MICROTCA KNOWLEDGE BASE

Hybrid-Cooled MicroTCA.2	MicroTCA.2
Overview	**Module operating temperature:**
• Basic air-cooled characteristics • Basic conduction-cooling characteristics • Hybrid SolidWedge or other air-flow through wedgelocks required • Shock and vibration hardened • Extended temperature • Level 2 Maintenance	MicroTCA.2-MIL-FC1 -5°C - +55°C MicroTCA.2-MIL-FC2 -40°C - +55°C MicroTCA.2-MIL-FC3 -40°C - +70°C MicroTCA.2-MIL-FC4 -40°C - +85°C
Hardened MicroTCA.3	**MicroTCA.3**
Overview	**Module operating temperature:**
• Basic conduction characteristics • Wedgelocks required • Shock and vibration hardened • Extended temperature • Level 2 Maintenance	MTCA.3-TEL-1 -5°C - +55°C MTCA.3-TEL-2 -40°C - +85°C MTCA.3-MIL-CC2 -40°C - +55°C MTCA.3-MIL-CC3 -40°C - +70°C MTCA.3-MIL-CC4 -40°C - +85°C
Specifications	**MicroTCA.2 & MicroTCA.3**
Single-wide module dimensions:	**Shock:**
• Clamshell width: 98 +/- 0.13 mm • Length: 212.70 mm minimum, 225.00 maximum including front handles	MIL-STD-810, Method 516: 40g, 11 millisecond shock either half-sine or sawtooth pulses in all three axes.
Double-wide module dimensions:	**Vibration:**
• Clamshell width: 173 +/- 0.13 mm • Length: 212.70 mm minimum, 225.00 maximum including front handles	MIL-STD-810, Method 514: Random vibration for 1 hour per axis: 5 Hz to 100 Hz Power Spectral Density increasingat 3 dB/octave 100 Hz to 1000 Hz PSD = 0.1 g2/Hz 1000 Hz to 2000 Hz PSD decreasing at 6 dB/octave Test results prove no electrical discontinuity of the gold finger contacts during any of these tests.
Aplications Served -	**Environmentla Testing:**
• Military: Air, Land, and Sea • Mobile commercial or Transport Industry • Machine Industrial control • outdoor Telecom - Edge and Customer Premise Equipment • Medical • Enterprise and Data • Digital Imaging	Using 50 microinch plated Goldfinger Contacts as specified In mTCA.2 and mTCA.3, a 10 day test using Mixed Flowing Gas (MFG) proved no plating degradation.