

MODEL XML-230-18 MTBF				
P/N CC00-01066-000				
MTBF CALCULATION PER MIL-HDBK-217F PARTS COUNT RELIABILITY PREDICTION METHOD				
ITEM	QUANTITY	FAILURE RATE PER 10⁶ HOURS	QUALITY FACTOR	TOTAL FAILURE RATE PER 10⁶ HOURS
CAPACITOR, ALUMINUM OXIDE ELECT	15	0.00012	3.0	0.0054
CAPACITOR, CERAMIC	216	0.00099	3.0	0.6415
CONNECTOR	7	0.00540	2.0	0.0756
DIODE, GENERAL PURPOSE	7	0.00360	5.5	0.1386
DIODE, LIGHT EMITTING	2	0.00047	8.0	0.0075
DIODE, SCHOTTKY	20	0.00300	2.4	0.1440
DIODE, SWITCHING	2	0.00094	5.5	0.0103
DIODE, ZENER	21	0.00330	5.5	0.3812
FET, SILICON	23	0.01400	8.0	2.5760
IC, DIGITAL CMOS	53	0.00570	3.1	0.9365
IC, REGULATOR	12	0.00950	8.0	0.9120
IGBT	1	0.01400	8.0	0.1120
INDUCTORS	5	0.00170	4.0	0.0340
OPTOCOUPLER/ISOLATOR	17	0.02700	8.0	3.6720
OSCILLATOR, CRYSTAL	1	0.03200	2.1	0.0672
PCB	3	0.00002	1.0	0.0001
RECTIFIER, POWER	2	0.00280	8.0	0.0448
RELAY	1	0.43000	3.0	1.2900
RESISTOR NETWORK, FILM	13	0.00230	3.0	0.0897
RESISTOR, METAL FILM	215	0.00120	3.0	0.7740
RESISTOR, METAL FILM, PWR	11	0.01200	3.0	0.3960
RESISTOR, WW POWER	1	0.01400	3.0	0.0420
SOLDERED CONNECTIONS	1332	0.00007	1.0	0.0919
SWITCH	2	0.00100	8.4	0.0168
THERMISTOR	4	0.06500	3.0	0.7800
TRANSFORMER, FLYBACK	2	0.02300	3.0	0.1380
TRANSIENT VOLTAGE SUPPRESSOR	7	0.00290	5.5	0.1117
TRANSISTORS, BIPOLAR	3	0.00015	5.5	0.0025
			TOTAL	13.4912
			MTBF (HOURS)	74122
			MTBF (YRS)	8.46

MODEL XML-230-18-R MTBF				
P/N CC00-01066-003				
MTBF CALCULATION PER MIL-HDBK-217F PARTS COUNT RELIABILITY PREDICTION METHOD				
ITEM	QUANTITY	FAILURE RATE PER 10⁶ HOURS	QUALITY FACTOR	TOTAL FAILURE RATE PER 10⁶ HOURS
CAPACITOR, ALUMINUM OXIDE ELECT	15	0.00012	3.0	0.0054
CAPACITOR, CERAMIC	229	0.00099	3.0	0.6801
CONNECTOR	6	0.00540	2.0	0.0648
DIODE, GENERAL PURPOSE	7	0.00360	5.5	0.1386
DIODE, LIGHT EMITTING	2	0.00047	8.0	0.0075
DIODE, SCHOTTKY	24	0.00300	2.4	0.1728
DIODE, SWITCHING	2	0.00094	5.5	0.0103
DIODE, ZENER	21	0.00330	5.5	0.3812
FET, SILICON	23	0.01400	8.0	2.5760
IC, DIGITAL CMOS	61	0.00570	3.1	1.0779
IC, REGULATOR	16	0.00950	8.0	1.2160
IGBT	1	0.01400	8.0	0.1120
INDUCTORS	6	0.00170	4.0	0.0408
OPTOCOUPLER/ISOLATOR	17	0.02700	8.0	3.6720
OSCILLATOR, CRYSTAL	1	0.03200	2.1	0.0672
PCB	3	0.00002	1.0	0.0001
RECTIFIER, POWER	2	0.00280	8.0	0.0448
RELAY	1	0.43000	3.0	1.2900
RESISTOR NETWORK, FILM	26	0.00230	3.0	0.1794
RESISTOR, METAL FILM	204	0.00120	3.0	0.7344
RESISTOR, METAL FILM, PWR	12	0.01200	3.0	0.4320
RESISTOR, WW POWER	1	0.01400	3.0	0.0420
SOLDERED CONNECTIONS	1396	0.00007	1.0	0.0963
SWITCH	2	0.00100	8.4	0.0168
THERMISTOR	4	0.06500	3.0	0.7800
TRANSFORMER, FLYBACK	2	0.02300	3.0	0.1380
TRANSIENT VOLTAGE SUPPRESSOR	7	0.00290	5.5	0.1117
TRANSISTORS, BIPOLAR	3	0.00015	5.5	0.0025
			TOTAL	14.0905
			MTBF (HOURS)	70970
			MTBF (YRS)	8.10

MODEL XML-230-36 MTBF				
P/N CC00-01066-001				
MTBF CALCULATION PER MIL-HDBK-217F PARTS COUNT RELIABILITY PREDICTION METHOD				
ITEM	QUANTITY	FAILURE RATE	QUALITY	TOTAL FAILURE RATE
		PER 10⁶ HOURS	FACTOR	PER 10⁶ HOURS
CAPACITOR, ALUMINUM OXIDE ELECT	15	0.00012	3.0	0.0054
CAPACITOR, CERAMIC	220	0.00099	3.0	0.6534
CONNECTOR	6	0.00540	2.0	0.0648
DIODE, GENERAL PURPOSE	2	0.00360	5.5	0.0396
DIODE, LIGHT EMITTING	2	0.00047	8.0	0.0075
DIODE, SCHOTTKY	20	0.00300	2.4	0.1440
DIODE, SWITCHING	7	0.00094	5.5	0.0362
DIODE, ZENER	21	0.00330	5.5	0.3812
FET, SILICON	23	0.01400	8.0	2.5760
IC, DIGITAL CMOS	53	0.00570	3.1	0.9365
IC, REGULATOR	12	0.00950	8.0	0.9120
IGBT	1	0.01400	8.0	0.1120
INDUCTORS	6	0.00170	4.0	0.0408
OPTOCOUPLER/ISOLATOR	17	0.02700	8.0	3.6720
OSCILLATOR, CRYSTAL	1	0.03200	2.1	0.0672
PCB	3	0.00002	1.0	0.0001
RECTIFIER, POWER	2	0.00280	8.0	0.0448
RELAY	1	0.43000	3.0	1.2900
RESISTOR NETWORK, FILM	27	0.00230	3.0	0.1863
RESISTOR, METAL FILM	200	0.00120	3.0	0.7200
RESISTOR, METAL FILM, PWR	13	0.01200	3.0	0.4680
RESISTOR, WW POWER	1	0.01400	3.0	0.0420
SOLDERED CONNECTIONS	1342	0.00007	1.0	0.0926
SWITCH	2	0.00100	8.4	0.0168
THERMISTOR	4	0.06500	3.0	0.7800
TRANSFORMER, FLYBACK	2	0.02300	3.0	0.1380
TRANSIENT VOLTAGE SUPPRESSOR	7	0.00290	5.5	0.1117
TRANSISTORS, BIPOLAR	3	0.00015	5.5	0.0025
			TOTAL	13.5412
			MTBF (HOURS)	73848
			MTBF (YRS)	8.43

MODEL XML-230-36-R MTBF				
P/N CC00-01066-004				
MTBF CALCULATION PER MIL-HDBK-217F PARTS COUNT RELIABILITY PREDICTION METHOD				
ITEM	QUANTITY	FAILURE RATE PER 10⁶ HOURS	QUALITY FACTOR	TOTAL FAILURE RATE PER 10⁶ HOURS
CAPACITOR, ALUMINUM OXIDE ELECT	15	0.00012	3.0	0.0054
CAPACITOR, CERAMIC	229	0.00099	3.0	0.6801
CONNECTOR	6	0.00540	2.0	0.0648
DIODE, GENERAL PURPOSE	7	0.00360	5.5	0.1386
DIODE, LIGHT EMITTING	2	0.00047	8.0	0.0075
DIODE, SCHOTTKY	24	0.00300	2.4	0.1728
DIODE, SWITCHING	2	0.00094	5.5	0.0103
DIODE, ZENER	21	0.00330	5.5	0.3812
FET, SILICON	23	0.01400	8.0	2.5760
IC, DIGITAL CMOS	62	0.00570	3.1	1.0955
IC, REGULATOR	11	0.00950	8.0	0.8360
IGBT	1	0.01400	8.0	0.1120
INDUCTORS	6	0.00170	4.0	0.0408
OPTOCOUPLER/ISOLATOR	17	0.02700	8.0	3.6720
OSCILLATOR, CRYSTAL	1	0.03200	2.1	0.0672
PCB	3	0.00002	1.0	0.0001
RECTIFIER, POWER	2	0.00280	8.0	0.0448
RELAY	1	0.43000	3.0	1.2900
RESISTOR NETWORK, FILM	26	0.00230	3.0	0.1794
RESISTOR, METAL FILM	195	0.00120	3.0	0.7020
RESISTOR, METAL FILM, PWR	13	0.01200	3.0	0.4680
RESISTOR, WW POWER	1	0.01400	3.0	0.0420
SOLDERED CONNECTIONS	1380	0.00007	1.0	0.0952
SWITCH	2	0.00100	8.4	0.0168
THERMISTOR	4	0.06500	3.0	0.7800
TRANSFORMER, FLYBACK	2	0.02300	3.0	0.1380
TRANSIENT VOLTAGE SUPPRESSOR	7	0.00290	5.5	0.1117
TRANSISTORS, BIPOLAR	3	0.00015	5.5	0.0025
			TOTAL	13.7307
			MTBF (HOURS)	72830
			MTBF (YRS)	8.31

MODEL XML-230-40 MTBF				
P/N CC00-01066-002				
MTBF CALCULATION PER MIL-HDBK-217F PARTS COUNT RELIABILITY PREDICTION METHOD				
ITEM	QUANTITY	FAILURE RATE PER 10⁶ HOURS	QUALITY FACTOR	TOTAL FAILURE RATE PER 10⁶ HOURS
CAPACITOR, ALUMINUM OXIDE ELECT	15	0.00012	3.0	0.0054
CAPACITOR, CERAMIC	216	0.00099	3.0	0.6415
CONNECTOR	6	0.00540	2.0	0.0648
DIODE, GENERAL PURPOSE	7	0.00360	5.5	0.1386
DIODE, LIGHT EMITTING	2	0.00047	8.0	0.0075
DIODE, SCHOTTKY	20	0.00300	2.4	0.1440
DIODE, SWITCHING	2	0.00094	5.5	0.0103
DIODE, ZENER	21	0.00330	5.5	0.3812
FET, SILICON	23	0.01400	8.0	2.5760
IC, DIGITAL CMOS	55	0.00570	3.1	0.9719
IC, REGULATOR	12	0.00950	8.0	0.9120
IGBT	1	0.01400	8.0	0.1120
INDUCTORS	6	0.00170	4.0	0.0408
OPTOCOUPLER/ISOLATOR	16	0.02700	8.0	3.4560
OSCILLATOR, CRYSTAL	1	0.03200	2.1	0.0672
PCB	3	0.00002	1.0	0.0001
RECTIFIER, POWER	2	0.00280	8.0	0.0448
RELAY	1	0.43000	3.0	1.2900
RESISTOR NETWORK, FILM	27	0.00230	3.0	0.1863
RESISTOR, METAL FILM	200	0.00120	3.0	0.7200
RESISTOR, METAL FILM, PWR	13	0.01200	3.0	0.4680
RESISTOR, WW POWER	1	0.01400	3.0	0.0420
SOLDERED CONNECTIONS	1336	0.00007	1.0	0.0922
SWITCH	2	0.00100	8.4	0.0168
THERMISTOR	4	0.06500	3.0	0.7800
TRANSFORMER, FLYBACK	2	0.02300	3.0	0.1380
TRANSIENT VOLTAGE SUPPRESSOR	7	0.00290	5.5	0.1117
TRANSISTORS, BIPOLAR	3	0.00015	5.5	0.0025
			TOTAL	13.4214
			MTBF (HOURS)	74508
			MTBF (YRS)	8.51

MODEL XML-230-40-R MTBF				
P/N CC00-01066-005				
MTBF CALCULATION PER MIL-HDBK-217F PARTS COUNT RELIABILITY PREDICTION METHOD				
ITEM	QUANTITY	FAILURE RATE PER 10⁶ HOURS	QUALITY FACTOR	TOTAL FAILURE RATE PER 10⁶ HOURS
CAPACITOR, ALUMINUM OXIDE ELECT	15	0.00012	3.0	0.0054
CAPACITOR, CERAMIC	230	0.00099	3.0	0.6831
CONNECTOR	5	0.00540	2.0	0.0540
DIODE, GENERAL PURPOSE	2	0.00360	5.5	0.0396
DIODE, LIGHT EMITTING	2	0.00047	8.0	0.0075
DIODE, SCHOTTKY	24	0.00300	2.4	0.1728
DIODE, SWITCHING	7	0.00094	5.5	0.0362
DIODE, ZENER	21	0.00330	5.5	0.3812
FET, SILICON	24	0.01400	8.0	2.6880
IC, DIGITAL CMOS	62	0.00570	3.1	1.0955
IC, REGULATOR	11	0.00950	8.0	0.8360
IGBT	1	0.01400	8.0	0.1120
INDUCTORS	6	0.00170	4.0	0.0408
OPTOCOUPLER/ISOLATOR	17	0.02700	8.0	3.6720
OSCILLATOR, CRYSTAL	1	0.03200	2.1	0.0672
PCB	3	0.00002	1.0	0.0001
RECTIFIER, POWER	2	0.00280	8.0	0.0448
RELAY	1	0.43000	3.0	1.2900
RESISTOR NETWORK, FILM	26	0.00230	3.0	0.1794
RESISTOR, METAL FILM	197	0.00120	3.0	0.7092
RESISTOR, METAL FILM, PWR	21	0.01200	3.0	0.7560
RESISTOR, WW POWER	1	0.01400	3.0	0.0420
SOLDERED CONNECTIONS	1394	0.00007	1.0	0.0962
SWITCH	2	0.00100	8.4	0.0168
THERMISTOR	4	0.06500	3.0	0.7800
TRANSFORMER, FLYBACK	2	0.02300	3.0	0.1380
TRANSIENT VOLTAGE SUPPRESSOR	7	0.00290	5.5	0.1117
TRANSISTORS, BIPOLAR	3	0.00015	5.5	0.0025
			TOTAL	14.0579
			MTBF (HOURS)	71135
			MTBF (YRS)	8.12