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MTBF Test Report

For T99X171.00

Customer Model Name: BFX-AT100

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Revision Change History

Revision	Description of Change	Date
1.0	Initial Release	2019/05/23

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Reliability Prediction Summary

File Name: U12C413.00.rfp
System: U12C413.00
Standard: Telcordia Issue 3
Method: Method I Case 3

Failure Rate:	655.620773
MTBF (hrs):	1,525,272
Temperature (C):	25
Environment:	GB, GC - Ground Benign, Controlled

Assembly Name	Part Number	Quantity	Failure Rate	MTBF
U12C413.00	U12C413.00	1	655.620773	1,525,272

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Part Number	Description	Category	Subcategory	Unit Failure Rate	Quantity	Total Failure Rate
202.01374.005	CAP CER 0.1pF +-0.05pF 50V SMD 0402 GP/HF NPO T=0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.091094	3	0.293501
202.01276.015	CAP CER 0.5pF +-0.05pF 50V SMD 0402 GP/HF NPO T=0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.091094	1	0.102768
202.01405.015	CAP CER 0.8pF +-0.05pF 50V SMD 0402 GP/HF NPO T=0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.091094	1	0.102768
250.00114.005	RES C SMD 0201 0ohm 5% GP/HF 1/20W	Resistor	Composition (RC, RCR)	0.093690	118	11.997376
251.00681.025	RES C SMD 0402 0ohm 5% GP/HF	Resistor	Composition (RC, RCR)	0.093690	41	4.405946
253.00303.025	RES C SMD 0805 0ohm 5% GP/HF	Resistor	Composition (RC, RCR)	0.093690	9	1.111564
252.00251.025	RES C SMD 0603 0ohm 5% GP/HF	Resistor	Composition (RC, RCR)	0.093690	1	0.184041
131.00073.005	IND TF 1.0nH 0.1nH 750mA 0.1ohm Q=14 SMD 0201 GP/HF	Inductor	Coil	0.083149	8	0.719994
202.01257.005	CAP CER 1.0pF +-0.05pF 50V SMD 0402 GP/HF NPO 0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.091094	1	0.102768
132.01721.005	IND WW 1.0uH 30% 9.85A 0.014ohm SMD GP	Inductor	Coil	0.083149	2	0.194219
132.00978.005	IND WW 1.0uH 20% 2.5A 0.048ohm SMD GP/HF	Inductor	Coil	0.083149	3	0.283539
202.01310.005	CAP CER 1.1pF +-0.05pF 50V SMD 0402 GP/HF NPO 0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.091094	2	0.198697
261.01268.005	RES C SMD 0402 1.33Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	1	0.080475
202.01275.005	CAP CER 1.3pF +-0.05pF 50V SMD 0402 GP/HF NPO 0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.091094	1	0.102768
251.00675.015	RES C SMD 0402 1.5Kohm 5% GP/HF	Resistor	Composition (RC, RCR)	0.093690	1	0.184041
201.00418.005	CAP CER 1.5nF 10% 16V SMD 0201 GP/HF X7R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.091094	4	0.387723
132.01050.005	IND WW 1.5uH 20% 6A 0.038ohm SMD GP/HF	Inductor	Coil	0.083149	1	0.103017
202.01294.005	CAP CER 1.6pF +-0.05pF 50V SMD 0402 GP/HF NPO T=0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.091094	2	0.198697
202.01252.005	CAP CER 1.8pF +-0.05pF 50V SMD 0402 GP/HF NPO 0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.091094	1	0.102768

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201.00168.045	CAP CER 1.8pF+-0.1pF 25V SMD 0201 GP/HF NPO T=0.3mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.091094	4	0.387723
261.00932.005	RES C SMD 0402 10.5Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	1	0.080475
251.00003.005	RES C SMD 0402 100Kohm 5% GP/HF 1/16W	Resistor	Composition (RC, RCR)	0.093690	17	1.959091
260.00045.005	RES C SMD 0201 100Kohm 1% GP/HF 1/20W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	2	0.149025
201.00506.005	CAP CER 100nF 10% 16V SMD 0201 GP/HF X5R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.091094	26	2.427964
203.00012.005	CAP CER 100nF 10% 25V SMD 0603 GP/HF X7R	Capacitor	General Ceramic (CK, CKR)	0.091094	18	1.689217
202.01159.025	CAP CER 100nF 10% 10V SMD 0402 GP/HF X7R	Capacitor	General Ceramic (CK, CKR)	0.091094	127	11.700466
201.00338.005	CAP CER 100nF 10% 10V SMD 0201 GP/HF X5R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.091094	124	11.425622
202.00009.015	CAP CER 100nF 10% 16V SMD 0402 GP/HF X7R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	4	0.387723
132.01233.005	IND WW 100nH 2% 400mA 0.46ohm SMD GP/HF	Inductor	Coil	0.083149	2	0.194219
261.00004.005	RES C SMD 0402 100ohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	6	0.411026
201.00012.085	CAP CER 100pF 5% 25V SMD 0201 GP/HF NPO T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.091094	17	1.596727
205.00439.015	CAP CER 100uF 20% 6.3V SMD 1206 GP/HF X5R T=1.6mm	Capacitor	General Ceramic (CK, CKR)	0.091094	8	0.761769
251.00005.005	RES C SMD 0402 10Kohm 5% GP/HF	Resistor	Composition (RC, RCR)	0.093690	26	2.887242
261.00839.005	RES C SMD 0402 10Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	3	0.215679
260.00021.015	RES C SMD 0201 10Kohm 1% GP/HF 1/20W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	2	0.149025
286.00055.005	THERMISTOR NTC 10Kohm 1% 100mW SMD 0603 GP/HF	Resistor	Thermistor (RTH)	0.995698	2	3.339671

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207.00143.015	CAP CER 10nF 10% 25V SMD 0201 GP/HF X7R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.091094	35	3.257346
202.00004.005	CAP CER 10nF 10% 16V SMD 0402 GP/HF X7R 0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	10	0.947854
201.00169.005	CAP CER 10nF 10% 10V SMD 0201 GP/HF X7R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.091094	34	3.165259
251.00006.005	RES C SMD 0402 10ohm 5% GP/HF 1/16W	Resistor	Composition (RC, RCR)	0.093690	4	0.555261
260.00087.005	RES C SMD 0201 10ohm 1% GP/HF 1/20W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	6	0.411026
202.00035.005	CAP CER 10pF +-0.25pF 50V SMD 0402 GP/HF NPO 0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	7	0.668543
202.01123.045	CAP CER 10pF 5% 50V SMD 0402 GP/HF NPO T=0.55mm	Capacitor	General Ceramic (CK, CKR)	0.091094	1	0.102768
201.00013.005	CAP CER 10pF 5% 25V SMD 0201 GP/HF NPO T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.091094	2	0.198697
201.00261.015	CAP CER 10pF 5% 25V SMD 0201 GP/HF COH T=0.3mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.091094	21	1.966466
205.00509.005	CAP CER 10uF 10% 25V SMD 1206 GP/HF X7R T=1.6mm	Capacitor	General Ceramic (CK, CKR)	0.091094	9	0.854866
207.00042.005	CAP CER 10uF 20% 6.3V SMD 0402 GP/HF X5R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	81	7.483661
207.00040.005	CAP CER 10uF 10% 10V SMD 0603 GP/HF X5R T=0.8mm	Capacitor	General Ceramic (CK, CKR)	0.091094	22	2.058819
207.00016.005	CAP CER 10uF 10% 6.3V SMD 0603 GP/HF X5R T=0.8mm	Capacitor	General Ceramic (CK, CKR)	0.091094	12	1.133565
130.00054.005	IND C 10uH 20% 155mA 0.5ohm Q=10 SMD 2.0*1.6*1.6mm GP	Inductor	Coil	0.083149	1	0.103017
261.00859.005	RES C SMD 0402 11.5Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	1	0.080475
202.01395.005	CAP CER 11pF 2% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	1	0.102768
261.01335.005	RES C SMD 0402 12.7Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	1	0.080475

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261.00913.005	RES C SMD 0402 120Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	1	0.080475
132.01237.005	IND WW 120nH 2% 400mA 0.51ohm SMD GP/HF	Inductor	Coil	0.083149	2	0.194219
151.00044.005	BEAD C 120ohm 25% 500mA 0.25ohm SMD 0402 GP/HF	Inductor	Coil	0.083149	6	0.546353
151.00437.005	BEAD C 120ohm 25% 450mA 0.23ohm SMD 0201 GP/HF	Inductor	Coil	0.083149	8	0.719994
151.00044.015	BEAD C 120ohm 25% 500mA 0.25ohm SMD 0402 GP/HF	Inductor	Coil	0.083149	4	0.371346
261.00008.005	RES C SMD 0402 120ohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	2	0.149025
261.00010.005	RES C SMD 0402 121ohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	1	0.080475
123.00622.005	LED CHIP 28~112mcd W 0.294/0.286 2P SMD 0603 GP/HF	Optical Device	Detector, Isolator, Emitter	0.067730	5	0.483739
123.00678.005	LED CHIP 11.2~71/28~112mcd O/W 597~612.5NM/0.3/0.3nm 3P SMD 3*2mm GP	Optical Device	Detector, Isolator, Emitter	0.067730	8	0.724406
202.00000.005	CAP CER 12nF 10% 16V SMD 0402 GP/HF X7R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	3	0.293501
130.00810.005	IND C 12nH 2% 500mA 0.14ohm Q=30 SMD 0402 GP/HF	Inductor	Coil	0.083149	1	0.103017
261.01000.005	RES C SMD 0402 133Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	1	0.080475
261.01257.005	RES C SMD 0402 137ohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	1	0.080475
261.00911.005	RES C SMD 0402 13Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	1	0.080475
202.01393.005	CAP CER 13pF 1% 50V SMD 0402 GP/HF NPO T=0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.091094	2	0.198697
261.00867.005	RES C SMD 0402 14Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	2	0.149025
261.00874.005	RES C SMD 0402 15.4Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	1	0.080475
132.01231.005	IND WW 150nH 2% 400mA 0.56ohm SMD GP/HF	Inductor	Coil	0.083149	2	0.194219

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251.00008.005	RES C SMD 0402 150ohm 5% GP/HF	Resistor	Composition (RC, RCR)	0.093690	4	0.555261
202.01307.005	CAP CER 150pF 2% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	1	0.102768
261.01390.005	RES C SMD 0402 154ohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	2	0.149025
261.00841.015	RES C SMD 0402 15Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	5	0.346412
201.00361.005	CAP CER 15nF 10% 6.3V SMD 0201 GP/HF X5R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.091094	5	0.481573
202.00051.025	CAP CER 15nF 10% 16V SMD 0402 GP/HF X7R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	5	0.481573
261.00836.005	RES C SMD 0402 15ohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	2	0.149025
202.01116.015	CAP CER 15pF 5% 50V SMD 0402 GP/HF NPO T=0.55mm	Capacitor	General Ceramic (CK, CKR)	0.091094	2	0.198697
202.01309.005	CAP CER 15pF 2% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	2	0.198697
202.01396.005	CAP CER 16pF 2% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	1	0.102768
151.00289.005	BEAD C 1800ohm 25% 200mA 2.3ohm SMD 0402 GP/HF	Inductor	Coil	0.083149	6	0.546353
134.01038.005	XFMR LAN 180uH SMD GP QVP2014R	Inductor	Transformer	2.267707	1	3.171504
202.01303.005	CAP CER 18pF 2% 50V SMD 0402 GP/HF NPO 0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	1	0.102768
201.00502.005	CAP CER 18pF 2% 25V SMD 0201 GP/HF NPO T=0.3mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.091094	4	0.387723
151.00430.005	BEAD C 1Kohm 25% 300mA 0.58ohm SMD 0402 GP/HF	Inductor	Coil	0.083149	1	0.103017
261.00835.035	RES C SMD 0402 1Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	21	1.358701
251.00011.015	RES C SMD 0402 1Kohm 5% GP/HF	Resistor	Composition (RC, RCR)	0.093690	3	0.437806
201.00202.005	CAP CER 1nF 10% 25V SMD 0201 GP/HF X7R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.091094	28	2.612399

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202.01140.005	CAP CER 1nF 10% 50V SMD 0402 GP/HF X7R 0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	4	0.387723
202.01166.005	CAP CER 1nF 5% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	6	0.575158
201.00541.005	CAP CER 1nF 5% 25V SMD 0201 GP/HF X7R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.091094	22	2.058819
202.00032.015	CAP CER 1nF 10% 16V SMD 0402 GP/HF X7R T=0.55mm	Capacitor	General Ceramic (CK, CKR)	0.091094	3	0.293501
208.00001.005	CAP CER 1nF 10% 2KV SMD 1206 GP/HF X7R T=1.7mm	Capacitor	General Ceramic (CK, CKR)	0.091094	1	0.102768
201.00379.005	CAP CER 1.0pF +-0.25pF 25V SMD 0201 GP/HF NPO T=0.3mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.091094	15	1.411620
202.01160.005	CAP CER 1uF 10% 10V SMD 0402 GP/HF X5R	Capacitor	General Ceramic (CK, CKR)	0.091094	33	3.073156
207.00034.005	CAP CER 1uF 10% 25V SMD 0603 GP/HF X7R 0.8mm	Capacitor	General Ceramic (CK, CKR)	0.091094	7	0.668543
202.00059.005	CAP CER 1uF 10% 6.3V SMD 0402 GP/HF X5R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	4	0.387723
201.00387.015	CAP CER 1uF 20% 6.3V SMD 0201 GP/HF X5R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.091094	87	8.034045
202.01365.005	CAP CER 1uF 10% 6.3V SMD 0402 GP/HF X7R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	4	0.387723
207.00128.005	CAP CER 1uF 20% 10V SMD 0201 GP/HF X5R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.091094	16	1.504196
132.01083.005	IND WW 1uH 20% 7A 0.0189ohm SMD GP/HF	Inductor	Coil	0.083149	2	0.194219
202.01299.005	CAP CER 2.0pF +-0.05pF 50V SMD 0402 GP/HF NPO 0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.091094	1	0.102768
251.00014.025	RES C SMD 0402 2.2Kohm 5% GP/HF	Resistor	Composition (RC, RCR)	0.093690	2	0.315664
201.00193.035	CAP CER 2.2nF 10% 16V SMD 0201 GP/HF X7R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.091094	3	0.293501
130.00004.005	IND C 2.2nH 0.1nH 220mA 0.3ohm Q=13 SMD 0402 GP/HF	Inductor	Coil	0.083149	2	0.194219

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250.00147.005	RES C SMD 0201 2.2ohm 5% GP/HF 1/20W	Resistor	Composition (RC, RCR)	0.093690	4	0.555261
204.00642.005	CAP CER 2.2uF 10% 25V SMD 0805 GP/HF X7R T=1.25mm	Capacitor	General Ceramic (CK, CKR)	0.091094	1	0.102768
202.01165.005	CAP CER 2.2uF 20% 6.3V SMD 0402 GP/HF X5R	Capacitor	General Ceramic (CK, CKR)	0.091094	7	0.668543
201.00501.005	CAP CER 2.2uF 20% 6.3V SMD 0201 GP/HF X5R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.091094	2	0.198697
132.01085.005	IND WW 2.2uH 20% 2.8A 0.045ohm SMD GP/HF	Inductor	Coil	0.083149	1	0.103017
202.01291.005	CAP CER 2.4pF +-0.05pF 50V SMD 0402 GP/HF NPO T=0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.091094	2	0.198697
132.01698.005	IND WW 2.7nH 0.1nH 850mA 0.05ohm SMD GP/HF	Inductor	Coil	0.083149	1	0.103017
260.00030.005	RES C SMD 0201 200Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	5	0.346412
261.00023.005	RES C SMD 0402 200ohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	1	0.080475
261.00831.005	RES C SMD 0402 20Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	4	0.281357
251.00018.015	RES C SMD 0402 20ohm 5% GP/HF 1/16W	Resistor	Composition (RC, RCR)	0.093690	10	1.219442
202.01391.005	CAP CER 20pF 2% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	3	0.293501
261.00987.005	RES C SMD 0402 21Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	5	0.346412
202.01366.005	CAP CER 220nF 10% 16V SMD 0402 GP/HF X7R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	1	0.102768
202.00011.005	CAP CER 220nF 10% 6.3V SMD 0402 GP/HF X5R T=0.56mm	Capacitor	General Ceramic (CK, CKR)	0.091094	3	0.293501
203.00006.005	CAP CER 220nF 10% 16V SMD 0603 GP/HF X7R	Capacitor	General Ceramic (CK, CKR)	0.091094	2	0.198697
132.01230.005	IND WW 220nH 2% 400mA 0.7ohm SMD GP/HF	Inductor	Coil	0.083149	3	0.283539
151.00357.005	BEAD C 220ohm 25% 200mA 0.8ohm SMD 0402 GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	1	0.080475
261.00024.005	RES C SMD 0402 220ohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	2	0.149025

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Environment: GB, GC - Ground Benign, Controlled

Part Number	Description	Category	Subcategory	Unit Failure Rate	Quantity	Total Failure Rate
261.00893.005	RES C SMD 0402 22Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	1	0.080475
202.00078.005	CAP CER 22nF 10% 16V SMD 0402 GP/HF X7R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	5	0.481573
130.00750.005	IND C 22nH 5% 300mA 0.58ohm Q=8 SMD 0402 GP/HF	Inductor	Coil	0.083149	1	0.103017
261.00026.005	RES C SMD 0402 22ohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	1	0.080475
202.01302.005	CAP CER 22pF 2% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	1	0.102768
202.01137.015	CAP CER 22pF 5% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	4	0.387723
207.00013.005	CAP CER 22uF 10% 25V SMD 1210 GP/HF X5R T=2.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	6	0.575158
204.00611.025	CAP CER 22uF 20% 6.3V SMD 0805 GP/HF X5R	Capacitor	General Ceramic (CK, CKR)	0.091094	19	1.781668
207.00020.045	CAP CER 22uF 20% 6.3V SMD 0603 GP/HF X5R 0.8mm	Capacitor	General Ceramic (CK, CKR)	0.091094	27	2.520192
207.00043.005	CAP CER 22uF 20% 10V SMD 0805 GP/HF X5R T=1.25mm	Capacitor	General Ceramic (CK, CKR)	0.091094	15	1.411620
207.00060.005	CAP CER 22uF 20% 10V SMD 0603 GP/HF X5R T=0.8mm	Capacitor	General Ceramic (CK, CKR)	0.091094	14	1.318993
261.01015.005	RES C SMD 0402 240Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	2	0.149025
261.01095.005	RES C SMD 0402 240ohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	3	0.215679
261.00028.005	RES C SMD 0402 249ohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	2	0.149025
132.01670.005	IND WW 270nH 2% 350mA 1.0ohm SMD GP	Inductor	Coil	0.083149	1	0.103017
251.00754.005	RES C SMD 0402 27Kohm 5% GP/HF	Resistor	Composition (RC, RCR)	0.093690	4	0.555261
202.01306.005	CAP CER 27pF 2% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	5	0.481573
261.00032.005	RES C SMD 0402 2Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	6	0.411026
251.00652.015	RES C SMD 0402 2Kohm 5% GP/HF	Resistor	Composition (RC, RCR)	0.093690	7	0.893161

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Part Number	Description	Category	Subcategory	Unit Failure Rate	Quantity	Total Failure Rate
104.00217.005	NFET 60V 300mA SMD SOT23-3 GP/HF	Semiconductor	Si FET	7.296966	1	10.746346
201.00222.045	CAP CER 3.0pF +-0.1pF 25V SMD 0201 GP/HF NPO T=0.3mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.091094	4	0.387723
261.00820.005	RES C SMD 0402 3.3Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	3	0.215679
250.00160.005	RES C SMD 0201 3.3Kohm 5% GP/HF 1/20W	Resistor	Composition (RC, RCR)	0.093690	3	0.437806
201.00223.005	CAP CER 3.3nF 10% 16V SMD 0201 GP/HF X7R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.091094	4	0.387723
201.00289.005	CAP CER 3.3pF+-0.1pF 25V SMD 0201 GP/HF NPO T=0.3mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.091094	16	1.504196
132.01041.005	IND WW 3.3uH 20% 4.3A 0.024ohm SMD GP/HF	Inductor	Coil	0.083149	1	0.103017
132.00718.005	CHOKE 3.3uH 20% 6A 0.035ohm SMD GP/HF	Inductor	Coil	0.083149	2	0.194219
261.00970.005	RES C SMD 0402 3.9Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	3	0.215679
132.00519.005	IND WW 3.9nH 2% 840mA 0.066ohm SMD GP/HF	Inductor	Coil	0.083149	8	0.719994
131.00076.005	IND TF 3.9nH 0.1nH 170mA 0.4ohm Q=5 SMD 0201 GP/HF	Inductor	Coil	0.083149	8	0.719994
202.01390.005	CAP CER 3.9pF +-0.05pF 50V SMD 0402 GP/HF NPO T=0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.091094	2	0.198697
261.00837.005	RES C SMD 0402 301Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	2	0.149025
261.00039.005	RES C SMD 0402 30Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	2	0.149025
207.00105.005	CAP CER 30pF 1% 50V SMD 0402 GP/HF NPO T=0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.091094	4	0.387723
261.00948.015	RES C SMD 0402 31.6Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	1	0.080475
261.00957.005	RES C SMD 0402 32.4Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	1	0.080475
202.01229.005	CAP CER 330nF 10% 6.3V SMD 0402 GP/HF X5R T=0.55mm	Capacitor	General Ceramic (CK, CKR)	0.091094	2	0.198697
132.01784.005	IND WW 330nH 2% 310mA 1.4ohm SMD GP	Inductor	Coil	0.083149	1	0.103017

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Part Number	Description	Category	Subcategory	Unit Failure Rate	Quantity	Total Failure Rate
251.00694.005	RES C SMD 0402 330ohm 5% GP/HF 1/16W	Resistor	Composition (RC, RCR)	0.093690	24	2.682461
251.00038.005	RES C SMD 0402 560ohm 5% GP/HF 1/16W	Resistor	Composition (RC, RCR)	0.093690	1	0.184041
202.01264.005	CAP CER 330pF 5% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	2	0.198697
261.01048.005	RES C SMD 0402 33Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	1	0.080475
202.00096.015	CAP CER 33nF 10% 16V SMD 0402 GP/HF X7R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	6	0.575158
202.00095.005	CAP CER 33nF 10% 10V SMD 0402 GP/HF X7R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	2	0.198697
202.01278.005	CAP CER 33pF 2% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	2	0.198697
261.01298.005	RES C SMD 0402 36Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	2	0.149025
202.01334.005	CAP CER 36pF 2% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	3	0.293501
132.00976.015	IND WW 390nH 5% 290mA 1.5ohm SMD GP/HF	Inductor	Coil	0.083149	1	0.103017
202.01305.005	CAP CER 39pF 2% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	2	0.198697
202.01376.005	CAP CER 3pF +-0.05pF 50V SMD 0402 GP/HF NPO T=0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.091094	2	0.198697
202.01308.005	CAP CER 4.3pF +-0.05pF 50V SMD 0402 GP/HF NPO 0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.091094	2	0.198697
260.00126.005	RES C SMD 0201 4.53Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	1	0.080475
261.01027.005	RES C SMD 0402 4.64Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	4	0.281357
251.00656.035	RES C SMD 0402 4.7Kohm 5% GP/HF	Resistor	Composition (RC, RCR)	0.093690	33	3.599199
260.00075.025	RES C SMD 0201 4.7Kohm 1% GP/HF 1/20W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	10	0.665990
201.00187.005	CAP CER 4.7nF 10% 10V SMD 0201 GP/HF X7R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.091094	8	0.761769
202.01253.005	CAP CER 4.7pF +-0.05pF 50V SMD 0402 GP/HF NPO T=0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.091094	2	0.198697

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Part Number	Description	Category	Subcategory	Unit Failure Rate	Quantity	Total Failure Rate
201.00282.005	CAP CER 4.7pF +-0.25pF 25V SMD 0201 GP/HF NPO T=0.3mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.091094	4	0.387723
207.00005.005	CAP CER 4.7uF 20% 6.3V SMD 0402 GP X6S T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	28	2.612399
207.00070.005	CAP CER 4.7uF 20% 10V SMD 0402 GP/HF X5R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	6	0.575158
203.00930.015	CAP CER 4.7uF 20% 6.3V SMD 0603 GP/HF X5R	Capacitor	General Ceramic (CK, CKR)	0.091094	1	0.102768
132.01292.005	IND WW 4.7uH 20% 3.1A 0.032ohm SMD GP	Inductor	Coil	0.083149	1	0.103017
132.00946.015	IND WW 4.7uH 20% 1.36A 0.17ohm SMD GP/HF	Inductor	Coil	0.083149	1	0.103017
130.01118.005	IND 4.7uH 20% 520mA 0.15ohm SMD 3.2*2.5mm GP/HF	Inductor	Coil	0.083149	1	0.103017
260.00057.005	RES C SMD 0201 40.2Kohm 1% GP/HF 1/20W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	1	0.080475
261.00869.005	RES C SMD 0402 40.2Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	9	0.602373
261.01477.005	RES C SMD 0402 41.2ohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	2	0.149025
261.01168.005	RES C SMD 0402 42.2Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	2	0.149025
132.01126.005	IND WW 43nH 2% 380mA 0.29ohm SMD GP/HF	Inductor	Coil	0.083149	2	0.194219
261.00933.005	RES C SMD 0402 45.3Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	1	0.080475
202.01151.005	CAP CER 470nF 10% 10V SMD 0402 GP/HF X5R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	1	0.102768
201.00495.005	CAP CER 470nF 20% 6.3V SMD 0201 GP/HF X5R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.091094	1	0.102768
151.00499.005	IND F 470nH 10% 200mA 0.57ohm SMD 0805 GP/HF	Inductor	Coil	0.083149	2	0.194219
151.00352.005	BEAD C 470ohm 25% 1A 0.2ohm SMD 0603 GP/HF	Inductor	Coil	0.083149	3	0.283539
201.00022.005	CAP CER 470pF 10% 16V SMD 0201 GP/HF X7R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.091094	31	2.888905

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261.01097.005	RES C SMD 0402 47Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	3	0.215679
202.00111.005	CAP CER 47nF 10% 16V SMD 0402 GP/HF X7R T=0.56mm	Capacitor	General Ceramic (CK, CKR)	0.091094	12	1.133565
132.01341.005	IND WW 47nH 5% 1.5A 0.075ohm SMD GP/HF	Inductor	Coil	0.083149	1	0.103017
202.01293.005	CAP CER 47pF 2% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	2	0.198697
123.00679.005	LED CHIP 18~45mcd R 617.5~633.5nm 2P SMD 1.8*0.3mm GP/HF	Optical Device	Detector, Isolator, Emitter	0.067730	1	0.132852
123.00381.005	LED CHIP 18~45mcd R 617.5~633.5nm 2P SMD 1.8*0.3mm GP/HF	Optical Device	Detector, Isolator, Emitter	0.067730	1	0.132852
123.00658.005	LED CHIP 90~180mcd WHITE 0.294/0.286nm 2P SMD 1.8*1mm GP	Optical Device	Detector, Isolator, Emitter	0.067730	1	0.132852
261.00850.035	RES C SMD 0402 49.9ohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	2	0.149025
260.00043.005	RES C SMD 0201 49.9ohm 1% GP/HF 1/20W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	1	0.080475
260.00114.005	RES C SMD 0201 5.1ohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	4	0.281357
132.00628.005	IND WW 5.6nH 2% 760mA 0.083ohm SMD GP/HF	Inductor	Coil	0.083149	1	0.103017
130.00819.005	IND C 5.6nH +-0.1nH 140mA 0.7ohm Q=13 SMD 0402 GP/HF	Inductor	Coil	0.083149	1	0.103017
202.00119.035	CAP CER 5.6pF +-0.5pF 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	2	0.198697
141.00874.015	XTAL 50MHz 20ppm 19pF 15ohm SMD GP 3.2*2.5mm -40~+100DegC	Miscellaneous	Quartz Crystal	1.517255	1	3.314159
141.00951.005	XTAL 54MHz 5ppm 19pF 15ohm SMD GP 2.5*2mm -40~+105DegC	Miscellaneous	Quartz Crystal	1.517255	2	8.925142
202.01258.005	CAP CER 56nF 5% 16V SMD 0402 GP/HF X7R 0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	1	0.102768
251.00651.005	RES C SMD 0402 56ohm 5% GP/HF	Resistor	Composition (RC, RCR)	0.093690	1	0.184041
270.00157.015	RES NET 8P4R 2.0*1.0mm 56ohm 5% SEP SMD GP/HF	Resistor	Composition (RC, RCR)	0.093690	6	0.782246

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202.01236.005	CAP CER 56pF 1% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	1	0.102768
261.00926.005	RES C SMD 0402 6.04Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	2	0.149025
132.01154.005	IND WW 6.2nH 0.2nH 750mA 0.082ohm SMD GP/HF	Inductor	Coil	0.083149	3	0.283539
202.00132.015	CAP CER 6.8nF 10% 25V SMD 0402 GP/HF X7R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	4	0.387723
202.00133.005	CAP CER 6.8nF 10% 50V SMD 0402 GP/HF X7R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	1	0.102768
132.00823.005	IND WW 6.8nH 2% 700mA 0.09ohm SMD GP/HF	Inductor	Coil	0.083149	1	0.103017
201.00175.035	CAP CER 6.8pF +-0.1pF 25V SMD 0201 GP/HF NPO T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.091094	1	0.102768
132.01739.005	IND WW 6.8uH 20% 4.3A 0.031ohm SMD GP	Inductor	Coil	0.083149	1	0.103017
132.01394.005	IND WW 6.8uH 20% 4.5A 0.05ohm SMD GP/HF	Inductor	Coil	0.083149	3	0.283539
261.01172.005	RES C SMD 0402 6.98Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	2	0.149025
151.00510.005	BEAD C 600ohm 25% 900mA 0.23ohm SMD 0402 GP/HF	Inductor	Coil	0.083149	1	0.103017
151.00043.005	BEAD C 600ohm 0.3A 0.6ohm SMD 0402 GP/HF	Inductor	Coil	0.083149	19	1.664288
151.00282.005	BEAD C 600ohm 25% 1A 0.15ohm SMD 0603 GP/HF	Inductor	Coil	0.083149	4	0.371346
151.00387.015	BEAD C 600ohm 25% 2A 0.1ohm SMD 0805 GP/HF	Inductor	Coil	0.083149	4	0.371346
151.00371.005	BEAD C 600ohm 25% 500mA 0.5ohm SMD 0603 GP/HF	Inductor	Coil	0.083149	1	0.103017
151.00513.005	BEAD C 600ohm 25% 1.3A 0.1ohm SMD 0603 GP/HF	Inductor	Coil	0.083149	6	0.546353
261.00962.005	RES C SMD 0402 604Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	1	0.080475
349.00145.005GE	CONN RF SHIELDING D=11mm SMD RT GP	Connection	General	2.086225	1	3.612102

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202.00135.005	CAP CER 68nF 10% 10V SMD 0402 GP/HF X5R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	2	0.198697
202.01280.005	CAP CER 7.5pF +-0.1pF 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.091094	1	0.102768
261.01374.005	RES C SMD 0402 7.68Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.060472	1	0.080475
074.00190.015	IC GATE 1.65~5.5V SMD SOT353 GP/HF NL17SZ08DFT2G	Integrated Circuit	Logic, CGA or ASIC	0.659082	3	2.545969
083.00015.015	IC CMOS 2~6V SMD TSSOP14 GP SN74HC164PWR	Integrated Circuit	Logic, CGA or ASIC	0.659082	1	0.991380
132.01488.005	IND WW 82nH 2% 1A 0.22ohm SMD GP/HF	Inductor	Coil	0.083149	1	0.103017
201.00263.025	CAP CER 9pF +-0.5pF 25V SMD 0201 GP/HF NPO T=0.3mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.091094	22	2.058819
112.00350.005	DIODE SBD 30V 100mA SMD SOD323 GP	Semiconductor	Diode	0.218909	1	0.422872
172.00055.005	GAS TUBE 90V 0.5pF 3000A 2P SMD 4.5*3.2*2.7mm GP/HF	Miscellaneous	Fuse	0.400000	1	0.654555
002.02675.005	IC PER 3.3V SMD FCBGA1413 GP SINGLE CHIP SOC BCM3390SKFSBG	Integrated Circuit	Microprocessor	2.889332	1	5.618947
004.00209.035	IC RF PA 2.5V SMD QFN20 GP BCM3432KMLG	Integrated Circuit	Linear	0.649131	1	1.262380
002.02702.005	IC PER 1.2~3.3V SMD RFCBGA284 GP MAC/PHY/RADIO BCM43684B1KRFBG	Integrated Circuit	Linear	0.649131	2	2.168220
002.02687.005	IC PER 1.2/2.5V SMD BGA81 GP ETHERNET TRANSCEIVER BCM54991ELB0KFEBG	Integrated Circuit	Linear	0.649131	1	1.262380
004.00235.005	IC RF PA 5V SMD HVQFN20 GP BGA3131	Integrated Circuit	Linear	0.649131	1	1.262380
172.00030.005	GAS TUBE 200V 0.6pF 500A 2P SMD 3.2*1.6*1.6mm GP/HF	Miscellaneous	Fuse	0.400000	5	2.560121
115.00437.005	DIODE ZEN 3.9V 0.41W SMD SOT23 GP/HF	Semiconductor	Diode	0.218909	1	0.422872
006.00177.005	IC RF SWITCH 2.5~5.25V SMD VFQFP12 GP F2976NEGK8	Integrated Circuit	Linear	0.649131	1	1.262380

File Name: U12C413.00.rfp
Assembly: U12C413.00
Standard: Telcordia Issue 3
Method: Method I Case 3

Failure Rate: 655.620773
MTBF (hrs): 1,525,272
Temperature (C): 25
Environment: GB, GC - Ground Benign, Controlled

Part Number	Description	Category	Subcategory	Unit Failure Rate	Quantity	Total Failure Rate
105.00204.005	PFET 30V 13A SMD SO8 GP	Semiconductor	Si FET	7.296966	1	10.746346
027.01143.005	IC REG 1.2~2.8V 2A SMD SOP8 GP/HF FP6145BSPCTR	Integrated Circuit	Linear	0.649131	1	1.262380
027.01388.005	IC REG 2.5V 300mA SMD SOT23-5 GP FP6185-25S5	Integrated Circuit	Linear	0.649131	2	2.168220
039.00272.005	IC ANALOG 2.93V SMD SOT23-3 MICROPROCESSOR RESET CIRCUITS GP/HF FP6809-29CS3GTR	Integrated Circuit	Linear	0.649131	2	2.168220
053.00362.005	IC DDR3 SDRAM 4Gb 1.5V 0.468nS SMD FBGA96 GP K4B4G1646E-BCNB	Integrated Circuit	Memory	1.472605	2	4.087176
341.00355.005	HEADER RF 1*1PORT D/2.0mm SMD MALE ST GP/HF	Connection	General	2.086225	5	13.795915
117.00214.005	DIODE TVS 12V 9A SMD SOD323 GP	Semiconductor	Diode	0.218909	3	1.009928
154.00269.005	FILTER DIPLEXER 2450~5425MHz 0.45~0.60dB SMD 0603 GP/HF	Filter	Strainer,Fluid, Water	15.721000	4	62.884000
101.00007.015	TR NPN 40V 200mA SMD SOT23 GP	Semiconductor	Transistor	1.174148	2	3.627511
100.00050.025	TR PNP+NPN 40V 200mA SMD SOT363 GP	Semiconductor	Transistor	1.174148	1	2.081373
027.01362.005	IC REG 1.2~4.5V 250mA SMD SOT23-5 GP LP5907MFX-1.8/NOPB	Integrated Circuit	Linear	0.649131	2	2.168220
176.00004.005GE	FILTER ESD SUPPRESSOR 4V 0.05pF 25V 2P SMD 0402 GP/HF	Filter	Strainer,Fluid, Water	15.721000	12	188.652000
135.00166.005	FILTER BALUN 50~1200MHz 1.2dB SMD 0805 GP/HF	Filter	Strainer,Fluid, Water	15.721000	1	15.721000
029.00729.005	IC DC-DC 2.5~5.5V SMD SOT563 GP/HF MP1601CGTF-Z	Integrated Circuit	Linear	0.649131	2	2.168220
029.00604.005	IC DC-DC 2.3~5.5V SMD SOT563 GP/HF MP1605GTF-Z	Integrated Circuit	Linear	0.649131	1	1.262380
029.00777.005	IC DC-DC 3~6V SMD QFN14 GP MP2176GL-Z	Integrated Circuit	Linear	0.649131	2	2.168220
029.00735.005	IC DC-DC 4.5~24V SMD QFN11 GP MP2329GG-Z	Integrated Circuit	Linear	0.649131	2	2.168220

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Failure Rate: 655.620773
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Part Number	Description	Category	Subcategory	Unit Failure Rate	Quantity	Total Failure Rate
029.00794.005	IC DC-DC 4.2~22V SMD SOT583 GP MP2330GTL- C814-Z	Integrated Circuit	Linear	0.649131	3	3.010078
029.00795.005	IC DC-DC 4.2~22V SMD SOT583 GP MP2331GTL- C814-Z	Integrated Circuit	Linear	0.649131	7	6.152855
063.00049.005	IC NAND FLASH 4Gb 2.7~3.6V 20nS SMD TSOP48 GP MT29F4G08ABAEAWP:E	Integrated Circuit	Memory	1.472605	1	2.285836
155.00068.005	FILTER EMI 6.3V 6A SMD 1206 GP	Filter	Strainer,Fluid, Water	15.721000	2	31.442000
020.00048.005	IC SENSOR 2.7~5.5V SMD TSOP6 TEMP GP PCT2075GV	Integrated Circuit	Logic, CGA or ASIC	0.659082	1	0.991380
006.00164.005GE	TMS IC RF SWITCH 3.3V SMD QFN12 GP PE42724A -Z	Integrated Circuit	Logic, CGA or ASIC	0.659082	1	0.991380
007.00166.005	IC RF FEM 5V SMD 5*3*0.82mm GP/HF WIFI QPF4216BTR13	Integrated Circuit	Linear	0.649131	4	3.820246
007.00165.005	IC RF FEM 5.V SMD 5*3*1.225mm GP/HF WIFI QPF4516BTR13	Integrated Circuit	Linear	0.649131	4	3.820246
112.00026.015	DIODE SBD 30V 200mA SMD SC79 GP/HF	Semiconductor	Diode	0.218909	1	0.422872
006.00178.005	IC RF SWITCH 2.5~3.6V SMD QFN6 GP/HF RTC7608	Integrated Circuit	Logic, CGA or ASIC	0.659082	1	0.991380
153.00232.005	FILTER SAW 2400~2484MHz 2.6dB 50ohm SMD GP/HF	Filter	Strainer,Fluid, Water	15.721000	4	62.884000
117.00194.005	DIODE TVS 5.3V 3A SMD SOD882 GP	Semiconductor	Diode	0.218909	3	1.009928
033.00258.005	IC SW 2.5~6.5V SMD SON6 GP/HF TPS2553DRVR	Integrated Circuit	Logic, CGA or ASIC	0.659082	1	0.991380
342.00969.005	CONN USB 3.0 30u"Pd/Ni+Au 1*1PORT 1.0mm SMD FEMALE RT GP	Connection	General	2.086225	1	3.612102
141.00626.025	XTAL 54MHz 15ppm 19pF 15ohm SMD GP/HF 3.2*2.5mm - 30~+100DegC	Miscellaneous	Quartz Crystal	1.517255	1	3.314159
137.00029.005	XFMR RF 5~204MHz 1.0dB SMD GP	Inductor	Transformer	2.267707	1	3.171504
137.00023.005	XFMR RF 5~200MHz 1.1dB SMD GP	Inductor	Transformer	2.267707	1	3.171504

File Name: U12C413.00.rfp
Assembly: U12C413.00
Standard: Telcordia Issue 3
Method: Method I Case 3

Failure Rate: 655.620773
MTBF (hrs): 1,525,272
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Environment: GB, GC - Ground Benign, Controlled

Part Number	Description	Category	Subcategory	Unit Failure Rate	Quantity	Total Failure Rate
342.01450.005	CONN RJ45 8P8C 1~3u" GOLD 1*1PORT 2.04mm DIP F RT GP	Connection	General	2.086225	1	3.612102
342.01538.005	CONN RJ45 8P8C 1~3u"GOLD 1*4PORT 2.04mm DIP F RT GP BLACK	Connection	General	2.086225	1	3.612102
215.00654.005	CAP AL 220uF 20% 25V 105C 7KH DIP 8*11.5mm P=3.5mm GP/HF	Capacitor	General Ceramic (CK, CKR)	0.091094	1	0.102768
341.00526.005	HEADER PIN 1*4P 2.54mm DIP MALE ST GP BLACK	Connection	General	2.086225	4	11.361975
134.00928.005	XFMR LAN 350uH DIP GP G2PM109RN LF	Inductor	Transformer	2.267707	2	5.803806
344.00217.005	CONN PWR JACK 1*1PORT D=8.0/5.0mm DIP FEMALE RT GP 19V 3.16ACONN	Connection	General	2.086225	1	3.612102
183.00034.005	SW SLIDE 1A 12V DIP RT GP/HF	Switching Device	Toggle or Pushbutton	3.034509	1	5.396069
182.00160.005	SW TACT 50mA 12V DIP RT GP	Switching Device	Toggle or Pushbutton	3.034509	3	13.166299

Reliability Prediction Summary

File Name: U12C413.00.rfp
System: U12C413.00
Standard: Telcordia Issue 3
Method: Method I Case 3

Failure Rate:	944.282655
MTBF (hrs):	1,059,005
Temperature (C):	45
Environment:	GB, GC - Ground Benign, Controlled

Assembly Name	Part Number	Quantity	Failure Rate	MTBF
U12C413.00	U12C413.00	1	944.282655	1,059,005

File Name: U12C413.00.rfp
Assembly: U12C413.00
Standard: Telcordia Issue 3
Method: Method I Case 3

Failure Rate: 944.282655
MTBF (hrs): 1,059,005
Temperature (C): 45
Environment: GB, GC - Ground Benign, Controlled

Part Number	Description	Category	Subcategory	Unit Failure Rate	Quantity	Total Failure Rate
202.01374.005	CAP CER 0.1pF +-0.05pF 50V SMD 0402 GP/HF NPO T=0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.102957	3	0.331723
202.01276.015	CAP CER 0.5pF +-0.05pF 50V SMD 0402 GP/HF NPO T=0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.102957	1	0.116151
202.01405.015	CAP CER 0.8pF +-0.05pF 50V SMD 0402 GP/HF NPO T=0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.102957	1	0.116151
250.00114.005	RES C SMD 0201 0ohm 5% GP/HF 1/20W	Resistor	Composition (RC, RCR)	0.220726	118	28.264935
251.00681.025	RES C SMD 0402 0ohm 5% GP/HF	Resistor	Composition (RC, RCR)	0.220726	41	10.380085
253.00303.025	RES C SMD 0805 0ohm 5% GP/HF	Resistor	Composition (RC, RCR)	0.220726	9	2.618763
252.00251.025	RES C SMD 0603 0ohm 5% GP/HF	Resistor	Composition (RC, RCR)	0.220726	1	0.433588
131.00073.005	IND TF 1.0nH 0.1nH 750mA 0.1ohm Q=14 SMD 0201 GP/HF	Inductor	Coil	0.120048	8	1.039505
202.01257.005	CAP CER 1.0pF +-0.05pF 50V SMD 0402 GP/HF NPO 0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.102957	1	0.116151
132.01721.005	IND WW 1.0uH 30% 9.85A 0.014ohm SMD GP	Inductor	Coil	0.120048	2	0.280408
132.00978.005	IND WW 1.0uH 20% 2.5A 0.048ohm SMD GP/HF	Inductor	Coil	0.120048	3	0.409365
202.01310.005	CAP CER 1.1pF +-0.05pF 50V SMD 0402 GP/HF NPO 0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.102957	2	0.224573
261.01268.005	RES C SMD 0402 1.33Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	1	0.116187
202.01275.005	CAP CER 1.3pF +-0.05pF 50V SMD 0402 GP/HF NPO 0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.102957	1	0.116151
251.00675.015	RES C SMD 0402 1.5Kohm 5% GP/HF	Resistor	Composition (RC, RCR)	0.220726	1	0.433588
201.00418.005	CAP CER 1.5nF 10% 16V SMD 0201 GP/HF X7R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.102957	4	0.438216
132.01050.005	IND WW 1.5uH 20% 6A 0.038ohm SMD GP/HF	Inductor	Coil	0.120048	1	0.148732
202.01294.005	CAP CER 1.6pF +-0.05pF 50V SMD 0402 GP/HF NPO T=0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.102957	2	0.224573
202.01252.005	CAP CER 1.8pF +-0.05pF 50V SMD 0402 GP/HF NPO 0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.102957	1	0.116151

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Assembly: U12C413.00
Standard: Telcordia Issue 3
Method: Method I Case 3

Failure Rate: 944.282655
MTBF (hrs): 1,059,005
Temperature (C): 45
Environment: GB, GC - Ground Benign, Controlled

Part Number	Description	Category	Subcategory	Unit Failure Rate	Quantity	Total Failure Rate
201.00168.045	CAP CER 1.8pF+-0.1pF 25V SMD 0201 GP/HF NPO T=0.3mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.102957	4	0.438216
261.00932.005	RES C SMD 0402 10.5Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	1	0.116187
251.00003.005	RES C SMD 0402 100Kohm 5% GP/HF 1/16W	Resistor	Composition (RC, RCR)	0.220726	17	4.615474
260.00045.005	RES C SMD 0201 100Kohm 1% GP/HF 1/20W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	2	0.215158
201.00506.005	CAP CER 100nF 10% 16V SMD 0201 GP/HF X5R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.102957	26	2.744152
203.00012.005	CAP CER 100nF 10% 25V SMD 0603 GP/HF X7R	Capacitor	General Ceramic (CK, CKR)	0.102957	18	1.909199
202.01159.025	CAP CER 100nF 10% 10V SMD 0402 GP/HF X7R	Capacitor	General Ceramic (CK, CKR)	0.102957	127	13.224192
201.00338.005	CAP CER 100nF 10% 10V SMD 0201 GP/HF X5R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.102957	124	12.913555
202.00009.015	CAP CER 100nF 10% 16V SMD 0402 GP/HF X7R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	4	0.438216
132.01233.005	IND WW 100nH 2% 400mA 0.46ohm SMD GP/HF	Inductor	Coil	0.120048	2	0.280408
261.00004.005	RES C SMD 0402 100ohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	6	0.593427
201.00012.085	CAP CER 100pF 5% 25V SMD 0201 GP/HF NPO T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.102957	17	1.804666
205.00439.015	CAP CER 100uF 20% 6.3V SMD 1206 GP/HF X5R T=1.6mm	Capacitor	General Ceramic (CK, CKR)	0.102957	8	0.860973
251.00005.005	RES C SMD 0402 10Kohm 5% GP/HF	Resistor	Composition (RC, RCR)	0.220726	26	6.802129
261.00839.005	RES C SMD 0402 10Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	3	0.311391
260.00021.015	RES C SMD 0201 10Kohm 1% GP/HF 1/20W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	2	0.215158
286.00055.005	THERMISTOR NTC 10Kohm 1% 100mW SMD 0603 GP/HF	Resistor	Thermistor (RTH)	2.651279	2	8.892652

File Name: U12C413.00.rfp
Assembly: U12C413.00
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Failure Rate: 944.282655
MTBF (hrs): 1,059,005
Temperature (C): 45
Environment: GB, GC - Ground Benign, Controlled

Part Number	Description	Category	Subcategory	Unit Failure Rate	Quantity	Total Failure Rate
207.00143.015	CAP CER 10nF 10% 25V SMD 0201 GP/HF X7R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.102957	35	3.681543
202.00004.005	CAP CER 10nF 10% 16V SMD 0402 GP/HF X7R 0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	10	1.071291
201.00169.005	CAP CER 10nF 10% 10V SMD 0201 GP/HF X7R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.102957	34	3.577463
251.00006.005	RES C SMD 0402 10ohm 5% GP/HF 1/16W	Resistor	Composition (RC, RCR)	0.220726	4	1.308155
260.00087.005	RES C SMD 0201 10ohm 1% GP/HF 1/20W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	6	0.593427
202.00035.005	CAP CER 10pF +-0.25pF 50V SMD 0402 GP/HF NPO 0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	7	0.755606
202.01123.045	CAP CER 10pF 5% 50V SMD 0402 GP/HF NPO T=0.55mm	Capacitor	General Ceramic (CK, CKR)	0.102957	1	0.116151
201.00013.005	CAP CER 10pF 5% 25V SMD 0201 GP/HF NPO T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.102957	2	0.224573
201.00261.015	CAP CER 10pF 5% 25V SMD 0201 GP/HF C0H T=0.3mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.102957	21	2.222555
205.00509.005	CAP CER 10uF 10% 25V SMD 1206 GP/HF X7R T=1.6mm	Capacitor	General Ceramic (CK, CKR)	0.102957	9	0.966193
207.00042.005	CAP CER 10uF 20% 6.3V SMD 0402 GP/HF X5R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	81	8.458241
207.00040.005	CAP CER 10uF 10% 10V SMD 0603 GP/HF X5R T=0.8mm	Capacitor	General Ceramic (CK, CKR)	0.102957	22	2.326934
207.00016.005	CAP CER 10uF 10% 6.3V SMD 0603 GP/HF X5R T=0.8mm	Capacitor	General Ceramic (CK, CKR)	0.102957	12	1.281187
130.00054.005	IND C 10uH 20% 155mA 0.5ohm Q=10 SMD 2.0*1.6*1.6mm GP	Inductor	Coil	0.120048	1	0.148732
261.00859.005	RES C SMD 0402 11.5Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	1	0.116187
202.01395.005	CAP CER 11pF 2% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	1	0.116151
261.01335.005	RES C SMD 0402 12.7Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	1	0.116187

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Part Number	Description	Category	Subcategory	Unit Failure Rate	Quantity	Total Failure Rate
261.00913.005	RES C SMD 0402 120Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	1	0.116187
132.01237.005	IND WW 120nH 2% 400mA 0.51ohm SMD GP/HF	Inductor	Coil	0.120048	2	0.280408
151.00044.005	BEAD C 120ohm 25% 500mA 0.25ohm SMD 0402 GP/HF	Inductor	Coil	0.120048	6	0.788808
151.00437.005	BEAD C 120ohm 25% 450mA 0.23ohm SMD 0201 GP/HF	Inductor	Coil	0.120048	8	1.039505
151.00044.015	BEAD C 120ohm 25% 500mA 0.25ohm SMD 0402 GP/HF	Inductor	Coil	0.120048	4	0.536138
261.00008.005	RES C SMD 0402 120ohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	2	0.215158
261.00010.005	RES C SMD 0402 121ohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	1	0.116187
123.00622.005	LED CHIP 28~112mcd W 0.294/0.286 2P SMD 0603 GP/HF	Optical Device	Detector, Isolator, Emitter	0.375927	5	2.684939
123.00678.005	LED CHIP 11.2~71/28~112mcd O/W 597~612.5NM/0.3/0.3nm 3P SMD 3*2mm GP	Optical Device	Detector, Isolator, Emitter	0.375927	8	4.020733
202.00000.005	CAP CER 12nF 10% 16V SMD 0402 GP/HF X7R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	3	0.331723
130.00810.005	IND C 12nH 2% 500mA 0.14ohm Q=30 SMD 0402 GP/HF	Inductor	Coil	0.120048	1	0.148732
261.01000.005	RES C SMD 0402 133Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	1	0.116187
261.01257.005	RES C SMD 0402 137ohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	1	0.116187
261.00911.005	RES C SMD 0402 13Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	1	0.116187
202.01393.005	CAP CER 13pF 1% 50V SMD 0402 GP/HF NPO T=0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.102957	2	0.224573
261.00867.005	RES C SMD 0402 14Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	2	0.215158
261.00874.005	RES C SMD 0402 15.4Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	1	0.116187
132.01231.005	IND WW 150nH 2% 400mA 0.56ohm SMD GP/HF	Inductor	Coil	0.120048	2	0.280408

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Failure Rate: 944.282655
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Temperature (C): 45
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Part Number	Description	Category	Subcategory	Unit Failure Rate	Quantity	Total Failure Rate
251.00008.005	RES C SMD 0402 150ohm 5% GP/HF	Resistor	Composition (RC, RCR)	0.220726	4	1.308155
202.01307.005	CAP CER 150pF 2% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	1	0.116151
261.01390.005	RES C SMD 0402 154ohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	2	0.215158
261.00841.015	RES C SMD 0402 15Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	5	0.500139
201.00361.005	CAP CER 15nF 10% 6.3V SMD 0201 GP/HF X5R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.102957	5	0.544287
202.00051.025	CAP CER 15nF 10% 16V SMD 0402 GP/HF X7R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	5	0.544287
261.00836.005	RES C SMD 0402 15ohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	2	0.215158
202.01116.015	CAP CER 15pF 5% 50V SMD 0402 GP/HF NPO T=0.55mm	Capacitor	General Ceramic (CK, CKR)	0.102957	2	0.224573
202.01309.005	CAP CER 15pF 2% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	2	0.224573
202.01396.005	CAP CER 16pF 2% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	1	0.116151
151.00289.005	BEAD C 1800ohm 25% 200mA 2.3ohm SMD 0402 GP/HF	Inductor	Coil	0.120048	6	0.788808
134.01038.005	XFMR LAN 180uH SMD GP QVP2014R	Inductor	Transformer	3.274046	1	4.578921
202.01303.005	CAP CER 18pF 2% 50V SMD 0402 GP/HF NPO 0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	1	0.116151
201.00502.005	CAP CER 18pF 2% 25V SMD 0201 GP/HF NPO T=0.3mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.102957	4	0.438216
151.00430.005	BEAD C 1Kohm 25% 300mA 0.58ohm SMD 0402 GP/HF	Inductor	Coil	0.120048	1	0.148732
261.00835.035	RES C SMD 0402 1Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	21	1.961652
251.00011.015	RES C SMD 0402 1Kohm 5% GP/HF	Resistor	Composition (RC, RCR)	0.220726	3	1.031439
201.00202.005	CAP CER 1nF 10% 25V SMD 0201 GP/HF X7R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.102957	28	2.952605

File Name: U12C413.00.rfp
Assembly: U12C413.00
Standard: Telcordia Issue 3
Method: Method I Case 3

Failure Rate: 944.282655
MTBF (hrs): 1,059,005
Temperature (C): 45
Environment: GB, GC - Ground Benign, Controlled

Part Number	Description	Category	Subcategory	Unit Failure Rate	Quantity	Total Failure Rate
202.01140.005	CAP CER 1nF 10% 50V SMD 0402 GP/HF X7R 0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	4	0.438216
202.01166.005	CAP CER 1nF 5% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	6	0.650060
201.00541.005	CAP CER 1nF 5% 25V SMD 0201 GP/HF X7R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.102957	22	2.326934
202.00032.015	CAP CER 1nF 10% 16V SMD 0402 GP/HF X7R T=0.55mm	Capacitor	General Ceramic (CK, CKR)	0.102957	3	0.331723
208.00001.005	CAP CER 1nF 10% 2KV SMD 1206 GP/HF X7R T=1.7mm	Capacitor	General Ceramic (CK, CKR)	0.102957	1	0.116151
201.00379.005	CAP CER 1.0pF +-0.25pF 25V SMD 0201 GP/HF NPO T=0.3mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.102957	15	1.595452
202.01160.005	CAP CER 1uF 10% 10V SMD 0402 GP/HF X5R	Capacitor	General Ceramic (CK, CKR)	0.102957	33	3.473367
207.00034.005	CAP CER 1uF 10% 25V SMD 0603 GP/HF X7R 0.8mm	Capacitor	General Ceramic (CK, CKR)	0.102957	7	0.755606
202.00059.005	CAP CER 1uF 10% 6.3V SMD 0402 GP/HF X5R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	4	0.438216
201.00387.015	CAP CER 1uF 20% 6.3V SMD 0201 GP/HF X5R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.102957	87	9.080300
202.01365.005	CAP CER 1uF 10% 6.3V SMD 0402 GP/HF X7R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	4	0.438216
207.00128.005	CAP CER 1uF 20% 10V SMD 0201 GP/HF X5R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.102957	16	1.700085
132.01083.005	IND WW 1uH 20% 7A 0.0189ohm SMD GP/HF	Inductor	Coil	0.120048	2	0.280408
202.01299.005	CAP CER 2.0pF +-0.05pF 50V SMD 0402 GP/HF NPO 0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.102957	1	0.116151
251.00014.025	RES C SMD 0402 2.2Kohm 5% GP/HF	Resistor	Composition (RC, RCR)	0.220726	2	0.743681
201.00193.035	CAP CER 2.2nF 10% 16V SMD 0201 GP/HF X7R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.102957	3	0.331723
130.00004.005	IND C 2.2nH 0.1nH 220mA 0.3ohm Q=13 SMD 0402 GP/HF	Inductor	Coil	0.120048	2	0.280408

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Failure Rate: 944.282655
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Part Number	Description	Category	Subcategory	Unit Failure Rate	Quantity	Total Failure Rate
250.00147.005	RES C SMD 0201 2.2ohm 5% GP/HF 1/20W	Resistor	Composition (RC, RCR)	0.220726	4	1.308155
204.00642.005	CAP CER 2.2uF 10% 25V SMD 0805 GP/HF X7R T=1.25mm	Capacitor	General Ceramic (CK, CKR)	0.102957	1	0.116151
202.01165.005	CAP CER 2.2uF 20% 6.3V SMD 0402 GP/HF X5R	Capacitor	General Ceramic (CK, CKR)	0.102957	7	0.755606
201.00501.005	CAP CER 2.2uF 20% 6.3V SMD 0201 GP/HF X5R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.102957	2	0.224573
132.01085.005	IND WW 2.2uH 20% 2.8A 0.045ohm SMD GP/HF	Inductor	Coil	0.120048	1	0.148732
202.01291.005	CAP CER 2.4pF +-0.05pF 50V SMD 0402 GP/HF NPO T=0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.102957	2	0.224573
132.01698.005	IND WW 2.7nH 0.1nH 850mA 0.05ohm SMD GP/HF	Inductor	Coil	0.120048	1	0.148732
260.00030.005	RES C SMD 0201 200Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	5	0.500139
261.00023.005	RES C SMD 0402 200ohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	1	0.116187
261.00831.005	RES C SMD 0402 20Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	4	0.406214
251.00018.015	RES C SMD 0402 20ohm 5% GP/HF 1/16W	Resistor	Composition (RC, RCR)	0.220726	10	2.872917
202.01391.005	CAP CER 20pF 2% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	3	0.331723
261.00987.005	RES C SMD 0402 21Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	5	0.500139
202.01366.005	CAP CER 220nF 10% 16V SMD 0402 GP/HF X7R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	1	0.116151
202.00011.005	CAP CER 220nF 10% 6.3V SMD 0402 GP/HF X5R T=0.56mm	Capacitor	General Ceramic (CK, CKR)	0.102957	3	0.331723
203.00006.005	CAP CER 220nF 10% 16V SMD 0603 GP/HF X7R	Capacitor	General Ceramic (CK, CKR)	0.102957	2	0.224573
132.01230.005	IND WW 220nH 2% 400mA 0.7ohm SMD GP/HF	Inductor	Coil	0.120048	3	0.409365
151.00357.005	BEAD C 220ohm 25% 200mA 0.8ohm SMD 0402 GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	1	0.116187
261.00024.005	RES C SMD 0402 220ohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	2	0.215158

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Temperature (C): 45
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Part Number	Description	Category	Subcategory	Unit Failure Rate	Quantity	Total Failure Rate
261.00893.005	RES C SMD 0402 22Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	1	0.116187
202.00078.005	CAP CER 22nF 10% 16V SMD 0402 GP/HF X7R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	5	0.544287
130.00750.005	IND C 22nH 5% 300mA 0.58ohm Q=8 SMD 0402 GP/HF	Inductor	Coil	0.120048	1	0.148732
261.00026.005	RES C SMD 0402 22ohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	1	0.116187
202.01302.005	CAP CER 22pF 2% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	1	0.116151
202.01137.015	CAP CER 22pF 5% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	4	0.438216
207.00013.005	CAP CER 22uF 10% 25V SMD 1210 GP/HF X5R T=2.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	6	0.650060
204.00611.025	CAP CER 22uF 20% 6.3V SMD 0805 GP/HF X5R	Capacitor	General Ceramic (CK, CKR)	0.102957	19	2.013690
207.00020.045	CAP CER 22uF 20% 6.3V SMD 0603 GP/HF X5R 0.8mm	Capacitor	General Ceramic (CK, CKR)	0.102957	27	2.848391
207.00043.005	CAP CER 22uF 20% 10V SMD 0805 GP/HF X5R T=1.25mm	Capacitor	General Ceramic (CK, CKR)	0.102957	15	1.595452
207.00060.005	CAP CER 22uF 20% 10V SMD 0603 GP/HF X5R T=0.8mm	Capacitor	General Ceramic (CK, CKR)	0.102957	14	1.490763
261.01015.005	RES C SMD 0402 240Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	2	0.215158
261.01095.005	RES C SMD 0402 240ohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	3	0.311391
261.00028.005	RES C SMD 0402 249ohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	2	0.215158
132.01670.005	IND WW 270nH 2% 350mA 1.0ohm SMD GP	Inductor	Coil	0.120048	1	0.148732
251.00754.005	RES C SMD 0402 27Kohm 5% GP/HF	Resistor	Composition (RC, RCR)	0.220726	4	1.308155
202.01306.005	CAP CER 27pF 2% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	5	0.544287
261.00032.005	RES C SMD 0402 2Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	6	0.593427
251.00652.015	RES C SMD 0402 2Kohm 5% GP/HF	Resistor	Composition (RC, RCR)	0.220726	7	2.104223

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Temperature (C): 45
Environment: GB, GC - Ground Benign, Controlled

Part Number	Description	Category	Subcategory	Unit Failure Rate	Quantity	Total Failure Rate
104.00217.005	NFET 60V 300mA SMD SOT23-3 GP/HF	Semiconductor	Si FET	12.504679	1	18.415819
201.00222.045	CAP CER 3.0pF +-0.1pF 25V SMD 0201 GP/HF NPO T=0.3mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.102957	4	0.438216
261.00820.005	RES C SMD 0402 3.3Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	3	0.311391
250.00160.005	RES C SMD 0201 3.3Kohm 5% GP/HF 1/20W	Resistor	Composition (RC, RCR)	0.220726	3	1.031439
201.00223.005	CAP CER 3.3nF 10% 16V SMD 0201 GP/HF X7R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.102957	4	0.438216
201.00289.005	CAP CER 3.3pF+-0.1pF 25V SMD 0201 GP/HF NPO T=0.3mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.102957	16	1.700085
132.01041.005	IND WW 3.3uH 20% 4.3A 0.024ohm SMD GP/HF	Inductor	Coil	0.120048	1	0.148732
132.00718.005	CHOKE 3.3uH 20% 6A 0.035ohm SMD GP/HF	Inductor	Coil	0.120048	2	0.280408
261.00970.005	RES C SMD 0402 3.9Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	3	0.311391
132.00519.005	IND WW 3.9nH 2% 840mA 0.066ohm SMD GP/HF	Inductor	Coil	0.120048	8	1.039505
131.00076.005	IND TF 3.9nH 0.1nH 170mA 0.4ohm Q=5 SMD 0201 GP/HF	Inductor	Coil	0.120048	8	1.039505
202.01390.005	CAP CER 3.9pF +-0.05pF 50V SMD 0402 GP/HF NPO T=0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.102957	2	0.224573
261.00837.005	RES C SMD 0402 301Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	2	0.215158
261.00039.005	RES C SMD 0402 30Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	2	0.215158
207.00105.005	CAP CER 30pF 1% 50V SMD 0402 GP/HF NPO T=0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.102957	4	0.438216
261.00948.015	RES C SMD 0402 31.6Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	1	0.116187
261.00957.005	RES C SMD 0402 32.4Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	1	0.116187
202.01229.005	CAP CER 330nF 10% 6.3V SMD 0402 GP/HF X5R T=0.55mm	Capacitor	General Ceramic (CK, CKR)	0.102957	2	0.224573
132.01784.005	IND WW 330nH 2% 310mA 1.4ohm SMD GP	Inductor	Coil	0.120048	1	0.148732

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Failure Rate: 944.282655
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Part Number	Description	Category	Subcategory	Unit Failure Rate	Quantity	Total Failure Rate
251.00694.005	RES C SMD 0402 330ohm 5% GP/HF 1/16W	Resistor	Composition (RC, RCR)	0.220726	24	6.319681
251.00038.005	RES C SMD 0402 560ohm 5% GP/HF 1/16W	Resistor	Composition (RC, RCR)	0.220726	1	0.433588
202.01264.005	CAP CER 330pF 5% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	2	0.224573
261.01048.005	RES C SMD 0402 33Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	1	0.116187
202.00096.015	CAP CER 33nF 10% 16V SMD 0402 GP/HF X7R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	6	0.650060
202.00095.005	CAP CER 33nF 10% 10V SMD 0402 GP/HF X7R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	2	0.224573
202.01278.005	CAP CER 33pF 2% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	2	0.224573
261.01298.005	RES C SMD 0402 36Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	2	0.215158
202.01334.005	CAP CER 36pF 2% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	3	0.331723
132.00976.015	IND WW 390nH 5% 290mA 1.5ohm SMD GP/HF	Inductor	Coil	0.120048	1	0.148732
202.01305.005	CAP CER 39pF 2% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	2	0.224573
202.01376.005	CAP CER 3pF +-0.05pF 50V SMD 0402 GP/HF NPO T=0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.102957	2	0.224573
202.01308.005	CAP CER 4.3pF +-0.05pF 50V SMD 0402 GP/HF NPO 0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.102957	2	0.224573
260.00126.005	RES C SMD 0201 4.53Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	1	0.116187
261.01027.005	RES C SMD 0402 4.64Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	4	0.406214
251.00656.035	RES C SMD 0402 4.7Kohm 5% GP/HF	Resistor	Composition (RC, RCR)	0.220726	33	8.479447
260.00075.025	RES C SMD 0201 4.7Kohm 1% GP/HF 1/20W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	10	0.961535
201.00187.005	CAP CER 4.7nF 10% 10V SMD 0201 GP/HF X7R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.102957	8	0.860973
202.01253.005	CAP CER 4.7pF +-0.05pF 50V SMD 0402 GP/HF NPO T=0.5mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.102957	2	0.224573

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Failure Rate: 944.282655
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Part Number	Description	Category	Subcategory	Unit Failure Rate	Quantity	Total Failure Rate
201.00282.005	CAP CER 4.7pF +-0.25pF 25V SMD 0201 GP/HF NPO T=0.3mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.102957	4	0.438216
207.00005.005	CAP CER 4.7uF 20% 6.3V SMD 0402 GP X6S T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	28	2.952605
207.00070.005	CAP CER 4.7uF 20% 10V SMD 0402 GP/HF X5R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	6	0.650060
203.00930.015	CAP CER 4.7uF 20% 6.3V SMD 0603 GP/HF X5R	Capacitor	General Ceramic (CK, CKR)	0.102957	1	0.116151
132.01292.005	IND WW 4.7uH 20% 3.1A 0.032ohm SMD GP	Inductor	Coil	0.120048	1	0.148732
132.00946.015	IND WW 4.7uH 20% 1.36A 0.17ohm SMD GP/HF	Inductor	Coil	0.120048	1	0.148732
130.01118.005	IND 4.7uH 20% 520mA 0.15ohm SMD 3.2*2.5mm GP/HF	Inductor	Coil	0.120048	1	0.148732
260.00057.005	RES C SMD 0201 40.2Kohm 1% GP/HF 1/20W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	1	0.116187
261.00869.005	RES C SMD 0402 40.2Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	9	0.869688
261.01477.005	RES C SMD 0402 41.2ohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	2	0.215158
261.01168.005	RES C SMD 0402 42.2Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	2	0.215158
132.01126.005	IND WW 43nH 2% 380mA 0.29ohm SMD GP/HF	Inductor	Coil	0.120048	2	0.280408
261.00933.005	RES C SMD 0402 45.3Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	1	0.116187
202.01151.005	CAP CER 470nF 10% 10V SMD 0402 GP/HF X5R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	1	0.116151
201.00495.005	CAP CER 470nF 20% 6.3V SMD 0201 GP/HF X5R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.102957	1	0.116151
151.00499.005	IND F 470nH 10% 200mA 0.57ohm SMD 0805 GP/HF	Inductor	Coil	0.120048	2	0.280408
151.00352.005	BEAD C 470ohm 25% 1A 0.2ohm SMD 0603 GP/HF	Inductor	Coil	0.120048	3	0.409365
201.00022.005	CAP CER 470pF 10% 16V SMD 0201 GP/HF X7R T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.102957	31	3.265120

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Failure Rate: 944.282655
MTBF (hrs): 1,059,005
Temperature (C): 45
Environment: GB, GC - Ground Benign, Controlled

Part Number	Description	Category	Subcategory	Unit Failure Rate	Quantity	Total Failure Rate
261.01097.005	RES C SMD 0402 47Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	3	0.311391
202.00111.005	CAP CER 47nF 10% 16V SMD 0402 GP/HF X7R T=0.56mm	Capacitor	General Ceramic (CK, CKR)	0.102957	12	1.281187
132.01341.005	IND WW 47nH 5% 1.5A 0.075ohm SMD GP/HF	Inductor	Coil	0.120048	1	0.148732
202.01293.005	CAP CER 47pF 2% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	2	0.224573
123.00679.005	LED CHIP 18~45mcd R 617.5~633.5nm 2P SMD 1.8*0.3mm GP/HF	Optical Device	Detector, Isolator, Emitter	0.375927	1	0.737383
123.00381.005	LED CHIP 18~45mcd R 617.5~633.5nm 2P SMD 1.8*0.3mm GP/HF	Optical Device	Detector, Isolator, Emitter	0.375927	1	0.737383
123.00658.005	LED CHIP 90~180mcd WHITE 0.294/0.286nm 2P SMD 1.8*1mm GP	Optical Device	Detector, Isolator, Emitter	0.375927	1	0.737383
261.00850.035	RES C SMD 0402 49.9ohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	2	0.215158
260.00043.005	RES C SMD 0201 49.9ohm 1% GP/HF 1/20W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	1	0.116187
260.00114.005	RES C SMD 0201 5.1ohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	4	0.406214
132.00628.005	IND WW 5.6nH 2% 760mA 0.083ohm SMD GP/HF	Inductor	Coil	0.120048	1	0.148732
130.00819.005	IND C 5.6nH +-0.1nH 140mA 0.7ohm Q=13 SMD 0402 GP/HF	Inductor	Coil	0.120048	1	0.148732
202.00119.035	CAP CER 5.6pF +-0.5pF 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	2	0.224573
141.00874.015	XTAL 50MHz 20ppm 19pF 15ohm SMD GP 3.2*2.5mm -40~+100DegC	Miscellaneous	Quartz Crystal	4.040044	1	8.824721
141.00951.005	XTAL 54MHz 5ppm 19pF 15ohm SMD GP 2.5*2mm -40~+105DegC	Miscellaneous	Quartz Crystal	4.040044	2	23.765274
202.01258.005	CAP CER 56nF 5% 16V SMD 0402 GP/HF X7R 0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	1	0.116151
251.00651.005	RES C SMD 0402 56ohm 5% GP/HF	Resistor	Composition (RC, RCR)	0.220726	1	0.433588
270.00157.015	RES NET 8P4R 2.0*1.0mm 56ohm 5% SEP SMD GP/HF	Resistor	Composition (RC, RCR)	0.220726	6	1.842914

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Part Number	Description	Category	Subcategory	Unit Failure Rate	Quantity	Total Failure Rate
202.01236.005	CAP CER 56pF 1% 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	1	0.116151
261.00926.005	RES C SMD 0402 6.04Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	2	0.215158
132.01154.005	IND WW 6.2nH 0.2nH 750mA 0.082ohm SMD GP/HF	Inductor	Coil	0.120048	3	0.409365
202.00132.015	CAP CER 6.8nF 10% 25V SMD 0402 GP/HF X7R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	4	0.438216
202.00133.005	CAP CER 6.8nF 10% 50V SMD 0402 GP/HF X7R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	1	0.116151
132.00823.005	IND WW 6.8nH 2% 700mA 0.09ohm SMD GP/HF	Inductor	Coil	0.120048	1	0.148732
201.00175.035	CAP CER 6.8pF +-0.1pF 25V SMD 0201 GP/HF NPO T=0.3mm	Capacitor	General Ceramic (CK, CKR)	0.102957	1	0.116151
132.01739.005	IND WW 6.8uH 20% 4.3A 0.031ohm SMD GP	Inductor	Coil	0.120048	1	0.148732
132.01394.005	IND WW 6.8uH 20% 4.5A 0.05ohm SMD GP/HF	Inductor	Coil	0.120048	3	0.409365
261.01172.005	RES C SMD 0402 6.98Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	2	0.215158
151.00510.005	BEAD C 600ohm 25% 900mA 0.23ohm SMD 0402 GP/HF	Inductor	Coil	0.120048	1	0.148732
151.00043.005	BEAD C 600ohm 0.3A 0.6ohm SMD 0402 GP/HF	Inductor	Coil	0.120048	19	2.402848
151.00282.005	BEAD C 600ohm 25% 1A 0.15ohm SMD 0603 GP/HF	Inductor	Coil	0.120048	4	0.536138
151.00387.015	BEAD C 600ohm 25% 2A 0.1ohm SMD 0805 GP/HF	Inductor	Coil	0.120048	4	0.536138
151.00371.005	BEAD C 600ohm 25% 500mA 0.5ohm SMD 0603 GP/HF	Inductor	Coil	0.120048	1	0.148732
151.00513.005	BEAD C 600ohm 25% 1.3A 0.1ohm SMD 0603 GP/HF	Inductor	Coil	0.120048	6	0.788808
261.00962.005	RES C SMD 0402 604Kohm 1% GP/HF 1/16W	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	1	0.116187
349.00145.005GE	CONN RF SHIELDING D=11mm SMD RT GP	Connection	General	5.555061	1	9.618064

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202.00135.005	CAP CER 68nF 10% 10V SMD 0402 GP/HF X5R T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	2	0.224573
202.01280.005	CAP CER 7.5pF +-0.1pF 50V SMD 0402 GP/HF NPO T=0.5mm	Capacitor	General Ceramic (CK, CKR)	0.102957	1	0.116151
261.01374.005	RES C SMD 0402 7.68Kohm 1% GP/HF	Resistor	Film (RL, RLR, RN, RNR, RM)	0.087308	1	0.116187
074.00190.015	IC GATE 1.65~5.5V SMD SOT353 GP/HF NL17SZ08DFT2G	Integrated Circuit	Logic, CGA or ASIC	1.552749	3	5.998117
083.00015.015	IC CMOS 2~6V SMD TSSOP14 GP SN74HC164PWR	Integrated Circuit	Logic, CGA or ASIC	1.552749	1	2.335618
132.01488.005	IND WW 82nH 2% 1A 0.22ohm SMD GP/HF	Inductor	Coil	0.120048	1	0.148732
201.00263.025	CAP CER 9pF +-0.5pF 25V SMD 0201 GP/HF NPO T=0.3mm HI-Q	Capacitor	General Ceramic (CK, CKR)	0.102957	22	2.326934
112.00350.005	DIODE SBD 30V 100mA SMD SOD323 GP	Semiconductor	Diode	0.375140	1	0.724668
172.00055.005	GAS TUBE 90V 0.5pF 3000A 2P SMD 4.5*3.2*2.7mm GP/HF	Miscellaneous	Fuse	0.400000	1	0.654555
002.02675.005	IC PER 3.3V SMD FCBGA1413 GP SINGLE CHIP SOC BCM3390SKFSBG	Integrated Circuit	Microprocessor	6.807054	1	13.237827
004.00209.035	IC RF PA 2.5V SMD QFN20 GP BCM3432KMLG	Integrated Circuit	Linear	2.557357	1	4.973348
002.02702.005	IC PER 1.2~3.3V SMD RFCBGA284 GP MAC/PHY/RADIO BCM43684B1KRFBG	Integrated Circuit	Linear	2.557357	2	8.542052
002.02687.005	IC PER 1.2/2.5V SMD BGA81 GP ETHERNET TRANSCEIVER BCM54991ELB0KFEBG	Integrated Circuit	Linear	2.557357	1	4.973348
004.00235.005	IC RF PA 5V SMD HVQFN20 GP BGA3131	Integrated Circuit	Linear	2.557357	1	4.973348
172.00030.005	GAS TUBE 200V 0.6pF 500A 2P SMD 3.2*1.6*1.6mm GP/HF	Miscellaneous	Fuse	0.400000	5	2.560121
115.00437.005	DIODE ZEN 3.9V 0.41W SMD SOT23 GP/HF	Semiconductor	Diode	0.375140	1	0.724668
006.00177.005	IC RF SWITCH 2.5~5.25V SMD VFQFP12 GP F2976NEGK8	Integrated Circuit	Linear	2.557357	1	4.973348

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105.00204.005	PFET 30V 13A SMD SO8 GP	Semiconductor	Si FET	12.504679	1	18.415819
027.01143.005	IC REG 1.2~2.8V 2A SMD SOP8 GP/HF FP6145BSPCTR	Integrated Circuit	Linear	2.557357	1	4.973348
027.01388.005	IC REG 2.5V 300mA SMD SOT23-5 GP FP6185-25S5	Integrated Circuit	Linear	2.557357	2	8.542052
039.00272.005	IC ANALOG 2.93V SMD SOT23-3 MICROPROCESSOR RESET CIRCUITS GP/HF FP6809-29CS3GTR	Integrated Circuit	Linear	2.557357	2	8.542052
053.00362.005	IC DDR3 SDRAM 4Gb 1.5V 0.468nS SMD FBGA96 GP K4B4G1646E-BCNB	Integrated Circuit	Memory	3.469348	2	9.629086
341.00355.005	HEADER RF 1*1PORT D/2.0mm SMD MALE ST GP/HF	Connection	General	5.555061	5	36.734842
117.00214.005	DIODE TVS 12V 9A SMD SOD323 GP	Semiconductor	Diode	0.375140	3	1.730695
154.00269.005	FILTER DIPLEXER 2450~5425MHz 0.45~0.60dB SMD 0603 GP/HF	Filter	Strainer,Fluid, Water	15.721000	4	62.884000
101.00007.015	TR NPN 40V 200mA SMD SOT23 GP	Semiconductor	Transistor	2.012117	2	6.216400
100.00050.025	TR PNP+NPN 40V 200mA SMD SOT363 GP	Semiconductor	Transistor	2.012117	1	3.566811
027.01362.005	IC REG 1.2~4.5V 250mA SMD SOT23-5 GP LP5907MFX-1.8/NOPB	Integrated Circuit	Linear	2.557357	2	8.542052
176.00004.005GE	FILTER ESD SUPPRESSOR 4V 0.05pF 25V 2P SMD 0402 GP/HF	Filter	Strainer,Fluid, Water	15.721000	12	188.652000
135.00166.005	FILTER BALUN 50~1200MHz 1.2dB SMD 0805 GP/HF	Filter	Strainer,Fluid, Water	15.721000	1	15.721000
029.00729.005	IC DC-DC 2.5~5.5V SMD SOT563 GP/HF MP1601CGTF-Z	Integrated Circuit	Linear	2.557357	2	8.542052
029.00604.005	IC DC-DC 2.3~5.5V SMD SOT563 GP/HF MP1605GTF-Z	Integrated Circuit	Linear	2.557357	1	4.973348
029.00777.005	IC DC-DC 3~6V SMD QFN14 GP MP2176GL-Z	Integrated Circuit	Linear	2.557357	2	8.542052
029.00735.005	IC DC-DC 4.5~24V SMD QFN11 GP MP2329GG-Z	Integrated Circuit	Linear	2.557357	2	8.542052

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Part Number	Description	Category	Subcategory	Unit Failure Rate	Quantity	Total Failure Rate
029.00794.005	IC DC-DC 4.2~22V SMD SOT583 GP MP2330GTL- C814-Z	Integrated Circuit	Linear	2.557357	3	11.858682
029.00795.005	IC DC-DC 4.2~22V SMD SOT583 GP MP2331GTL- C814-Z	Integrated Circuit	Linear	2.557357	7	24.240158
063.00049.005	IC NAND FLASH 4Gb 2.7~3.6V 20nS SMD TSOP48 GP MT29F4G08ABAEAWP:E	Integrated Circuit	Memory	3.469348	1	5.385261
155.00068.005	FILTER EMI 6.3V 6A SMD 1206 GP	Filter	Strainer,Fluid, Water	15.721000	2	31.442000
020.00048.005	IC SENSOR 2.7~5.5V SMD TSOP6 TEMP GP PCT2075GV	Integrated Circuit	Logic, CGA or ASIC	1.552749	1	2.335618
006.00164.005GE	TMS IC RF SWITCH 3.3V SMD QFN12 GP PE42724A -Z	Integrated Circuit	Logic, CGA or ASIC	1.552749	1	2.335618
007.00166.005	IC RF FEM 5V SMD 5*3*0.82mm GP/HF WIFI QPF4216BTR13	Integrated Circuit	Linear	2.557357	4	15.050471
007.00165.005	IC RF FEM 5.V SMD 5*3*1.225mm GP/HF WIFI QPF4516BTR13	Integrated Circuit	Linear	2.557357	4	15.050471
112.00026.015	DIODE SBD 30V 200mA SMD SC79 GP/HF	Semiconductor	Diode	0.375140	1	0.724668
006.00178.005	IC RF SWITCH 2.5~3.6V SMD QFN6 GP/HF RTC7608	Integrated Circuit	Logic, CGA or ASIC	1.552749	1	2.335618
153.00232.005	FILTER SAW 2400~2484MHz 2.6dB 50ohm SMD GP/HF	Filter	Strainer,Fluid, Water	15.721000	4	62.884000
117.00194.005	DIODE TVS 5.3V 3A SMD SOD882 GP	Semiconductor	Diode	0.375140	3	1.730695
033.00258.005	IC SW 2.5~6.5V SMD SON6 GP/HF TPS2553DRVR	Integrated Circuit	Logic, CGA or ASIC	1.552749	1	2.335618
342.00969.005	CONN USB 3.0 30u"Pd/Ni+Au 1*1PORT 1.0mm SMD FEMALE RT GP	Connection	General	5.555061	1	9.618064
141.00626.025	XTAL 54MHz 15ppm 19pF 15ohm SMD GP/HF 3.2*2.5mm - 30~+100DegC	Miscellaneous	Quartz Crystal	4.040044	1	8.824721
137.00029.005	XFMR RF 5~204MHz 1.0dB SMD GP	Inductor	Transformer	3.274046	1	4.578921
137.00023.005	XFMR RF 5~200MHz 1.1dB SMD GP	Inductor	Transformer	3.274046	1	4.578921

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