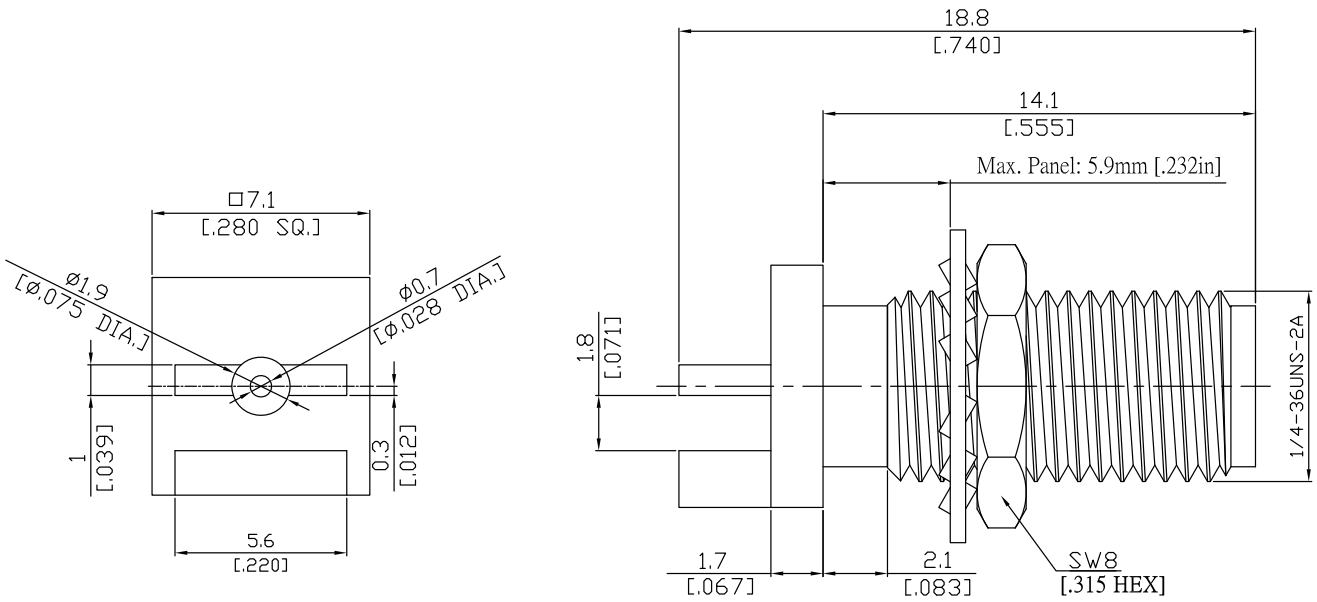
ROSNOL
RF/Microwave Interconnect

Technical Data Sheet

SMA Jack (female) Straight PCB End Launch Connector For Bulkhead Air space design DC-18GHz

SMA2H7C50-0180A / 91



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

Interface

According to	IEC 60169-15; MIL-STD-348B/310

Electrical Data

Impedance	50 Ω	
Frequency	DC to 18 GHz	
VSWR (Return Loss)	≤ 1.25 (≥ 19.08 dB)	
Insertion Loss	≤ 0.03 x √F (GHz) dB	
Insulation Resistance	≥ 5 GΩ	
Center Contact Resistance	≤ 3.0 mΩ	
Outer Contact Resistance	≤ 2.0 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	≤ 100 W @ 10 GHz
RF Leakage	≤ 100 dB up to 1 GHz	

- VSWR in application depends decisive on PCB layout -

Material And Plating

Connector parts	Material	Plating
Centre contact	Beryllium Copper	Gold plating, 3 µinch (Non-magnetic nickel-phosphorus underplating, 80 µinch)
Body	Brass	Gold plating, 3 µinch (Non-magnetic nickel-phosphorus underplating, 80 µinch)
Insulator	PTFE	
Gasket	Silicone Rubber	
Coupling nut	Brass	Gold plating, 3 µinch (Non-magnetic nickel-phosphorus underplating, 80 µinch)

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Mechanical Data	
Coupling mechanisms	Screw-lock
Mating cycles	min. 500
Center contact captivation: axial	≥ 20 N
Board mounting type	End Launch
Coupling test torque	max. 1.7 Nm
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
Packing	
Standard	Single or 100

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