

Reliability Prediction
 TR-NWT-332
 Issue 6

Device Reliability Prediction

Case 1 - Black Box Estimates (50% Stress, Temp. = 55 Deg. C,
 No Device burn-in)

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| Unit: LMZ31503RUQR-AS1 | Manufacturer: Texas Instruments Inc., Warrenville, IL |

| <i>Device Type</i> | <i>Part Number</i> | <i>Circuit Ref Symbol</i> | <i>Qty</i> | <i>Failure Rate</i> | <i>Quality Factor</i> | <i>Total Device Failure Rate</i> |
|---------------------------|--------------------|---------------------------|------------|---------------------|-----------------------|----------------------------------|
| | 072-00047 | | 0.56 | | 1 | |
| | 072-00005 | | 0.004 | | 1 | |
| | 071-00128 | | 0.02 | | 1 | |
| Resistor, Comp < 1MOhm | 052-23143 | R1 | 1 | 0.6 | 1 | 0.6 |
| Resistor, Comp < 1MOhm | 051-25150 | R3 | 1 | 0.6 | 1 | 0.6 |
| Resistor, Comp < 1MOhm | 051-23665 | R2 | 1 | 0.6 | 1 | 0.6 |
| Capacitor, Fixed, Ceramic | 047-41032 | C1,C5 | 2 | 1.0 | 1 | 2.0 |
| Capacitor, Fixed, Ceramic | 047-31524 | C2 | 1 | 1.0 | 1 | 1.0 |
| Capacitor, Fixed, Ceramic | 047-23300 | C4 | 1 | 1.0 | 1 | 1.0 |
| Inductor, Load Coil | 030-00268 | L1 | 1 | 8.4 | 1 | 8.4 |
| IC, Analog | 021-00121 | U1 | 1 | 1.0 | 1 | 1.0 |

Total FIT Rate: 15.2

Equivalent MTBF (hrs): 65,616,795