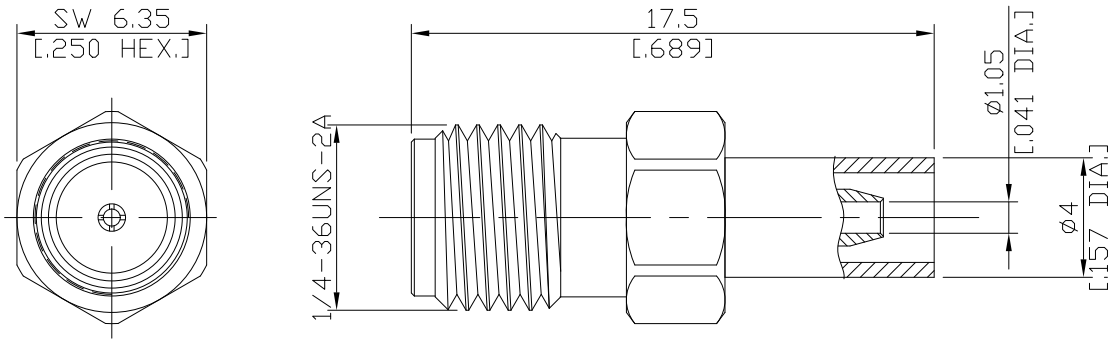
ROSNOL®
RF/Microwave Interconnect

Technical Data Sheet

SMA (Female) Straight Cable Crimp Jack For RD-178 DC-6 GHz VSWR 1.3

SMA2C50-D178A / 91



All dimensions are in mm [inch]
Tolerances according to DIN ISO 2768-mH

Interface

According to	IEC 60169-15; CECC 22110; MIL-PRF-39012; MIL-STD-348B/310; EN 122110

Electrical Data

Impedance	50 Ω
Frequency	DC to 6 GHz
VSWR (Return Loss)	≤ 1.3 (≥ 17.69 dB)
Insertion Loss	≤ 0.03 x √F (GHz) dB
Insulation Resistance	≥ 5 GΩ
Center Contact Resistance	≤ 3 mΩ
Outer Contact Resistance	≤ 2 mΩ
Test Voltage (at sea level)	1000 V rms
Working Voltage (at sea level)	480 V rms
Power handling (at 20 °C, sea level, VSWR 1.0)	≤ 200 W @ 2 GHz
RF-leakage	≥ 100 dB up to 1 GHz

-VSWR in application depends decisive on cable assembly process-

Material And Plating

Piece Parts	Material	Plating
Centre contact	Beryllium Copper	Gold plating (Non-magnetic nickel-phosphorus underplating)
Body	Brass	Gold plating (Non-magnetic nickel-phosphorus underplating)
Insulator	PTFE	
Crimp ferrules	Brass	Gold plating (Non-magnetic nickel-phosphorus underplating)

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Mechanical Data

Coupling mechanisms	Screw-lock
Mating Cycles	≥ 500
Centre contact	Soldered
Cable entry	Crimped
Center Contact Captivation: axial	≥ 27 N
Coupling Test Torque	1.7 Nm max.
Recommended Torque	0.8 Nm to 1.1 Nm

Environmental Data

Temperature Range	-65°C to +165°C
Thermal shock	MIL-STD-202, Meth. 107, Cond. B
Corrosion	MIL-STD-202, Meth. 101, Cond. B
Vibration	MIL-STD-202, Meth. 204, Cond. D
Shock	MIL-STD-202, Meth. 213, Cond. I
Moisture Resistance	MIL-STD-202, Meth. 106
RoHS	compliant

Suitable Cables

RD-178

Packing

Single or 100

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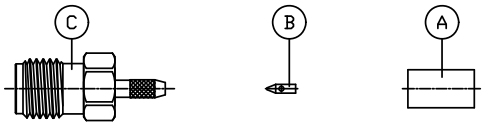
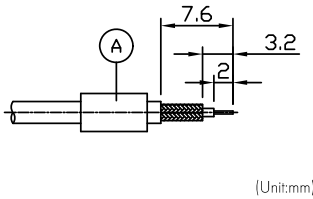
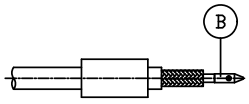
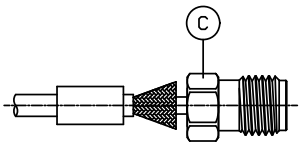
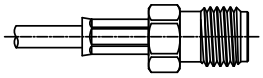
Connector Type:	SMA2C50-D178A/91	Inner Conductor Contact:	Soldered
Suitable Cable:	RD-178	Outer Conductor Contact:	Crimped

Parts List of Connector:



Assembly Steps:

Picture	Process	Attention/Check	Tools Required
	Slide ferrule A onto cable. Prepare cable according to diagram.	Do not damage braid, dielectric and inner conductor of cable.	Cable Cutter. Cable stripping blade. File.
	Heat contact B using a dry soldering iron. Flow small amount of solder into bore hote of contact. insert inner conductor of cable and solder to contact.	Clean contact B and cable dielectric. Remove excess solder.	Soldering iron.
	Splay out braid and insert prepared cable fully into connector body C.	Ensure that braid lies above the crimp neck.	
	Slide ferrule A over braid to body C and crimp.	Crimp as close as possible to connector body C.	Crimp Insert: CI-L3-3T1A

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