

PCM-QM77

Reliability Prediction Report (MTBF)

Summary	Failure Rate: 11838.455186 ppm MTBF: 84,470 Hours
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Issue date	Approval	Test Engineer
2013/07/03	Tom Lin	Mike Lee

Reliability Prediction (MTBF)

I . Model Name: PCM-QM77

II . Prediction Date: July. 03, 2013

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

IV . Predicted by: Mike Lee

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:

PCM-QM77 (9697QM7793-D):

- Failure Rate: 11838.455186 ppm
- MTBF: 84,470 Hours

**AAEON Reliability Prediction
Summary**

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

Failure Rate: 11838.455186
MTBF (hrs): 84,470
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Assembly Name	Part Number	Ref Des	Quantity	Failure Rate	MTBF
PCM-QM77	9697QM7793-D		1	11838.455186	84,470

File Name: PCM-QM77.rfp
Assembly: 9697QM7793-D
Ref Des:
Description:

Failure Rate: 11838.455186
MTBF (hrs): 84,470
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Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1050501004	Resistor	R251,R264,R322, R329,R485,R501		2.547039	6	56573956.677649
1050501234	Resistor	R40		2.547039	1	282340674.079668
1050502424	Resistor	R512		2.547039	1	282340674.079668
1050502734	Resistor	R151,R389,R421		2.547039	3	107020754.986850
1050503934	Resistor	R525		2.547039	1	282340674.079668
1050504724	Resistor	R133,R137,R138, R148,R149,R307, R319,R348,R349, R350,R351,R352, R363,R364,R365, R366,R367,R368, R383,R385,R388, R390,R391,R404, R409,R416,R417, R437,R577,R583, R586,R596,R597, R608,R612,R623, R663,R668,R752,		2.547039	40	9263254.152485
1050505124	Resistor	R492		2.547039	1	282340674.079668
1050505134	Resistor	R338,R339,R340, R341,R342,R344, R374,R375,R376, R377,R378,R510, R530,R536,R540, R548,R550,R561, R565,R571,R579		2.547039	21	17274945.076062
1050505633	Resistor	R403,R505,R89		2.547039	3	107020754.986850

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1050508224	Resistor	R150,R154,R158, R160,R176,R183, R185,R196,R197, R203,R204,R208, R214,R218,R252, R256,R261,R265, R268,R271,R274, R278,R30,R31,R343, R347,R535,R677, R681,R682,R702, R709,R710,R713, R714,R715,R716, R717,R721,R724,		2.547039	47	7918121.839508
1050510034	Resistor	R11,R113,R114,R115, R116,R118,R119, R120,R129,R13,R15, R166,R175,R187, R188,R189,R190, R192,R193,R194, R213,R239,R28,R29, R320,R325,R346, R354,R36,R360,R432, R436,R452,R460, R463,R478,R502, R518,R54,R554,R614, R619,R626,R67,R		2.547039	67	5601929.449697
1050512734	Resistor	R885		2.547039	1	282340674.079668

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1050513334	Resistor	R519		2.547039	1	282340674.079668
1050514034	Resistor	R454,R459,R465, R466		2.547039	4	82309758.689546
1050516234	Resistor	R896		2.547039	1	282340674.079668
1050520004	Resistor	R284,R295,R328		2.547039	3	107020754.986850
1050520034	Resistor	R553,R566,R873		2.547039	3	107020754.986850
1050524004	Resistor	R497		2.547039	1	282340674.079668
1050524904	Resistor	R324,R841		2.547039	2	154078778.388085
1050524934	Resistor	R335		2.547039	1	282340674.079668
1050530034	Resistor	R642,R644		2.547039	2	154078778.388085
1050530124	Resistor	R159		2.547039	1	282340674.079668
1050533034	Resistor	R182,R186		2.547039	2	154078778.388085
1050536514	Resistor	R882,R907		2.547039	2	154078778.388085
1050539214	Resistor	R513		2.547039	1	282340674.079668
1050539224	Resistor	R83		2.547039	1	282340674.079668
1050539234	Resistor	R650,R652,R654		2.547039	3	107020754.986850
1050540224	Resistor	R402		2.547039	1	282340674.079668
1050549924	Resistor	R419		2.547039	1	282340674.079668
1050561934	Resistor	R433		2.547039	1	282340674.079668
1050573214	Resistor	R904		2.547039	1	282340674.079668
1050590964	Resistor	R287		2.547039	1	282340674.079668
1050700002	Resistor	R458		2.547039	1	282340674.079668
1050704304	Resistor	R246,R589,R778		2.547039	3	107020754.986850
1054700289	Resistor	R757		2.547039	1	282340674.079668
1059510031	Resistor	R945		2.547039	1	282340674.079668
1059520001	Resistor	R6		2.547039	1	282340674.079668
1059700001	Resistor	R526,R542,R605, R869,R891		2.547039	5	67008142.102588
1059710001	Resistor	R8		2.547039	1	282340674.079668
105A500103	Resistor	R152,R153,R155, R156,R157		2.547039	5	67008142.102588

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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A500139	Resistor	R134,R135,R18,R222,R237,R248,R250,R253,R293,R300,R33,R332,R333,R37,R373,R381,R399,R400,R408,R429,R430,R46,R487,R507,R520,R523,R544,R552,R578,R581,R621,R625,R696,R745,R771,R784,R788,R805,R81,R818,R822,R827,R837,R842,		2.547039	50	7454870.155519
105A500239	Resistor	R664		2.547039	1	282340674.079668
105A501003	Resistor	R106,R647,R662		2.547039	3	107020754.986850
105A501039	Resistor	R414,R482,R503, R646		2.547039	4	82309758.689546
105A501133	Resistor	R546		2.547039	1	282340674.079668
105A501139	Resistor	R905		2.547039	1	282340674.079668
105A501539	Resistor	R3,R353,R871,R906		2.547039	4	82309758.689546
105A502039	Resistor	R386,R394,R396,R401,R469,R491,R495,R509,R543,R559,R661,R809,R811,R846,R878		2.547039	15	23852782.943395
105A503039	Resistor	R413,R500,R508,R810,R815,R95		2.547039	6	56573956.677649
105A505109	Resistor	R231,R232,R233,R236,R743		2.547039	5	67008142.102588

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105A506834	Resistor	R490		2.547039	1	282340674.079668
105A507509	Resistor	R258,R440,R441, R442,R443,R444, R445,R446,R447,R58, R59,R60,R78 2		2.547039	13	27342571.921361
105A510009	Resistor	R267,R276,R387, R427		2.547039	4	82309758.689546
105A510223	Resistor	R876,R920		2.547039	2	154078778.388085
105A513009	Resistor	R279,R61,R776		2.547039	3	107020754.986850
105A514009	Resistor	R259		2.547039	1	282340674.079668
105A515009	Resistor	R163,R164,R165, R225,R229,R234, R345,R35,R38,R51, R531,R532,R533		2.547039	13	27342571.921361
105A516523	Resistor	R633,R655,R657, R658,R659		2.547039	5	67008142.102588
105A518723	Resistor	R76,R80		2.547039	2	154078778.388085
105A522663	Resistor	R206		2.547039	1	282340674.079668
105A523713	Resistor	R807		2.547039	1	282340674.079668
105A525563	Resistor	R334		2.547039	1	282340674.079668
105A528723	Resistor	R1,R639,R643,R649, R651,R653		2.547039	6	56573956.677649
105A536513	Resistor	R65		2.547039	1	282340674.079668
105A536529	Resistor	R420		2.547039	1	282340674.079668
105A537463	Resistor	R792		2.547039	1	282340674.079668
105A545323	Resistor	R919		2.547039	1	282340674.079668
105A549919	Resistor	R511,R53,R582,R840		2.547039	4	82309758.689546
105A549969	Resistor	R301,R780		2.547039	2	154078778.388085
105A551123	Resistor	R87		2.547039	1	282340674.079668
105A553629	Resistor	R494		2.547039	1	282340674.079668
105A554969	Resistor	R62		2.547039	1	282340674.079668
105A575009	Resistor	R299,R305		2.547039	2	154078778.388085
105A580623	Resistor	R850		2.547039	1	282340674.079668

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105A700003	Resistor	R102,R121,R122, R123,R131,R132, R139,R140,R141, R142,R143,R144, R145,R146,R147, R337,R34,R359,R362, R382,R4,R406,R410, R411,R425,R434, R534,R584,R63,R648, R70,R748,R796,R797, R874,R877,R897, R898,R899,R922,R93, R934		2.547039	42	8834121.532637
105A700009	Resistor	R100,R124,R127, R128,R136,R16,R161, R167,R174,R184,R19, R198,R199,R207, R210,R221,R224, R230,R241,R243, R247,R255,R257, R260,R270,R273, R291,R292,R306, R308,R326,R330, R331,R361,R370, R371,R372,R39,R397, R456,R461,R462,		2.547039	142	2680104.429515

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105A701039	Resistor	R103,R105,R110, R117,R125,R130, R191,R195,R20,R21, R211,R212,R220, R227,R235,R244,R25, R263,R266,R272, R277,R281,R282, R290,R303,R304, R311,R312,R323, R336,R356,R357, R358,R380,R392, R395,R405,R412, R415,R428,R468,		2.547039	118	3215647.514161
105A701059	Resistor	R126,R169,R209, R262,R27,R398,R629, R701,R725,R733		2.547039	10	35079934.879747
105A701069	Resistor	R217		2.547039	1	282340674.079668
105A702209	Resistor	R216,R219,R736		2.547039	3	107020754.986850
105A702229	Resistor	R17,R22,R223,R23, R302,R32,R41,R42, R562,R567,R673, R674,R675,R678, R683,R684,R688, R689,R697,R704, R705,R707,R711, R719,R720,R734		2.547039	26	14061076.827148

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105A703309	Resistor	R111,R215,R24,R249,R309,R327,R379,R423,R55,R672,R69,R694,R695,R71,R72,R73,R941		2.547039	17	21160422.299251
105A705609	Resistor	R245		2.547039	1	282340674.079668
105A706209	Resistor	R254		2.547039	1	282340674.079668
105A720003	Resistor	R756		2.547039	1	282340674.079668
105A730009	Resistor	R868		2.547039	1	282340674.079668
105A733009	Resistor	R12,R422,R424,R7,R835,R9		2.547039	6	56573956.677649
105A747009	Resistor	R407,R666		2.547039	2	154078778.388085
106B510030	Resistor	RT1,RT2,RT3,RT4,RT5,RT6,RT7		7.724580	7	13620277.701355
1121501691	Capacitor	C100,C101,C102,C103,C104,C107,C109,C110,C111,C112,C113,C114,C115,C120,C129,C13,C130,C133,C134,C135,C136,C137,C138,C139,C140,C141,C143,C144,C150,C157,C158,C159,C16,C160,C163,C164,C166,C167,C180,C181,C182,C184,		1.128806	336	2601121.051473
1122522890	Capacitor	C388,C389,C390,C391,C442		1.128806	5	159367490.199266

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1124410191	Capacitor	C36,C365,C367,C372,C383,C393,C394,C413,C459,C486,C533,C920,C921,C934,C936		1.128806	15	55479656.844874
1124418090	Capacitor	C169,C170,C204,C205,C605,C606		1.128806	6	133979725.056342
1124427091	Capacitor	C60,C61,C62,C70,C73,C81,C90		1.128806	7	115633865.771428
1124522280	Capacitor	C122,C123,C124,C125,C126,C546,C559,C560,C562,C563,C628,C629,C640,C644,C646		1.128806	15	55479656.844874
1124533282	Capacitor	C348		1.128806	1	704977644.692287
1129610260	Capacitor	C380,C381		1.128806	2	375289731.076049

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1129701791	Capacitor	C193,C399,C40,C400,C401,C402,C403,C408,C409,C410,C419,C424,C428,C430,C431,C432,C433,C439,C451,C461,C502,C64,C684,C759,C760,C774,C790,C817,C818,C830,C831,C832,C833,C923,C924,C925,C926,C927,C928,C929,C930		1.128806	41	20795506.904934
1129710091	Capacitor	C349,C356,C66,C67,C68,C78		1.128806	6	133979725.056342
1129710391	Capacitor	C121,C142,C316,C318,C596,C704,C881,C916,C917,C932,C933		1.128806	11	74892583.279796
1169656131	Capacitor	EC4,EC6		4.744484	2	86049450.747498
1181610090	Capacitor	TC22,TC23,TC24		4.744484	3	59399119.141203
1181627193	Capacitor	EC1,EC2,EC3		4.744484	3	59399119.141203
1189615154	Capacitor	TC18,TC19,TC3,TC37,TC39,TC4,TC41,TC42		4.744484	8	23741959.646199
1189622154	Capacitor	TC34,TC35,TC8		4.744484	3	59399119.141203
1189633151	Capacitor	TC28,TC29,TC30,TC36,TC40,TC6,TC7		4.744484	7	26949727.707925

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1189647187	Capacitor	TC10,TC11,T C12, TC13,TC14,T C27		4.744484	6	31179134.677521
1189922180	Capacitor	TC9		4.744484	1	159663026.715137
1189922181	Capacitor	TC1,TC2		4.744484	2	86049450.747498
1189933180	Capacitor	TC15,TC16,T C38		4.744484	3	59399119.141203
11A4430090	Capacitor	C128		1.128806	1	704977644.692287
11C1501080	Capacitor	C484		1.128806	1	704977644.692287
11C1533890	Capacitor	C472,C483,C 500, C506,C509		1.128806	5	159367490.199266
11C1547890	Capacitor	C839		1.128806	1	704977644.692287
11C4522290	Capacitor	C612,C613,C 847		1.128806	3	257514172.353070
11C4547190	Capacitor	C11,C116,C1 27,C25, C31,C310,C3 12,C320, C323,C337,C 338, C339,C340,C 341, C342,C343,C 370, C373,C375,C 378, C476,C491,C 492, C518,C899,C 900, C901,C902,C 903, C904,C905,C 906, C907,C908,C 909, C910,C911,C 912, C913,C914		1.128806	40	21305452.824644
11C4547290	Capacitor	C898		1.128806	1	704977644.692287

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11E1510050	Capacitor	C32,C34,C36 6,C395, C396,C397,C 398, C404,C405,C 406, C407,C42,C4 37,C438, C51,C561,C5 67,C568, C569,C570,C 80,C85, C96		1.128806	23	36609385.175833
11E1522680	Capacitor	C520,C607,C 609, C610,C663,C 665, C868,C870,C 896,C94, C95,C97		1.128806	12	68856937.301178
11E1533780	Capacitor	C76		1.128806	1	704977644.692287
11E1547650	Capacitor	C1		1.128806	1	704977644.692287
11E1622060	Capacitor	C14		1.128806	1	704977644.692287
11E4433090	Capacitor	C37,C414,C4 20,C43, C449		1.128806	5	159367490.199266
11E9501091	Capacitor	C105,C108,C 119,C12, C165,C18,C2 2,C27, C29,C30,C32 6,C33, C332,C336,C 35,C352, C368,C371,C 422, C434,C45,C4 52,C47, C474,C48,C5 07,C522, C535,C55,C5 73,C574, C581,C582,C 588, C592,C598,C 599, C611,C672,C 676, C678,C679,C 682, C686,C687,C 689,		1.128806	110	7866133.850950

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11E9510050	Capacitor	C145,C195,C230, C231,C232,C243, C254,C265,C295, C307,C325,C358, C361,C362,C363, C374,C423,C496,C50, C504,C512,C513, C548,C564,C576, C578,C579,C589, C637,C671,C694, C695,C700,C712, C718,C731,C737, C738,C741,C743,		1.128806	68	12644624.424143
11E9522790	Capacitor	C147,C149,C151, C152,C154,C155, C161,C162,C167, C168,C173,C174, C175,C176,C185, C189,C191,C192, C196,C198,C199, C200,C202,C203, C206,C207,C217, C218,C225,C226, C233,C236,C238, C239,C248,C249, C250,C251,C261,		1.128806	67	12830544.216852

**Reliability Prediction
Summary**

File Name: PCM-QM77.rfp
Assembly: 9697QM7793-D
Ref Des:
Description:

Failure Rate: 11838.455186
MTBF (hrs): 84,470
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11E9547681	Capacitor	C448,C460,C523,C99		1.128806	4	196873384.410843
11E9610080	Capacitor	C106,C132,C153,C177,C178,C179,C183,C208,C211,C303,C328,C355,C412,C416,C417,C418,C445,C458,C464,C467,C468,C470,C511,C515,C526,C54,C577,C614,C620,C652,C653,C654,C658,C730,C733,C750,C772,C782,C79,C796,C		1.128806	46	18574133.926778

File Name: PCM-QM77.rfp
Assembly: 9697QM7793-D
Ref Des:
Description:

Failure Rate: 11838.455186
MTBF (hrs): 84,470
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11E9622050	Capacitor	C117,C118,C146,C15,C156,C171,C172,C19,C216,C220,C221,C222,C223,C224,C227,C228,C234,C237,C240,C241,C242,C244,C245,C246,C252,C255,C256,C257,C258,C259,C469,C519,C638,C647,C648,C688,C701,C706,C710,C725,C736,		1.128806	63	13632557.733278
1211100113	Inductor	L13,L14,L16,L17		4.944252	4	43912872.424775
1211100160	Inductor	L15		4.944252	1	154760964.143460
121110106S	Inductor	L12		4.944252	1	154760964.143460
121110106W	Inductor	L2		4.944252	1	154760964.143460
121110156M	Inductor	L9		4.944252	1	154760964.143460
121110226G	Inductor	L11		4.944252	1	154760964.143460
121110226V	Inductor	L10,L3		4.944252	2	83201062.149749
1211103671	Inductor	L4,L5,L7,L8		4.944252	4	43912872.424775
1211103671	Inductor	L6	18.2	6.845834	1	111772664.059562
1212306030	Inductor	FB10,FB12,F B15,FB19,FB20,F B21,FB25,FB31,F B36,FB42,FB43,F B45,FB46,FB47,F B51,FB52,FB53,F B57,FB60,FB61,F B9		4.944252	21	9043621.568822
1212308054	Inductor	FB58,FB59		4.944252	2	83201062.149749
12123C0007	Inductor	FB26		4.944252	1	154760964.143460

File Name: PCM-QM77.rfp
 Assembly: 9697QM7793-D
 Ref Des:
 Description:

Failure Rate: 11838.455186
 MTBF (hrs): 84,470
 Temperature: 30
 Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
12123D0001	Inductor	FB1,FB11,FB13,FB14,FB16,FB17,FB18,FB2,FB3,FB37,FB38,FB39,FB4,FB40,FB41,FB44,FB48,FB49,FB5,FB50,FB6,FB62,FB63,FB7,FB8		4.944252	25	7635531.255579
1214309008	Inductor	CH13,CH14,CH15,CH16,CH5,CH6,CH7,CH8		4.944252	8	22874049.098230
1214309009	Inductor	CH1,CH10,CH11,CH12,CH17,CH18,CH19,CH2,CH20,CH3,CH4,CH9		4.944252	12	15520616.516984
123132505D	Miscellaneous	Y1,Y2,Y4		19.200000	3	5742504.738137
1231327053	Miscellaneous	Y5		19.200000	1	23844262.770939
1231332726	Miscellaneous	Y3		19.200000	1	23844262.770939
1301005444	Semiconductor	D10,D12,D14,D16,D25,D26,D27,D9		7.793411	8	14161142.003130
1301013040	Semiconductor	D5		7.793411	1	92807310.010983
1301053040	Semiconductor	D11		7.793411	1	92807310.010983
1301400642	Semiconductor	D15		7.793411	1	92807310.010983
1304000043	Optical Device	LED1		79.003355	1	6497172.749112
1304300140	Optical Device	LED3,LED4		79.003355	2	3783722.582110
1304500240	Optical Device	LED2		79.003355	1	6497172.749112
1305080040	Semiconductor	D1,D17,D18,D19,D2,D20,D21,D22,D23,D24,D3,D4,D6,D7,D8		7.793411	15	7809407.629947
1310390413	Semiconductor	Q44,Q79		22.463360	2	17315095.066101
1311138610	Semiconductor	Q57	24.1	41.782683	1	17011811.391125
1311138610	Semiconductor	Q55		22.463360	1	31642600.748419
1311390612	Semiconductor	Q33,Q61		22.463360	2	17315095.066101
1314880010	Semiconductor	U60	27.2	44.958237	1	15810209.290514
1314880011	Semiconductor	U1		22.463360	1	31642600.748419
1314880510	Semiconductor	U50		22.463360	1	31642600.748419
1315035110	Semiconductor	Q21		22.463360	1	31642600.748419

File Name: PCM-QM77.rfp
Assembly: 9697QM7793-D
Ref Des:
Description:

Failure Rate: 11838.455186
MTBF (hrs): 84,470
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1315190100	Semiconductor	U74,U76		22.463360	2	17315095.066101
1315230511	Semiconductor	Q12,Q13,Q24,Q31,Q5,Q52,Q53,Q6,Q64		22.463360	9	4366472.106532
1315360410	Semiconductor	Q22,Q25,Q26,Q29,Q30		22.463360	5	7551839.591592
1315360410	Semiconductor	Q28	22.2	39.920713	1	17805271.540557
1315413410	Semiconductor	Q60		22.463360	1	31642600.748419
1315443512	Semiconductor	Q66,Q7,Q8		22.463360	3	12043329.789539
1315463410	Semiconductor	Q67,Q68		22.463360	2	17315095.066101
1315700216	Semiconductor	Q10,Q11,Q14,Q15,Q16,Q17,Q18,Q19,Q2,Q20,Q23,Q3,Q32,Q34,Q35,Q36,Q37,Q39,Q40,Q41,Q42,Q43,Q46,Q47,Q48,Q49,Q50,Q56,Q59,Q62,Q63,Q65,Q69,Q70,Q71,Q72,Q73,Q78,Q80,Q9		22.463360	40	1047920.986800
1315720010	Semiconductor	Q45		22.463360	1	31642600.748419
1315762010	Semiconductor	Q51		22.463360	1	31642600.748419
1315831310	Semiconductor	Q27	19.8	37.657987	1	18875122.785461
1315831310	Semiconductor	Q38		22.463360	1	31642600.748419
1315970211	Semiconductor	U77,U78		22.463360	2	17315095.066101
1462246407	Integrated Circuit	U65		11.063278	1	58231413.220643
1469128350	Integrated Circuit	U19		11.063278	1	58231413.220643
14S1035803	Integrated Circuit	U82		43.803003	1	11739202.588727
14S1230400	Integrated Circuit	U38		43.803003	1	11739202.588727
14S2432600	Integrated Circuit	U32		43.803003	1	11739202.588727
14S2591200	Integrated Circuit	U8		43.803003	1	11739202.588727
14S2965000	Integrated Circuit	U51		43.803003	1	11739202.588727
14S3003700	Integrated Circuit	TF1,TF2		43.803003	2	6834791.244197
14S3020901	Integrated Circuit	U43		43.803003	1	11739202.588727
14S3089200	Integrated Circuit	U3	20.8	173.640998	1	2961353.225518

File Name: PCM-QM77.rfp
Assembly: 9697QM7793-D
Ref Des:
Description:

Failure Rate: 11838.455186
MTBF (hrs): 84,470
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
14S3104500	Integrated Circuit	U20,U22,U24 ,U25, U26,U27,U30 ,U31, U83,U84,U85 ,U86		43.803003	12	1499359.883490
14S3111701	Integrated Circuit	U29		43.803003	1	11739202.588727
14S3121600	Integrated Circuit	U48		43.803003	1	11739202.588727
14S3121800	Integrated Circuit	U52,U79		43.803003	2	6834791.244197
14S3128422	Integrated Circuit	U81		43.803003	1	11739202.588727
14S3151800	Integrated Circuit	U80		43.803003	1	11739202.588727
14S3524700	Integrated Circuit	U45		43.803003	1	11739202.588727
14S3524701	Integrated Circuit	U47		43.803003	1	11739202.588727
14S4021301	Integrated Circuit	U10,U12,U18 ,U57, U62,U66,U68 ,U70		43.803003	8	2144463.783749
14S4121601	Integrated Circuit	U58		43.803003	1	11739202.588727
14S4186600	Integrated Circuit	U59		43.803003	1	11739202.588727
14S4257900	Integrated Circuit	U7	16.3	130.873373	1	3929082.878932
14S4258300	Integrated Circuit	U6	19.8	163.177041	1	3151254.166640
14S4751100	Integrated Circuit	U36		43.803003	1	11739202.588727
14S4814380	Integrated Circuit	U11,U9		43.803003	2	6834791.244197
14S4889200	Integrated Circuit	U46		43.803003	1	11739202.588727
14S4963502	Integrated Circuit	U67		43.803003	1	11739202.588727
14S4QM7700	Integrated Circuit	U14	21	175.804878	1	2924903.642392
14S5A00601	Integrated Circuit	U4		26.018600	1	25551442.237972
14S5A00702	Integrated Circuit	U15		26.018600	1	25551442.237972
14S5A00704	Integrated Circuit	U13,U16,U28 ,U40, U44,U5,U61, U73		26.018600	8	4090524.362829
14S5A00802	Integrated Circuit	U39,U41,U71 ,U72		26.018600	4	7696979.559193
14S5A00821	Integrated Circuit	U63		26.018600	1	25551442.237972
14S6308002	Integrated Circuit	U49		11.063278	1	58231413.220643
14S6324640	Integrated Circuit			11.063278	1	58231413.220643
14S634022E	Integrated Circuit	U2		11.063278	1	58231413.220643
14S9108500	Integrated Circuit	U34,U35,U42 ,U69, U75		43.803003	5	3214211.402100
14S9160100	Integrated Circuit	U53,U54,U55		43.803003	3	4923240.069161
14S9312500	Integrated Circuit	U23		43.803003	1	11739202.588727
14S9341101	Integrated Circuit	U56		43.803003	1	11739202.588727
14S9751100	Integrated Circuit	U64	23	198.817422	1	2586354.482383
1540722281	Resistor	RP1		9.971436	1	51606907.671214
1540733085	Resistor	RP2		9.971436	1	51606907.671214
16515A2993	Connection	CN29		16.184835	1	35685591.360212
16515A2995	Connection	CN30		16.184835	1	35685591.360212

File Name: PCM-QM77.rfp
Assembly: 9697QM7793-D
Ref Des:
Description:

Failure Rate: 11838.455186
MTBF (hrs): 84,470
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Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1651609883	Connection	U17		16.184835	1	35685591.360212
1652508204	Connection	CN5,CN6		16.184835	2	20390152.380746
165300210C	Connection	JP7		16.184835	1	35685591.360212
165300310G	Connection	JP2,JP3,JP8		16.184835	3	14515880.849373
1653003201	Connection	JP5,JP6		16.184835	2	20390152.380746
165300320L	Connection	CN14,CN17,J P1,JP10, JP4		16.184835	5	9343344.843761
1653004100	Connection	CN2		16.184835	1	35685591.360212
165300420Q	Connection	CN33		16.184835	1	35685591.360212
1653005100	Connection	CN39		16.184835	1	35685591.360212
165300520X	Connection	JP9		16.184835	1	35685591.360212
165320520V	Connection	CN15,CN16,C N19, CN20,CN23,C N24, CN26,CN27,C N31, CN32,CN36,C N37, CN46,CN47		16.184835	14	3706226.037765
165320720F	Connection	CN10		16.184835	1	35685591.360212
165320820G	Connection	CN12		16.184835	1	35685591.360212
165321020D	Connection	CN34,CN35		16.184835	2	20390152.380746
165321320Q	Connection	CN44		16.184835	1	35685591.360212
1653300102	Connection	JP2(2-3),JP3 (2-3), JP8(1 -2)		16.184835	3	14515880.849373
1653300107	Connection	JP1(2-4),JP1 (3-5), JP4(2 -4),JP4(3-5), JP5(3-4),JP6 (3-4)		16.184835	6	7958792.615968
1653300108	Connection	JP10(1-3), JP10(2-4)		16.184835	2	20390152.380746
165390003B	Connection	CN52		16.184835	1	35685591.360212
1653924110	Connection	CN52		16.184835	1	35685591.360212
1654030003	Connection	CN18,CN21		16.184835	2	20390152.380746
1654226303	Connection	CN13,CN51		16.184835	2	20390152.380746
1654260212	Connection	CN25		16.184835	1	35685591.360212
1654282204	Connection	CN28		16.184835	1	35685591.360212
1654903901	Connection	CN50		16.184835	1	35685591.360212
165490700G	Connection	CN40,CN41		16.184835	2	20390152.380746
1654926900	Connection	CN53,CN54		16.184835	2	20390152.380746
1654929200	Connection	CN1		16.184835	1	35685591.360212
1655003010	Connection	CN45		16.184835	1	35685591.360212
1655004014	Connection	CN49		16.184835	1	35685591.360212
1655302025	Connection	CN43		16.184835	1	35685591.360212
1655305025	Connection	CN8,CN9		16.184835	2	20390152.380746

**Reliability Prediction
Summary**

File Name: PCM-QM77.rfp
Assembly: 9697QM7793-D
Ref Des:
Description:

Failure Rate: 11838.455186
MTBF (hrs): 84,470
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1655306025	Connection	CN38		16.184835	1	35685591.360212
1655424022	Connection	CN7		16.184835	1	35685591.360212
1655902034	Connection	CN42		16.184835	1	35685591.360212
1655912032	Connection	CN22		16.184835	1	35685591.360212
175011901M	Miscellaneous	CN42		306.000000	1	1681683.006787
1752000501	Miscellaneous	FS1,FS2		2.400000	2	143944727.196625
1752001603	Miscellaneous	FS3,FS4,FS5, FS6, FS7		2.400000	5	65101085.623547