

EPIC-QM77

Reliability Prediction Report (MTBF)

Summary	Failure Rate: 12264.090060 ppm MTBF: 88,778 Hours
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Issue date	Approval	Test Engineer
2013/07/04	Tom Lin	Danny Chen

Reliability Prediction (MTBF)

I . Model Name: EPIC-QM77

II . Prediction Date: July. 04, 2013

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

IV . Predicted by: Danny Chen

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:

EPIC-QM77 (9697QM77B4):

- Failure Rate: 12264.090060 ppm
- MTBF: 88,778 hurs

File Name: EPIC-QM77.rfp
Duty Cycle: 100
Calculation Model: Telcordia Issue 2
Method: Method I Case 3

Failure Rate: 11264.090060
MTBF (hrs): 88,778
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Assembly Name	Part Number	Ref Des	Quantity	Failure Rate	MTBF
EPIC-QM77	9697QM77B4		1	11264.090060	88,778

File Name: EPIC-QM77.rfp
Assembly: 9697QM77B4
Ref Des:
Description:

Failure Rate: 11264.090060
MTBF (hrs): 88,778
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1050500104	Resistor	R293,R303,R304, R305,R309,R314, R353,R406,R57,R85		2.547039	10	35079934.879747
1050501004	Resistor	R110,R127,R213, R239		2.547039	4	82309758.689546
1050501234	Resistor	R343		2.547039	1	282340674.079668
1050504724	Resistor	R109,R143,R248, R299,R30,R32,R33, R37,R42,R437,R44, R446,R457,R458, R459,R493,R494, R497,R500,R504, R511,R519,R522, R526,R527,R529, R540,R547,R558, R584,R800,R819		2.547039	32	11502702.879433
1050505124	Resistor	R350		2.547039	1	282340674.079668
1050505134	Resistor	R7,R8		2.547039	2	154078778.388085
1050505604	Resistor	R434		2.547039	1	282340674.079668
1050505633	Resistor	R52		2.547039	1	282340674.079668
1050510034	Resistor	R120,R125,R141, R151,R255,R330, R339,R359,R377, R382,R392,R393, R411,R498,R524, R586,R588,R660,R68, R71,R738,R744,R745, R771,R778,R796, R829		2.547039	27	13557741.157915
1050512724	Resistor	R548		2.547039	1	282340674.079668
1050514034	Resistor	R373,R383,R396, R400		2.547039	4	82309758.689546

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1050515034	Resistor	R815		2.547039	1	282340674.079668
1050516234	Resistor	R537		2.547039	1	282340674.079668
1050517424	Resistor	R433		2.547039	1	282340674.079668
1050519114	Resistor	R430,R440		2.547039	2	154078778.388085
1050520004	Resistor	R234,R254,R653		2.547039	3	107020754.986850
1050520034	Resistor	R340,R441,R812,R99		2.547039	4	82309758.689546
1050524004	Resistor	R768		2.547039	1	282340674.079668
1050524904	Resistor	R576,R577		2.547039	2	154078778.388085
1050527424	Resistor	R798		2.547039	1	282340674.079668
1050533034	Resistor	R703,R704		2.547039	2	154078778.388085
1050533214	Resistor	R45		2.547039	1	282340674.079668
1050539224	Resistor	R390		2.547039	1	282340674.079668
1050540224	Resistor	R46,R552		2.547039	2	154078778.388085
1050573214	Resistor	R580		2.547039	1	282340674.079668
1050584514	Resistor	R105		2.547039	1	282340674.079668
1050590964	Resistor	R634		2.547039	1	282340674.079668
1050593114	Resistor	R823		2.547039	1	282340674.079668
1050595314	Resistor	R106		2.547039	1	282340674.079668
1050704304	Resistor	R224,R662,R721		2.547039	3	107020754.986850
1054700289	Resistor	R733,R88,R97		2.547039	3	107020754.986850
1059520001	Resistor	R329,R91		2.547039	2	154078778.388085
1059700001	Resistor	R599,R64,R813		2.547039	3	107020754.986850
1059710001	Resistor	R146		2.547039	1	282340674.079668
105A500113	Resistor	R598		2.547039	1	282340674.079668
105A500139	Resistor	R129,R139,R175,R189,R201,R369,R370,R651,R711,R76		2.547039	10	35079934.879747
105A500239	Resistor	R294		2.547039	1	282340674.079668
105A501003	Resistor	R361,R439,R600,R814		2.547039	4	82309758.689546
105A501033	Resistor	R785		2.547039	1	282340674.079668

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105A501039	Resistor	R'121,R123, R185, R220,R296,R 317, R318,R355,R 375, R424,R426,R 453, R462,R472,R 474, R478,R518,R 545, R585,R595,R 753, R783,R93,R9 4		2.547039	24	15190138.820515
105A501053	Resistor	R149,R722		2.547039	2	154078778.388085
105A501139	Resistor	R571		2.547039	1	282340674.079668
105A501333	Resistor	R409		2.547039	1	282340674.079668
105A502039	Resistor	R221,R222,R 262, R275,R276,R 344, R395,R429,R 50,R51, R541,R544,R 608, R776,R810,R 824,R96		2.547039	17	21160422.299251
105A503039	Resistor	R194,R380,R 394,R49, R542,R543,R 816		2.547039	7	48991237.965885
105A503309	Resistor	R285,R384,R 385, R386,R419,R 420, R421,R422,R 423		2.547039	9	38754445.632391
105A505109	Resistor	R199,R208,R 241, R247,R256		2.547039	5	67008142.102588
105A506834	Resistor	R772		2.547039	1	282340674.079668
105A507509	Resistor	R435,R450,R 451, R452,R695		2.547039	5	67008142.102588
105A508233	Resistor	R119		2.547039	1	282340674.079668
105A510009	Resistor	R191,R206,R 288, R367,R818		2.547039	5	67008142.102588
105A510223	Resistor	R81		2.547039	1	282340674.079668

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105A511333	Resistor	R794		2.547039	1	282340674.079668
105A513009	Resistor	R207,R432,R665		2.547039	3	107020754.986850
105A514009	Resistor	R654		2.547039	1	282340674.079668
105A514723	Resistor	R556		2.547039	1	282340674.079668
105A515009	Resistor	R14,R15,R16,R659,R663,R669		2.547039	6	56573956.677649
105A518229	Resistor	R779,R780		2.547039	2	154078778.388085
105A518723	Resistor	R793,R799		2.547039	2	154078778.388085
105A519123	Resistor	R755,R756		2.547039	2	154078778.388085
105A522663	Resistor	R764		2.547039	1	282340674.079668
105A523713	Resistor	R188		2.547039	1	282340674.079668
105A525563	Resistor	R647		2.547039	1	282340674.079668
105A528723	Resistor	R697,R698,R786,R787		2.547039	4	82309758.689546
105A530113	Resistor	R484		2.547039	1	282340674.079668
105A537463	Resistor	R165		2.547039	1	282340674.079668
105A549919	Resistor	R38,R520,R521,R617		2.547039	4	82309758.689546
105A549969	Resistor	R187,R572		2.547039	2	154078778.388085
105A553629	Resistor	R770		2.547039	1	282340674.079668
105A575009	Resistor	R574,R628		2.547039	2	154078778.388085
105A580623	Resistor	R108,R402		2.547039	2	154078778.388085
105A590923	Resistor	R742,R743		2.547039	2	154078778.388085
105A700003	Resistor	R107,R132,R134,R158,R164,R270,R289,R324,R332,R333,R334,R335,R336,R337,R338,R342,R348,R349,R363,R404,R455,R509,R73,R748,R781,R789,R808,R92,R95		2.547039	29	12652760.276502

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105A700009	Resistor	R1,R10,R104 ,R11, R111,R116,R 117, R118,R12,R1 26,R133, R148,R152,R 153, R154,R155,R 156, R157,R163,R 166, R167,R174,R 176,R18, R181,R186,R 192,R2, R20,R202,R2 03,R204, R210,R218,R 223, R240,R245,R 253, R261,R264,R 265, R271,R284,R 295,		2.547039	156	2443022.396642
105A700139	Resistor	R135,R169,R 17,R198, R212,R214,R 226, R227,R230,R 282, R354,R403,R 442, R503,R534,R 54,R568, R60,R609,R6 1,R611, R618,R62,R6 38,R650, R675,R694,R 709, R710,R72,R7 20,R806, R807		2.547039	33	11164784.962504
105A701003	Resistor	R233,R237		2.547039	2	154078778.388085
105A701009	Resistor	R581,R670,R 84		2.547039	3	107020754.986850

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105A701039	Resistor	R103,R113,R128, R140,R142,R145, R150,R160,R170, R171,R197,R21, R215,R228,R235,R238, R246,R252,R263, R266,R272,R273, R274,R278,R279, R280,R281,R286,R29, R301,R302,R306, R307,R31,R312,R316, R325,R39,R40,R43, R48,R483,R485,R		2.547039	84	4489333.067020
105A701059	Resistor	R313,R644,R646,R79, R80		2.547039	5	67008142.102588
105A701069	Resistor	R752		2.547039	1	282340674.079668
105A702209	Resistor	R692,R696,R746, R747		2.547039	4	82309758.689546
105A702229	Resistor	R124,R161,R168, R172,R178,R179, R183,R190,R193, R195,R196,R205, R217,R219,R231, R232,R243,R258, R267,R268,R3,R374, R4,R5,R501,R502, R597,R6,R621,R702, R790		2.547039	31	11861900.957214

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105A703309	Resistor	R159,R225,R236, R244,R308,R315, R331,R596,R620,R65, R773,R774,R775, R817		2.547039	14	25477245.255648
105A704729	Resistor	R173,R180,R250, R269,R290,R291, R292,R593,R724, R725,R726,R727, R728,R729,R730, R731,R732,R89,R90, R901		2.547039	20	18104712.511396
105A705609	Resistor	R671		2.547039	1	282340674.079668
105A706209	Resistor	R689		2.547039	1	282340674.079668
105A707509	Resistor	R346,R347,R366, R372,R391,R397		2.547039	6	56573956.677649
105A708229	Resistor	R182,R184,R209, R229,R251,R283, R319,R320,R321, R322,R323,R352, R357,R358,R360, R364,R368,R471, R475,R645,R679, R680,R681,R682, R683,R684,R685, R686,R687,R688, R723,R739,R757, R758,R759,R760, R761,R801,R802,		2.547039	42	8834121.532637

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105A710039	Resistor	R13,R'130,R'131,R249,R356,R461,R495,R505,R507,R532,R575,R587,R605,R622,R623,R624,R625,R782,R82,R83,R86,R87,R905		2.547039	23	15826261.230290
105A733009	Resistor	R122,R23,R24,R25,R26,R27,R28,R444,R445,R447,R448,R616		2.547039	12	29507083.749401
105A747009	Resistor	R465,R466,R467,R468,R612,R619,R626,R67		2.547039	8	43225424.698300
106B501034	Resistor	RT1,RT2		7.724580	2	38596617.434771
106B510030	Resistor	RT3,RT4,RT5,RT6,RT7,RT8		7.724580	6	15554248.259646

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1'121501691	Capacitor	C101,C103,C105, C106,C108,C110, C111,C112,C113, C114,C115,C116,C12, C13,C137,C15,C157, C158,C171,C183,C19, C197,C203,C205, C212,C215,C216,C22, C225,C226,C227, C228,C229,C23,C230, C231,C232,C24,C247, C25,C250,C263,C271, C275,C284,C287, C476		1.128806	238	3662900.208862
1'121533480	Capacitor	C476		1.128806	1	704977644.692287
1122522890	Capacitor	C220,C448,C456, C457,C459		1.128806	5	159367490.199266
1124410191	Capacitor	C1,C2,C3,C471,C496, C497,C498,C720, C726,C731,C734, C738,C743,C756		1.128806	14	59316298.011235
1124418090	Capacitor	C650,C656,C712, C713		1.128806	4	196873384.410843
1124427091	Capacitor	C33,C34,C35,C534, C555,C72,C74		1.128806	7	115633865.771428
1124522250	Capacitor	C147,C378,C385, C427,C440,C445, C451,C677,C687		1.128806	9	90863428.080946
1124533191	Capacitor	C431,C761		1.128806	2	375289731.076049

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1124547190	Capacitor	C460,C461,C462, C466,C467,C470, C472,C484,C487,C63, C64,C65,C66,C663, C664,C67,C68,C709, C710		1.128806	19	44097696.883526
1124556290	Capacitor	C437,C491		1.128806	2	375289731.076049
1129522790	Capacitor	C27,C680,C750,C79, C80		1.128806	5	159367490.199266
1129622690	Capacitor	C126,C127,C128, C129,C130,C141, C142,C143,C144, C145,C161,C162, C163,C164,C165, C178,C179,C180, C181,C182,C206, C207,C208,C209, C210,C520,C565, C579,C686,C688, C708,C728		1.128806	32	26512863.286539
1129710090	Capacitor	C36,C37,C38,C382, C618		1.128806	5	159367490.199266
1129710391	Capacitor	C39,C40,C41,C60, C61,C626,C643,C645, C655		1.128806	9	90863428.080946
1174510180	Capacitor	CP1		1.128806	1	704977644.692287
1181610090	Capacitor	TC30,TC31,TC32, TC35		4.744484	4	45505862.704531
1181610192	Capacitor	TC30,TC31,TC32, TC36		4.744484	5	36944177.000623
1189615154	Capacitor	TC30,TC31,TC32, TC37		4.744484	6	31179134.677521
1189622194	Capacitor	TC30,TC31,TC32, TC38		4.744484	7	26949727.707925

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1189633151	Capacitor	TC30,TC31,T C32, TC39		4.744484	8	23741959.646199
11A4907090	Capacitor	C10,C11,C4, C5,C504, C505,C506,C 507, C508,C509,C 510, C511,C6,C7, C8,C9		1.128806	16	52112480.802928
11B9722050	Capacitor	C370,C405,C 406		1.128806	3	257514172.353070
11C1510390	Capacitor	C211,C367,C 465, C500,C513,C 581, C719		1.128806	7	115633865.771428
11C1533890	Capacitor	C435,C480		1.128806	2	375289731.076049
11C1547890	Capacitor	C642		1.128806	1	704977644.692287
11C2501790	Capacitor	C104,C117,C 119,C14, C140,C214,C 241, C257,C267,C 297, C298,C339,C 362, C566,C576,C 577, C583,C584,C 598, C599,C600,C 601, C682,C98		1.128806	24	35120617.936543
11C2510190	Capacitor	C718		1.128806	1	704977644.692287
11C2510480	Capacitor	C120,C364,C 390, C591,C592,C 593		1.128806	6	133979725.056342
11C4401880	Capacitor	C150		1.128806	1	704977644.692287
11C4522290	Capacitor	C146,C352,C 371, C372,C373,C 377, C420,C424,C 469,C69		1.128806	10	82101057.548118
11C4547280	Capacitor	C204		1.128806	1	704977644.692287

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11C9510490	Capacitor	C125,C'131,C 359, C369,C495,C 616, C624,C665,C 666, C691,C703,C 729, C751,C753,C 87,C89		1.128806	16	52112480.802928
11E1510050	Capacitor	C102,C123,C 124, C407,C409,C 410, C428,C432,C 439, C442,C670,C 671, C701,C704,C 705, C706,C711,C 758,C93		1.128806	19	44097696.883526
11E1522060	Capacitor	C416		1.128806	1	704977644.692287
11E1522680	Capacitor	C481,C482		1.128806	2	375289731.076049
11E1622060	Capacitor	C196		1.128806	1	704977644.692287
11E2501080	Capacitor	C474,C475		1.128806	2	375289731.076049
11E2501690	Capacitor	C107,C429,C 454, C468,C70,C7 22		1.128806	6	133979725.056342
11E4433090	Capacitor	C20,C26,C52 2,C523, C762		1.128806	5	159367490.199266
11E9501090	Capacitor	C122,C425,C 473, C615,C617,C 702,C92, C97		1.128806	8	101746760.035398

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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11E9501091	Capacitor	C138,C139,C148, C149,C151,C152, C153,C154,C155, C156,C16,C167,C168, C169,C170,C172, C173,C174,C175, C176,C177,C184, C185,C186,C191, C192,C193,C194, C195,C200,C201, C202,C21,C213,C217, C218,C219,C242, C243,C244,C245		1.128806	110	7866133.850950
11E9522490	Capacitor	C723		1.128806	1	704977644.692287
11E9547680	Capacitor	C383,C418,C516, C588,C752		1.128806	5	159367490.199266

**Reliability Prediction
Summary**

File Name: EPIC-QM77.rfp
Assembly: 9697QM77B4
Ref Des:
Description:

Failure Rate: 11264.090060
MTBF (hrs): 88,778
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11E9610080	Capacitor	C100,C109,C118, C159,C17,C233,C234, C235,C236,C237, C238,C239,C248, C251,C252,C253, C259,C260,C261, C262,C265,C266, C268,C269,C270, C274,C276,C278, C279,C28,C280,C281, C282,C286,C292, C300,C325,C354, C381,C388,C411, C763		1.128806	80	10772660.612835
11E9622052	Capacitor	C763		1.128806	1	704977644.692287
11E9622080	Capacitor	C'121,C132,C133, C134,C135,C166,C18, C187,C188,C189, C190,C198,C199, C221,C222,C223, C224,C240,C249, C277,C283,C288, C289,C290,C291, C302,C303,C304, C305,C306,C308, C320,C349,C350, C351,C379,C391, C392,C393,C394		1.128806	64	13422762.501881

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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11E9647060	Capacitor	C464		1.128806	1	704977644.692287
1211100113	Inductor	L2,L3,L4,L5		4.944252	4	43912872.424775
1211100160	Inductor	L1		4.944252	1	154760964.143460
121110106S	Inductor	L11		4.944252	1	154760964.143460
121110156M	Inductor	L8		4.944252	1	154760964.143460
121110226V	Inductor	L15,L6		4.944252	2	83201062.149749
1211103373	Inductor	L12	43.1	10.108821	1	75694007.938283
1211103373	Inductor	L13		4.944252	1	154760964.143460
1211103671	Inductor	L10		4.944252	1	154760964.143460
1211103671	Inductor	L9	41.9	9.933522	1	77029791.500877
1211133074	Inductor	L7	40	9.659744	1	79212983.650600
1211147070	Inductor	L14		4.944252	1	154760964.143460
1212306030	Inductor	FB14,FB18,F B19, FB22,FB23,F B31, FB32,FB36,F B37, FB39,FB4,FB 40,FB41, FB42,FB43,F B45, FB48,FB49,F B55, FB57,FB59,F B6,FB61, FB7,FB8		4.944252	25	7635531.255579
121231206B	Inductor	FB10,FB11,F B12, FB13,FB15,F B16, FB20,FB29,F B35, FB46,FB50,F B51, FB54,FB56,F B9		4.944252	15	12521115.446963
12123C0007	Inductor	FB52		4.944252	1	154760964.143460
12123C001A	Inductor	FB5		4.944252	1	154760964.143460
12123D0001	Inductor	FB1,FB17,FB 2,FB21, FB24,FB25,F B26, FB27,FB28,F B3,FB30, FB33,FB34,F B44, FB47		4.944252	15	12521115.446963
1214309008	Inductor	CH10,CH15,C H16, CH17,CH18,C H9		4.944252	6	30055900.223009

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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1214309009	Inductor	CH1,CH11,C H12,CH13, CH14,CH2,C H3,CH4, CH5,CH6,CH 7,CH8		4.944252	12	15520616.516984
123132505D	Miscellaneous	Y1,Y2,Y3		19.200000	3	5742504.738137
1231332726	Miscellaneous	Y4		19.200000	1	23844262.770939
1301001443	Semiconductor	D41,D9		7.793411	2	50578095.223398
1301005444	Semiconductor	D16,D17,D34 ,D35, D36,D48,D50		7.793411	7	16052497.121446
1301053040	Semiconductor	D49		7.793411	1	92807310.010983
1301400541	Semiconductor	D1,D4,D5		7.793411	3	35106858.962001
1301400642	Semiconductor	D22,D25,D26		7.793411	3	35106858.962001
1304300140	Optical Device	LED2,LED3		79.003355	2	3783722.582110
1304500240	Optical Device	LED1		79.003355	1	6497172.749112
1305080040	Semiconductor	D10,D11,D12 ,D13, D14,D15,D18 ,D19,D2, D20,D21,D23 ,D24, D27,D28,D3, D30,D31, D32,D33,D37 ,D38, D39,D43,D44 ,D45, D46,D47,D6, D7,D8		7.793411	31	3881623.183799
1310390413	Semiconductor	Q46,Q49,Q6 8		22.463360	3	12043329.789539
1311138610	Semiconductor	Q58,Q59		22.463360	2	17315095.066101
1311390612	Semiconductor	Q47,Q48		22.463360	2	17315095.066101
1314010410	Semiconductor	U22,U52		22.463360	2	17315095.066101
1314880510	Semiconductor	U36		22.463360	1	31642600.748419
1315155510	Semiconductor	U23,U24,U25		22.463360	3	12043329.789539
1315190100	Semiconductor	U6,U61,U65		22.463360	3	12043329.789539
1315230410	Semiconductor	Q63		22.463360	1	31642600.748419
1315230511	Semiconductor	Q10,Q11,Q2, Q3,Q42, Q56,Q60,Q9		22.463360	8	4877097.849338
1315413410	Semiconductor	Q19,Q29,Q3 0,Q37, Q71		22.463360	5	7551839.591592
1315443512	Semiconductor	Q14,Q74		22.463360	2	17315095.066101

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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1315700216	Semiconductor	Q1,Q12,Q13, Q15,Q16, Q17,Q18,Q2 0,Q21, Q22,Q31,Q3 2,Q33, Q36,Q4,Q5,Q 50,Q51, Q52,Q53,Q5 4,Q55, Q57,Q61,Q6 2,Q64, Q65,Q66,Q6 7,Q69, Q72,Q73,Q8		22.463360	33	1262760.774886
1315720010	Semiconductor	Q34,Q6,Q7		22.463360	3	12043329.789539
1315762010	Semiconductor	Q23,Q24,Q3 5		22.463360	3	12043329.789539
1315805710	Semiconductor	Q25,Q26,Q2 7,Q28		22.463360	4	9270607.712006
1315806511	Semiconductor	Q38,Q39,Q4 0,Q41		22.463360	4	9270607.712006
14S1230400	Integrated Circuit	U40		43.803003	1	11739202.588727
14S2204200	Integrated Circuit	U55		43.803003	1	11739202.588727
14S2965000	Integrated Circuit	U41		43.803003	1	11739202.588727
14S3020901	Integrated Circuit	U9		43.803003	1	11739202.588727
14S3089200	Integrated Circuit	U68		43.803003	1	11739202.588727
14S3104500	Integrated Circuit	U3,U4		43.803003	2	6834791.244197
14S3112300	Integrated Circuit	U37		43.803003	1	11739202.588727
14S3'121600	Integrated Circuit	U67		43.803003	1	11739202.588727
14S3'121800	Integrated Circuit	U17,U39		43.803003	2	6834791.244197
14S3128422	Integrated Circuit	U64		43.803003	1	11739202.588727
14S3151800	Integrated Circuit	U54		43.803003	1	11739202.588727
14S3524700	Integrated Circuit	U20,U21		43.803003	2	6834791.244197
14S402'1301	Integrated Circuit	U14,U15,U49 ,U50, U51		43.803003	5	3214211.402100
14S4186600	Integrated Circuit	U60		43.803003	1	11739202.588727
14S4250010	Integrated Circuit	U57	36.6	92.004544	1	5588988.405047
14S4257900	Integrated Circuit	U46		43.803003	1	11739202.588727
14S4258300	Integrated Circuit	U10	43.6	649.885545	1	791235.215634
14S4600004	Integrated Circuit	U59		43.803003	1	11739202.588727
14S4814380	Integrated Circuit	U16		43.803003	1	11739202.588727
14S4889200	Integrated Circuit	U66	28.6	278.363247	1	1847270.911860
14S4963502	Integrated Circuit	U35		43.803003	1	11739202.588727
14S4QM7700	Integrated Circuit	U58	31.4	327.985703	1	1567788.855332
14S5A00702	Integrated Circuit	U26		26.018600	1	25551442.237972
14S5A00704	Integrated Circuit	U29,U32,U42 ,U43,U5, U62,U63		26.018600	7	4626592.240320

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14S5A00802	Integrated Circuit	U30,U31,U33,U34		26.018600	4	7696979.559193
14S5A00821	Integrated Circuit	U38,U56		26.018600	2	14194252.866846
14S6308002	Integrated Circuit	U8		11.063278	1	58231413.220643
14S634022E	Integrated Circuit	U47		11.063278	1	58231413.220643
14S9108500	Integrated Circuit	U11,U12,U13,U19, U28		43.803003	5	3214211.402100
14S9160100	Integrated Circuit	U69,U70		43.803003	2	6834791.244197
14S9341101	Integrated Circuit	U48,U7		43.803003	2	6834791.244197
14S9346000	Integrated Circuit	U45		43.803003	1	11739202.588727
1540722281	Resistor	RP1		9.971436	1	51606907.671214
1540733085	Resistor	RP2		9.971436	1	51606907.671214
16515A2995	Connection	DIMM1		16.184835	1	35685591.360212
165251420B	Connection	LAN1,LAN2		16.184835	2	20390152.380746
1653002101	Connection	JP1,JP11,JP12,JP2,JP3,JP8		16.184835	6	7958792.615968
1653003101	Connection	JP10,JP9		16.184835	2	20390152.380746
1653003201	Connection	JP4,JP5,JP6,JP7		16.184835	4	11344857.509064
165300420L	Connection	CN4		16.184835	1	35685591.360212
1653'130420	Connection	CN11		16.184835	1	35685591.360212
16532'12100	Connection	CN16		16.184835	1	35685591.360212
165321320G	Connection	CN9		16.184835	1	35685591.360212
1653300107	Connection	JP10(2-3),JP4(3-4),JP5(3-5),JP5(4-6),JP6(1-3),JP6(2-4)		16.184835	6	7958792.615968
1653300108	Connection	JP9(1-2)		16.184835	1	35685591.360212
165330010E	Connection	JP12(1-2),JP3(1-2),JP7(3-5),JP7(4-6)		16.184835	4	11344857.509064
1654030003	Connection	LVDS1,LVDS2		16.184835	2	20390152.380746
1654226303	Connection	CN7,CN8		16.184835	2	20390152.380746
1654418103	Connection	COM1		16.184835	1	35685591.360212
1654445300	Connection	CN1		16.184835	1	35685591.360212
1654818301	Connection	USB1		16.184835	1	35685591.360212
165490700G	Connection	SATA1,SATA2		16.184835	2	20390152.380746
1654919300	Connection	HDMI1		16.184835	1	35685591.360212
1655004018	Connection	FAN1		16.184835	1	35685591.360212
1655302025	Connection	CN3		16.184835	1	35685591.360212
1655305020	Connection	CN5,CN6		16.184835	2	20390152.380746
1655404020	Connection	CN12		16.184835	1	35685591.360212
1655902030	Connection	BAT1		16.184835	1	35685591.360212

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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1655902034	Connection	CN14,CN17		16.184835	2	20390152.380746
1655905022	Connection	CN18		16.184835	1	35685591.360212
1655905038	Connection	USB3,USB4, USB5, USB6		16.184835	4	11344857.509064
1655906032	Connection	KB1		16.184835	1	35685591.360212
1655909034	Connection	COM3,COM4, COM5, COM6		16.184835	4	11344857.509064
1655909035	Connection	CN2		16.184835	1	35685591.360212
1655910032	Connection	CN10,CN13		16.184835	2	20390152.380746
175011901C	Miscellaneous	U104		306.000000	1	1681683.006787
1752002700	Miscellaneous	FS1,FS2,FS3, FS4, FS5		2.400000	5	65101085.623547
175910000B		BZ1		0.000000	1	0.000000