

CMM Specifications (with LF contacts)

MATERIALS

INSULATOR: Special PPS (Polyphenylene Sulfide Fiberglass filled thermoplastic) UL 94-V0

- Radiation resistance
- No humidity absorption
- Oxygen free

Note : PPS characteristics are recognized for space applications

P.C. LF CONTACTS :

Male:

Tail : copper alloy / Ni + Au flash 0,1 μ
Contact area : copper alloy / Ni + Au > 1 μ

Female:

Body : copper alloy / Ni + Au 0,2 μ
Socket : beryllium copper / Ni + Au > 1,25 μ

CRIMP LF CONTACTS :

Male:

Body : copper alloy / Ni + Au > 1 μ

Female:

Body : copper alloy / Ni + Au > 0,2 μ
Socket : beryllium copper / Ni + Au > 1,25 μ

FIXING HARDWARE:

- Jackscrew: Stainless steel.
- Latch : Beryllium copper/plated nickel (CMM 100/200 series only)

ELECTRICAL

- | | |
|----------------------------------|--------------------------------------|
| • All contacts | 3 A max. @ 25°C
2.2 A max. @ 85°C |
| • Working voltage (sea level) | Tested at 800 V DC |
| • Proof voltage | Tested at 1 200 V DC |
| • Contact resistance (initially) | max. 10 m Ω |
| • Insulation resistance | 1 000 M Ω min. |

MECHANICAL

- | | |
|--|-----------------------------------|
| • Mechanical operations | Up to 2500 cycles |
| • Contact insertion and withdrawal force | 2 N max. / 0.2 N min. per contact |
| • Contact retention in insulator | 10 N min. |
| • Contact replacement in insulator | 3 cycles (Crimp contacts only) |

ENVIRONMENTAL

- | | |
|----------------------|--|
| • Temperature range | From - 60°C to + 260°C
Reflow solder process compatible (+260°C) |
| • Vibration severity | 0.75 mm, 10 g RMS 6 hours long random with superimposed sinusoid. No intermittencies measured when using an H.S.L.I (High Speed Logic Interrupt) detector with a trip threshold of 2 ns. |
| • Shock severity | 100 g for 6 ms |
| • Solvent resistance | HcFc 141 bMGX (ATOCHEM) solvent |

Note :

The CMM micro-connectors are designed to meet or exceed the relevant electrical and environmental performances described in MIL-C-55302 & BS-9525-F0033 standards.

HF / HP contacts specifications

MATERIALS

• Spring loaded parts	Be/Cu gold plated	
• Other metal parts	Copper alloy	
• Insulator	PTFE (HF)	Does not comply with radiation
• Retaining clip	Be/Cu Ni plated	

MECHANICAL

• Mechanical operations	Up to 2500 cycles
• Insertion force	From 0.60 to 5 N per contact
• Withdrawal force	From 0.50 to 2 N per contact
• Secure overlapping	1.30 mm
• Contact replacement in insulator	5 cycles

ELECTRICAL

High Power (HP) Contact

Intensity	Series 30 : 20 A Series 22 : 10 A	} depending on cable
Contact resistance	max. 6 mΩ	
Maximum voltage (sea level)	1000 V (RMS)	
Operating voltage (sea level)	180 V AC/500 mA	

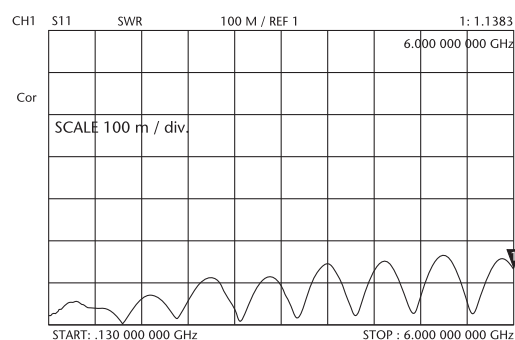
High Frequency (HF) Contact

Impedance	50Ω	
Insulation resistance	10 ⁶ MΩ / 250 V (RMS)	
SWR (Stationary wave rate)	< 1.05 + 0.04 F (GHz)	
Frequency range	Series 30 : 6 GHz Series 22 : 1,5 GHz	} depending on cable
Insulation between 2 contacts	-100 dB (depending on cable)	

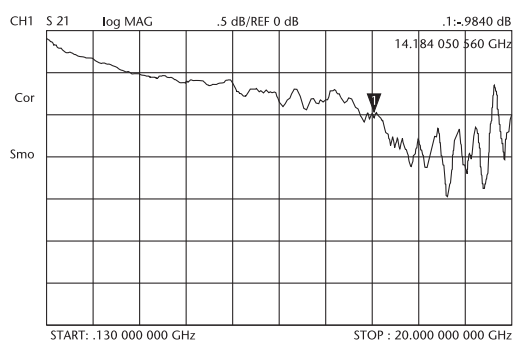
ENVIRONMENTAL

• Temperature range	From - 60°C to +260°C
• Salt spray test	96 hrs
• Humidity test	56 days @ 90% humidity

STATIONARY WAVE RATE (SWR)



INSERTION LOSS



HF / HP CONTACTS PART NUMBERING

