



MTBF PREDICTION REPORT

PA Department

DFI



MTBF PREDICTION REPORT

Model: WL051-BCC-8665UE

Revision: A00

| | |
|-----------------------|---------------------|
| Completed Date | 2021/04/01 |
| Designed By | Gordon Kao |
| Reviewed By | Johnson Chan |
| Approval By | Jerry Fang |

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1. Purpose:

This MTBF prediction report presents the product reliability by the Relex reliability analysis tools, which is developed by Relex Software Corporation. When performing a reliability prediction analysis, there are several calculated values that provide measures of reliability. These values include failure rate, MTBF, reliability and availability. This report should provide the reliable and worth result for MTBF and failure rate reference.

2. Prediction Models:

For motherboard product, this report is based on Telcordia (formerly Bellcore). The Telcordia reliability prediction model was originally developed by AT&T Bell Labs. Bell Labs modified the equations from MIL-HDBK-217 to better represent what their equipment was experiencing in the field.

3. Definition:

- Failure Rate: Failure rate is defined as the rate of occurrence of failure. It is basically the anticipated number of times that an item fails in a specified period of time.
- MTBF: MTBF stands for Mean Time between Failures. MTBF is the inverse of the failure rate for constant failure rate systems. MTBF can be described as the number of hours to pass before for a component, assembly, or system.
- Description: A description of the item on the Relex file.
- Environment: It is based on those outlined in the Telcordia (Bellcore) standards.
- Temperature: Present the operation temperature (in degrees Celsius) to meet the requirement.

4. MTBF Result and Relex Software Report:

| Temperature (Celsius) | MTBF (hours) |
|-----------------------|--------------|
| 25 | 563,417 |
| 45 | 401,939 |
| 60 | 293,183 |
| 65 | 261,553 |

File Name: WL051-BCC-8665UE.rfp
System: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 563417
Failure Rate: 1,774.88
Temperature: 25
Environment: GB, GC - Ground Benign, Controlled

| Assembly Name | Part Number | Quantity | Failure Rate (Fit) | MTBF (Hrs) |
|------------------|-----------------|----------|--------------------|------------|
| WL051-BCC-8665UE | 774-WL0511-000G | 1 | 1774.88 | 563,417 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 563417
Failure Rate: 1,774.8839
Temperature: 25
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|---|-------------------|----------|--------------------|
| 112-900032-300G | IC TTL,Two-Input OR Gate,NC7SZ32P5X/SC70-5 (ON)RoHS | 1.9772 | 6 | 14.2597 |
| 113-500004-300G | IC TTL,Single Inverter Gate,SN74LVC1G04DCK/SC70-5(TI)RoHS | 1.9772 | 1 | 2.9741 |
| 113-500007-210S | IC TTL,Single Buffer/Driver With Open-Drain Output,SN74LVC1G07DCKR/SC70-5(TI) | 1.9772 | 2 | 5.3538 |
| 113-500008-210G | IC TTL,Single 2-Input Positive-AND Gate,SN74LVC1G08DCKR/SC70-5(TI)RoHS | 1.9772 | 16 | 35.4639 |
| 113-833306-400G | IC TTL,Dual FET Bus Switch,SN74CB3Q3306ADCUR/VSSOP8(US8-DCU) (TI)RoHS | 1.9772 | 2 | 5.3538 |
| 113-906408-400G | IC LOW-VOLTAGE 8-BIT I2C AND SMBus I/O EXPANDER,UQFN16, TCA6408ARSVR(TI)RoHS | 1.9772 | 1 | 2.9741 |
| 121-000104-420G | IC 4-BIT BIDIRECTIONAL VOLTAGE-LEVEL TRANSLATOR,NTS0104GU12/XQFN12(NXP) RoHS | 1.9772 | 1 | 2.9741 |
| 121-002069-200G | IC Power-Distribution Switches,1.5A,TPS2069DDBVT/SOT23-5(TI)RoHS | 1.9772 | 1 | 2.9741 |
| 121-007111-400G | IC Power Switch RSET with Flag,JW7111DFNB#TRPBF/DFN-6(2x2)(JOULWATT) RoHS | 1.9772 | 1 | 2.9741 |
| 121-022976-200G | IC Switch,5.7-V,6-A,14-mΩ On-Resistance Dual-Channel Load,TPS22976DPU/WSO-14(TI)RoHS | 1.9772 | 3 | 7.6379 |
| 121-081439-401G | IC Single 3.3V or 5V RS232/RS422/RS485 Multiprotocol Transceiver,F81439AN/TQFN-40(5x5) (FINTEK)RoHS | 1.9772 | 1 | 2.9741 |
| 121-302045-400G | IC Integrated Driver and MOSFET,NCP302045MNTWG/PQFN-33(5*5)(ON) RoHS | 1.9772 | 4 | 9.8732 |
| 135-300403-200G | SPI SERIAL FLASH 4Mbit,MX25L4006EZUI-12G/USON-8(MXIC)RoHS | 4.4178 | 1 | 6.8575 |
| 135-301004-201G | EEPROM 8K(1024*8)M24C08-WMN6TP/SO-8(ST) RoHS | 4.4178 | 1 | 6.8575 |
| 135-301282-220G | SPI SERIAL FLASH 128Mbit,W25Q128JVSQ/SOIC-8 (WINBOND)RoHS | 4.4178 | 1 | 6.8575 |
| 136-112180-200G | 8-bit Flash Microcontroller PIC12F1822-I/SN/SOIC-8 (MICROCHIP)RoHS | 4.4178 | 1 | 6.8575 |
| 141-006850-401G | IC Synchronous Buck Converter,4.5-26Vin,12A,NB685AGQ/QFN16(MPS)RoHS | 1.9772 | 1 | 2.9741 |
| 141-262001-200G | AUDIO CODEC,ALC262-VC2-GR/LQFP-48(REALTEK) RoHS | 1.9772 | 1 | 2.9741 |
| 141-562150-400G | IC Synchronous Step-down Converter,TPS56C215RNN/VQFN-18(TI)RoHS | 1.9772 | 3 | 7.6379 |
| 141-568210-400G | IC Converter,4.5V~17V Input,8A Synchronous Step-Down SWIFT,TPS568215OARNN/VQFN-18(TI)RoHS | 1.9772 | 1 | 2.9741 |
| 141-620850-200G | IC Synchronous Buck Converter,2.5-6,3A,TLV62085RLT/VSON-7(TI)RoHS | 1.9772 | 1 | 2.9741 |
| 141-812450-400G | IC PWM CTRL, NCP81245MNTXG/QFN-52(ON)RoHS | 1.9772 | 1 | 2.9741 |
| 147-002190-400G | IC CHIP,Giga LAN PHY,WGI219LM SLKJ3/QFN48 (6x6mm) (INTEL)RoHS | 1.9772 | 1 | 2.9741 |

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Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 563417
Failure Rate: 1,774.8839
Temperature: 25
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|---|-------------------|----------|--------------------|
| 147-055250-200G | IC CHIP Super I/O, NCT5525D/LQFP-64(NUVOTON) RoHS | 1.9772 | 1 | 2.9741 |
| 147-822100-410G | IC CHIP Giga LAN Ctrl,-40~105°C,WGI210IT SLJXT/QFN-64(INTEL)RoHS | 1.9772 | 1 | 2.9741 |
| 171-204005-210G | DIODE SCHOTTKY BARRIER 40V,200mA,BAS40-05-7-F/SOT23-3(DIODES)RoHS | 0.2189 | 7 | 2.0671 |
| 171-205200-220G | DIODE SCHOTTKY,30V,200mA,RB520S-30H/SOD-523(SMARTENGRAND)RoHS | 0.2189 | 3 | 1.0099 |
| 171-214148-503S | DIODE Switching,SMD,1N4148W-TG-WS/SOD-123 (WILLAS) | 0.2189 | 1 | 0.4229 |
| 171-360120-500G | DIODE TVS,12V,600W,Bidirectional,SMBJ12CA/DO-214AA(LITTELFUSE)RoHS | 0.2189 | 1 | 0.4229 |
| 171-404010-200S | DIODE 4-CHANNEL ESD PROTECTION,TPD4S010DQAR/SON-DQA10(TI) | 1.9772 | 4 | 9.8732 |
| 171-451715-200G | DIODE Zener,15V,Vz=14.34V~14.98V,UDZVTE-1715B/SOD-323FL(ROHM)RoHS | 0.2189 | 1 | 0.4229 |
| 171-451756-200G | DIODE Zener,5.6V,Vz=5.49V~5.73V,UDZVTE-175.6B/SOD-323F(ROHM)RoHS | 0.2189 | 2 | 0.7270 |
| 171-841023-200G | DIODE TVS Array,3.3V,AZ1023-04F.R7G/DFN2510P10E(AMAZING)RoHS | 0.2189 | 2 | 0.7270 |
| 172-207002-241G | MOSFET N-Ch,VDS:60V,ID:300mA,VGS:±20V,@10V,RDS:3Ω,2N7002K/SOT23-3(PANJIT)RoHS | 7.2970 | 3 | 27.7940 |
| 172-223904-206S | TRANSISTOR NPN,MMBT3904LT1G/SOT23(ON) | 1.1741 | 4 | 6.4928 |
| 172-223904-400G | TRANSISTOR Dual NPN,MBT3904DW1T1G/SOT-363 (ON)RoHS | 1.1741 | 4 | 6.4928 |
| 172-223906-207S | TRANSISTOR PNP,PMBS3906/SOT23(NXP) | 1.1741 | 1 | 2.0814 |
| 172-239040-210G | TRANSISTOR DUAL NPN,Ic≤200mA,Vcbo:60V,Vceo:40V,MMBT3904DTH/SOT563-6(SMARTENGRAND)RoHS | 1.1741 | 2 | 3.6275 |
| 172-301380-220G | MOSFET Dual N-Ch,VDS:50V,ID:350mA,VGS:±20V,@10V,RDS:1.6Ω,BSS138KDT/SOT563-6(SMARTENGRAND)RoHS | 7.2970 | 29 | 229.4666 |
| 172-302003-210G | MOSFET N-Ch,VDS:30V,ID:7A,VGS:±20V,@10V,RDS:20mΩ,EMB20N03VA/EDFN-8(2x2)(EXCELLIANCE)RoHS | 7.2970 | 2 | 19.4351 |
| 172-323052-200G | MOSFET P-Ch,VDS:-30V,ID:-4.9A,VGS:±12V,@-10V,RDS≤52mΩ,CEH2305/TSOP-6(CET)RoHS | 7.2970 | 1 | 10.7463 |
| 172-330140-200G | MOSFET N-Ch,VDS:30V,ID:9.5A,VGS:±20V,@10V,RDS:12mΩ,FKBB3014/PRPAK-8(3x3)(FETEK)RoHS | 7.2970 | 1 | 10.7463 |
| 172-331030-200G | MOSFET P-Ch,VDS:-30V,ID:-7.7A,VGS:±25V,@-10V,RDS:20mΩ,FKBB3103/PRPAK-8(3x3)(FETEK) RoHS | 7.2970 | 5 | 44.0671 |
| 213-151015-200C | MLCC 101P/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.0911 | 1 | 0.1028 |
| 213-151203-109G | MLCC 12pF/50V,NPO,F(1%),SMD,0201,CC0201FRNPO9BN120(YAGEO) RoHS | 0.0911 | 4 | 0.3877 |

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Temperature: 25
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|--|-------------------|----------|--------------------|
| 213-151505-200C | MLCC 15pF/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.0911 | 1 | 0.1028 |
| 213-151805-200C | MLCC 18pF/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.0911 | 4 | 0.3877 |
| 213-152205-200C | MLCC 22pF/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.0911 | 1 | 0.1028 |
| 213-152215-200C | MLCC 221P/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.0911 | 6 | 0.5752 |
| 213-152705-200C | MLCC 27pF/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.0911 | 4 | 0.3877 |
| 213-153319-200C | MLCC 331P/50V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.0911 | 10 | 0.9479 |
| 213-154705-200C | MLCC 47pF/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.0911 | 2 | 0.1987 |
| 213-251028-200C | MLCC 102P/50V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.0911 | 11 | 1.0407 |
| 213-251028-300C | MLCC 102P/50V,X7R,K(10%),SMD,0603,(None JP) RoHS | 0.0911 | 4 | 0.3877 |
| 213-251029-110C | MLCC 102P/25V,X7R,K(10%)SMD,0201(None JP) RoHS | 0.0911 | 2 | 0.1987 |
| 213-251038-250C | MLCC 103P/50V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.0911 | 4 | 0.3877 |
| 213-251049-130C | MLCC 104P/10V,X5R,K(10%),SMD,0201,(None JP) RoHS | 0.0911 | 84 | 7.7589 |
| 213-251049-200C | MLCC 104P/16V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.0911 | 77 | 7.1167 |
| 213-251049-270J | MLCC 104P/25V,X5R,K(10%),SMD,0402,(JP)RoHS | 0.0911 | 7 | 0.6685 |
| 213-251049-380C | MLCC 104P/100V,X7R,K(10%),SMD,0603,(None JP) RoHS | 0.0911 | 1 | 0.1028 |
| 213-251059-109G | MLCC 105P/6.3V,X5R,K(10%),SMD,0201,CC0201KRX5R5BB105(YAGEO) RoHS | 0.0911 | 54 | 5.0048 |
| 213-251059-200C | MLCC 105P/6.3V,X5R,K(10%),SMD,0402,(None JP) RoHS | 0.0911 | 1 | 0.1028 |
| 213-251059-220J | MLCC 105P/10V,X5R,K(10%),SMD,0402,(JP)RoHS | 0.0911 | 4 | 0.3877 |
| 213-251059-230J | MLCC 105P/16V,X5R,K(10%),SMD,0402,(JP)RoHS | 0.0911 | 36 | 3.3494 |
| 213-251059-270C | MLCC 105P/6.3V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.0911 | 1 | 0.1028 |
| 213-251059-330J | MLCC 105P/25V,X5R,K(10%),SMD,0603,(JP)RoHS | 0.0911 | 5 | 0.4816 |
| 213-251068-200J | MLCC 106P/6.3V,X5R,M(20%),SMD,0402,(JP)RoHS | 0.0911 | 68 | 6.2906 |
| 213-251068-300J | MLCC 106P/6.3V,X5R,M(20%),SMD,0603,(JP)RoHS | 0.0911 | 26 | 2.4280 |
| 213-251069-320J | MLCC 106P/10V,X5R,K(10%),SMD,0603,(JP)RoHS | 0.0911 | 7 | 0.6685 |
| 213-251069-500C | MLCC 106P/6.3V,X5R,K(10%),SMD,0805,(None JP) RoHS | 0.0911 | 1 | 0.1028 |
| 213-251069-540J | MLCC 106P/16V,X5R,K(10%),SMD,0805,(JP)RoHS | 0.0911 | 12 | 1.1336 |
| 213-251228-200C | MLCC 122P/50V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.0911 | 1 | 0.1028 |

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Failure Rate: 1,774.8839
Temperature: 25
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|--|-------------------|----------|--------------------|
| 213-251528-200C | MLCC 152P/50V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.0911 | 6 | 0.5752 |
| 213-252229-200C | MLCC 222P/50V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.0911 | 4 | 0.3877 |
| 213-252239-220J | MLCC 223P/50V,X7R,K(10%),SMD,0402,(JP)RoHS | 0.0911 | 1 | 0.1028 |
| 213-252249-140C | MLCC 224P/6.3V,X5R,K(10%),SMD,0201,(None JP) RoHS | 0.0911 | 16 | 1.5042 |
| 213-252249-210C | MLCC 224P/10V,X5R,K(10%),SMD,0402,(None JP) RoHS | 0.0911 | 1 | 0.1028 |
| 213-252249-330C | MLCC 224P/25V,X7R,K(10%),SMD,0603,(None JP) RoHS | 0.0911 | 5 | 0.4816 |
| 213-252259-330C | MLCC 225P/16V,X5R,K(10%)SMD,0603,(None JP) RoHS | 0.0911 | 1 | 0.1028 |
| 213-252262-610J | MLCC 226P/6.3V,X5R,M(20%),SMD,1206,(JP)RoHS | 0.0911 | 3 | 0.2935 |
| 213-252268-310J | MLCC 226P/6.3V,X5R,M(20%),SMD,0603,(JP)RoHS | 0.0911 | 50 | 4.6372 |
| 213-252268-500C | MLCC 226P/25V,X5R,M(20%),SMD,0805,(None JP) RoHS | 0.0911 | 12 | 1.1336 |
| 213-252269-510J | MLCC 226P/6.3V,X5R,M(20%),SMD,0805,(JP)RoHS | 0.0911 | 4 | 0.3877 |
| 213-252269-620J | MLCC 226P/16V,X5R,K(10%),SMD,1206,(JP)RoHS | 0.0911 | 2 | 0.1987 |
| 213-253939-240J | MLCC 393P/25V,X7R,K(10%),SMD,0402,(JP)RoHS | 0.0911 | 1 | 0.1028 |
| 213-254715-200C | MLCC 471P/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.0911 | 7 | 0.6685 |
| 213-254718-210C | MLCC 471P/25V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.0911 | 8 | 0.7618 |
| 213-254739-210C | MLCC 473P/16V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.0911 | 7 | 0.6685 |
| 213-254758-210C | MLCC 475P/6.3V,X5R,M(20%),SMD,0402,(None JP) RoHS | 0.0911 | 2 | 0.1987 |
| 213-254759-300C | MLCC 475P/6.3V,X5R,K(10%),SMD,0603,(None JP) RoHS | 0.0911 | 1 | 0.1028 |
| 213-254759-320C | MLCC 475P/10V,X5R,K(10%),SMD,0603,(None JP) RoHS | 0.0911 | 14 | 1.3190 |
| 213-254768-306G | MLCC 476P/6.3V,X5R,M(20%),SMD,0603,GRM188R60J476M(MURATA)RoHS | 0.0911 | 2 | 0.1987 |
| 213-254768-500J | MLCC 476P/6.3V,X5R,M(20%),SMD,0805,(JP)RoHS | 0.0911 | 9 | 0.8549 |
| 217-104778-700G | POLYMER(ALM) CAP 470uF/2V,4.5mΩ,4000mA,SMD,V7343,105°C/2000H,M(20%),bottom of round shape,EEFSX0D471E4 (PANASONIC)RoHS | 0.7181 | 3 | 2.5481 |
| 217-301078-325G | POLYMER(TAN) CAP 100uF/6.3V,40mΩ,1.8A,SMD,B3528,105°C/2000H,M(20%),T520B107M006ATE040(KEMET)RoHS | 0.7181 | 3 | 2.5481 |
| 217-302278-326G | POLYMER(TAN)CAP 220uF/6.3V,45mΩ,1700mA,105°C/2000H,M(20%),B3528(1.9),T520B227M006ATE045(KEMET) RoHS | 0.7181 | 4 | 3.3261 |

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Temperature: 25
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| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|---|-------------------|----------|--------------------|
| 217-303378-720G | POLYMER(TAN) CAP 330uF/2.5V,9mΩ,3900mA,SMD,D7343-D2E,105°C/2000H,M(20%),2R5TPE330M9(SANYO)RoHS | 0.7181 | 1 | 0.9480 |
| 217-373368-400G | POLYMER(TAN) CAP,33uF/16V,50mΩ,1400mA,SMD,T3528-12,105°C/2000H,M(20%),T521T336M016ATE050(KEMET)RoHS | 0.7181 | 1 | 0.9480 |
| 223-015122-600G | CHOKE 0.15uH,M (20%),RDC≤0.66mΩ,Idc≤36A,Isat=45A,SMD,(7.6*6.6*3.8),PCME064T-R15MS0R667(CYNTEC)RoHS | 0.0831 | 3 | 0.2835 |
| 223-015222-610G | CHOKE 1.5uH,M (20%),RDC≤15mΩ,Irms=9A,Isat=16A,SMD,(7.3*6.6*3.0),MCS0630-1R5MN2(PDC)RoHS | 0.0831 | 1 | 0.1030 |
| 223-033121-700G | CHOKE 0.33uH,M(20%),RDC:7.8mΩ (typ),Irms:10A,Isat:18A,SMD (4.45*4.06*1.8mm),TMPC0402HP-R33MG-Z02(TAI TECH)RoHS | 0.0831 | 1 | 0.1030 |
| 223-047120-830G | CHOKE 0.47uH,M(20%),DCR:23mΩ (Typ.),Irms:5.2A,Isat:6.6A,SMD (2.5*2.0*1.0mm),MCS25GC-R47MHC(PDC)RoHS | 0.0831 | 1 | 0.1030 |
| 223-047121-710G | CHOKE 0.47uH,M (20%),RDC:12.5mΩ,Idc=7A,Isat=9.5A,SMD, (4.15x4x1.8),PCMB042T-R47MS(CYNTEC)RoHS | 0.0831 | 1 | 0.1030 |
| 223-047121-900G | CHOKE 0.47uH,M (20%),Rdc≤8.5mΩ,Idc=13A,Isat=12A,SMD, (4.85x4.7x2.8),PCMB053T-R47MS(CYNTEC)RoHS | 0.0831 | 2 | 0.1942 |
| 223-068121-900G | CHOKE 0.68uH,M (20%),RDC≤9.2mΩ,Idc=10A,Isat=15A,SMD (4.85x4.7x2.8),CMMB053T-R68MS(CYNTEC)RoHS | 0.0831 | 1 | 0.1030 |
| 223-322220-300G | INDUCTOR 2.2uH,M (20%),Itemp:500mA,RDC:250mΩ,SMD(0603) (1.6*0.8mm),MLZ1608A2R2WT000(TDK)RoHS | 0.0831 | 2 | 0.1942 |
| 223-347220-800G | INDUCTOR 4.7uH,M (20%),RDC≤0.24Ω,Irms≤2.1A,SMD(1008), (2.5*2.0*1.2mm)MHCD252012A-4R7M-A8S (CHILISIN)RoHS | 0.0831 | 1 | 0.1030 |
| 223-490040-540G | COMMON CHOKE 90Ω,25%,Irated≤500mA,RDC≤300mΩ,USB3.1 Gen2,10GHz,SMD(0805) (2*1.2*1.5mm),GCMF2012PM-900T(GOTREND) RoHS | 0.0831 | 6 | 0.5464 |
| 223-490090-500S | COMMON CHOKE 90Ω,60-100Ω,300mA (Max),RDC≤300mΩ,HDMI/USB3.0 6GHz,SMD0805 (2*1.2*1.2mm),GLECM2012B-900QT(GOTREND) | 0.0831 | 4 | 0.3713 |
| 223-523000-410G | CM FILTER Cd=0.25pF,Rs=3Ω,SMD (1.57*1.17*0.57),PCMF2USB3S/WLCSP10(NXP) RoHS | 0.0831 | 4 | 0.3713 |
| 231-171330-200G | REGULATOR GS7133TD-R,3A,TDFN10(GSTEK)RoHS | 1.9474 | 1 | 3.7871 |

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Failure Rate: 1,774.8839
Temperature: 25
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|---|-------------------|----------|--------------------|
| 241-224006-310G | X'TAL 24MHz,16pF,±30ppm,ESR:50Ω(Max),TOPR=-40°C~+105°C,SMD3225(4PAD),7M24000082(TXC) RoHS | 1.4698 | 1 | 2.4229 |
| 241-225006-350G | X'TAL 25MHz,18pF,±30ppm,ESR:50Ω(Max),TOPR=-40°C~+105°C,SMD3225(4PAD),7M25000175(TXC) RoHS | 1.4698 | 2 | 4.2797 |
| 241-432773-300G | X'TAL 32.768kHz,12.5pf,*/-20ppm,TOPR=-40°C~+125°C,SMD3215(2PAD),FC-13A,X1A000091000100(Seiko Epson)RoHS | 1.4698 | 1 | 2.4229 |
| 251-160808-083S | BEAD CORE 160808 80Ω,300mA,25%,SMT0603,SBK160808T-800Y-N (CHILISIN) | 0.4535 | 2 | 1.5088 |
| 251-160808-615S | BEAD CORE 160808 600Ω,1A,25%,SMT0603,PBY160808T-601Y-N (CHILISIN) | 0.4535 | 1 | 0.8779 |
| 253-100110-500G | POLY SWITCH,PTC,1.1A/6V,SMD0805,0805L110ULY R(LITTELFUSE)RoHS | 0.4000 | 1 | 0.6546 |
| 253-100115-604S | POLY SWITCH,PTC,1.1A/8V,SMD1206,1206L110THY R(LITTELFUSE)RoHS | 0.4000 | 2 | 1.1579 |
| 253-100155-604S | POLY SWITCH,PTC,1.5A/8V,SMD1206,1206L150THW R(LITTELFUSE) | 0.4000 | 1 | 0.6546 |
| 253-100266-403S | POLY SWITCH 2.6A/13.2V,SMD1812,miniSMDC260F/13.2 (LITTELFUSE)RoHS | 0.4000 | 1 | 0.6546 |
| 261-361515-200C | RES ARRAY 150Ω 8P4R J(5%),0402*4,(None JP) RoHS | 0.0605 | 2 | 0.1490 |
| 263-180005-100C | RES 0Ω,J(5%),SMD,0201,(None JP)RoHS | 0.0605 | 132 | 8.2049 |
| 263-180005-200C | RES 0Ω,J(5%),SMD,0402,(None JP)RoHS | 0.0605 | 20 | 1.2961 |
| 263-180005-300C | RES 0Ω,J(5%),SMD,0603,(None JP)RoHS | 0.0605 | 9 | 0.6024 |
| 263-180100-210C | RES 10Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 8 | 0.5386 |
| 263-180100-310C | RES 10Ω,F(1%),SMD,0603,(None JP)RoHS | 0.0605 | 4 | 0.2814 |
| 263-180330-110C | RES 33Ω,F(1%),SMD,0201,(None JP)RoHS | 0.0605 | 14 | 0.9191 |
| 263-180430-210C | RES 43Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-180510-110C | RES 51Ω,F(1%),SMD,0201,(None JP)RoHS | 0.0605 | 5 | 0.3464 |
| 263-180519-210C | RES 5.1Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-180560-210C | RES 56Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-180750-110C | RES 75Ω,F(1%),SMD,0201,(None JP)RoHS | 0.0605 | 5 | 0.3464 |
| 263-181000-110C | RES 100Ω,F(1%),SMD,0201,(None JP)RoHS | 0.0605 | 11 | 0.7295 |
| 263-181000-210C | RES 100Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 6 | 0.4110 |
| 263-181001-110C | RES 1KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.0605 | 31 | 1.9825 |
| 263-181001-210C | RES 1KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 8 | 0.5386 |
| 263-181002-110C | RES 10KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.0605 | 97 | 6.0566 |
| 263-181002-210C | RES 10KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 12 | 0.7928 |
| 263-181003-110C | RES 100KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.0605 | 34 | 2.1690 |
| 263-181003-210C | RES 100KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 10 | 0.6660 |
| 263-181004-110C | RES 1MΩ,F(1%),SMD,0201,(None JP)RoHS | 0.0605 | 2 | 0.1490 |
| 263-181004-210C | RES 1MΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 2 | 0.1490 |
| 263-181005-210C | RES 10MΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 563417
Failure Rate: 1,774.8839
Temperature: 25
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|--|-------------------|----------|--------------------|
| 263-181022-210C | RES 10.2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-181101-210C | RES 1.1KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-181130-210C | RES 113Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-181182-210C | RES 11.8KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-181201-210C | RES 1.2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 3 | 0.2157 |
| 263-181202-110C | RES 12KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-181202-210C | RES 12KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 3 | 0.2157 |
| 263-181203-210C | RES 120KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-181210-210C | RES 121Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-181213-210C | RES 121KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-181302-210C | RES 13KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-181402-210C | RES 14KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-181500-210C | RES 150Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 2 | 0.1490 |
| 263-181502-210C | RES 15KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-181503-210C | RES 150KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 2 | 0.1490 |
| 263-181505-100C | RES 15Ω,J(5%),SMD,0201,(None JP)RoHS | 0.0605 | 4 | 0.2814 |
| 263-181602-210C | RES 16KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 2 | 0.1490 |
| 263-181623-210C | RES 162KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-181782-210C | RES 17.8KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-181803-210C | RES 180KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 3 | 0.2157 |
| 263-181962-210C | RES 19.6KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-182000-210C | RES 200Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 3 | 0.2157 |
| 263-182001-210C | RES 2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 5 | 0.3464 |
| 263-182002-110C | RES 20KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.0605 | 8 | 0.5386 |
| 263-182002-210C | RES 20KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 6 | 0.4110 |
| 263-182003-210C | RES 200KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-182200-210C | RES 220Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-182201-110C | RES 2.2KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.0605 | 7 | 0.4746 |
| 263-182201-210C | RES 2.2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 2 | 0.1490 |
| 263-182202-110C | RES 22KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.0605 | 4 | 0.2814 |
| 263-182208-210C | RES 2.2Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-182208-310C | RES 2.2Ω,F(1%),SMD,0603,(None JP)RoHS | 0.0605 | 6 | 0.4110 |
| 263-182208-510C | RES 2.2Ω,F(1%),SMD,0805,(None JP)RoHS | 0.0605 | 4 | 0.2814 |
| 263-182400-110C | RES 240Ω,F(1%),SMD,0201,(None JP)RoHS | 0.0605 | 3 | 0.2157 |
| 263-182401-210C | RES 2.4KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-182492-210C | RES 24.9KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 2 | 0.1490 |
| 263-182499-210C | RES 24.9Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 2 | 0.1490 |
| 263-182612-210C | RES 26.1KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-182702-218G | RES 27KΩ,F(1%),SMD,0402,RTT022702FTH(RALEC) RoHS Taiwan | 0.0605 | 1 | 0.0805 |
| 263-183000-310C | RES 300Ω,F(1%),SMD,0603,(None JP)RoHS | 0.0605 | 2 | 0.1490 |
| 263-183002-210C | RES 30KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-183011-210C | RES 3.01KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-183013-210C | RES 301KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 3 | 0.2157 |
| 263-183300-210C | RES 330Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 4 | 0.2814 |
| 263-183301-110C | RES 3.3KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.0605 | 6 | 0.4110 |
| 263-183301-210C | RES 3.3KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 4 | 0.2814 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 563417
Failure Rate: 1,774.8839
Temperature: 25
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|--|-------------------|----------|--------------------|
| 263-183302-110C | RES 33KΩ,F(1%),SMD,0201(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-183303-210C | RES 330KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 2 | 0.1490 |
| 263-183483-210C | RES 348KΩ,F(1%),SMD,0402(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-183652-210C | RES 36.5KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 2 | 0.1490 |
| 263-183922-110C | RES 39.2KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-183922-210C | RES 39.2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-184221-210C | RES 4.22KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-184321-210C | RES 4.32KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 2 | 0.1490 |
| 263-184532-210C | RES 45.3KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-184539-210C | RES 45.3Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-184700-110C | RES 470Ω,F(1%),SMD,0201,(None JP)RoHS | 0.0605 | 9 | 0.6024 |
| 263-184701-110C | RES 4.7KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.0605 | 31 | 1.9825 |
| 263-184701-210C | RES 4.7KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 2 | 0.1490 |
| 263-184702-110C | RES 47KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.0605 | 11 | 0.7295 |
| 263-184871-210C | RES 4.87KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 3 | 0.2157 |
| 263-184990-110C | RES 499Ω,F(1%),SMD,0201,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-184990-210C | RES 499Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-184991-210C | RES 4.99KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-184999-110C | RES 49.9Ω,F(1%),SMD,0201,(None JP)RoHS | 0.0605 | 4 | 0.2814 |
| 263-184999-210C | RES 49.9Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 9 | 0.6024 |
| 263-185102-210C | RES 51KΩ,F(1%),SMD,0402(None JP)RoHS | 0.0605 | 3 | 0.2157 |
| 263-185602-210C | RES 56KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 4 | 0.2814 |
| 263-185622-210C | RES 56.2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-186041-210C | RES 6.04KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-186049-210C | RES 60.4Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 2 | 0.1490 |
| 263-187501-210C | RES 7.5KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 2 | 0.1490 |
| 263-187502-210C | RES 75KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-188069-210C | RES 80.6Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-188201-210C | RES 8.2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-188871-210C | RES 8.87KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-189100-210C | RES 910Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 1 | 0.0805 |
| 263-189762-210C | RES 97.6KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0605 | 2 | 0.1490 |
| 273-010400-300G | THERM RES 100KΩ,0603(B:25/85=3950,3%)RoHS | 0.9957 | 5 | 7.0942 |
| 273-100402-301S | THERM RES 10KΩ,J(5%),SMD,0603, (B25/85=3435,3%),TSM1A103J34D3RZ(TKS) | 0.9957 | 2 | 3.3397 |
| 314-WL0511-109G | PCB WL051 R.A(12L 100x72x1.6mm, 2 panelization) OSP(CIRCUITECH)RoHS | 2.4655 | 1 | 4.6984 |
| 342-122101-100G | DISPLAYPORT/HDMI CONN,21P,MALE,R/A,DIP,GF,845-002-217CRL (REGO)RoHS | 2.0862 | 1 | 3.6121 |
| 342-310022-110G | Screw CONN. Terminal Block,Green,2Pos,300V,16A,PIT:5.0mm,MB612- 50002(DECA) RoHS | 2.0862 | 1 | 3.6121 |
| 343-124000-210G | eDP conn, 40P, F, 90D, 0.5mm, G/F, SMT, BLACK, SSL00-40L3(KEL)RoHS | 2.0862 | 1 | 3.6121 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 563417
Failure Rate: 1,774.8839
Temperature: 25
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|---|-------------------|----------|--------------------|
| 343-501402-200G | Giga LAN CONN RJ45,SMT,GF,W/Transformer,W/LED,MRJG-11S88RS (MATRIX),RoHS | 2.0862 | 2 | 6.3217 |
| 343-501820-110G | USB 3.1 GEN2 CONN*2, 18P, A Type, Green, F, G/F, 90D, DIP, U2131D-UADH-0401R(HDSY)RoHS | 2.0862 | 1 | 3.6121 |
| 346-120310-201G | PIN PLUG 2*3, 1.27mm, H=5mm, 180D, SMD, SHY- JCL180806P(V-STAR)RoHS | 14.6036 | 2 | 44.2517 |
| 346-120511-201G | PIN PLUG 2*5, 1.27mm, H=5mm, 180D, SMD, SHY- JCL180810P(V-STAR)RoHS | 14.6036 | 4 | 79.5338 |
| 346-510223-102G | WAFER 1*2,2.0mm,M,H=6.1mm,180D,DIP,WHITE,721-81- 02TW00(PINREX)RoHS | 14.6036 | 1 | 25.2847 |
| 348-220800-200S | SOCKET SPI 8Pin,GF,H=5.65mm,180D,SMT,ACA-SPI -004-K01(LOTES) | 1.1379 | 1 | 1.8544 |
| 348-370750-230G | NGFF CONN 67P/0.5mm,E Key,R/A,SMD,AS0BC21- S40BE-7H,(FOXCONN)HF | 2.0862 | 1 | 3.6121 |
| 348-370750-240G | NGFF CONN 67P/0.5mm,H=8.5mm,B key,90D,BLACK,SMD,APCI0161-P002H(LOTES)HF | 2.0862 | 2 | 6.3217 |
| 348-652600-200G | DDR4 SO DIMM 1*260P,10u",H=8.0mm 1.2V,RVS,90D,SMD,ASAA826-E8RB0-7H(FOXCONN) HF | 2.0862 | 1 | 3.6121 |
| 622-010140-000G | BATTERY CR2032(MURATA) 3V 220mAh,-30°C ~+70°C,W/CABLE(L=150mm&TAPE),BIN-CR2032-I- CT-SL-PV-01(RE-ENERGY)RoHS Belong to UN3090 | 25.0000 | 1 | 34.9638 |
| 686-110322-100G | PIN PLUG 1*3,2.0mm,M,H=5.9mm,180D,DIP,W/BLACK JUMPER,22S-96-03GB01(PINREX)RoHS | 2.0862 | 1 | 3.6121 |
| 292-301000-500S | BUZZER 3V,100mA,12Ω,4Khz,85db,SMD (5*4.2mm),SMT-G5030A(KEPO) | 600.0000 | 1 | 600.0000 |
| 143-101705-401G | CPU Intel Core i7-8665UE 1.7GHz C/8M,V0,CL8068404148003 SRFDS/FCBGA-1528 (INTEL)RoHS | 422.0000 | 1 | 422.0000 |

File Name: WL051-BCC-8665UE.rfp
System: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 401939
Failure Rate: 2,487.94
Temperature: 45
Environment: GB, GC - Ground Benign, Controlled

| Assembly Name | Part Number | Quantity | Failure Rate (Fit) | MTBF (Hrs) |
|------------------|-----------------|----------|--------------------|------------|
| WL051-BCC-8665UE | 774-WL0511-000G | 1 | 2487.94 | 401,939 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 401939
Failure Rate: 2,487.9410
Temperature: 45
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|---|-------------------|----------|--------------------|
| 112-900032-300G | IC TTL,Two-Input OR Gate,NC7SZ32P5X/SC70-5 (ON)RoHS | 4.6582 | 6 | 33.5948 |
| 113-500004-300G | IC TTL,Single Inverter Gate,SN74LVC1G04DCK/SC70-5(TI)RoHS | 4.6582 | 1 | 7.0069 |
| 113-500007-210S | IC TTL,Single Buffer/Driver With Open-Drain Output,SN74LVC1G07DCKR/SC70-5(TI) | 4.6582 | 2 | 12.6132 |
| 113-500008-210G | IC TTL,Single 2-Input Positive-AND Gate,SN74LVC1G08DCKR/SC70-5(TI)RoHS | 4.6582 | 16 | 83.5504 |
| 113-833306-400G | IC TTL,Dual FET Bus Switch,SN74CB3Q3306ADCUR/VSSOP8(US8-DCU) (TI)RoHS | 4.6582 | 2 | 12.6132 |
| 113-906408-400G | IC LOW-VOLTAGE 8-BIT I2C AND SMBus I/O EXPANDER,UQFN16, TCA6408ARSVR(TI)RoHS | 4.6582 | 1 | 7.0069 |
| 121-000104-420G | IC 4-BIT BIDIRECTIONAL VOLTAGE-LEVEL TRANSLATOR,NTS0104GU12/XQFN12(NXP) RoHS | 4.6582 | 1 | 7.0069 |
| 121-002069-200G | IC Power-Distribution Switches,1.5A,TPS2069DDBVT/SOT23-5(TI)RoHS | 4.6582 | 1 | 7.0069 |
| 121-007111-400G | IC Power Switch RSET with Flag,JW7111DFNB#TRPBF/DFN-6(2x2)(JOULWATT) RoHS | 4.6582 | 1 | 7.0069 |
| 121-022976-200G | IC Switch,5.7-V,6-A,14-mΩ On-Resistance Dual-Channel Load,TPS22976DPU/WSO-14(TI)RoHS | 4.6582 | 3 | 17.9944 |
| 121-081439-401G | IC Single 3.3V or 5V RS232/RS422/RS485 Multiprotocol Transceiver,F81439AN/TQFN-40(5x5) (FINTEK)RoHS | 4.6582 | 1 | 7.0069 |
| 121-302045-400G | IC Integrated Driver and MOSFET,NCP302045MNTWG/PQFN-33(5*5)(ON) RoHS | 4.6582 | 4 | 23.2605 |
| 135-300403-200G | SPI SERIAL FLASH 4Mbit,MX25L4006EZUI-12G/USON-8(MXIC)RoHS | 10.4080 | 1 | 16.1558 |
| 135-301004-201G | EEPROM 8K(1024*8)M24C08-WMN6TP/SO-8(ST) RoHS | 10.4080 | 1 | 16.1558 |
| 135-301282-220G | SPI SERIAL FLASH 128Mbit,W25Q128JVSQ/SOIC-8 (WINBOND)RoHS | 10.4080 | 1 | 16.1558 |
| 136-112180-200G | 8-bit Flash Microcontroller PIC12F1822-I/SN/SOIC-8 (MICROCHIP)RoHS | 10.4080 | 1 | 16.1558 |
| 141-006850-401G | IC Synchronous Buck Converter,4.5-26Vin,12A,NB685AGQ/QFN16(MPS)RoHS | 4.6582 | 1 | 7.0069 |
| 141-262001-200G | AUDIO CODEC,ALC262-VC2-GR/LQFP-48(REALTEK) RoHS | 4.6582 | 1 | 7.0069 |
| 141-562150-400G | IC Synchronous Step-down Converter,TPS56C215RNN/VQFN-18(TI)RoHS | 4.6582 | 3 | 17.9944 |
| 141-568210-400G | IC Converter,4.5V~17V Input,8A Synchronous Step-Down SWIFT,TPS568215OARNN/VQFN-18(TI)RoHS | 4.6582 | 1 | 7.0069 |
| 141-620850-200G | IC Synchronous Buck Converter,2.5-6,3A,TLV62085RLT/VSON-7(TI)RoHS | 4.6582 | 1 | 7.0069 |
| 141-812450-400G | IC PWM CTRL, NCP81245MNTXG/QFN-52(ON)RoHS | 4.6582 | 1 | 7.0069 |
| 147-002190-400G | IC CHIP,Giga LAN PHY,WGI219LM SLKJ3/QFN48 (6x6mm) (INTEL)RoHS | 4.6582 | 1 | 7.0069 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 401939
Failure Rate: 2,487.9410
Temperature: 45
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|---|-------------------|----------|--------------------|
| 147-055250-200G | IC CHIP Super I/O, NCT5525D/LQFP-64(NUVOTON) RoHS | 4.6582 | 1 | 7.0069 |
| 147-822100-410G | IC CHIP Giga LAN Ctrl,-40~105°C,WGI210IT SLJXT/QFN-64(INTEL)RoHS | 4.6582 | 1 | 7.0069 |
| 171-204005-210G | DIODE SCHOTTKY BARRIER 40V,200mA,BAS40-05-7-F/SOT23-3(DIODES)RoHS | 0.3751 | 7 | 3.5423 |
| 171-205200-220G | DIODE SCHOTTKY,30V,200mA,RB520S-30H/SOD-523(SMARTENGRAND)RoHS | 0.3751 | 3 | 1.7307 |
| 171-214148-503S | DIODE Switching,SMD,1N4148W-TG-WS/SOD-123 (WILLAS) | 0.3751 | 1 | 0.7247 |
| 171-360120-500G | DIODE TVS,12V,600W,Bidirectional,SMBJ12CA/DO-214AA(LITTELFUSE)RoHS | 0.3751 | 1 | 0.7247 |
| 171-404010-200S | DIODE 4-CHANNEL ESD PROTECTION,TPD4S010DQAR/SON-DQA10(TI) | 4.6582 | 4 | 23.2605 |
| 171-451715-200G | DIODE Zener,15V,Vz=14.34V~14.98V,UDZVTE-1715B/SOD-323FL(ROHM)RoHS | 0.3751 | 1 | 0.7247 |
| 171-451756-200G | DIODE Zener,5.6V,Vz=5.49V~5.73V,UDZVTE-175.6B/SOD-323F(ROHM)RoHS | 0.3751 | 2 | 1.2458 |
| 171-841023-200G | DIODE TVS Array,3.3V,AZ1023-04F.R7G/DFN2510P10E(AMAZING)RoHS | 0.3751 | 2 | 1.2458 |
| 172-207002-241G | MOSFET N-Ch,VDS:60V,ID:300mA,VGS:±20V,@10V,RDS:3Ω,2N7002K/SOT23-3(PANJIT)RoHS | 12.5047 | 3 | 47.6300 |
| 172-223904-206S | TRANSISTOR NPN,MMBT3904LT1G/SOT23(ON) | 2.0121 | 4 | 11.1266 |
| 172-223904-400G | TRANSISTOR Dual NPN,MBT3904DW1T1G/SOT-363 (ON)RoHS | 2.0121 | 4 | 11.1266 |
| 172-223906-207S | TRANSISTOR PNP,PMBS3906/SOT23(NXP) | 2.0121 | 1 | 3.5668 |
| 172-239040-210G | TRANSISTOR DUAL NPN,Ic≤200mA,Vcbo:60V,Vceo:40V,MMBT3904DTH/SOT563-6(SMARTENGRAND)RoHS | 2.0121 | 2 | 6.2164 |
| 172-301380-220G | MOSFET Dual N-Ch,VDS:50V,ID:350mA,VGS:±20V,@10V,RDS:1.6Ω,BSS138KDT/SOT563-6(SMARTENGRAND)RoHS | 12.5047 | 29 | 393.2328 |
| 172-302003-210G | MOSFET N-Ch,VDS:30V,ID:7A,VGS:±20V,@10V,RDS:20mΩ,EMB20N03VA/EDFN-8(2x2)(EXCELLIANCE)RoHS | 12.5047 | 2 | 33.3055 |
| 172-323052-200G | MOSFET P-Ch,VDS:-30V,ID:-4.9A,VGS:±12V,@-10V,RDS≤52mΩ,CEH2305/TSOP-6(CET)RoHS | 12.5047 | 1 | 18.4158 |
| 172-330140-200G | MOSFET N-Ch,VDS:30V,ID:9.5A,VGS:±20V,@10V,RDS:12mΩ,FKBB3014/PRPAK-8(3x3)(FETEK)RoHS | 12.5047 | 1 | 18.4158 |
| 172-331030-200G | MOSFET P-Ch,VDS:-30V,ID:-7.7A,VGS:±25V,@-10V,RDS:20mΩ,FKBB3103/PRPAK-8(3x3)(FETEK) RoHS | 12.5047 | 5 | 75.5170 |
| 213-151015-200C | MLCC 101P/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.1030 | 1 | 0.1162 |
| 213-151203-109G | MLCC 12pF/50V,NPO,F(1%),SMD,0201,CC0201FRNPO9BN120(YAGEO) RoHS | 0.1030 | 4 | 0.4382 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 401939
Failure Rate: 2,487.9410
Temperature: 45
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|--|-------------------|----------|--------------------|
| 213-151505-200C | MLCC 15pF/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.1030 | 1 | 0.1162 |
| 213-151805-200C | MLCC 18pF/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.1030 | 4 | 0.4382 |
| 213-152205-200C | MLCC 22pF/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.1030 | 1 | 0.1162 |
| 213-152215-200C | MLCC 221P/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.1030 | 6 | 0.6501 |
| 213-152705-200C | MLCC 27pF/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.1030 | 4 | 0.4382 |
| 213-153319-200C | MLCC 331P/50V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1030 | 10 | 1.0713 |
| 213-154705-200C | MLCC 47pF/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.1030 | 2 | 0.2246 |
| 213-251028-200C | MLCC 102P/50V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1030 | 11 | 1.1763 |
| 213-251028-300C | MLCC 102P/50V,X7R,K(10%),SMD,0603,(None JP) RoHS | 0.1030 | 4 | 0.4382 |
| 213-251029-110C | MLCC 102P/25V,X7R,K(10%)SMD,0201(None JP) RoHS | 0.1030 | 2 | 0.2246 |
| 213-251038-250C | MLCC 103P/50V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1030 | 4 | 0.4382 |
| 213-251049-130C | MLCC 104P/10V,X5R,K(10%),SMD,0201,(None JP) RoHS | 0.1030 | 84 | 8.7693 |
| 213-251049-200C | MLCC 104P/16V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1030 | 77 | 8.0434 |
| 213-251049-270J | MLCC 104P/25V,X5R,K(10%),SMD,0402,(JP)RoHS | 0.1030 | 7 | 0.7556 |
| 213-251049-380C | MLCC 104P/100V,X7R,K(10%),SMD,0603,(None JP) RoHS | 0.1030 | 1 | 0.1162 |
| 213-251059-109G | MLCC 105P/6.3V,X5R,K(10%),SMD,0201,CC0201KRX5R5BB105(YAGEO) RoHS | 0.1030 | 54 | 5.6566 |
| 213-251059-200C | MLCC 105P/6.3V,X5R,K(10%),SMD,0402,(None JP) RoHS | 0.1030 | 1 | 0.1162 |
| 213-251059-220J | MLCC 105P/10V,X5R,K(10%),SMD,0402,(JP)RoHS | 0.1030 | 4 | 0.4382 |
| 213-251059-230J | MLCC 105P/16V,X5R,K(10%),SMD,0402,(JP)RoHS | 0.1030 | 36 | 3.7856 |
| 213-251059-270C | MLCC 105P/6.3V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1030 | 1 | 0.1162 |
| 213-251059-330J | MLCC 105P/25V,X5R,K(10%),SMD,0603,(JP)RoHS | 0.1030 | 5 | 0.5443 |
| 213-251068-200J | MLCC 106P/6.3V,X5R,M(20%),SMD,0402,(JP)RoHS | 0.1030 | 68 | 7.1099 |
| 213-251068-300J | MLCC 106P/6.3V,X5R,M(20%),SMD,0603,(JP)RoHS | 0.1030 | 26 | 2.7442 |
| 213-251069-320J | MLCC 106P/10V,X5R,K(10%),SMD,0603,(JP)RoHS | 0.1030 | 7 | 0.7556 |
| 213-251069-500C | MLCC 106P/6.3V,X5R,K(10%),SMD,0805,(None JP) RoHS | 0.1030 | 1 | 0.1162 |
| 213-251069-540J | MLCC 106P/16V,X5R,K(10%),SMD,0805,(JP)RoHS | 0.1030 | 12 | 1.2812 |
| 213-251228-200C | MLCC 122P/50V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1030 | 1 | 0.1162 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 401939
Failure Rate: 2,487.9410
Temperature: 45
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|--|-------------------|----------|--------------------|
| 213-251528-200C | MLCC 152P/50V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1030 | 6 | 0.6501 |
| 213-252229-200C | MLCC 222P/50V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1030 | 4 | 0.4382 |
| 213-252239-220J | MLCC 223P/50V,X7R,K(10%),SMD,0402,(JP)RoHS | 0.1030 | 1 | 0.1162 |
| 213-252249-140C | MLCC 224P/6.3V,X5R,K(10%),SMD,0201,(None JP) RoHS | 0.1030 | 16 | 1.7001 |
| 213-252249-210C | MLCC 224P/10V,X5R,K(10%),SMD,0402,(None JP) RoHS | 0.1030 | 1 | 0.1162 |
| 213-252249-330C | MLCC 224P/25V,X7R,K(10%),SMD,0603,(None JP) RoHS | 0.1030 | 5 | 0.5443 |
| 213-252259-330C | MLCC 225P/16V,X5R,K(10%)SMD,0603,(None JP) RoHS | 0.1030 | 1 | 0.1162 |
| 213-252262-610J | MLCC 226P/6.3V,X5R,M(20%),SMD,1206,(JP)RoHS | 0.1030 | 3 | 0.3317 |
| 213-252268-310J | MLCC 226P/6.3V,X5R,M(20%),SMD,0603,(JP)RoHS | 0.1030 | 50 | 5.2411 |
| 213-252268-500C | MLCC 226P/25V,X5R,M(20%),SMD,0805,(None JP) RoHS | 0.1030 | 12 | 1.2812 |
| 213-252269-510J | MLCC 226P/6.3V,X5R,M(20%),SMD,0805,(JP)RoHS | 0.1030 | 4 | 0.4382 |
| 213-252269-620J | MLCC 226P/16V,X5R,K(10%),SMD,1206,(JP)RoHS | 0.1030 | 2 | 0.2246 |
| 213-253939-240J | MLCC 393P/25V,X7R,K(10%),SMD,0402,(JP)RoHS | 0.1030 | 1 | 0.1162 |
| 213-254715-200C | MLCC 471P/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.1030 | 7 | 0.7556 |
| 213-254718-210C | MLCC 471P/25V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1030 | 8 | 0.8610 |
| 213-254739-210C | MLCC 473P/16V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1030 | 7 | 0.7556 |
| 213-254758-210C | MLCC 475P/6.3V,X5R,M(20%),SMD,0402,(None JP) RoHS | 0.1030 | 2 | 0.2246 |
| 213-254759-300C | MLCC 475P/6.3V,X5R,K(10%),SMD,0603,(None JP) RoHS | 0.1030 | 1 | 0.1162 |
| 213-254759-320C | MLCC 475P/10V,X5R,K(10%),SMD,0603,(None JP) RoHS | 0.1030 | 14 | 1.4908 |
| 213-254768-306G | MLCC 476P/6.3V,X5R,M(20%),SMD,0603,GRM188R60J476M(MURATA)RoHS | 0.1030 | 2 | 0.2246 |
| 213-254768-500J | MLCC 476P/6.3V,X5R,M(20%),SMD,0805,(JP)RoHS | 0.1030 | 9 | 0.9662 |
| 217-104778-700G | POLYMER(ALM) CAP 470uF/2V,4.5mΩ,4000mA,SMD,V7343,105°C/2000H,M(20%),bottom of round shape,EEFSX0D471E4 (PANASONIC)RoHS | 1.0368 | 3 | 3.6789 |
| 217-301078-325G | POLYMER(TAN) CAP 100uF/6.3V,40mΩ,1.8A,SMD,B3528,105°C/2000H,M(20%),T520B107M006ATE040(KEMET)RoHS | 1.0368 | 3 | 3.6789 |
| 217-302278-326G | POLYMER(TAN)CAP 220uF/6.3V,45mΩ,1700mA,105°C/2000H,M(20%),B3528(1.9),T520B227M006ATE045(KEMET) RoHS | 1.0368 | 4 | 4.8021 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 401939
Failure Rate: 2,487.9410
Temperature: 45
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|---|-------------------|----------|--------------------|
| 217-303378-720G | POLYMER(TAN) CAP 330uF/2.5V,9mΩ,3900mA,SMD,D7343-D2E,105°C/2000H,M(20%),2R5TPE330M9(SANYO)RoHS | 1.0368 | 1 | 1.3687 |
| 217-373368-400G | POLYMER(TAN) CAP,33uF/16V,50mΩ,1400mA,SMD,T3528-12,105°C/2000H,M(20%),T521T336M016ATE050(KEMET)RoHS | 1.0368 | 1 | 1.3687 |
| 223-015122-600G | CHOKE 0.15uH,M (20%),RDC≤0.66mΩ,Idc≤36A,Isat=45A,SMD,(7.6*6.6*3.8),PCME064T-R15MS0R667(CYNTEC)RoHS | 0.1200 | 3 | 0.4094 |
| 223-015222-610G | CHOKE 1.5uH,M (20%),RDC≤15mΩ,Irms=9A,Isat=16A,SMD,(7.3*6.6*3.0),MCS0630-1R5MN2(PDC)RoHS | 0.1200 | 1 | 0.1487 |
| 223-033121-700G | CHOKE 0.33uH,M(20%),RDC:7.8mΩ (typ),Irms:10A,Isat:18A,SMD (4.45*4.06*1.8mm),TMPC0402HP-R33MG-Z02(TAI TECH)RoHS | 0.1200 | 1 | 0.1487 |
| 223-047120-830G | CHOKE 0.47uH,M(20%),DCR:23mΩ (Typ.),Irms:5.2A,Isat:6.6A,SMD (2.5*2.0*1.0mm),MCS25GC-R47MHC(PDC)RoHS | 0.1200 | 1 | 0.1487 |
| 223-047121-710G | CHOKE 0.47uH,M (20%),RDC:12.5mΩ,Idc=7A,Isat=9.5A,SMD, (4.15x4x1.8),PCMB042T-R47MS(CYNTEC)RoHS | 0.1200 | 1 | 0.1487 |
| 223-047121-900G | CHOKE 0.47uH,M (20%),Rdc≤8.5mΩ,Idc=13A,Isat=12A,SMD, (4.85x4.7x2.8),PCMB053T-R47MS(CYNTEC)RoHS | 0.1200 | 2 | 0.2804 |
| 223-068121-900G | CHOKE 0.68uH,M (20%),RDC≤9.2mΩ,Idc=10A,Isat=15A,SMD (4.85x4.7x2.8),CMMB053T-R68MS(CYNTEC)RoHS | 0.1200 | 1 | 0.1487 |
| 223-322220-300G | INDUCTOR 2.2uH,M (20%),Itemp:500mA,RDC:250mΩ,SMD(0603) (1.6*0.8mm),MLZ1608A2R2WT000(TDK)RoHS | 0.1200 | 2 | 0.2804 |
| 223-347220-800G | INDUCTOR 4.7uH,M (20%),RDC≤0.24Ω,Irms≤2.1A,SMD(1008), (2.5*2.0*1.2mm)MHCD252012A-4R7M-A8S (CHILISIN)RoHS | 0.1200 | 1 | 0.1487 |
| 223-490040-540G | COMMON CHOKE 90Ω,25%,Irated≤500mA,RDC≤300mΩ,USB3.1 Gen2,10GHz,SMD(0805) (2*1.2*1.5mm),GCMF2012PM-900T(GOTREND) RoHS | 0.1200 | 6 | 0.7888 |
| 223-490090-500S | COMMON CHOKE 90Ω,60-100Ω,300mA (Max),RDC≤300mΩ,HDMI/USB3.0 6GHz,SMD0805 (2*1.2*1.2mm),GLECM2012B-900QT(GOTREND) | 0.1200 | 4 | 0.5361 |
| 223-523000-410G | CM FILTER Cd=0.25pF,Rs=3Ω,SMD (1.57*1.17*0.57),PCMF2USB3S/WLCSP10(NXP) RoHS | 0.1200 | 4 | 0.5361 |
| 231-171330-200G | REGULATOR GS7133TD-R,3A,TDFN10(GSTEK)RoHS | 7.6721 | 1 | 14.9200 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 401939
Failure Rate: 2,487.9410
Temperature: 45
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|---|-------------------|----------|--------------------|
| 241-224006-310G | X'TAL 24MHz,16pF,±30ppm,ESR:50Ω(Max),TOPR=-40°C~+105°C,SMD3225(4PAD),7M24000082(TXC) RoHS | 3.9138 | 1 | 6.4515 |
| 241-225006-350G | X'TAL 25MHz,18pF,±30ppm,ESR:50Ω(Max),TOPR=-40°C~+105°C,SMD3225(4PAD),7M25000175(TXC) RoHS | 3.9138 | 2 | 11.3958 |
| 241-432773-300G | X'TAL 32.768kHz,12.5pf,*/-20ppm,TOPR=-40°C~+125°C,SMD3215(2PAD),FC-13A,X1A000091000100(Seiko Epson)RoHS | 3.9138 | 1 | 6.4515 |
| 251-160808-083S | BEAD CORE 160808 80Ω,300mA,25%,SMT0603,SBK160808T-800Y-N (CHILISIN) | 0.6548 | 2 | 2.1784 |
| 251-160808-615S | BEAD CORE 160808 600Ω,1A,25%,SMT0603,PBY160808T-601Y-N (CHILISIN) | 0.6548 | 1 | 1.2675 |
| 253-100110-500G | POLY SWITCH,PTC,1.1A/6V,SMD0805,0805L110ULY R(LITTELFUSE)RoHS | 0.4000 | 1 | 0.6546 |
| 253-100115-604S | POLY SWITCH,PTC,1.1A/8V,SMD1206,1206L110THY R(LITTELFUSE)RoHS | 0.4000 | 2 | 1.1579 |
| 253-100155-604S | POLY SWITCH,PTC,1.5A/8V,SMD1206,1206L150THW R(LITTELFUSE) | 0.4000 | 1 | 0.6546 |
| 253-100266-403S | POLY SWITCH 2.6A/13.2V,SMD1812,miniSMDC260F/13.2 (LITTELFUSE)RoHS | 0.4000 | 1 | 0.6546 |
| 261-361515-200C | RES ARRAY 150Ω 8P4R J(5%),0402*4,(None JP) RoHS | 0.0873 | 2 | 0.2152 |
| 263-180005-100C | RES 0Ω,J(5%),SMD,0201,(None JP)RoHS | 0.0873 | 132 | 11.8460 |
| 263-180005-200C | RES 0Ω,J(5%),SMD,0402,(None JP)RoHS | 0.0873 | 20 | 1.8713 |
| 263-180005-300C | RES 0Ω,J(5%),SMD,0603,(None JP)RoHS | 0.0873 | 9 | 0.8697 |
| 263-180100-210C | RES 10Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 8 | 0.7776 |
| 263-180100-310C | RES 10Ω,F(1%),SMD,0603,(None JP)RoHS | 0.0873 | 4 | 0.4062 |
| 263-180330-110C | RES 33Ω,F(1%),SMD,0201,(None JP)RoHS | 0.0873 | 14 | 1.3270 |
| 263-180430-210C | RES 43Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-180510-110C | RES 51Ω,F(1%),SMD,0201,(None JP)RoHS | 0.0873 | 5 | 0.5001 |
| 263-180519-210C | RES 5.1Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-180560-210C | RES 56Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-180750-110C | RES 75Ω,F(1%),SMD,0201,(None JP)RoHS | 0.0873 | 5 | 0.5001 |
| 263-181000-110C | RES 100Ω,F(1%),SMD,0201,(None JP)RoHS | 0.0873 | 11 | 1.0532 |
| 263-181000-210C | RES 100Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 6 | 0.5934 |
| 263-181001-110C | RES 1KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.0873 | 31 | 2.8623 |
| 263-181001-210C | RES 1KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 8 | 0.7776 |
| 263-181002-110C | RES 10KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.0873 | 97 | 8.7444 |
| 263-181002-210C | RES 10KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 12 | 1.1446 |
| 263-181003-110C | RES 100KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.0873 | 34 | 3.1316 |
| 263-181003-210C | RES 100KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 10 | 0.9615 |
| 263-181004-110C | RES 1MΩ,F(1%),SMD,0201,(None JP)RoHS | 0.0873 | 2 | 0.2152 |
| 263-181004-210C | RES 1MΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 2 | 0.2152 |
| 263-181005-210C | RES 10MΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 401939
Failure Rate: 2,487.9410
Temperature: 45
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|--|-------------------|----------|--------------------|
| 263-181022-210C | RES 10.2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-181101-210C | RES 1.1KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-181130-210C | RES 113Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-181182-210C | RES 11.8KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-181201-210C | RES 1.2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 3 | 0.3114 |
| 263-181202-110C | RES 12KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-181202-210C | RES 12KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 3 | 0.3114 |
| 263-181203-210C | RES 120KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-181210-210C | RES 121Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-181213-210C | RES 121KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-181302-210C | RES 13KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-181402-210C | RES 14KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-181500-210C | RES 150Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 2 | 0.2152 |
| 263-181502-210C | RES 15KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-181503-210C | RES 150KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 2 | 0.2152 |
| 263-181505-100C | RES 15Ω,J(5%),SMD,0201,(None JP)RoHS | 0.0873 | 4 | 0.4062 |
| 263-181602-210C | RES 16KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 2 | 0.2152 |
| 263-181623-210C | RES 162KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-181782-210C | RES 17.8KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-181803-210C | RES 180KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 3 | 0.3114 |
| 263-181962-210C | RES 19.6KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-182000-210C | RES 200Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 3 | 0.3114 |
| 263-182001-210C | RES 2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 5 | 0.5001 |
| 263-182002-110C | RES 20KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.0873 | 8 | 0.7776 |
| 263-182002-210C | RES 20KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 6 | 0.5934 |
| 263-182003-210C | RES 200KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-182200-210C | RES 220Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-182201-110C | RES 2.2KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.0873 | 7 | 0.6852 |
| 263-182201-210C | RES 2.2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 2 | 0.2152 |
| 263-182202-110C | RES 22KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.0873 | 4 | 0.4062 |
| 263-182208-210C | RES 2.2Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-182208-310C | RES 2.2Ω,F(1%),SMD,0603,(None JP)RoHS | 0.0873 | 6 | 0.5934 |
| 263-182208-510C | RES 2.2Ω,F(1%),SMD,0805,(None JP)RoHS | 0.0873 | 4 | 0.4062 |
| 263-182400-110C | RES 240Ω,F(1%),SMD,0201,(None JP)RoHS | 0.0873 | 3 | 0.3114 |
| 263-182401-210C | RES 2.4KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-182492-210C | RES 24.9KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 2 | 0.2152 |
| 263-182499-210C | RES 24.9Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 2 | 0.2152 |
| 263-182612-210C | RES 26.1KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-182702-218G | RES 27KΩ,F(1%),SMD,0402,RTT022702FTH(RALEC) RoHS Taiwan | 0.0873 | 1 | 0.1162 |
| 263-183000-310C | RES 300Ω,F(1%),SMD,0603,(None JP)RoHS | 0.0873 | 2 | 0.2152 |
| 263-183002-210C | RES 30KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-183011-210C | RES 3.01KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-183013-210C | RES 301KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 3 | 0.3114 |
| 263-183300-210C | RES 330Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 4 | 0.4062 |
| 263-183301-110C | RES 3.3KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.0873 | 6 | 0.5934 |
| 263-183301-210C | RES 3.3KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 4 | 0.4062 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 401939
Failure Rate: 2,487.9410
Temperature: 45
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|--|-------------------|----------|--------------------|
| 263-183302-110C | RES 33KΩ,F(1%),SMD,0201(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-183303-210C | RES 330KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 2 | 0.2152 |
| 263-183483-210C | RES 348KΩ,F(1%),SMD,0402(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-183652-210C | RES 36.5KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 2 | 0.2152 |
| 263-183922-110C | RES 39.2KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-183922-210C | RES 39.2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-184221-210C | RES 4.22KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-184321-210C | RES 4.32KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 2 | 0.2152 |
| 263-184532-210C | RES 45.3KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-184539-210C | RES 45.3Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-184700-110C | RES 470Ω,F(1%),SMD,0201,(None JP)RoHS | 0.0873 | 9 | 0.8697 |
| 263-184701-110C | RES 4.7KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.0873 | 31 | 2.8623 |
| 263-184701-210C | RES 4.7KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 2 | 0.2152 |
| 263-184702-110C | RES 47KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.0873 | 11 | 1.0532 |
| 263-184871-210C | RES 4.87KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 3 | 0.3114 |
| 263-184990-110C | RES 499Ω,F(1%),SMD,0201,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-184990-210C | RES 499Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-184991-210C | RES 4.99KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-184999-110C | RES 49.9Ω,F(1%),SMD,0201,(None JP)RoHS | 0.0873 | 4 | 0.4062 |
| 263-184999-210C | RES 49.9Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 9 | 0.8697 |
| 263-185102-210C | RES 51KΩ,F(1%),SMD,0402(None JP)RoHS | 0.0873 | 3 | 0.3114 |
| 263-185602-210C | RES 56KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 4 | 0.4062 |
| 263-185622-210C | RES 56.2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-186041-210C | RES 6.04KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-186049-210C | RES 60.4Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 2 | 0.2152 |
| 263-187501-210C | RES 7.5KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 2 | 0.2152 |
| 263-187502-210C | RES 75KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-188069-210C | RES 80.6Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-188201-210C | RES 8.2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-188871-210C | RES 8.87KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-189100-210C | RES 910Ω,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 1 | 0.1162 |
| 263-189762-210C | RES 97.6KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.0873 | 2 | 0.2152 |
| 273-010400-300G | THERM RES 100KΩ,0603(B:25/85=3950,3%)RoHS | 2.6513 | 5 | 18.8899 |
| 273-100402-301S | THERM RES 10KΩ,J(5%),SMD,0603, (B25/85=3435,3%),TSM1A103J34D3RZ(TKS) | 2.6513 | 2 | 8.8927 |
| 314-WL0511-109G | PCB WL051 R.A(12L 100x72x1.6mm, 2 panelization) OSP(CIRCUITECH)RoHS | 6.5651 | 1 | 12.5107 |
| 342-122101-100G | DISPLAYPORT/HDMI CONN,21P,MALE,R/A,DIP,GF,845-002-217CRL (REGO)RoHS | 5.5551 | 1 | 9.6181 |
| 342-310022-110G | Screw CONN. Terminal Block,Green,2Pos,300V,16A,PIT:5.0mm,MB612- 50002(DECA) RoHS | 5.5551 | 1 | 9.6181 |
| 343-124000-210G | eDP conn, 40P, F, 90D, 0.5mm, G/F, SMT, BLACK, SSL00-40L3(KEL)RoHS | 5.5551 | 1 | 9.6181 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 401939
Failure Rate: 2,487.9410
Temperature: 45
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|---|-------------------|----------|--------------------|
| 343-501402-200G | Giga LAN CONN RJ45,SMT,GF,W/Transformer,W/LED,MRJG-11S88RS (MATRIX),RoHS | 5.5551 | 2 | 16.8329 |
| 343-501820-110G | USB 3.1 GEN2 CONN*2, 18P, A Type, Green, F, G/F, 90D, DIP, U2131D-UADH-0401R(HDSY)RoHS | 5.5551 | 1 | 9.6181 |
| 346-120310-201G | PIN PLUG 2*3, 1.27mm, H=5mm, 180D, SMD, SHY- JCL180806P(V-STAR)RoHS | 38.8854 | 2 | 117.8306 |
| 346-120511-201G | PIN PLUG 2*5, 1.27mm, H=5mm, 180D, SMD, SHY- JCL180810P(V-STAR)RoHS | 38.8854 | 4 | 211.7774 |
| 346-510223-102G | WAFER 1*2,2.0mm,M,H=6.1mm,180D,DIP,WHITE,721-81- 02TW00(PINREX)RoHS | 38.8854 | 1 | 67.3264 |
| 348-220800-200S | SOCKET SPI 8Pin,GF,H=5.65mm,180D,SMT,ACA-SPI -004-K01(LOTES) | 3.0300 | 1 | 4.9378 |
| 348-370750-230G | NGFF CONN 67P/0.5mm,E Key,R/A,SMD,AS0BC21- S40BE-7H,(FOXCONN)HF | 5.5551 | 1 | 9.6181 |
| 348-370750-240G | NGFF CONN 67P/0.5mm,H=8.5mm,B key,90D,BLACK,SMD,APCI0161-P002H(LOTES)HF | 5.5551 | 2 | 16.8329 |
| 348-652600-200G | DDR4 SO DIMM 1*260P,10u",H=8.0mm 1.2V,RVS,90D,SMD,ASAA826-E8RB0-7H(FOXCONN) HF | 5.5551 | 1 | 9.6181 |
| 622-010140-000G | BATTERY CR2032(MURATA) 3V 220mAh,-30°C ~+70°C,W/CABLE(L=150mm&TAPE),BIN-CR2032-I- CT-SL-PV-01(RE-ENERGY)RoHS Belong to UN3090 | 25.0000 | 1 | 34.9638 |
| 686-110322-100G | PIN PLUG 1*3,2.0mm,M,H=5.9mm,180D,DIP,W/BLACK JUMPER,22S-96-03GB01(PINREX)RoHS | 5.5551 | 1 | 9.6181 |
| 292-301000-500S | BUZZER 3V,100mA,12Ω,4Khz,85db,SMD (5*4.2mm),SMT-G5030A(KEPO) | 600.0000 | 1 | 600.0000 |
| 143-101705-401G | CPU Intel Core i7-8665UE 1.7GHz C/8M,V0,CL8068404148003 SRFDS/FCBGA-1528 (INTEL)RoHS | 422.0000 | 1 | 422.0000 |

File Name: WL051-BCC-8665UE.rfp
System: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 293183
Failure Rate: 3,410.84
Temperature: 60
Environment: GB, GC - Ground Benign, Controlled

| Assembly Name | Part Number | Quantity | Failure Rate (Fit) | MTBF (Hrs) |
|------------------|-----------------|----------|--------------------|------------|
| WL051-BCC-8665UE | 774-WL0511-000G | 1 | 3410.84 | 293,183 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 293183
Failure Rate: 3,410.8381
Temperature: 60
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|---|-------------------|----------|--------------------|
| 112-900032-300G | IC TTL,Two-Input OR Gate,NC7SZ32P5X/SC70-5 (ON)RoHS | 8.2795 | 6 | 59.7113 |
| 113-500004-300G | IC TTL,Single Inverter Gate,SN74LVC1G04DCK/SC70-5(TI)RoHS | 8.2795 | 1 | 12.4540 |
| 113-500007-210S | IC TTL,Single Buffer/Driver With Open-Drain Output,SN74LVC1G07DCKR/SC70-5(TI) | 8.2795 | 2 | 22.4187 |
| 113-500008-210G | IC TTL,Single 2-Input Positive-AND Gate,SN74LVC1G08DCKR/SC70-5(TI)RoHS | 8.2795 | 16 | 148.5022 |
| 113-833306-400G | IC TTL,Dual FET Bus Switch,SN74CB3Q3306ADCUR/VSSOP8(US8-DCU) (TI)RoHS | 8.2795 | 2 | 22.4187 |
| 113-906408-400G | IC LOW-VOLTAGE 8-BIT I2C AND SMBus I/O EXPANDER,UQFN16, TCA6408ARSVR(TI)RoHS | 8.2795 | 1 | 12.4540 |
| 121-000104-420G | IC 4-BIT BIDIRECTIONAL VOLTAGE-LEVEL TRANSLATOR,NTS0104GU12/XQFN12(NXP) RoHS | 8.2795 | 1 | 12.4540 |
| 121-002069-200G | IC Power-Distribution Switches,1.5A,TPS2069DDBVT/SOT23-5(TI)RoHS | 8.2795 | 1 | 12.4540 |
| 121-007111-400G | IC Power Switch RSET with Flag,JW7111DFNB#TRPBF/DFN-6(2x2)(JOULWATT) RoHS | 8.2795 | 1 | 12.4540 |
| 121-022976-200G | IC Switch,5.7-V,6-A,14-mΩ On-Resistance Dual-Channel Load,TPS22976DPU/WSO-14(TI)RoHS | 8.2795 | 3 | 31.9831 |
| 121-081439-401G | IC Single 3.3V or 5V RS232/RS422/RS485 Multiprotocol Transceiver,F81439AN/TQFN-40(5x5) (FINTEK)RoHS | 8.2795 | 1 | 12.4540 |
| 121-302045-400G | IC Integrated Driver and MOSFET,NCP302045MNTWG/PQFN-33(5*5)(ON) RoHS | 8.2795 | 4 | 41.3430 |
| 135-300403-200G | SPI SERIAL FLASH 4Mbit,MX25L4006EZUI-12G/USON-8(MXIC)RoHS | 18.4992 | 1 | 28.7152 |
| 135-301004-201G | EEPROM 8K(1024*8)M24C08-WMN6TP/SO-8(ST) RoHS | 18.4992 | 1 | 28.7152 |
| 135-301282-220G | SPI SERIAL FLASH 128Mbit,W25Q128JVSQ/SOIC-8 (WINBOND)RoHS | 18.4992 | 1 | 28.7152 |
| 136-112180-200G | 8-bit Flash Microcontroller PIC12F1822-I/SN/SOIC-8 (MICROCHIP)RoHS | 18.4992 | 1 | 28.7152 |
| 141-006850-401G | IC Synchronous Buck Converter,4.5-26Vin,12A,NB685AGQ/QFN16(MPS)RoHS | 8.2795 | 1 | 12.4540 |
| 141-262001-200G | AUDIO CODEC,ALC262-VC2-GR/LQFP-48(REALTEK) RoHS | 8.2795 | 1 | 12.4540 |
| 141-562150-400G | IC Synchronous Step-down Converter,TPS56C215RNN/VQFN-18(TI)RoHS | 8.2795 | 3 | 31.9831 |
| 141-568210-400G | IC Converter,4.5V~17V Input,8A Synchronous Step-Down SWIFT,TPS568215OARNN/VQFN-18(TI)RoHS | 8.2795 | 1 | 12.4540 |
| 141-620850-200G | IC Synchronous Buck Converter,2.5-6,3A,TLV62085RLT/VSON-7(TI)RoHS | 8.2795 | 1 | 12.4540 |
| 141-812450-400G | IC PWM CTRL, NCP81245MNTXG/QFN-52(ON)RoHS | 8.2795 | 1 | 12.4540 |
| 147-002190-400G | IC CHIP,Giga LAN PHY,WGI219LM SLKJ3/QFN48 (6x6mm) (INTEL)RoHS | 8.2795 | 1 | 12.4540 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 293183
Failure Rate: 3,410.8381
Temperature: 60
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|---|-------------------|----------|--------------------|
| 147-055250-200G | IC CHIP Super I/O, NCT5525D/LQFP-64(NUVOTON) RoHS | 8.2795 | 1 | 12.4540 |
| 147-822100-410G | IC CHIP Giga LAN Ctrl,-40~105°C,WGI210IT SLJXT/QFN-64(INTEL)RoHS | 8.2795 | 1 | 12.4540 |
| 171-204005-210G | DIODE SCHOTTKY BARRIER 40V,200mA,BAS40-05-7-F/SOT23-3(DIODES)RoHS | 0.5385 | 7 | 5.0850 |
| 171-205200-220G | DIODE SCHOTTKY,30V,200mA,RB520S-30H/SOD-523(SMARTENGRAND)RoHS | 0.5385 | 3 | 2.4844 |
| 171-214148-503S | DIODE Switching,SMD,1N4148W-TG-WS/SOD-123 (WILLAS) | 0.5385 | 1 | 1.0403 |
| 171-360120-500G | DIODE TVS,12V,600W,Bidirectional,SMBJ12CA/DO-214AA(LITTELFUSE)RoHS | 0.5385 | 1 | 1.0403 |
| 171-404010-200S | DIODE 4-CHANNEL ESD PROTECTION,TPD4S010DQAR/SON-DQA10(TI) | 8.2795 | 4 | 41.3430 |
| 171-451715-200G | DIODE Zener,15V,Vz=14.34V~14.98V,UDZVTE-1715B/SOD-323FL(ROHM)RoHS | 0.5385 | 1 | 1.0403 |
| 171-451756-200G | DIODE Zener,5.6V,Vz=5.49V~5.73V,UDZVTE-175.6B/SOD-323F(ROHM)RoHS | 0.5385 | 2 | 1.7884 |
| 171-841023-200G | DIODE TVS Array,3.3V,AZ1023-04F.R7G/DFN2510P10E(AMAZING)RoHS | 0.5385 | 2 | 1.7884 |
| 172-207002-241G | MOSFET N-Ch,VDS:60V,ID:300mA,VGS:±20V,@10V,RDS:3Ω,2N7002K/SOT23-3(PANJIT)RoHS | 17.9506 | 3 | 68.3735 |
| 172-223904-206S | TRANSISTOR NPN,MMBT3904LT1G/SOT23(ON) | 2.8884 | 4 | 15.9723 |
| 172-223904-400G | TRANSISTOR Dual NPN,MBT3904DW1T1G/SOT-363 (ON)RoHS | 2.8884 | 4 | 15.9723 |
| 172-223906-207S | TRANSISTOR PNP,PMBS3906/SOT23(NXP) | 2.8884 | 1 | 5.1202 |
| 172-239040-210G | TRANSISTOR DUAL NPN,Ic≤200mA,Vcbo:60V,Vceo:40V,MMBT3904DTH/SOT563-6(SMARTENGRAND)RoHS | 2.8884 | 2 | 8.9237 |
| 172-301380-220G | MOSFET Dual N-Ch,VDS:50V,ID:350mA,VGS:±20V,@10V,RDS:1.6Ω,BSS138KDT/SOT563-6(SMARTENGRAND)RoHS | 17.9506 | 29 | 564.4909 |
| 172-302003-210G | MOSFET N-Ch,VDS:30V,ID:7A,VGS:±20V,@10V,RDS:20mΩ,EMB20N03VA/EDFN-8(2x2)(EXCELLIANCE)RoHS | 17.9506 | 2 | 47.8105 |
| 172-323052-200G | MOSFET P-Ch,VDS:-30V,ID:-4.9A,VGS:±12V,@-10V,RDS≤52mΩ,CEH2305/TSOP-6(CET)RoHS | 17.9506 | 1 | 26.4362 |
| 172-330140-200G | MOSFET N-Ch,VDS:30V,ID:9.5A,VGS:±20V,@10V,RDS:12mΩ,FKBB3014/PRPAK-8(3x3)(FETEK)RoHS | 17.9506 | 1 | 26.4362 |
| 172-331030-200G | MOSFET P-Ch,VDS:-30V,ID:-7.7A,VGS:±25V,@-10V,RDS:20mΩ,FKBB3103/PRPAK-8(3x3)(FETEK) RoHS | 17.9506 | 5 | 108.4057 |
| 213-151015-200C | MLCC 101P/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.1118 | 1 | 0.1261 |
| 213-151203-109G | MLCC 12pF/50V,NPO,F(1%),SMD,0201,CC0201FRNPO9BN120(YAGEO) RoHS | 0.1118 | 4 | 0.4757 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 293183
Failure Rate: 3,410.8381
Temperature: 60
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|--|-------------------|----------|--------------------|
| 213-151505-200C | MLCC 15pF/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.1118 | 1 | 0.1261 |
| 213-151805-200C | MLCC 18pF/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.1118 | 4 | 0.4757 |
| 213-152205-200C | MLCC 22pF/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.1118 | 1 | 0.1261 |
| 213-152215-200C | MLCC 221P/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.1118 | 6 | 0.7057 |
| 213-152705-200C | MLCC 27pF/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.1118 | 4 | 0.4757 |
| 213-153319-200C | MLCC 331P/50V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1118 | 10 | 1.1630 |
| 213-154705-200C | MLCC 47pF/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.1118 | 2 | 0.2438 |
| 213-251028-200C | MLCC 102P/50V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1118 | 11 | 1.2770 |
| 213-251028-300C | MLCC 102P/50V,X7R,K(10%),SMD,0603,(None JP) RoHS | 0.1118 | 4 | 0.4757 |
| 213-251029-110C | MLCC 102P/25V,X7R,K(10%)SMD,0201(None JP) RoHS | 0.1118 | 2 | 0.2438 |
| 213-251038-250C | MLCC 103P/50V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1118 | 4 | 0.4757 |
| 213-251049-130C | MLCC 104P/10V,X5R,K(10%),SMD,0201,(None JP) RoHS | 0.1118 | 84 | 9.5202 |
| 213-251049-200C | MLCC 104P/16V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1118 | 77 | 8.7322 |
| 213-251049-270J | MLCC 104P/25V,X5R,K(10%),SMD,0402,(JP)RoHS | 0.1118 | 7 | 0.8203 |
| 213-251049-380C | MLCC 104P/100V,X7R,K(10%),SMD,0603,(None JP) RoHS | 0.1118 | 1 | 0.1261 |
| 213-251059-109G | MLCC 105P/6.3V,X5R,K(10%),SMD,0201,CC0201KRX5R5BB105(YAGEO) RoHS | 0.1118 | 54 | 6.1410 |
| 213-251059-200C | MLCC 105P/6.3V,X5R,K(10%),SMD,0402,(None JP) RoHS | 0.1118 | 1 | 0.1261 |
| 213-251059-220J | MLCC 105P/10V,X5R,K(10%),SMD,0402,(JP)RoHS | 0.1118 | 4 | 0.4757 |
| 213-251059-230J | MLCC 105P/16V,X5R,K(10%),SMD,0402,(JP)RoHS | 0.1118 | 36 | 4.1098 |
| 213-251059-270C | MLCC 105P/6.3V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1118 | 1 | 0.1261 |
| 213-251059-330J | MLCC 105P/25V,X5R,K(10%),SMD,0603,(JP)RoHS | 0.1118 | 5 | 0.5909 |
| 213-251068-200J | MLCC 106P/6.3V,X5R,M(20%),SMD,0402,(JP)RoHS | 0.1118 | 68 | 7.7187 |
| 213-251068-300J | MLCC 106P/6.3V,X5R,M(20%),SMD,0603,(JP)RoHS | 0.1118 | 26 | 2.9791 |
| 213-251069-320J | MLCC 106P/10V,X5R,K(10%),SMD,0603,(JP)RoHS | 0.1118 | 7 | 0.8203 |
| 213-251069-500C | MLCC 106P/6.3V,X5R,K(10%),SMD,0805,(None JP) RoHS | 0.1118 | 1 | 0.1261 |
| 213-251069-540J | MLCC 106P/16V,X5R,K(10%),SMD,0805,(JP)RoHS | 0.1118 | 12 | 1.3909 |
| 213-251228-200C | MLCC 122P/50V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1118 | 1 | 0.1261 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 293183
Failure Rate: 3,410.8381
Temperature: 60
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|--|-------------------|----------|--------------------|
| 213-251528-200C | MLCC 152P/50V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1118 | 6 | 0.7057 |
| 213-252229-200C | MLCC 222P/50V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1118 | 4 | 0.4757 |
| 213-252239-220J | MLCC 223P/50V,X7R,K(10%),SMD,0402,(JP)RoHS | 0.1118 | 1 | 0.1261 |
| 213-252249-140C | MLCC 224P/6.3V,X5R,K(10%),SMD,0201,(None JP) RoHS | 0.1118 | 16 | 1.8457 |
| 213-252249-210C | MLCC 224P/10V,X5R,K(10%),SMD,0402,(None JP) RoHS | 0.1118 | 1 | 0.1261 |
| 213-252249-330C | MLCC 224P/25V,X7R,K(10%),SMD,0603,(None JP) RoHS | 0.1118 | 5 | 0.5909 |
| 213-252259-330C | MLCC 225P/16V,X5R,K(10%)SMD,0603,(None JP) RoHS | 0.1118 | 1 | 0.1261 |
| 213-252262-610J | MLCC 226P/6.3V,X5R,M(20%),SMD,1206,(JP)RoHS | 0.1118 | 3 | 0.3601 |
| 213-252268-310J | MLCC 226P/6.3V,X5R,M(20%),SMD,0603,(JP)RoHS | 0.1118 | 50 | 5.6900 |
| 213-252268-500C | MLCC 226P/25V,X5R,M(20%),SMD,0805,(None JP) RoHS | 0.1118 | 12 | 1.3909 |
| 213-252269-510J | MLCC 226P/6.3V,X5R,M(20%),SMD,0805,(JP)RoHS | 0.1118 | 4 | 0.4757 |
| 213-252269-620J | MLCC 226P/16V,X5R,K(10%),SMD,1206,(JP)RoHS | 0.1118 | 2 | 0.2438 |
| 213-253939-240J | MLCC 393P/25V,X7R,K(10%),SMD,0402,(JP)RoHS | 0.1118 | 1 | 0.1261 |
| 213-254715-200C | MLCC 471P/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.1118 | 7 | 0.8203 |
| 213-254718-210C | MLCC 471P/25V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1118 | 8 | 0.9347 |
| 213-254739-210C | MLCC 473P/16V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1118 | 7 | 0.8203 |
| 213-254758-210C | MLCC 475P/6.3V,X5R,M(20%),SMD,0402,(None JP) RoHS | 0.1118 | 2 | 0.2438 |
| 213-254759-300C | MLCC 475P/6.3V,X5R,K(10%),SMD,0603,(None JP) RoHS | 0.1118 | 1 | 0.1261 |
| 213-254759-320C | MLCC 475P/10V,X5R,K(10%),SMD,0603,(None JP) RoHS | 0.1118 | 14 | 1.6184 |
| 213-254768-306G | MLCC 476P/6.3V,X5R,M(20%),SMD,0603,GRM188R60J476M(MURATA)RoHS | 0.1118 | 2 | 0.2438 |
| 213-254768-500J | MLCC 476P/6.3V,X5R,M(20%),SMD,0805,(JP)RoHS | 0.1118 | 9 | 1.0489 |
| 217-104778-700G | POLYMER(ALM) CAP 470uF/2V,4.5mΩ,4000mA,SMD,V7343,105°C/2000H,M(20%),bottom of round shape,EEFSX0D471E4 (PANASONIC)RoHS | 1.3266 | 3 | 4.7073 |
| 217-301078-325G | POLYMER(TAN) CAP 100uF/6.3V,40mΩ,1.8A,SMD,B3528,105°C/2000H,M(20%),T520B107M006ATE040(KEMET)RoHS | 1.3266 | 3 | 4.7073 |
| 217-302278-326G | POLYMER(TAN)CAP 220uF/6.3V,45mΩ,1700mA,105°C/2000H,M(20%),B3528(1.9),T520B227M006ATE045(KEMET) RoHS | 1.3266 | 4 | 6.1444 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 293183
Failure Rate: 3,410.8381
Temperature: 60
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|---|-------------------|----------|--------------------|
| 217-303378-720G | POLYMER(TAN) CAP 330uF/2.5V,9mΩ,3900mA,SMD,D7343-D2E,105°C/2000H,M(20%),2R5TPE330M9(SANYO)RoHS | 1.3266 | 1 | 1.7512 |
| 217-373368-400G | POLYMER(TAN) CAP,33uF/16V,50mΩ,1400mA,SMD,T3528-12,105°C/2000H,M(20%),T521T336M016ATE050(KEMET)RoHS | 1.3266 | 1 | 1.7512 |
| 223-015122-600G | CHOKE 0.15uH,M (20%),RDC≤0.66mΩ,Idc≤36A,Isat=45A,SMD,(7.6*6.6*3.8),PCME064T-R15MS0R667(CYNTEC)RoHS | 0.1536 | 3 | 0.5238 |
| 223-015222-610G | CHOKE 1.5uH,M (20%),RDC≤15mΩ,Irms=9A,Isat=16A,SMD,(7.3*6.6*3.0),MCS0630-1R5MN2(PDC)RoHS | 0.1536 | 1 | 0.1903 |
| 223-033121-700G | CHOKE 0.33uH,M(20%),RDC:7.8mΩ (typ),Irms:10A,Isat:18A,SMD (4.45*4.06*1.8mm),TMPC0402HP-R33MG-Z02(TAI TECH)RoHS | 0.1536 | 1 | 0.1903 |
| 223-047120-830G | CHOKE 0.47uH,M(20%),DCR:23mΩ (Typ.),Irms:5.2A,Isat:6.6A,SMD (2.5*2.0*1.0mm),MCS25GC-R47MHC(PDC)RoHS | 0.1536 | 1 | 0.1903 |
| 223-047121-710G | CHOKE 0.47uH,M (20%),RDC:12.5mΩ,Idc=7A,Isat=9.5A,SMD, (4.15x4x1.8),PCMB042T-R47MS(CYNTEC)RoHS | 0.1536 | 1 | 0.1903 |
| 223-047121-900G | CHOKE 0.47uH,M (20%),Rdc≤8.5mΩ,Idc=13A,Isat=12A,SMD, (4.85x4.7x2.8),PCMB053T-R47MS(CYNTEC)RoHS | 0.1536 | 2 | 0.3588 |
| 223-068121-900G | CHOKE 0.68uH,M (20%),RDC≤9.2mΩ,Idc=10A,Isat=15A,SMD (4.85x4.7x2.8),CMMB053T-R68MS(CYNTEC)RoHS | 0.1536 | 1 | 0.1903 |
| 223-322220-300G | INDUCTOR 2.2uH,M (20%),Itemp:500mA,RDC:250mΩ,SMD(0603) (1.6*0.8mm),MLZ1608A2R2WT000(TDK)RoHS | 0.1536 | 2 | 0.3588 |
| 223-347220-800G | INDUCTOR 4.7uH,M (20%),RDC≤0.24Ω,Irms≤2.1A,SMD(1008), (2.5*2.0*1.2mm)MHCD252012A-4R7M-A8S (CHILISIN)RoHS | 0.1536 | 1 | 0.1903 |
| 223-490040-540G | COMMON CHOKE 90Ω,25%,Irated≤500mA,RDC≤300mΩ,USB3.1 Gen2,10GHz,SMD(0805) (2*1.2*1.5mm),GCMF2012PM-900T(GOTREND) RoHS | 0.1536 | 6 | 1.0093 |
| 223-490090-500S | COMMON CHOKE 90Ω,60-100Ω,300mA (Max),RDC≤300mΩ,HDMI/USB3.0 6GHz,SMD0805 (2*1.2*1.2mm),GLECM2012B-900QT(GOTREND) | 0.1536 | 4 | 0.6860 |
| 223-523000-410G | CM FILTER Cd=0.25pF,Rs=3Ω,SMD (1.57*1.17*0.57),PCMF2USB3S/WLCSP10(NXP) RoHS | 0.1536 | 4 | 0.6860 |
| 231-171330-200G | REGULATOR GS7133TD-R,3A,TDFN10(GSTEK)RoHS | 19.2561 | 1 | 37.4477 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 293183
Failure Rate: 3,410.8381
Temperature: 60
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|---|-------------------|----------|--------------------|
| 241-224006-310G | X'TAL 24MHz,16pF,±30ppm,ESR:50Ω(Max),TOPR=-40°C~+105°C,SMD3225(4PAD),7M24000082(TXC) RoHS | 7.5521 | 1 | 12.4488 |
| 241-225006-350G | X'TAL 25MHz,18pF,±30ppm,ESR:50Ω(Max),TOPR=-40°C~+105°C,SMD3225(4PAD),7M25000175(TXC) RoHS | 7.5521 | 2 | 21.9893 |
| 241-432773-300G | X'TAL 32.768kHz,12.5pf,*/-20ppm,TOPR=-40°C~+125°C,SMD3215(2PAD),FC-13A,X1A000091000100(Seiko Epson)RoHS | 7.5521 | 1 | 12.4488 |
| 251-160808-083S | BEAD CORE 160808 80Ω,300mA,25%,SMT0603,SBK160808T-800Y-N (CHILISIN) | 0.8378 | 2 | 2.7874 |
| 251-160808-615S | BEAD CORE 160808 600Ω,1A,25%,SMT0603,PBY160808T-601Y-N (CHILISIN) | 0.8378 | 1 | 1.6218 |
| 253-100110-500G | POLY SWITCH,PTC,1.1A/6V,SMD0805,0805L110ULY R(LITTELFUSE)RoHS | 0.4000 | 1 | 0.6546 |
| 253-100115-604S | POLY SWITCH,PTC,1.1A/8V,SMD1206,1206L110THY R(LITTELFUSE)RoHS | 0.4000 | 2 | 1.1579 |
| 253-100155-604S | POLY SWITCH,PTC,1.5A/8V,SMD1206,1206L150THW R(LITTELFUSE) | 0.4000 | 1 | 0.6546 |
| 253-100266-403S | POLY SWITCH 2.6A/13.2V,SMD1812,miniSMDC260F/13.2 (LITTELFUSE)RoHS | 0.4000 | 1 | 0.6546 |
| 261-361515-200C | RES ARRAY 150Ω 8P4R J(5%),0402*4,(None JP) RoHS | 0.1117 | 2 | 0.2753 |
| 263-180005-100C | RES 0Ω,J(5%),SMD,0201,(None JP)RoHS | 0.1117 | 132 | 15.1573 |
| 263-180005-200C | RES 0Ω,J(5%),SMD,0402,(None JP)RoHS | 0.1117 | 20 | 2.3943 |
| 263-180005-300C | RES 0Ω,J(5%),SMD,0603,(None JP)RoHS | 0.1117 | 9 | 1.1128 |
| 263-180100-210C | RES 10Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 8 | 0.9949 |
| 263-180100-310C | RES 10Ω,F(1%),SMD,0603,(None JP)RoHS | 0.1117 | 4 | 0.5198 |
| 263-180330-110C | RES 33Ω,F(1%),SMD,0201,(None JP)RoHS | 0.1117 | 14 | 1.6979 |
| 263-180430-210C | RES 43Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-180510-110C | RES 51Ω,F(1%),SMD,0201,(None JP)RoHS | 0.1117 | 5 | 0.6399 |
| 263-180519-210C | RES 5.1Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-180560-210C | RES 56Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-180750-110C | RES 75Ω,F(1%),SMD,0201,(None JP)RoHS | 0.1117 | 5 | 0.6399 |
| 263-181000-110C | RES 100Ω,F(1%),SMD,0201,(None JP)RoHS | 0.1117 | 11 | 1.3476 |
| 263-181000-210C | RES 100Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 6 | 0.7593 |
| 263-181001-110C | RES 1KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.1117 | 31 | 3.6624 |
| 263-181001-210C | RES 1KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 8 | 0.9949 |
| 263-181002-110C | RES 10KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.1117 | 97 | 11.1887 |
| 263-181002-210C | RES 10KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 12 | 1.4645 |
| 263-181003-110C | RES 100KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.1117 | 34 | 4.0069 |
| 263-181003-210C | RES 100KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 10 | 1.2303 |
| 263-181004-110C | RES 1MΩ,F(1%),SMD,0201,(None JP)RoHS | 0.1117 | 2 | 0.2753 |
| 263-181004-210C | RES 1MΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 2 | 0.2753 |
| 263-181005-210C | RES 10MΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 293183
Failure Rate: 3,410.8381
Temperature: 60
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|--|-------------------|----------|--------------------|
| 263-181022-210C | RES 10.2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-181101-210C | RES 1.1KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-181130-210C | RES 113Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-181182-210C | RES 11.8KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-181201-210C | RES 1.2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 3 | 0.3984 |
| 263-181202-110C | RES 12KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-181202-210C | RES 12KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 3 | 0.3984 |
| 263-181203-210C | RES 120KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-181210-210C | RES 121Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-181213-210C | RES 121KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-181302-210C | RES 13KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-181402-210C | RES 14KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-181500-210C | RES 150Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 2 | 0.2753 |
| 263-181502-210C | RES 15KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-181503-210C | RES 150KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 2 | 0.2753 |
| 263-181505-100C | RES 15Ω,J(5%),SMD,0201,(None JP)RoHS | 0.1117 | 4 | 0.5198 |
| 263-181602-210C | RES 16KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 2 | 0.2753 |
| 263-181623-210C | RES 162KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-181782-210C | RES 17.8KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-181803-210C | RES 180KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 3 | 0.3984 |
| 263-181962-210C | RES 19.6KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-182000-210C | RES 200Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 3 | 0.3984 |
| 263-182001-210C | RES 2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 5 | 0.6399 |
| 263-182002-110C | RES 20KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.1117 | 8 | 0.9949 |
| 263-182002-210C | RES 20KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 6 | 0.7593 |
| 263-182003-210C | RES 200KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-182200-210C | RES 220Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-182201-110C | RES 2.2KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.1117 | 7 | 0.8767 |
| 263-182201-210C | RES 2.2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 2 | 0.2753 |
| 263-182202-110C | RES 22KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.1117 | 4 | 0.5198 |
| 263-182208-210C | RES 2.2Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-182208-310C | RES 2.2Ω,F(1%),SMD,0603,(None JP)RoHS | 0.1117 | 6 | 0.7593 |
| 263-182208-510C | RES 2.2Ω,F(1%),SMD,0805,(None JP)RoHS | 0.1117 | 4 | 0.5198 |
| 263-182400-110C | RES 240Ω,F(1%),SMD,0201,(None JP)RoHS | 0.1117 | 3 | 0.3984 |
| 263-182401-210C | RES 2.4KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-182492-210C | RES 24.9KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 2 | 0.2753 |
| 263-182499-210C | RES 24.9Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 2 | 0.2753 |
| 263-182612-210C | RES 26.1KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-182702-218G | RES 27KΩ,F(1%),SMD,0402,RTT022702FTH(RALEC) RoHS Taiwan | 0.1117 | 1 | 0.1487 |
| 263-183000-310C | RES 300Ω,F(1%),SMD,0603,(None JP)RoHS | 0.1117 | 2 | 0.2753 |
| 263-183002-210C | RES 30KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-183011-210C | RES 3.01KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-183013-210C | RES 301KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 3 | 0.3984 |
| 263-183300-210C | RES 330Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 4 | 0.5198 |
| 263-183301-110C | RES 3.3KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.1117 | 6 | 0.7593 |
| 263-183301-210C | RES 3.3KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 4 | 0.5198 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 293183
Failure Rate: 3,410.8381
Temperature: 60
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|--|-------------------|----------|--------------------|
| 263-183302-110C | RES 33KΩ,F(1%),SMD,0201(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-183303-210C | RES 330KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 2 | 0.2753 |
| 263-183483-210C | RES 348KΩ,F(1%),SMD,0402(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-183652-210C | RES 36.5KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 2 | 0.2753 |
| 263-183922-110C | RES 39.2KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-183922-210C | RES 39.2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-184221-210C | RES 4.22KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-184321-210C | RES 4.32KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 2 | 0.2753 |
| 263-184532-210C | RES 45.3KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-184539-210C | RES 45.3Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-184700-110C | RES 470Ω,F(1%),SMD,0201,(None JP)RoHS | 0.1117 | 9 | 1.1128 |
| 263-184701-110C | RES 4.7KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.1117 | 31 | 3.6624 |
| 263-184701-210C | RES 4.7KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 2 | 0.2753 |
| 263-184702-110C | RES 47KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.1117 | 11 | 1.3476 |
| 263-184871-210C | RES 4.87KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 3 | 0.3984 |
| 263-184990-110C | RES 499Ω,F(1%),SMD,0201,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-184990-210C | RES 499Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-184991-210C | RES 4.99KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-184999-110C | RES 49.9Ω,F(1%),SMD,0201,(None JP)RoHS | 0.1117 | 4 | 0.5198 |
| 263-184999-210C | RES 49.9Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 9 | 1.1128 |
| 263-185102-210C | RES 51KΩ,F(1%),SMD,0402(None JP)RoHS | 0.1117 | 3 | 0.3984 |
| 263-185602-210C | RES 56KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 4 | 0.5198 |
| 263-185622-210C | RES 56.2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-186041-210C | RES 6.04KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-186049-210C | RES 60.4Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 2 | 0.2753 |
| 263-187501-210C | RES 7.5KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 2 | 0.2753 |
| 263-187502-210C | RES 75KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-188069-210C | RES 80.6Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-188201-210C | RES 8.2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-188871-210C | RES 8.87KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-189100-210C | RES 910Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 1 | 0.1487 |
| 263-189762-210C | RES 97.6KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1117 | 2 | 0.2753 |
| 273-010400-300G | THERM RES 100KΩ,0603(B:25/85=3950,3%)RoHS | 5.1159 | 5 | 36.4499 |
| 273-100402-301S | THERM RES 10KΩ,J(5%),SMD,0603, (B25/85=3435,3%),TSM1A103J34D3RZ(TKS) | 5.1159 | 2 | 17.1593 |
| 314-WL0511-109G | PCB WL051 R.A(12L 100x72x1.6mm, 2 panelization) OSP(CIRCUITECH)RoHS | 12.6680 | 1 | 24.1406 |
| 342-122101-100G | DISPLAYPORT/HDMI CONN,21P,MALE,R/A,DIP,GF,845-002-217CRL (REGO)RoHS | 10.7191 | 1 | 18.5590 |
| 342-310022-110G | Screw CONN. Terminal Block,Green,2Pos,300V,16A,PIT:5.0mm,MB612- 50002(DECA) RoHS | 10.7191 | 1 | 18.5590 |
| 343-124000-210G | eDP conn, 40P, F, 90D, 0.5mm, G/F, SMT, BLACK, SSL00-40L3(KEL)RoHS | 10.7191 | 1 | 18.5590 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 293183
Failure Rate: 3,410.8381
Temperature: 60
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|---|-------------------|----------|--------------------|
| 343-501402-200G | Giga LAN CONN RJ45,SMT,GF,W/Transformer,W/LED,MRJG-11S88RS (MATRIX),RoHS | 10.7191 | 2 | 32.4809 |
| 343-501820-110G | USB 3.1 GEN2 CONN*2, 18P, A Type, Green, F, G/F, 90D, DIP, U2131D-UADH-0401R(HDSY)RoHS | 10.7191 | 1 | 18.5590 |
| 346-120310-201G | PIN PLUG 2*3, 1.27mm, H=5mm, 180D, SMD, SHY- JCL180806P(V-STAR)RoHS | 75.0334 | 2 | 227.3661 |
| 346-120511-201G | PIN PLUG 2*5, 1.27mm, H=5mm, 180D, SMD, SHY- JCL180810P(V-STAR)RoHS | 75.0334 | 4 | 408.6460 |
| 346-510223-102G | WAFER 1*2,2.0mm,M,H=6.1mm,180D,DIP,WHITE,721-81- 02TW00(PINREX)RoHS | 75.0334 | 1 | 129.9132 |
| 348-220800-200S | SOCKET SPI 8Pin,GF,H=5.65mm,180D,SMT,ACA-SPI -004-K01(LOTES) | 5.8468 | 1 | 9.5280 |
| 348-370750-230G | NGFF CONN 67P/0.5mm,E Key,R/A,SMD,AS0BC21- S40BE-7H,(FOXCONN)HF | 10.7191 | 1 | 18.5590 |
| 348-370750-240G | NGFF CONN 67P/0.5mm,H=8.5mm,B key,90D,BLACK,SMD,APCI0161-P002H(LOTES)HF | 10.7191 | 2 | 32.4809 |
| 348-652600-200G | DDR4 SO DIMM 1*260P,10u",H=8.0mm 1.2V,RVS,90D,SMD,ASAA826-E8RB0-7H(FOXCONN) HF | 10.7191 | 1 | 18.5590 |
| 622-010140-000G | BATTERY CR2032(MURATA) 3V 220mAh,-30°C ~+70°C,W/CABLE(L=150mm&TAPE),BIN-CR2032-I- CT-SL-PV-01(RE-ENERGY)RoHS Belong to UN3090 | 25.0000 | 1 | 34.9638 |
| 686-110322-100G | PIN PLUG 1*3,2.0mm,M,H=5.9mm,180D,DIP,W/BLACK JUMPER,22S-96-03GB01(PINREX)RoHS | 10.7191 | 1 | 18.5590 |
| 292-301000-500S | BUZZER 3V,100mA,12Ω,4Khz,85db,SMD (5*4.2mm),SMT-G5030A(KEPO) | 600.0000 | 1 | 600.0000 |
| 143-101705-401G | CPU Intel Core i7-8665UE 1.7GHz C/8M,V0,CL8068404148003 SRFDS/FCBGA-1528 (INTEL)RoHS | 422.0000 | 1 | 422.0000 |

File Name: WL051-BCC-8665UE.rfp
System: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 261553
Failure Rate: 3,823.32
Temperature: 65
Environment: GB, GC - Ground Benign, Controlled

| Assembly Name | Part Number | Quantity | Failure Rate (Fit) | MTBF (Hrs) |
|------------------|-----------------|----------|--------------------|------------|
| WL051-BCC-8665UE | 774-WL0511-000G | 1 | 3823.32 | 261,553 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 261553
Failure Rate: 3,823.3236
Temperature: 65
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|---|-------------------|----------|--------------------|
| 112-900032-300G | IC TTL,Two-Input OR Gate,NC7SZ32P5X/SC70-5 (ON)RoHS | 9.9161 | 6 | 71.5140 |
| 113-500004-300G | IC TTL,Single Inverter Gate,SN74LVC1G04DCK/SC70-5(TI)RoHS | 9.9161 | 1 | 14.9156 |
| 113-500007-210S | IC TTL,Single Buffer/Driver With Open-Drain Output,SN74LVC1G07DCKR/SC70-5(TI) | 9.9161 | 2 | 26.8500 |
| 113-500008-210G | IC TTL,Single 2-Input Positive-AND Gate,SN74LVC1G08DCKR/SC70-5(TI)RoHS | 9.9161 | 16 | 177.8556 |
| 113-833306-400G | IC TTL,Dual FET Bus Switch,SN74CB3Q3306ADCUR/VSSOP8(US8-DCU) (TI)RoHS | 9.9161 | 2 | 26.8500 |
| 113-906408-400G | IC LOW-VOLTAGE 8-BIT I2C AND SMBus I/O EXPANDER,UQFN16, TCA6408ARSVR(TI)RoHS | 9.9161 | 1 | 14.9156 |
| 121-000104-420G | IC 4-BIT BIDIRECTIONAL VOLTAGE-LEVEL TRANSLATOR,NTS0104GU12/XQFN12(NXP) RoHS | 9.9161 | 1 | 14.9156 |
| 121-002069-200G | IC Power-Distribution Switches,1.5A,TPS2069DDBVT/SOT23-5(TI)RoHS | 9.9161 | 1 | 14.9156 |
| 121-007111-400G | IC Power Switch RSET with Flag,JW7111DFNB#TRPBF/DFN-6(2x2)(JOULWATT) RoHS | 9.9161 | 1 | 14.9156 |
| 121-022976-200G | IC Switch,5.7-V,6-A,14-mΩ On-Resistance Dual-Channel Load,TPS22976DPU/WSO-14(TI)RoHS | 9.9161 | 3 | 38.3050 |
| 121-081439-401G | IC Single 3.3V or 5V RS232/RS422/RS485 Multiprotocol Transceiver,F81439AN/TQFN-40(5x5) (FINTEK)RoHS | 9.9161 | 1 | 14.9156 |
| 121-302045-400G | IC Integrated Driver and MOSFET,NCP302045MNTWG/PQFN-33(5*5)(ON) RoHS | 9.9161 | 4 | 49.5150 |
| 135-300403-200G | SPI SERIAL FLASH 4Mbit,MX25L4006EZUI-12G/USON-8(MXIC)RoHS | 22.1558 | 1 | 34.3912 |
| 135-301004-201G | EEPROM 8K(1024*8)M24C08-WMN6TP/SO-8(ST) RoHS | 22.1558 | 1 | 34.3912 |
| 135-301282-220G | SPI SERIAL FLASH 128Mbit,W25Q128JVSQ/SOIC-8 (WINBOND)RoHS | 22.1558 | 1 | 34.3912 |
| 136-112180-200G | 8-bit Flash Microcontroller PIC12F1822-I/SN/SOIC-8 (MICROCHIP)RoHS | 22.1558 | 1 | 34.3912 |
| 141-006850-401G | IC Synchronous Buck Converter,4.5-26Vin,12A,NB685AGQ/QFN16(MPS)RoHS | 9.9161 | 1 | 14.9156 |
| 141-262001-200G | AUDIO CODEC,ALC262-VC2-GR/LQFP-48(REALTEK) RoHS | 9.9161 | 1 | 14.9156 |
| 141-562150-400G | IC Synchronous Step-down Converter,TPS56C215RNN/VQFN-18(TI)RoHS | 9.9161 | 3 | 38.3050 |
| 141-568210-400G | IC Converter,4.5V~17V Input,8A Synchronous Step-Down SWIFT,TPS568215OARNN/VQFN-18(TI)RoHS | 9.9161 | 1 | 14.9156 |
| 141-620850-200G | IC Synchronous Buck Converter,2.5-6,3A,TLV62085RLT/VSON-7(TI)RoHS | 9.9161 | 1 | 14.9156 |
| 141-812450-400G | IC PWM CTRL, NCP81245MNTXG/QFN-52(ON)RoHS | 9.9161 | 1 | 14.9156 |
| 147-002190-400G | IC CHIP,Giga LAN PHY,WGI219LM SLKJ3/QFN48 (6x6mm) (INTEL)RoHS | 9.9161 | 1 | 14.9156 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 261553
Failure Rate: 3,823.3236
Temperature: 65
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|---|-------------------|----------|--------------------|
| 147-055250-200G | IC CHIP Super I/O, NCT5525D/LQFP-64(NUVOTON) RoHS | 9.9161 | 1 | 14.9156 |
| 147-822100-410G | IC CHIP Giga LAN Ctrl,-40~105°C,WGI210IT SLJXT/QFN-64(INTEL)RoHS | 9.9161 | 1 | 14.9156 |
| 171-204005-210G | DIODE SCHOTTKY BARRIER 40V,200mA,BAS40-05-7-F/SOT23-3(DIODES)RoHS | 0.6032 | 7 | 5.6955 |
| 171-205200-220G | DIODE SCHOTTKY,30V,200mA,RB520S-30H/SOD-523(SMARTENGRAND)RoHS | 0.6032 | 3 | 2.7827 |
| 171-214148-503S | DIODE Switching,SMD,1N4148W-TG-WS/SOD-123 (WILLAS) | 0.6032 | 1 | 1.1652 |
| 171-360120-500G | DIODE TVS,12V,600W,Bidirectional,SMBJ12CA/DO-214AA(LITTELFUSE)RoHS | 0.6032 | 1 | 1.1652 |
| 171-404010-200S | DIODE 4-CHANNEL ESD PROTECTION,TPD4S010DQAR/SON-DQA10(TI) | 9.9161 | 4 | 49.5150 |
| 171-451715-200G | DIODE Zener,15V,Vz=14.34V~14.98V,UDZVTE-1715B/SOD-323FL(ROHM)RoHS | 0.6032 | 1 | 1.1652 |
| 171-451756-200G | DIODE Zener,5.6V,Vz=5.49V~5.73V,UDZVTE-175.6B/SOD-323F(ROHM)RoHS | 0.6032 | 2 | 2.0031 |
| 171-841023-200G | DIODE TVS Array,3.3V,AZ1023-04F.R7G/DFN2510P10E(AMAZING)RoHS | 0.6032 | 2 | 2.0031 |
| 172-207002-241G | MOSFET N-Ch,VDS:60V,ID:300mA,VGS:±20V,@10V,RDS:3Ω,2N7002K/SOT23-3(PANJIT)RoHS | 20.1057 | 3 | 76.5820 |
| 172-223904-206S | TRANSISTOR NPN,MMBT3904LT1G/SOT23(ON) | 3.2352 | 4 | 17.8899 |
| 172-223904-400G | TRANSISTOR Dual NPN,MBT3904DW1T1G/SOT-363 (ON)RoHS | 3.2352 | 4 | 17.8899 |
| 172-223906-207S | TRANSISTOR PNP,PMBS3906/SOT23(NXP) | 3.2352 | 1 | 5.7349 |
| 172-239040-210G | TRANSISTOR DUAL NPN,Ic≤200mA,Vcbo:60V,Vceo:40V,MMBT3904DTH/SOT563-6(SMARTENGRAND)RoHS | 3.2352 | 2 | 9.9951 |
| 172-301380-220G | MOSFET Dual N-Ch,VDS:50V,ID:350mA,VGS:±20V,@10V,RDS:1.6Ω,BSS138KDT/SOT563-6(SMARTENGRAND)RoHS | 20.1057 | 29 | 632.2602 |
| 172-302003-210G | MOSFET N-Ch,VDS:30V,ID:7A,VGS:±20V,@10V,RDS:20mΩ,EMB20N03VA/EDFN-8(2x2)(EXCELLIANCE)RoHS | 20.1057 | 2 | 53.5504 |
| 172-323052-200G | MOSFET P-Ch,VDS:-30V,ID:-4.9A,VGS:±12V,@-10V,RDS≤52mΩ,CEH2305/TSOP-6(CET)RoHS | 20.1057 | 1 | 29.6099 |
| 172-330140-200G | MOSFET N-Ch,VDS:30V,ID:9.5A,VGS:±20V,@10V,RDS:12mΩ,FKBB3014/PRPAK-8(3x3)(FETEK)RoHS | 20.1057 | 1 | 29.6099 |
| 172-331030-200G | MOSFET P-Ch,VDS:-30V,ID:-7.7A,VGS:±25V,@-10V,RDS:20mΩ,FKBB3103/PRPAK-8(3x3)(FETEK) RoHS | 20.1057 | 5 | 121.4202 |
| 213-151015-200C | MLCC 101P/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.1147 | 1 | 0.1294 |
| 213-151203-109G | MLCC 12pF/50V,NPO,F(1%),SMD,0201,CC0201FRNPO9BN120(YAGEO) RoHS | 0.1147 | 4 | 0.4882 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 261553
Failure Rate: 3,823.3236
Temperature: 65
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|--|-------------------|----------|--------------------|
| 213-151505-200C | MLCC 15pF/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.1147 | 1 | 0.1294 |
| 213-151805-200C | MLCC 18pF/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.1147 | 4 | 0.4882 |
| 213-152205-200C | MLCC 22pF/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.1147 | 1 | 0.1294 |
| 213-152215-200C | MLCC 221P/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.1147 | 6 | 0.7241 |
| 213-152705-200C | MLCC 27pF/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.1147 | 4 | 0.4882 |
| 213-153319-200C | MLCC 331P/50V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1147 | 10 | 1.1934 |
| 213-154705-200C | MLCC 47pF/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.1147 | 2 | 0.2502 |
| 213-251028-200C | MLCC 102P/50V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1147 | 11 | 1.3103 |
| 213-251028-300C | MLCC 102P/50V,X7R,K(10%),SMD,0603,(None JP) RoHS | 0.1147 | 4 | 0.4882 |
| 213-251029-110C | MLCC 102P/25V,X7R,K(10%)SMD,0201(None JP) RoHS | 0.1147 | 2 | 0.2502 |
| 213-251038-250C | MLCC 103P/50V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1147 | 4 | 0.4882 |
| 213-251049-130C | MLCC 104P/10V,X5R,K(10%),SMD,0201,(None JP) RoHS | 0.1147 | 84 | 9.7687 |
| 213-251049-200C | MLCC 104P/16V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1147 | 77 | 8.9602 |
| 213-251049-270J | MLCC 104P/25V,X5R,K(10%),SMD,0402,(JP)RoHS | 0.1147 | 7 | 0.8417 |
| 213-251049-380C | MLCC 104P/100V,X7R,K(10%),SMD,0603,(None JP) RoHS | 0.1147 | 1 | 0.1294 |
| 213-251059-109G | MLCC 105P/6.3V,X5R,K(10%),SMD,0201,CC0201KRX5R5BB105(YAGEO) RoHS | 0.1147 | 54 | 6.3013 |
| 213-251059-200C | MLCC 105P/6.3V,X5R,K(10%),SMD,0402,(None JP) RoHS | 0.1147 | 1 | 0.1294 |
| 213-251059-220J | MLCC 105P/10V,X5R,K(10%),SMD,0402,(JP)RoHS | 0.1147 | 4 | 0.4882 |
| 213-251059-230J | MLCC 105P/16V,X5R,K(10%),SMD,0402,(JP)RoHS | 0.1147 | 36 | 4.2171 |
| 213-251059-270C | MLCC 105P/6.3V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1147 | 1 | 0.1294 |
| 213-251059-330J | MLCC 105P/25V,X5R,K(10%),SMD,0603,(JP)RoHS | 0.1147 | 5 | 0.6063 |
| 213-251068-200J | MLCC 106P/6.3V,X5R,M(20%),SMD,0402,(JP)RoHS | 0.1147 | 68 | 7.9202 |
| 213-251068-300J | MLCC 106P/6.3V,X5R,M(20%),SMD,0603,(JP)RoHS | 0.1147 | 26 | 3.0569 |
| 213-251069-320J | MLCC 106P/10V,X5R,K(10%),SMD,0603,(JP)RoHS | 0.1147 | 7 | 0.8417 |
| 213-251069-500C | MLCC 106P/6.3V,X5R,K(10%),SMD,0805,(None JP) RoHS | 0.1147 | 1 | 0.1294 |
| 213-251069-540J | MLCC 106P/16V,X5R,K(10%),SMD,0805,(JP)RoHS | 0.1147 | 12 | 1.4272 |
| 213-251228-200C | MLCC 122P/50V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1147 | 1 | 0.1294 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 261553
Failure Rate: 3,823.3236
Temperature: 65
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|--|-------------------|----------|--------------------|
| 213-251528-200C | MLCC 152P/50V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1147 | 6 | 0.7241 |
| 213-252229-200C | MLCC 222P/50V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1147 | 4 | 0.4882 |
| 213-252239-220J | MLCC 223P/50V,X7R,K(10%),SMD,0402,(JP)RoHS | 0.1147 | 1 | 0.1294 |
| 213-252249-140C | MLCC 224P/6.3V,X5R,K(10%),SMD,0201,(None JP) RoHS | 0.1147 | 16 | 1.8938 |
| 213-252249-210C | MLCC 224P/10V,X5R,K(10%),SMD,0402,(None JP) RoHS | 0.1147 | 1 | 0.1294 |
| 213-252249-330C | MLCC 224P/25V,X7R,K(10%),SMD,0603,(None JP) RoHS | 0.1147 | 5 | 0.6063 |
| 213-252259-330C | MLCC 225P/16V,X5R,K(10%)SMD,0603,(None JP) RoHS | 0.1147 | 1 | 0.1294 |
| 213-252262-610J | MLCC 226P/6.3V,X5R,M(20%),SMD,1206,(JP)RoHS | 0.1147 | 3 | 0.3695 |
| 213-252268-310J | MLCC 226P/6.3V,X5R,M(20%),SMD,0603,(JP)RoHS | 0.1147 | 50 | 5.8385 |
| 213-252268-500C | MLCC 226P/25V,X5R,M(20%),SMD,0805,(None JP) RoHS | 0.1147 | 12 | 1.4272 |
| 213-252269-510J | MLCC 226P/6.3V,X5R,M(20%),SMD,0805,(JP)RoHS | 0.1147 | 4 | 0.4882 |
| 213-252269-620J | MLCC 226P/16V,X5R,K(10%),SMD,1206,(JP)RoHS | 0.1147 | 2 | 0.2502 |
| 213-253939-240J | MLCC 393P/25V,X7R,K(10%),SMD,0402,(JP)RoHS | 0.1147 | 1 | 0.1294 |
| 213-254715-200C | MLCC 471P/50V,NPO,J(5%),SMD,0402,(None JP) RoHS | 0.1147 | 7 | 0.8417 |
| 213-254718-210C | MLCC 471P/25V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1147 | 8 | 0.9591 |
| 213-254739-210C | MLCC 473P/16V,X7R,K(10%),SMD,0402,(None JP) RoHS | 0.1147 | 7 | 0.8417 |
| 213-254758-210C | MLCC 475P/6.3V,X5R,M(20%),SMD,0402,(None JP) RoHS | 0.1147 | 2 | 0.2502 |
| 213-254759-300C | MLCC 475P/6.3V,X5R,K(10%),SMD,0603,(None JP) RoHS | 0.1147 | 1 | 0.1294 |
| 213-254759-320C | MLCC 475P/10V,X5R,K(10%),SMD,0603,(None JP) RoHS | 0.1147 | 14 | 1.6607 |
| 213-254768-306G | MLCC 476P/6.3V,X5R,M(20%),SMD,0603,GRM188R60J476M(MURATA)RoHS | 0.1147 | 2 | 0.2502 |
| 213-254768-500J | MLCC 476P/6.3V,X5R,M(20%),SMD,0805,(JP)RoHS | 0.1147 | 9 | 1.0763 |
| 217-104778-700G | POLYMER(ALM) CAP 470uF/2V,4.5mΩ,4000mA,SMD,V7343,105°C/2000H,M(20%),bottom of round shape,EEFSX0D471E4 (PANASONIC)RoHS | 1.4332 | 3 | 5.0856 |
| 217-301078-325G | POLYMER(TAN) CAP 100uF/6.3V,40mΩ,1.8A,SMD,B3528,105°C/2000H,M(20%),T520B107M006ATE040(KEMET)RoHS | 1.4332 | 3 | 5.0856 |
| 217-302278-326G | POLYMER(TAN)CAP 220uF/6.3V,45mΩ,1700mA,105°C/2000H,M(20%),B3528(1.9),T520B227M006ATE045(KEMET) RoHS | 1.4332 | 4 | 6.6382 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 261553
Failure Rate: 3,823.3236
Temperature: 65
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|---|-------------------|----------|--------------------|
| 217-303378-720G | POLYMER(TAN) CAP 330uF/2.5V,9mΩ,3900mA,SMD,D7343-D2E,105°C/2000H,M(20%),2R5TPE330M9(SANYO)RoHS | 1.4332 | 1 | 1.8920 |
| 217-373368-400G | POLYMER(TAN) CAP,33uF/16V,50mΩ,1400mA,SMD,T3528-12,105°C/2000H,M(20%),T521T336M016ATE050(KEMET)RoHS | 1.4332 | 1 | 1.8920 |
| 223-015122-600G | CHOKE 0.15uH,M (20%),RDC≤0.66mΩ,Idc≤36A,Isat=45A,SMD,(7.6*6.6*3.8),PCME064T-R15MS0R667(CYNTEC)RoHS | 0.1660 | 3 | 0.5659 |
| 223-015222-610G | CHOKE 1.5uH,M (20%),RDC≤15mΩ,Irms=9A,Isat=16A,SMD,(7.3*6.6*3.0),MCS0630-1R5MN2(PDC)RoHS | 0.1660 | 1 | 0.2056 |
| 223-033121-700G | CHOKE 0.33uH,M(20%),RDC:7.8mΩ (typ),Irms:10A,Isat:18A,SMD (4.45*4.06*1.8mm),TMPC0402HP-R33MG-Z02(TAI TECH)RoHS | 0.1660 | 1 | 0.2056 |
| 223-047120-830G | CHOKE 0.47uH,M(20%),DCR:23mΩ (Typ.),Irms:5.2A,Isat:6.6A,SMD (2.5*2.0*1.0mm),MCS25GC-R47MHC(PDC)RoHS | 0.1660 | 1 | 0.2056 |
| 223-047121-710G | CHOKE 0.47uH,M (20%),RDC:12.5mΩ,Idc=7A,Isat=9.5A,SMD, (4.15x4x1.8),PCMB042T-R47MS(CYNTEC)RoHS | 0.1660 | 1 | 0.2056 |
| 223-047121-900G | CHOKE 0.47uH,M (20%),Rdc≤8.5mΩ,Idc=13A,Isat=12A,SMD, (4.85x4.7x2.8),PCMB053T-R47MS(CYNTEC)RoHS | 0.1660 | 2 | 0.3876 |
| 223-068121-900G | CHOKE 0.68uH,M (20%),RDC≤9.2mΩ,Idc=10A,Isat=15A,SMD (4.85x4.7x2.8),CMMB053T-R68MS(CYNTEC)RoHS | 0.1660 | 1 | 0.2056 |
| 223-322220-300G | INDUCTOR 2.2uH,M (20%),Itemp:500mA,RDC:250mΩ,SMD(0603) (1.6*0.8mm),MLZ1608A2R2WT000(TDK)RoHS | 0.1660 | 2 | 0.3876 |
| 223-347220-800G | INDUCTOR 4.7uH,M (20%),RDC≤0.24Ω,Irms≤2.1A,SMD(1008), (2.5*2.0*1.2mm)MHCD252012A-4R7M-A8S (CHILISIN)RoHS | 0.1660 | 1 | 0.2056 |
| 223-490040-540G | COMMON CHOKE 90Ω,25%,Irated≤500mA,RDC≤300mΩ,USB3.1 Gen2,10GHz,SMD(0805) (2*1.2*1.5mm),GCMF2012PM-900T(GOTREND) RoHS | 0.1660 | 6 | 1.0904 |
| 223-490090-500S | COMMON CHOKE 90Ω,60-100Ω,300mA (Max),RDC≤300mΩ,HDMI/USB3.0 6GHz,SMD0805 (2*1.2*1.2mm),GLECM2012B-900QT(GOTREND) | 0.1660 | 4 | 0.7411 |
| 223-523000-410G | CM FILTER Cd=0.25pF,Rs=3Ω,SMD (1.57*1.17*0.57),PCMF2USB3S/WLCSP10(NXP) RoHS | 0.1660 | 4 | 0.7411 |
| 231-171330-200G | REGULATOR GS7133TD-R,3A,TDFN10(GSTEK)RoHS | 25.6982 | 1 | 49.9759 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 261553
Failure Rate: 3,823.3236
Temperature: 65
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|---|-------------------|----------|--------------------|
| 241-224006-310G | X'TAL 24MHz,16pF,±30ppm,ESR:50Ω(Max),TOPR=-40°C~+105°C,SMD3225(4PAD),7M24000082(TXC) RoHS | 9.2809 | 1 | 15.2986 |
| 241-225006-350G | X'TAL 25MHz,18pF,±30ppm,ESR:50Ω(Max),TOPR=-40°C~+105°C,SMD3225(4PAD),7M25000175(TXC) RoHS | 9.2809 | 2 | 27.0232 |
| 241-432773-300G | X'TAL 32.768kHz,12.5pf,*/-20ppm,TOPR=-40°C~+125°C,SMD3215(2PAD),FC-13A,X1A000091000100(Seiko Epson)RoHS | 9.2809 | 1 | 15.2986 |
| 251-160808-083S | BEAD CORE 160808 80Ω,300mA,25%,SMT0603,SBK160808T-800Y-N (CHILISIN) | 0.9052 | 2 | 3.0114 |
| 251-160808-615S | BEAD CORE 160808 600Ω,1A,25%,SMT0603,PBY160808T-601Y-N (CHILISIN) | 0.9052 | 1 | 1.7521 |
| 253-100110-500G | POLY SWITCH,PTC,1.1A/6V,SMD0805,0805L110ULY R(LITTELFUSE)RoHS | 0.4000 | 1 | 0.6546 |
| 253-100115-604S | POLY SWITCH,PTC,1.1A/8V,SMD1206,1206L110THY R(LITTELFUSE)RoHS | 0.4000 | 2 | 1.1579 |
| 253-100155-604S | POLY SWITCH,PTC,1.5A/8V,SMD1206,1206L150THW R(LITTELFUSE) | 0.4000 | 1 | 0.6546 |
| 253-100266-403S | POLY SWITCH 2.6A/13.2V,SMD1812,miniSMDC260F/13.2 (LITTELFUSE)RoHS | 0.4000 | 1 | 0.6546 |
| 261-361515-200C | RES ARRAY 150Ω 8P4R J(5%),0402*4,(None JP) RoHS | 0.1207 | 2 | 0.2974 |
| 263-180005-100C | RES 0Ω,J(5%),SMD,0201,(None JP)RoHS | 0.1207 | 132 | 16.3755 |
| 263-180005-200C | RES 0Ω,J(5%),SMD,0402,(None JP)RoHS | 0.1207 | 20 | 2.5868 |
| 263-180005-300C | RES 0Ω,J(5%),SMD,0603,(None JP)RoHS | 0.1207 | 9 | 1.2022 |
| 263-180100-210C | RES 10Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 8 | 1.0749 |
| 263-180100-310C | RES 10Ω,F(1%),SMD,0603,(None JP)RoHS | 0.1207 | 4 | 0.5615 |
| 263-180330-110C | RES 33Ω,F(1%),SMD,0201,(None JP)RoHS | 0.1207 | 14 | 1.8344 |
| 263-180430-210C | RES 43Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-180510-110C | RES 51Ω,F(1%),SMD,0201,(None JP)RoHS | 0.1207 | 5 | 0.6914 |
| 263-180519-210C | RES 5.1Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-180560-210C | RES 56Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-180750-110C | RES 75Ω,F(1%),SMD,0201,(None JP)RoHS | 0.1207 | 5 | 0.6914 |
| 263-181000-110C | RES 100Ω,F(1%),SMD,0201,(None JP)RoHS | 0.1207 | 11 | 1.4559 |
| 263-181000-210C | RES 100Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 6 | 0.8203 |
| 263-181001-110C | RES 1KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.1207 | 31 | 3.9567 |
| 263-181001-210C | RES 1KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 8 | 1.0749 |
| 263-181002-110C | RES 10KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.1207 | 97 | 12.0879 |
| 263-181002-210C | RES 10KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 12 | 1.5822 |
| 263-181003-110C | RES 100KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.1207 | 34 | 4.3290 |
| 263-181003-210C | RES 100KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 10 | 1.3292 |
| 263-181004-110C | RES 1MΩ,F(1%),SMD,0201,(None JP)RoHS | 0.1207 | 2 | 0.2974 |
| 263-181004-210C | RES 1MΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 2 | 0.2974 |
| 263-181005-210C | RES 10MΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |

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Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 261553
Failure Rate: 3,823.3236
Temperature: 65
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|--|-------------------|----------|--------------------|
| 263-181022-210C | RES 10.2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-181101-210C | RES 1.1KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-181130-210C | RES 113Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-181182-210C | RES 11.8KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-181201-210C | RES 1.2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 3 | 0.4305 |
| 263-181202-110C | RES 12KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-181202-210C | RES 12KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 3 | 0.4305 |
| 263-181203-210C | RES 120KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-181210-210C | RES 121Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-181213-210C | RES 121KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-181302-210C | RES 13KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-181402-210C | RES 14KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-181500-210C | RES 150Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 2 | 0.2974 |
| 263-181502-210C | RES 15KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-181503-210C | RES 150KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 2 | 0.2974 |
| 263-181505-100C | RES 15Ω,J(5%),SMD,0201,(None JP)RoHS | 0.1207 | 4 | 0.5615 |
| 263-181602-210C | RES 16KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 2 | 0.2974 |
| 263-181623-210C | RES 162KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-181782-210C | RES 17.8KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-181803-210C | RES 180KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 3 | 0.4305 |
| 263-181962-210C | RES 19.6KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-182000-210C | RES 200Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 3 | 0.4305 |
| 263-182001-210C | RES 2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 5 | 0.6914 |
| 263-182002-110C | RES 20KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.1207 | 8 | 1.0749 |
| 263-182002-210C | RES 20KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 6 | 0.8203 |
| 263-182003-210C | RES 200KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-182200-210C | RES 220Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-182201-110C | RES 2.2KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.1207 | 7 | 0.9471 |
| 263-182201-210C | RES 2.2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 2 | 0.2974 |
| 263-182202-110C | RES 22KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.1207 | 4 | 0.5615 |
| 263-182208-210C | RES 2.2Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-182208-310C | RES 2.2Ω,F(1%),SMD,0603,(None JP)RoHS | 0.1207 | 6 | 0.8203 |
| 263-182208-510C | RES 2.2Ω,F(1%),SMD,0805,(None JP)RoHS | 0.1207 | 4 | 0.5615 |
| 263-182400-110C | RES 240Ω,F(1%),SMD,0201,(None JP)RoHS | 0.1207 | 3 | 0.4305 |
| 263-182401-210C | RES 2.4KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-182492-210C | RES 24.9KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 2 | 0.2974 |
| 263-182499-210C | RES 24.9Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 2 | 0.2974 |
| 263-182612-210C | RES 26.1KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-182702-218G | RES 27KΩ,F(1%),SMD,0402,RTT022702FTH(RALEC) RoHS Taiwan | 0.1207 | 1 | 0.1606 |
| 263-183000-310C | RES 300Ω,F(1%),SMD,0603,(None JP)RoHS | 0.1207 | 2 | 0.2974 |
| 263-183002-210C | RES 30KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-183011-210C | RES 3.01KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-183013-210C | RES 301KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 3 | 0.4305 |
| 263-183300-210C | RES 330Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 4 | 0.5615 |
| 263-183301-110C | RES 3.3KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.1207 | 6 | 0.8203 |
| 263-183301-210C | RES 3.3KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 4 | 0.5615 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 261553
Failure Rate: 3,823.3236
Temperature: 65
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|--|-------------------|----------|--------------------|
| 263-183302-110C | RES 33KΩ,F(1%),SMD,0201(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-183303-210C | RES 330KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 2 | 0.2974 |
| 263-183483-210C | RES 348KΩ,F(1%),SMD,0402(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-183652-210C | RES 36.5KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 2 | 0.2974 |
| 263-183922-110C | RES 39.2KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-183922-210C | RES 39.2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-184221-210C | RES 4.22KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-184321-210C | RES 4.32KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 2 | 0.2974 |
| 263-184532-210C | RES 45.3KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-184539-210C | RES 45.3Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-184700-110C | RES 470Ω,F(1%),SMD,0201,(None JP)RoHS | 0.1207 | 9 | 1.2022 |
| 263-184701-110C | RES 4.7KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.1207 | 31 | 3.9567 |
| 263-184701-210C | RES 4.7KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 2 | 0.2974 |
| 263-184702-110C | RES 47KΩ,F(1%),SMD,0201,(None JP)RoHS | 0.1207 | 11 | 1.4559 |
| 263-184871-210C | RES 4.87KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 3 | 0.4305 |
| 263-184990-110C | RES 499Ω,F(1%),SMD,0201,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-184990-210C | RES 499Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-184991-210C | RES 4.99KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-184999-110C | RES 49.9Ω,F(1%),SMD,0201,(None JP)RoHS | 0.1207 | 4 | 0.5615 |
| 263-184999-210C | RES 49.9Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 9 | 1.2022 |
| 263-185102-210C | RES 51KΩ,F(1%),SMD,0402(None JP)RoHS | 0.1207 | 3 | 0.4305 |
| 263-185602-210C | RES 56KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 4 | 0.5615 |
| 263-185622-210C | RES 56.2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-186041-210C | RES 6.04KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-186049-210C | RES 60.4Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 2 | 0.2974 |
| 263-187501-210C | RES 7.5KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 2 | 0.2974 |
| 263-187502-210C | RES 75KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-188069-210C | RES 80.6Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-188201-210C | RES 8.2KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-188871-210C | RES 8.87KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-189100-210C | RES 910Ω,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 1 | 0.1606 |
| 263-189762-210C | RES 97.6KΩ,F(1%),SMD,0402,(None JP)RoHS | 0.1207 | 2 | 0.2974 |
| 273-010400-300G | THERM RES 100KΩ,0603(B:25/85=3950,3%)RoHS | 6.2871 | 5 | 44.7942 |
| 273-100402-301S | THERM RES 10KΩ,J(5%),SMD,0603, (B25/85=3435,3%),TSM1A103J34D3RZ(TKS) | 6.2871 | 2 | 21.0875 |
| 314-WL0511-109G | PCB WL051 R.A(12L 100x72x1.6mm, 2 panelization) OSP(CIRCUITECH)RoHS | 15.5680 | 1 | 29.6670 |
| 342-122101-100G | DISPLAYPORT/HDMI CONN,21P,MALE,R/A,DIP,GF,845-002-217CRL (REGO)RoHS | 13.1729 | 1 | 22.8077 |
| 342-310022-110G | Screw CONN. Terminal Block,Green,2Pos,300V,16A,PIT:5.0mm,MB612- 50002(DECA) RoHS | 13.1729 | 1 | 22.8077 |
| 343-124000-210G | eDP conn, 40P, F, 90D, 0.5mm, G/F, SMT, BLACK, SSL00-40L3(KEL)RoHS | 13.1729 | 1 | 22.8077 |

File Name: WL051-BCC-8665UE.rfp
Assembly: 774-WL0511-000G
Ref Des:
Calculation Model: Telcordia Issue 4



MTBF (hrs): 261553
Failure Rate: 3,823.3236
Temperature: 65
Environment: GB, GC - Ground Benign, Controlled

| Part Number | Description | Unit Failure Rate | Quantity | Total Failure Rate |
|-----------------|---|-------------------|----------|--------------------|
| 343-501402-200G | Giga LAN CONN RJ45,SMT,GF,W/Transformer,W/LED,MRJG-11S88RS (MATRIX),RoHS | 13.1729 | 2 | 39.9166 |
| 343-501820-110G | USB 3.1 GEN2 CONN*2, 18P, A Type, Green, F, G/F, 90D, DIP, U2131D-UADH-0401R(HDSY)RoHS | 13.1729 | 1 | 22.8077 |
| 346-120310-201G | PIN PLUG 2*3, 1.27mm, H=5mm, 180D, SMD, SHY- JCL180806P(V-STAR)RoHS | 92.2104 | 2 | 279.4159 |
| 346-120511-201G | PIN PLUG 2*5, 1.27mm, H=5mm, 180D, SMD, SHY- JCL180810P(V-STAR)RoHS | 92.2104 | 4 | 502.1952 |
| 346-510223-102G | WAFER 1*2,2.0mm,M,H=6.1mm,180D,DIP,WHITE,721-81- 02TW00(PINREX)RoHS | 92.2104 | 1 | 159.6536 |
| 348-220800-200S | SOCKET SPI 8Pin,GF,H=5.65mm,180D,SMT,ACA-SPI -004-K01(LOTES) | 7.1852 | 1 | 11.7092 |
| 348-370750-230G | NGFF CONN 67P/0.5mm,E Key,R/A,SMD,AS0BC21- S40BE-7H,(FOXCONN)HF | 13.1729 | 1 | 22.8077 |
| 348-370750-240G | NGFF CONN 67P/0.5mm,H=8.5mm,B key,90D,BLACK,SMD,APCI0161-P002H(LOTES)HF | 13.1729 | 2 | 39.9166 |
| 348-652600-200G | DDR4 SO DIMM 1*260P,10u",H=8.0mm 1.2V,RVS,90D,SMD,ASAA826-E8RB0-7H(FOXCONN) HF | 13.1729 | 1 | 22.8077 |
| 622-010140-000G | BATTERY CR2032(MURATA) 3V 220mAh,-30°C ~+70°C,W/CABLE(L=150mm&TAPE),BIN-CR2032-I- CT-SL-PV-01(RE-ENERGY)RoHS Belong to UN3090 | 25.0000 | 1 | 34.9638 |
| 686-110322-100G | PIN PLUG 1*3,2.0mm,M,H=5.9mm,180D,DIP,W/BLACK JUMPER,22S-96-03GB01(PINREX)RoHS | 13.1729 | 1 | 22.8077 |
| 292-301000-500S | BUZZER 3V,100mA,12Ω,4Khz,85db,SMD (5*4.2mm),SMT-G5030A(KEPO) | 600.0000 | 1 | 600.0000 |
| 143-101705-401G | CPU Intel Core i7-8665UE 1.7GHz C/8M,V0,CL8068404148003 SRFDS/FCBGA-1528 (INTEL)RoHS | 422.0000 | 1 | 422.0000 |