



OFT-15W03

Reliability Prediction Report

(MTBF)

MTBF Number : EMTBF-OFT1503

Release Date : 2020/04/10

Initiated by	Kevin Huang	Job Title	Engineer	Originate Date	2020/04/10
Approved by	Simon Lin	Job Title	Manager	Revision	QD4-069 Rev.A2

Reliability Prediction(MTBF)

I. Model Name : OFT-15W03

Description :

- Cherry Trail Z8350 Intel Atom 1.44GHz, 2GB DDR3L Up to 4GB DDR3L, 32GB eMMC Up to 64GB eMMC, 2x USB Type A (2.0 x1, 3.0 x1), 1x HDMI, 1x Head phone jack, 1x Micro SD slot, 1 x 10/100 Ethernet, M.2 B-Key(3042) connector socket, 1 x 802.11 b/g/n/ac Wireless LAN and Bluetooth 5.0, 15.6” 1920 x 1080 LCD Panel, Touch Screen 15.6”, Touch Controller, AT/ATX, DC jack_input 12V~24V.

II. Predication Date : 2020/4/10

III. Prediction Site : Avalue Technology Software – DQV Dept.

IV. Predicted by : Kevin Huang

V. Simulation Environment :

- Temperature : 30°C
- Standard : Telcordia Issue 4

VI. Prediction Result :

- Failure Rate : See next pages
- MTBF : See next pages

OFT-15W03



Name	OFT-15W03	Failure Rate	72214.255456
Description	Ver A01	Failure Rate, Percentage	100.00
Reference Designator		MTBF	13847.68
Quantity		Calculation Model	Telcordia Issue 4

Tag	Part Number	Category	Subcategory	Type	Reference Designator	Description	Quantity	Failure Rate, Override	Failure Rate
<input type="checkbox"/>	E1181656721H	Capacitor	Ceramic		C87	FP/RE 560uF 6.3V 20% 6.3x8x2.5x3.1 DIP	1		0.106306
<input type="checkbox"/>	E1601010400R	Switch	Pushbutton		SRST1	TACT Switch 4P 90D BLK L=3.15/H=8.6 DIP	1		2.367048
<input type="checkbox"/>	E1613310000R	Connection	IC Socket		JAT1,JCMOS1	PH 3Px1 2.0mm 180D(M) BLK DIP Pinrex	2		2.829906
<input type="checkbox"/>	E1613510000R	Connection	IC Socket		JMCU1	PH 5Px1 2.0mm 180D(M) BLK DIP Pinrex	1		1.598488
<input type="checkbox"/>	E1614310000R	Connection	IC Socket		JBLP1	PH 3Px1 2.54mm 180D(M) BLK DIP Pinrex	1		1.598488
<input type="checkbox"/>	E165250530AR	Connection	IC Socket		JHP1	Audio-HD 5P 90D(F) 3.5 GRN DIP EP- F01R0C	1		1.598488
<input type="checkbox"/>	E1653302121R	Connection	IC Socket		JBLP1(1-2)	M-Jx1 2.54mm YEL Open CATCH 1132- 040-02	1		1.598488
<input type="checkbox"/>	E1653302123R	Connection	IC Socket		JAT1(1-2),JCMOS1 (1-2)	M-Jx1 2.0mm BLK Close CATCH 1133- 001-02	2		2.829906
<input type="checkbox"/>	E1660210201H	Connection	IC Socket		JPB1	Wafer 2P B-W 1.25 180D(M) WHT DIP Pinrex	1		1.598488
<input type="checkbox"/>	E1662221200R	Connection	IC Socket		JPWR2	Wafer 2Px2 B-W 2.0 90D(M) NAT DIP Pinrex	1		1.598488

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<input type="checkbox"/>	E1662310201H	Connection	IC Socket		JCOM1	Wafer 3P B-W 2.0 180D(M) WHT DIP Pinrex	1		1.598488
<input type="checkbox"/>	E1662411200H	Connection	IC Socket		JSPK1	Wafer 4P B-W 2.0 90D(M) NAT DIP CKM	1		1.598488
<input type="checkbox"/>	E1662510201H	Connection	IC Socket		JBL1	Wafer 5P B-W 2.0 180D(M) WHT DIP Pinrex	1		1.598488
<input type="checkbox"/>	E1662511201H	Connection	IC Socket		JCOM2,JTP2	Wafer 5P B-W 2.0 90D(M) NAT DIP CKM	2		2.829906
<input type="checkbox"/>	E1662521200R	Connection	IC Socket		JCAM1,JCOM3,JSEN1	Wafer 5Px2 B-W 2.0 90D(M) NAT DIP Pinrex	3		4.001146
<input type="checkbox"/>	E1662611200H	Connection	IC Socket		JTP1	Wafer 6P B-W 2.0 90D(M) NAT DIP CKM	1		1.598488
<input type="checkbox"/>	E1662621201R	Connection	IC Socket		JTK1	Wafer 6Px2 B-W 2.0 90D(M) NAT DIP Pinrex	1		1.598488
<input type="checkbox"/>	E16D1400302R	Connection	IC Socket		JUSB2	USB-A 4P 90D(F) WHT DIP JKCR	1		1.598488
<input type="checkbox"/>	E16D5900301R	Connection	IC Socket		JUSB1	USB3.0-A 9P 90D(F) BLU DIP Winwin	1		1.598488
<input type="checkbox"/>	E16G2122300R	Connection	IC Socket		JLAN1	RJ45-I 12P 90D UP LED(Y/GO) Xfmr DIP UDE	1		1.598488
<input type="checkbox"/>	E16H3361100R	Connection	General Purpose, Power		JPWR1	DC-J 3P 90D(M) 2.5mm BLK DIP JKCR	1		37.363353

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<input type="checkbox"/>	E10187005CXH-P1	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R231	LPR 0.005 2W@70C 5% 2512 WHT SMD PDC	1		0.088615
<input type="checkbox"/>	E102X501032H	Resistor	Thermistor		RT1	THR 10K 1% 0603 SMD SEMITEC 103KT1608-1P	1		2.515815
<input type="checkbox"/>	E1050501010H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R91,R157	CR 100 1/16W 1% 0402 SMD (HF)	2		0.164100
<input type="checkbox"/>	E1050501030H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R284,R328	CR 10K 1/16W 1% 0402 SMD (HF)	2		0.164100
<input type="checkbox"/>	E1050501050H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R321,R322	CR 1M 1/16W 1% 0402 SMD (HF)	2		0.164100
<input type="checkbox"/>	E1050501230H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R223,R460	CR 12K 1/16W 1% 0402 SMD (HF)	2		0.164100
<input type="checkbox"/>	E1050501240H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R153	CR 120K 1/16W 1% 0402 SMD (HF)	1		0.088615
<input type="checkbox"/>	E1050501530H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R150,R285	CR 15K 1/16W 1% 0402 SMD (HF)	2		0.164100
<input type="checkbox"/>	E1050501840H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R57	CR 180K 1/16W 1% 0402 SMD (HF)	1		0.088615
<input type="checkbox"/>	E1050502020H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R393	CR 2K 1/16W 1% 0402 SMD (HF)	1		0.088615
<input type="checkbox"/>	E1050502030H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R212,R215	CR 20K 1/16W 1% 0402 SMD (HF)	2		0.164100
<input type="checkbox"/>	E1050502410H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R117,R178,R293,R355	CR 240 1/16W 1% 0402 SMD (HF)	4		0.309817
<input type="checkbox"/>	E1050502430H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R109	CR 24K 1/16W 1% 0402 SMD (HF)	1		0.088615
<input type="checkbox"/>	E1050503020H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R217	CR 3K 1/16W 1% 0402 SMD (HF)	1		0.088615

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<input type="checkbox"/>	E1050504720H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R121,R126,R381,R382	CR 4.7K 1/16W 1% 0402 SMD (HF)	4		0.309817
<input type="checkbox"/>	E1050506810H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R399,R400,R401,R402,R403,R404,R405,R406	CR 680 1/16W 1% 0402 SMD (HF)	8		0.593057
<input type="checkbox"/>	E1050507530H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R334	CR 75K 1/16W 1% 0402 SMD (HF)	1		0.088615
<input type="checkbox"/>	E1050510220H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R146	CR 10.2K 1/16W 1% 0402 SMD (HF)	1		0.088615
<input type="checkbox"/>	E1050510530H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R287	CR 105K 1/16W 1% 0402 SMD (HF)	1		0.088615
<input type="checkbox"/>	E1050511300H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R127	CR 113 1/16W 1% 0402 SMD (HF)	1		0.088615
<input type="checkbox"/>	E1050512120H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R286,R412,R418	CR 12.1K 1/16W 1% 0402 SMD (HF)	3		0.237496
<input type="checkbox"/>	E1050512420H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R471	CR 12.4K 1/16W 1% 0402 SMD (HF)	1		0.088615
<input type="checkbox"/>	E1050518200H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R87	CR 182 1/16W 1% 0402 SMD (HF)	1		0.088615
<input type="checkbox"/>	E1050524910H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R106	CR 2.49K 1/16W 1% 0402 SMD (HF)	1		0.088615
<input type="checkbox"/>	E1050530100H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R351	CR 301 1/16W 1% 0402 SMD (HF)	1		0.088615
<input type="checkbox"/>	E1050540200H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R118,R139,R152,R346	CR 402 1/16W 1% 0402 SMD (HF)	4		0.309817
<input type="checkbox"/>	E10505499A0H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R108,R469,R470,R472,R473	CR 49.9 1/16W 1% 0402 SMD (HF)	5		0.381454
<input type="checkbox"/>	E1050560410H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R395	CR 6.04K 1/16W 1% 0402 SMD (HF)	1		0.088615
<input type="checkbox"/>	E10505806A0H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R95	CR 80.6 1/16W 1% 0402 SMD (HF)	1		0.088615

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<input type="checkbox"/>	E1050700000H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R12,R18,R38,R114,R136,R137,R141,R142,R160,R185,R188,R190,R191,R193,R195,R196,R197,R201,R260,R292,R298,R301,R305,R307,R313,R336,R353,R357,R376,R410,R417,R451,R452,R455,R464,R475	CR 0 1/16W 5% 0402 SMD (HF)	36		2.525219
<input type="checkbox"/>	E1050701000H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R72,R82,R306,R476	CR 10 1/16W 5% 0402 SMD (HF)	4		0.309817
<input type="checkbox"/>	E1050701010H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R347,R348,R350	CR 100 1/16W 5% 0402 SMD (HF)	3		0.237496
<input type="checkbox"/>	E1050701020H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R43,R63,R107,R143,R145,R159,R164,R181,R182,R199,R206,R235,R243,R249,R304,R356,R362,R365,R430,R434,R441,R442,R443,R457	CR 1K 1/16W 5% 0402 SMD (HF)	24		1.702659

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<input type="checkbox"/>	E1050701030H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R1,R11,R21,R62,R74,R111,R113,R124,R129,R134,R147,R151,R158,R163,R167,R168,R169,R170,R186,R202,R203,R205,R211,R221,R224,R226,R227,R228,R244,R245,R248,R250,R259,R262,R266,R268,R269,R270,R299,R300,R303,R325,R330,R339,R341,R343,R349,R359,R361,R364,R389,R390,R407,R423,R424,R426,R431,R436,R438,R447,R450,R453,R454,R456,R458,R459,R461,R463,R466,R467,R468	CR 10K 1/16W 5% 0402 SMD (HF)	71		4.907603
<input type="checkbox"/>	E1050701040H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R31,R64,R102,R115,R130,R242,R267,R291,R332,R342,R344,R444,R445,R446	CR 100K 1/16W 5% 0402 SMD (HF)	14		1.012075
<input type="checkbox"/>	E1050701050H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R415	CR 1M 1/16W 5% 0402 SMD (HF)	1		0.088615
<input type="checkbox"/>	E1050701060H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R110,R462	CR 10M 1/16W 5% 0402 SMD (HF)	2		0.164100

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<input type="checkbox"/>	E1050702030H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R88,R140,R175,R179,R180,R366,R368,R369,R413	CR 20K 1/16W 5% 0402 SMD (HF)	9		0.663306
<input type="checkbox"/>	E1050702040H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R93,R116,R220	CR 200K 1/16W 5% 0402 SMD (HF)	3		0.237496
<input type="checkbox"/>	E1050702200H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R58,R61,R71,R75,R77,R83,R138,R240,R241,R296,R297,R309,R310,R408,R409,R437	CR 22 1/16W 5% 0402 SMD (HF)	16		1.150766
<input type="checkbox"/>	E1050702220H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R25,R34,R41,R46,R60,R70,R78,R79,R80,R81,R89,R90,R120,R122,R204,R210,R214,R229,R230,R308,R315,R316,R317,R425,R427,R428,R429	CR 2.2K 1/16W 5% 0402 SMD (HF)	27		1.908766
<input type="checkbox"/>	E1050703300H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R192,R236,R237,R302	CR 33 1/16W 5% 0402 SMD (HF)	4		0.309817
<input type="checkbox"/>	E1050703310H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R8,R477,R478	CR 330 1/16W 5% 0402 SMD (HF)	3		0.237496
<input type="checkbox"/>	E1050703320H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R22,R24,R36	CR 3.3K 1/16W 5% 0402 SMD (HF)	3		0.237496
<input type="checkbox"/>	E1050704700H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R209	CR 47 1/16W 5% 0402 SMD (HF)	1		0.088615
<input type="checkbox"/>	E1050704710H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R246,R247,R255,R256,R372,R373	CR 470 1/16W 5% 0402 SMD (HF)	6		0.452604
<input type="checkbox"/>	E1050704720H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R420,R422,R439	CR 4.7K 1/16W 5% 0402 SMD (HF)	3		0.237496

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<input type="checkbox"/>	E10507047A0H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R320,R323	CR 4.7 1/16W 5% 0402 SMD (HF)	2		0.164100
<input type="checkbox"/>	E1050705100H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R172,R360,R363,R367,R371	CR 51 1/16W 5% 0402 SMD (HF)	5		0.381454
<input type="checkbox"/>	E1051501211H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R257	CR 120 1/10W 1% 0603 SMD (HF)	1		0.088615
<input type="checkbox"/>	E1051531621H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R282	CR 31.6K 1/10W 1% 0603 SMD (HF)	1		0.088615
<input type="checkbox"/>	E1051700001H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R225,R396	CR 0 1/10W 5% 0603 SMD (HF)	2		0.164100
<input type="checkbox"/>	E1051701021H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R218	CR 1K 1/10W 5% 0603 SMD (HF)	1		0.088615
<input type="checkbox"/>	E1051702711H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R397,R398	CR 270 1/10W 5% 0603 SMD (HF)	2		0.164100
<input type="checkbox"/>	E1051703311H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R123,R135	CR 330 1/10W 5% 0603 SMD (HF)	2		0.164100
<input type="checkbox"/>	E1051707531H	Resistor	Fixed	Film (Carbon, Oxide, Metal)	R394	CR 75K 1/10W 5% 0603 SMD (HF)	1		0.088615
<input type="checkbox"/>	E1060700002H	Resistor	Network		RN8	NETR 0 1/16W 5% 4P2R 0402X2 SMD (HF)	1		0.169800
<input type="checkbox"/>	E1060701031H	Resistor	Network		RN6,RN7,RN9	NETR 10K 1/16W 5% 8P4R 0402X4 SMD (HF)	3		0.409306

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<input type="checkbox"/>	E1121610600H	Capacitor	Ceramic		C4,C5,C28,C96,C97,C119,C120,C142,C145,C154,C186,C213,C219,C222,C226,C229,C233,C245,C280,C284,C300,C319,C321,C334,C337,C339,C340,C367,C384,C412,C413,C414	MLCC 10uF 6.3V 20% X5R 0402 SMD (HF)	32		3.078344
<input type="checkbox"/>	E1121610610H	Capacitor	Ceramic		C395,C396,C403,C405	MLCC 10uF 6.3V 20% X5R 0603 SMD (HF)	4		0.400379
<input type="checkbox"/>	E1121622500H	Capacitor	Ceramic		C144,C166,C170,C171,C172,C175,C239,C380	MLCC 2.2uF 6.3V 20% X5R 0402 SMD (HF)	8		0.786635
<input type="checkbox"/>	E1121622610H	Capacitor	Ceramic		C261,C289,C290,C291,C292,C294,C299,C302,C312,C316,C325,C351,C352,C353,C354,C358,C359,C360	MLCC 22uF 6.3V 20% X5R 0603 SMD (HF)	18		1.744355

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<input type="checkbox"/>	E1121647500H	Capacitor	Ceramic		C67,C73,C75,C79,C81,C82,C83,C84,C86,C90,C92,C109,C156,C164,C167,C174,C184,C265,C269,C275,C305,C309,C317,C322,C323,C324,C328,C331,C335,C338,C349,C350,C372,C387,C417,C422,C428	MLCC 4.7uF 6.3V 20% X5R 0402 SMD (HF)	37		3.553814
<input type="checkbox"/>	E1121647620H	Capacitor	Ceramic		C61,C62,C130,C131,C196,C197,C199,C200,C210,C211,C379	MLCC 47uF 6.3V 20% X5R 0805 SMD (HF)	11		1.074721
<input type="checkbox"/>	E1122510500H	Capacitor	Ceramic		C2,C7,C15,C35,C38,C39,C72,C78,C89,C91,C93,C99,C110,C111,C113,C114,C115,C139,C206,C274,C277,C301,C303,C304,C307,C310,C311,C313,C315,C320,C326,C327,C329,C330,C332,C333,C336,C341,C342,C343,C345,C347,C348,C357,C363,C371,C373,C431	MLCC 1uF 10V 10% X5R 0402 SMD (HF)	48		4.598745

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<input type="checkbox"/>	E1123510400H	Capacitor	Ceramic		C1,C3,C9,C12,C13,C16,C17,C18,C20,C21,C24,C26,C27,C29,C31,C36,C37,C49,C53,C60,C71,C74,C76,C77,C80,C94,C95,C100,C101,C102,C103,C106,C112,C121,C122,C132,C143,C146,C147,C148,C155,C157,C162,C163,C169,C182,C183,C185,C187,C188,C189,C190,C191,C192,C193,C194,C195,C201,C204,C214,C216,C217,C218,C221,C223,C230,C235,C236,C237,C238,C240,C241,C243,C244,C247,C248,C252,C253,C256,C257,C258,C262,C264,C266,C272,C276,C278,C281,C283,C285,C287,C288,C296,C306,C308,C318,C344,C346,C370,C381,C382,C385,C386,C397,C399,C400,C401,C402,C404,C406,C407,C408,	MLCC 100nF 16V 10% X7R 0402 SMD (HF)	129		12.271585

OFT-15W03



Name	OFT-15W03	Failure Rate	72214.255456
Description	Ver A01	Failure Rate, Percentage	100.00
Reference Designator		MTBF	13847.68
Quantity		Calculation Model	Telcordia Issue 4

Tag	Part Number	Category	Subcategory	Type	Reference Designator	Description	Quantity	Failure Rate, Override	Failure Rate
					C409,C415,C416,C418,C419,C420,C421,C423,C424,C425,C426,C429,C433,C439,C440,C441,C442				

OFT-15W03



Name	OFT-15W03	Failure Rate	72214.255456
Description	Ver A01	Failure Rate, Percentage	100.00
Reference Designator		MTBF	13847.68
Quantity		Calculation Model	Telcordia Issue 4

Tag	Part Number	Category	Subcategory	Type	Reference Designator	Description	Quantity	Failure Rate, Override	Failure Rate
<input type="checkbox"/>	E1123510620H	Capacitor	Ceramic		C242,C273	MLCC 10uF 16V 10% X5R 0805 SMD (HF)	2		0.205183
<input type="checkbox"/>	E1123522400H	Capacitor	Ceramic		C104	MLCC 220nF 16V 10% X5R 0402 SMD (HF)	1		0.106306
<input type="checkbox"/>	E1123522510H	Capacitor	Ceramic		C173	MLCC 2.2uF 16V 10% X5R 0603 SMD (HF)	1		0.106306
<input type="checkbox"/>	E1125510300H	Capacitor	Ceramic		C70,C108,C388,C430	MLCC 10nF 25V 10% X7R 0402 SMD (HF)	4		0.400379
<input type="checkbox"/>	E1125547300H	Capacitor	Ceramic		C48	MLCC 47nF 25V 10% X7R 0402 SMD (HF)	1		0.106306
<input type="checkbox"/>	E1127410100H	Capacitor	Ceramic		C33,C40,C41,C45,C50,C55,C57,C231,C232	MLCC 100pF 50V 5% NPO 0402 SMD (HF)	9		0.882770
<input type="checkbox"/>	E1127415000H	Capacitor	Ceramic		C394,C398,C427,C432	MLCC 15pF 50V 5% NPO 0402 SMD (HF)	4		0.400379
<input type="checkbox"/>	E1127418000H	Capacitor	Ceramic		C66,C68	MLCC 18pF 50V 5% NPO 0402 SMD (HF)	2		0.205183
<input type="checkbox"/>	E1127422100H	Capacitor	Ceramic		C133,C149,C202,C203,C434,C435,C436,C437	MLCC 220pF 50V 5% NPO 0402 SMD (HF)	8		0.786635
<input type="checkbox"/>	E1127510200H	Capacitor	Ceramic		C168,C227,C234	MLCC 1000pF 50V 10% X7R 0402 SMD (HF)	3		0.303082
<input type="checkbox"/>	E1127510410H	Capacitor	Ceramic		C63,C118,C298,C366,C392	MLCC 100nF 50V 10% X7R 0603 SMD (HF)	5		0.497292

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Reference Designator		MTBF	13847.68
Quantity		Calculation Model	Telcordia Issue 4

Tag	Part Number	Category	Subcategory	Type	Reference Designator	Description	Quantity	Failure Rate, Override	Failure Rate
<input type="checkbox"/>	E1127510620H	Capacitor	Ceramic		C117,C297,C374,C389,C410,C411	MLCC 10uF 50V 10% X5R 0805 SMD (HF)	6		0.593932
<input type="checkbox"/>	E1127515210H	Capacitor	Ceramic		C393	MLCC 1500pF 50V 10% X7R 0603 SMD (HF)	1		0.106306
<input type="checkbox"/>	E1127522310H	Capacitor	Ceramic		C438	MLCC 22nF 50V 10% X7R 0603 SMD (HF)	1		0.106306
<input type="checkbox"/>	E1127533200H	Capacitor	Ceramic		C293	MLCC 3300pF 50V 10% X7R 0402 SMD (HF)	1		0.106306
<input type="checkbox"/>	E1127840A00H	Capacitor	Ceramic		C56,C59	MLCC 4pF 50V +/- 0.25pF NPO 0402 SMD (HF)	2		0.205183
<input type="checkbox"/>	E112X510230H	Capacitor	Ceramic		C207	MLCC 1000pF 2KV 10% X7R 1206 SMD	1		0.106306
<input type="checkbox"/>	E1177510100H	Capacitor	Ceramic		C138,C270,C295,C377	NETC 100pF 50V 10% NPO 8P4C 0402X4 SMD	4		0.400379
<input type="checkbox"/>	E1186622620H	Capacitor	Ceramic		C44	OC/SVFPF 22uF 35V 20% 6.3x7.3xH5.9 SMD	1		0.106306
<input type="checkbox"/>	E1211201521H	Inductor	Coil	Radio Frequency, Fixed	L8,L10,L11	Inductor 1.5uH 2.6A 20% 1210 SMD TOKO	3		0.312220
<input type="checkbox"/>	E1211206810H	Inductor	Coil	Radio Frequency, Fixed	L6	Inductor 680nH 3.5A 20% 1210 SMD TOKO	1		0.113437

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Name	OFT-15W03	Failure Rate	72214.255456
Description	Ver A01	Failure Rate, Percentage	100.00
Reference Designator		MTBF	13847.68
Quantity		Calculation Model	Telcordia Issue 4

Tag	Part Number	Category	Subcategory	Type	Reference Designator	Description	Quantity	Failure Rate, Override	Failure Rate
<input type="checkbox"/>	E121220102PH	Inductor	Coil	Radio Frequency, Fixed	L9	Coil 1.0uH 6.2A 20% 4012 SMD TOKO	1		0.113437
<input type="checkbox"/>	E121220222BH	Inductor	Coil	Radio Frequency, Fixed	L7,L12	Coil 2.2uH 14A 20% 6030 SMD CYNTEC	2		0.213865
<input type="checkbox"/>	E121220222DH	Inductor	Coil	Radio Frequency, Fixed	L3	Coil 2.2uH 6.0A 20% 4020 SMD TAI-TECH	1		0.113437
<input type="checkbox"/>	E1212204717H	Inductor	Coil	Radio Frequency, Fixed	L4,L5	Coil 470nH 5.3A 20% 2520 SMD Darfon	2		0.213865
<input type="checkbox"/>	E1213009004H	Inductor	Coil	Radio Frequency, Fixed	B23,B24,B25,B26	BEAD 90(100MHz) 100mA 4P 03025 SMD muRata	4		0.408910
<input type="checkbox"/>	E1213009005H	Inductor	Coil	Radio Frequency, Fixed	B3,B9,B14,B15,B17, B18,B37	BEAD 90(100MHz) 100mA 4P 0504 SMD INPAQ	7		0.697367
<input type="checkbox"/>	E1213101216H	Inductor	Coil	Radio Frequency, Fixed	B12	BEAD 120(100MHz) 550mA 0402 SMD muRata	1		0.113437
<input type="checkbox"/>	E1213101217H	Inductor	Coil	Radio Frequency, Fixed	B8,B10,B40,B45	BEAD 120(100MHz) 5.0A 0805 SMD TAI-TECH	4		0.408910
<input type="checkbox"/>	E1213103001H	Inductor	Coil	Radio Frequency, Fixed	B42	BEAD 30(100MHz) 4.0A 0805 SMD muRata	1		0.113437

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Name	OFT-15W03	Failure Rate	72214.255456
Description	Ver A01	Failure Rate, Percentage	100.00
Reference Designator		MTBF	13847.68
Quantity		Calculation Model	Telcordia Issue 4

Tag	Part Number	Category	Subcategory	Type	Reference Designator	Description	Quantity	Failure Rate, Override	Failure Rate
<input type="checkbox"/>	E1231303004H	Inductor	Coil	Radio Frequency, Fixed	B1,B2,B4,B5,B11,B13,B16,B19,B20,B21,B22,B27,B28,B29,B30,B31,B33,B34,B35,B36,B41,B43,B46,B47,B48,B49,B50	BEAD 30(100MHz) 1.7A 0402 SMD CHILISIN	27		2.582983
<input type="checkbox"/>	E1231301260H	Miscellaneous	Quartz Crystal		Y5	X'TAL 12.000MHz 10/20 4P(2520) SMD TXC	1		3.132758
<input type="checkbox"/>	E123130256AH	Miscellaneous	Quartz Crystal		Y6	X'TAL-I 25.000MHz 18/10 4P(3225) SMD AGX	1		3.132758
<input type="checkbox"/>	E1231319251H	Miscellaneous	Quartz Crystal		Y2	X'TAL-I 19.200MHz 18/20 4P(2520) SMD AGX	1		3.132758
<input type="checkbox"/>	E1231332726H	Miscellaneous	Quartz Crystal		Y3	X'TAL-I 32.768KHz 12.5/20 2P(3215) SMD	1		3.132758
<input type="checkbox"/>	E1300031640H	Semiconductor	Diode	General Purpose, Si	D9	SWG BAS316 100V/250mA SOD-323 SMD	1		0.487065
<input type="checkbox"/>	E1301005440H	Semiconductor	Diode	General Purpose, Si	D5	SBD Nexperia BAT54C 30V/200mA SOT-23 SMD	1		0.487065
<input type="checkbox"/>	E1301007040H	Semiconductor	Diode	General Purpose, Si	D6	SBD BAS70-05 70V/70mA SOT-23 SMD	1		0.487065
<input type="checkbox"/>	E1301034040H	Semiconductor	Diode	General Purpose, Si	D20	SBR Diodes B340A-13-F 40V/3A SMA SMD(HF)	1		0.487065

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Reference Designator		MTBF	13847.68
Quantity		Calculation Model	Telcordia Issue 4

Tag	Part Number	Category	Subcategory	Type	Reference Designator	Description	Quantity	Failure Rate, Override	Failure Rate
<input type="checkbox"/>	E1304000041H	Optical Device	Isolators, Single / Couplers	Phototransistor Detector	E1,E2,EBT1,EFW1	LED RED 0603 SMD 54mcd LTST-C190KRKT	4		4.359385
<input type="checkbox"/>	E1305055040H	Semiconductor	Diode	General Purpose, Si	D8,D12,D13	TVS-4ch L05ESDL5V0NA-4 8K/15K SLP2510P8	3		1.163236
<input type="checkbox"/>	E1305422040H	Semiconductor	Diode	General Purpose, Si	D2,D4,D7,D10,D11, D17,D18	TVS-4ch IP4220CZ6 8K/x SOT23-6 SMD	7		2.380868
<input type="checkbox"/>	E1305509442H	Semiconductor	Diode	General Purpose, Si	D14	TVS-Bi D5094-260C 26V/600W SMB SMD	1		0.487065
<input type="checkbox"/>	E1311390610H	Semiconductor	Transistor		Q6,Q13,Q49	PNP ON MMBT3906LT1G - 40V/-0.2A SOT23 SMD	3		180.590976
<input type="checkbox"/>	E1314532511H	Semiconductor	Transistor		Q36	LDO APL5325ABI-TRG 300mA/Adj SOT23-5 SMD	1		75.723730
<input type="checkbox"/>	E1314713810H	Semiconductor	Transistor		U21	LDO GS7138S5-ADJ-R 150mA/Adj SOT23-5 SMD	1		75.723730
<input type="checkbox"/>	E1315013811H	Semiconductor	Transistor		Q5,Q8,Q12,Q14,Q15,Q16,Q19,Q22,Q23,Q28,Q43,Q44,Q45,Q46,Q50,Q52,Q53,Q54,Q55	MOS-Nx2 Nexperia BSS138PS SOT-363 SMD	19		897.583149
<input type="checkbox"/>	E1315013812H	Semiconductor	Transistor		Q4,Q9,Q11,Q20,Q25,Q27,Q29,Q30,Q31,Q33,Q51,Q58,Q59,Q60,Q61	MOS-N Force Mos MESS138W-G SOT-323 SMD	15		724.510301

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Reference Designator		MTBF	13847.68
Quantity		Calculation Model	Telcordia Issue 4

Tag	Part Number	Category	Subcategory	Type	Reference Designator	Description	Quantity	Failure Rate, Override	Failure Rate
<input type="checkbox"/>	E1315090810H	Semiconductor	Transistor		Q26	MOS-N EMC EMD09N08H EDFN-8(5x6) SMD 80V/	1		75.723730
<input type="checkbox"/>	E1315205210H	Semiconductor	Transistor		Q2	MOS-P APEC AP2P052N SOT-23 SMD -20V/	1		75.723730
<input type="checkbox"/>	E1315832110H	Semiconductor	Transistor		Q57	MOS-N ON FDMC8321L PQFN-8(3.3x3.3) SMD	1		75.723730
<input type="checkbox"/>	E1315832710H	Semiconductor	Transistor		Q56	MOS-N ON FDMC8327L PQFN-8(3.3x3.3) SMD	1		75.723730
<input type="checkbox"/>	E14S6225642H	Integrated Circuit	ROM, PROM, EPROM		U3	F-R Winbond W25Q64FWSSIG 64M SO-8	1		1.068607
<input type="checkbox"/>	E14S0801000H	Integrated Circuit	Digital		U22	EPSON RX8010SJ SO-8 SMD I2C RTC	1		1.146936
<input type="checkbox"/>	E14S3019801H	Integrated Circuit	Digital		U14	Silergy Corp SYX198BQNC QFN-10(3x3) SMD	1		1.146936
<input type="checkbox"/>	E14S3219100H	Integrated Circuit	Digital		U19,U24,U26,U27, U38	Diodes AP2191WG-7 SOT23-5 SMD 1.5A USB	5		4.599182
<input type="checkbox"/>	E14S3233000H	Integrated Circuit	Digital		U40	Diodes AP2330W-7 SC-59 SMD 0.2A Current	1		1.146936
<input type="checkbox"/>	E14S3299700H	Integrated Circuit	Digital		U16	GMT G2997BF61U MSOP-P-10 SMD 2A DDR	1		1.146936

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Description	Ver A01	Failure Rate, Percentage	100.00
Reference Designator		MTBF	13847.68
Quantity		Calculation Model	Telcordia Issue 4

Tag	Part Number	Category	Subcategory	Type	Reference Designator	Description	Quantity	Failure Rate, Override	Failure Rate
<input type="checkbox"/>	E14S3321901H	Integrated Circuit	Digital		U7	TI TPS53219ARGTR QFN-16(3x3) SMD 28V	1		1.146936
<input type="checkbox"/>	E14S3364200H	Integrated Circuit	Digital		U17	TI TS3DV642A0RUAR WQFN-42(3.5x9) SMD 12ch	1		1.146936
<input type="checkbox"/>	E14S3506900H	Integrated Circuit	Digital		U23	TI LM5069MM-2/NOPB MSOP-10 SMD Hot Swap/	1		1.146936
<input type="checkbox"/>	E14S3520900H	Integrated Circuit	Digital		U30	EMC EM5209VF DFN-14(3x2) SMD 6A Dual	1		1.146936
<input type="checkbox"/>	E14S3564500H	Integrated Circuit	Microcontroller		U18	RealTek ALC5645-CG QFN-48(6x6) SMD	1		16.689899
<input type="checkbox"/>	E14S3727200H	Integrated Circuit	Digital		U5	Anpec APW7272QBI-TRG TDFN-10(3x3) SMD	1		1.146936
<input type="checkbox"/>	E14S3903900H	Integrated Circuit	Digital		U8	TI SND9039A2CTRSKT VQFN-64(8x8) SMD PMIC	1		1.146936
<input type="checkbox"/>	E14S4324304H	Integrated Circuit	Digital		U34,U37	ASIX ZT3243LEEY TSSOP-28 SMD LP 3 -5.5V	2		2.052388
<input type="checkbox"/>	E14S4348700H	Integrated Circuit	Digital		U31	MAXIM MAX13487EESA+ SO-8 SMD RS485/RS422	1		1.146936

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Reference Designator		MTBF	13847.68
Quantity		Calculation Model	Telcordia Issue 4

Tag	Part Number	Category	Subcategory	Type	Reference Designator	Description	Quantity	Failure Rate, Override	Failure Rate
<input type="checkbox"/>	E14S4565503H	Integrated Circuit	Digital		U10	NuvoTon NCT5655Y (Ver.B) QFN-24 (4x4) SMD	1		1.146936
<input type="checkbox"/>	E14S4835000H	Integrated Circuit	Microprocessor		U1	Intel Atom x5-Z8350 1.44GHz 2M FCBGA592	1		6.727815
<input type="checkbox"/>	E14S4930601H	Integrated Circuit	Digital		U20	ON PCA9306USG VSSOP-8 SMD I2C-Bus/SMBus	1		1.146936
<input type="checkbox"/>	E14S4951400H	Integrated Circuit	Microcontroller		U44	Microchip LAN9514 -JZX QFN-64(9x9) SMD	1		16.689899
<input type="checkbox"/>	E14S5C10800H	Integrated Circuit	Digital		U28,U29	TI SN74AHC1G08DBV R SOT23-5 SMD (HF)	2		2.052388
<input type="checkbox"/>	E14S5F00702H	Integrated Circuit	Digital		U32,U35,U36,U41	TI SN74LVC1G07DBVR SOT-23-5 SMD (HF)	4		3.765300
<input type="checkbox"/>	E14S6108G54H	Integrated Circuit	RAM		UR1,UR2,UR3,UR4	DDR3L-1600 512Mx16 FBGA96 (9x13.5) ProMOS	4		35.231845
<input type="checkbox"/>	E14S6200641H	Integrated Circuit	ROM, PROM, EPROM		U12	F-R Skhnyix H26M74002HMR 64G FBGA153 SMD	1		1.068607
<input type="checkbox"/>	E14S6393661H	Integrated Circuit	ROM, PROM, EPROM		U45	ECP MCHP AT93C66B-SSHM-T 4Kbit SO-8 SMD	1		1.068607
<input type="checkbox"/>	E14S9068200H	Integrated Circuit	Digital		U11	GMT G682L09TT12U 0.79V SOT23-5 SMD	1		1.146936

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Description	Ver A01	Failure Rate, Percentage	100.00
Reference Designator		MTBF	13847.68
Quantity		Calculation Model	Telcordia Issue 4

Tag	Part Number	Category	Subcategory	Type	Reference Designator	Description	Quantity	Failure Rate, Override	Failure Rate
<input type="checkbox"/>	E14S9814000H	Integrated Circuit	Microcontroller		U42	ASIX AX78140 LF LQFP-64 SMD USB-4 UART	1		16.689899
<input type="checkbox"/>	E14XSACPC00R	Integrated Circuit	ROM, PROM, EPROM		U13	ACP-CHT3 MCU FW 1.00 CS: H	1		1.068607
<input type="checkbox"/>	E16134200KAR	Connection	IC Socket		JBIO1	PH 4Px2-P8 2.0 180D(M) BLK SMD HOMETOM	1		1.598488
<input type="checkbox"/>	E1660210202H	Connection	IC Socket		JBAT1	Wafer 2P B-W 1.25 180D(M) NAT SMD CKM	1		1.598488
<input type="checkbox"/>	E1662311201H	Connection	IC Socket		JAMIC1	Wafer 3P B-W 2.0 90D(M) NAT SMD CKM	1		1.598488
<input type="checkbox"/>	E1672510210R	Connection	IC Socket		JGPIO1	W-B 10Px2 1.0mm 90D(M) NAT SMD ACES	1		1.598488
<input type="checkbox"/>	E1672620202R	Connection	IC Socket		JLCD1	W-B 20Px2 1.25mm 180D(M) WHT SMD HOMETOM	1		1.598488
<input type="checkbox"/>	E1694092100H	Connection	IC Socket		JSD1	Micro SD 9P 1.10 Push-Push SMD ATTEND	1		1.598488
<input type="checkbox"/>	E1695081300H	Connection	IC Socket		JUIM1	Micro SIM 8P Hinge-Type BLK SMD ATTEND	1		1.598488
<input type="checkbox"/>	E16BB671030H	Connection	IC Socket		JM2#1	M.2 67P 0.5 H8.5 90D STD G/F B-key SMD	1		1.598488

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Description	Ver A01	Failure Rate, Percentage	100.00
Reference Designator		MTBF	13847.68
Quantity		Calculation Model	Telcordia Issue 4

Tag	Part Number	Category	Subcategory	Type	Reference Designator	Description	Quantity	Failure Rate, Override	Failure Rate
<input type="checkbox"/>	E16D3510300H	Connection	IC Socket		JUSBM1	Micro USB-B 5P 90D(F) BLK SMD Contact	1		1.598488
<input type="checkbox"/>	E16F1019033R	Connection	IC Socket		JHDMI-1	HDMI 19P 90D(F) STD BLK SMD Foxconn	1		1.598488
<input type="checkbox"/>	E1907ACPC01RO-H1	Connection	Printed Board, Edge			PCB ACP-CHT3 A01 6L BLU OSP [?][?][?] [?]	1		2.430011
<input type="checkbox"/>	E175810301KR	Miscellaneous	Battery		JBAT1	Battery+Cable 3V/220mAh 2P/170mm KTS	1		99.107065
<input type="checkbox"/>	E14S9617400R	Integrated Circuit	Microcontroller		U43	ENLI ENL-Q6174AM2LGA LGA -76(12x12.2) SMD	1		16.689899
<input type="checkbox"/>	ACC-ADP-060N-08R					FSP FSP060-DHAN3 12V/5A	1	3333.333333	3333.333333
<input type="checkbox"/>	15" LCD Panel					NV156FHM-N42-8D35	1	66666.666666	66666.666666
<input type="checkbox"/>	Touch Board					DY1562W-4262	1	30.830673	30.830673