection	JP2	Telcordia Issue 1	Level I		1.00	0.003414	.0281	292926756.90
1124405090	Capacitor	C116,C117	Telcordia Issue 1	Level I		2.00	0.004535	.0747	220487045.01
1540733181	Resistor	RN43	Telcordia Issue 1	Level I		1.00	0.006246	.0514	160102772.00
105A702229	Resistor	R262	Telcordia Issue 1	Level I		1.00	0.002268	.0187	440974090.03
1129701790	Capacitor	C244,C269,C296, C576,C579,C63,C68, C69,C72,C73	Telcordia Issue 1	Level I		10.00	0.004535	.3735	220487045.01
105A505109	Resistor	R15,R16,R18,R20, R24,R4,R479,R486, R493,R498,R5,R6,R7	Telcordia Issue 1	Level I		13.00	0.002268	.2428	440974090.03
105A510003	Resistor	L37,L39	Telcordia Issue 1	Level I		2.00	0.002268	.0373	440974090.03
121230603M	Inductor	L104,L105,L106, L107,L108	Telcordia Issue 1	Level I		5.00	0.002268	.0934	440974090.03
1129747090	Capacitor	C565,C566,C567, C568,C569,C570	Telcordia Issue 1	Level I		6.00	0.004535	.2241	220487045.01
1314512510	Integrated Circuit	U33	Telcordia Issue 1	Level I		1.00	0.059366	.4888	16844654.92
1654262300	Connection	CN23	Telcordia Issue 1	Level I		1.00	0.070552	.5810	14173875.33
1315231310	Semiconductor	Q21	Telcordia Issue 1	Level I		1.00	0.159207	1.3110	6281149.14
1189922180	Capacitor	C464,C465,C466, C467,C468,C469,C49, C53,C646	Telcordia Issue 1	Level I		9.00	0.004535	.3361	220487045.01
123131435B	Miscellaneous	Y1,Y5	Telcordia Issue 1	Level I		2.00	0.150000	2.4703	6666666.67
1231325058	Miscellaneous	Y4	Telcordia Issue 1	Level I		1.00	0.150000	1.2352	6666666.67
1314108312	Integrated Circuit	Q17	Telcordia Issue 1	Level I		1.00	0.059366	.4888	16844654.92
14S3128421	Integrated Circuit	U19	Telcordia Issue 1	Level I		1.00	0.059366	.4888	16844654.92
14S4630100	Integrated Circuit	U49	Telcordia Issue 1	Level I		1.00	0.059366	.4888	16844654.92



### AAEON Reliability Prediction Report

**Part Number** 969785000U  
**Reference Des**  
**Date** 06. 18, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description**  
**File Name** TF-APC-8122HTT-C1-1110.RPJ  
**Time** 10:19 上午  
**Failure Rate** 12.144134  
**MTBF** 82,344

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
105A702263	Resistor	R381,R394,R403, R646,R647,R648	Telcordia Issue 1	Level I		6.00	0.002268	.1120	440974090.03
1124556280	Capacitor	C461,C649	Telcordia Issue 1	Level I		2.00	0.004535	.0747	220487045.01
1122501780	Capacitor	C650,C651,C652	Telcordia Issue 1	Level I		3.00	0.004535	.1120	220487045.01
1300581940	Semiconductor	D2	Telcordia Issue 1	Level I		1.00	0.079603	.6555	12562298.27
105A501033	Resistor	R627	Telcordia Issue 1	Level I		1.00	0.002268	.0187	440974090.03
105A536513	Resistor	R632	Telcordia Issue 1	Level I		1.00	0.002268	.0187	440974090.03
1124510280	Capacitor	C654	Telcordia Issue 1	Level I		1.00	0.004535	.0373	220487045.01
14S4195710	Integrated Circuit	U47	Telcordia Issue 1	Level I		1.00	0.059366	.4888	16844654.92
1315970211	Semiconductor	F1,F2,F3	Telcordia Issue 1	Level I		3.00	0.159207	3.9329	6281149.14
14S4081110	Integrated Circuit	U48	Telcordia Issue 1	Level I		1.00	0.059366	.4888	16844654.92
105A548713	Resistor	R386,R387,R388, R389	Telcordia Issue 1	Level I		4.00	0.002268	.0747	440974090.03
11C1501080	Capacitor	C458,C459,C460, C463,C470,C484, C485,C486	Telcordia Issue 1	Level I		8.00	0.004535	.2988	220487045.01
1315230111	Semiconductor	Q27,Q29	Telcordia Issue 1	Level I		2.00	0.000000	.0000	.00
1211103670	Inductor	L85,L86,L87	Telcordia Issue 1	Level I		3.00	0.002268	.0560	440974090.03
1315422410	Semiconductor	U32	Telcordia Issue 1	Level I		1.00	0.079603	.6555	12562298.27
1653220208	Connection	CN1	Telcordia Issue 1	Level I		1.00	0.022759	.1874	43939013.54
1651592492	Connection	DIMM1	Telcordia Issue 1	Level I		1.00	0.104691	.8621	9551959.46
1653005201	Connection	CN3,CN4,CN5	Telcordia Issue 1	Level I		3.00	0.005690	.1406	175756054.14
1653007201	Connection	CN6,CN7	Telcordia Issue 1	Level I		2.00	0.007966	.1312	125540038.67
1652508204	Connection	CN11	Telcordia Issue 1	Level I		1.00	0.004552	.0375	219695067.68
1655305020	Connection	CN12	Telcordia Issue 1	Level I		1.00	0.002845	.0234	351512108.28
1653217202	Connection	CN13	Telcordia Issue 1	Level I		1.00	0.019345	.1593	51692957.10
1653220203	Connection	CN16	Telcordia Issue 1	Level I		1.00	0.022759	.1874	43939013.54
1653006100	Connection	CN15	Telcordia Issue 1	Level I		1.00	0.003414	.0281	292926756.90
1655003010	Connection	CN24,CN8	Telcordia Issue 1	Level I		2.00	0.001707	.0281	585853513.81
1653004205	Connection	CN17	Telcordia Issue 1	Level I		1.00	0.004552	.0375	219695067.68
1119622195	Capacitor	EC1,EC12,EC14,EC15, EC16,EC2	Telcordia Issue 1	Level I		6.00	0.042673	2.1083	23434140.55
1653004201	Connection	CN19	Telcordia Issue 1	Level I		1.00	0.004552	.0375	219695067.68
1653208200	Connection	CN22	Telcordia Issue 1	Level I		1.00	0.009104	.0750	109847533.84
1653005200	Connection	CN25	Telcordia Issue 1	Level I		1.00	0.022759	.1874	43939013.54
1653003100	Connection	JP1	Telcordia Issue 1	Level I		1.00	0.001707	.0141	585853513.81
1653003201	Connection	CN10,JP3,JP4*2,JP5	Telcordia Issue 1	Level I		5.00	0.001138	.0469	878780270.71
1655420020	Connection	CN27	Telcordia Issue 1	Level I		1.00	0.011379	.0937	87878027.07
1655404020	Connection	CN28	Telcordia Issue 1	Level I		1.00	0.002276	.0187	439390135.35
1653003101	Connection	JP7	Telcordia Issue 1	Level I		1.00	0.001707	.0141	585853513.81



### AAEON Reliability Prediction Report

**Part Number** 9697110502  
**Reference Des**  
**Date** 06. 18, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00

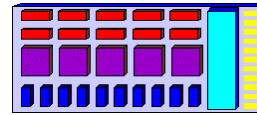


**Description**  
**File Name** TF-APC-8122HTT-C1-1110.RPJ  
**Time** 10:19 上午  
**Failure Rate** 0.450219  
**MTBF** 2,221,142

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1122701680	Capacitor	C1,C10,C11,C12,C14, C15,C2,C3,C4,C5,C6, C9	Telcordia Issue 1	Level I		12.00	0.004535	12.0886	220487045.01
105A700003	Resistor	R1	Telcordia Issue 1	Level I		1.00	0.002268	.5037	440974090.03
105A704723	Resistor	R2,R3,R4,R5,R6,R7	Telcordia Issue 1	Level I		6.00	0.002268	3.0221	440974090.03
11E2647650	Capacitor	C8	Telcordia Issue 1	Level I		1.00	0.004535	1.0074	220487045.01
11E9510050	Capacitor	C13,C7	Telcordia Issue 1	Level I		2.00	0.004535	2.0148	220487045.01
1111647190	Capacitor	EC1,EC5,EC6	Telcordia Issue 1	Level I		3.00	0.071121	47.3912	14060484.33
1119610291	Capacitor	EC2,EC3,EC4	Telcordia Issue 1	Level I		3.00	0.005466	3.6420	182961702.19
1654260207	Connection	PCI1,PCI2	Telcordia Issue 1	Level I		2.00	0.068276	30.3303	14646337.85

### AAEON Reliability Prediction Report

**Part Number** 9697C20012-DIP  
**Reference Des**  
**Date** 06. 18, 2010  
**Environment** GF, GU - Ground Fixed, Uncontrolled  
**Temp. (°C)** 25.00



**Description**  
**File Name** TF-APC-8122HTT-C1-1110.RPJ  
**Time** 10:19 上午  
**Failure Rate** 0.351829  
**MTBF** 2,842,288

Part Number	Category	Location	Calculation Model	Quality	Tem. Rise	Quantity	Failure Rate, Unit	Failure Rate, %	MTBF, Unit
1651948992	Connection	CON1	Telcordia Issue 1	Level I		1.00	0.001138	.3234	878780270.71
1654805300	Connection	CON2	Telcordia Issue 1	Level I		1.00	0.001138	.3234	878780270.71
1122701680	Capacitor	C10,C11,C12,C13, C14,C15,C2,C5,C7, C9	Telcordia Issue 1	Level I		10.00	0.004535	12.8910	220487045.01
1124420080	Capacitor	C6,C8	Telcordia Issue 1	Level I		2.00	0.004535	2.5782	220487045.01
1121701080	Capacitor	C1,C16,C3,C4	Telcordia Issue 1	Level I		4.00	0.004535	5.1564	220487045.01
1304101340	Semiconductor	D1,D2,D3,D4,D5,D6	Telcordia Issue 1	Level I		6.00	0.004877	8.3163	205063180.81
105A710033	Resistor	R1,R20	Telcordia Issue 1	Level I		2.00	0.002268	1.2891	440974090.03
105A547003	Resistor	R11,R2,R3,R4,R6,R7	Telcordia Issue 1	Level I		6.00	0.002268	3.8673	440974090.03
105A733033	Resistor	R5	Telcordia Issue 1	Level I		1.00	0.002268	.6445	440974090.03
105A700003	Resistor	R10,R15,R8,R9	Telcordia Issue 1	Level I		4.00	0.002268	2.5782	440974090.03
105A703933	Resistor	R12	Telcordia Issue 1	Level I		1.00	0.002268	.6445	440974090.03
105A571503	Resistor	R13	Telcordia Issue 1	Level I		1.00	0.002268	.6445	440974090.03
105A704733	Resistor	R16	Telcordia Issue 1	Level I		1.00	0.002268	.6445	440974090.03
105A701033	Resistor	R17,R19	Telcordia Issue 1	Level I		2.00	0.002268	1.2891	440974090.03
105A702223	Resistor	R18	Telcordia Issue 1	Level I		1.00	0.002268	.6445	440974090.03
14S4082600	Integrated Circuit	U2	Telcordia Issue 1	Level I		1.00	0.026183	7.4418	38193355.79
12313012A0	Miscellaneous	Y1	Telcordia Issue 1	Level I		1.00	0.150000	42.6343	6666666.67
14S6212700	Integrated Circuit	U3	Telcordia Issue 1	Level I		1.00	0.026183	7.4418	38193355.79
1653002211	Connection	CON4	Telcordia Issue 1	Level I		1.00	0.002276	.6469	439390135.35