SMA and Reverse Polarity SMA Specifications

Materials

Connector part	Material	Finish
Bodies	Brass	Nickel or Gold
	Stainless Steel	Passivated or Gold
Center Contact	Male: Brass	Gold
	Female: Beryllium copper	
Insulator	Teflon	N/A
Crimp ferrule	Annealed Copper	Nickel or Gold

Electrical

Electrical Data	Detail		
Impedance	50 ohm		
Frequency range	Flexible cable: 0~12.4GHz		
	Semi-rigid cable: 0~18GHz		
Working voltage	RG402 (.141") → 500 volts rms max.		
	RG405 (.085") → 335 volts rms max.		
	RG58, 141, 142, 223/U → 500 volts rms max.		
	RG174, 188, 316/U → 335 volts rms max.		
	RG178, 196/U → 250 volts rms max.		
Insulation resistance	5,000 megohms min.		
Dielectric withstanding voltage	RG402 (.141") → 1,000 volts rms max.		
	RG405 (.085") → 750 volts rms max.		
	RG58, 141, 142, 223/U → 1,000 volts rms max.		
	RG174, 188, 316/U → 750 volts rms max.		
	RG178, 196/U → 500 volts rms max.		
Contact resistance	Center contact: 3.0 milliohms max.		
	Outer contact: 2.0 milliohms max.		
VSWR: f (GHz)		Straight	Right angle
	RG178/U	1.20+0.025f	1.20+0.03f
	RG174, 316/U	1.15+0.02f	1.15+0.03f
	RG58, 141, 142, 223/U	1.10+0.01f	1.15+0.02f
	RG402 (.141")	1.05+0.005f	1.15+0.15f
	RG405 (.085")	1.05+0.005f	1.18+0.15f
Insertion loss	0.04dB max. x √f GHz (straight)		
	0.06dB max. x √f GHz (right angle)		

Mechanical

Mechanical Data	Detail
Engagement force	60lbs min.
Disengagement force	15 inch-pound
Connector durability	500 cycles min.
Cable retention force	RG58, 141, 142, 223/U → 40lbs min.
	RG174, 188, 316/U → 20lbs min.

Environmental

Environmental Data	Detail
Corrosion (Salt spray)	MIL-STD-202 METHOD 101 TEST CONDITION B
Thermal shock	MIL-STD-202 METHOD 107 TEST CONDITION B
Vibration	MIL-STD-202 METHOD 204 TEST CONDITION D
Mechanical shock	MIL-STD-202 METHOD 213 TEST CONDITION I
Temperature range	-65°C to 165°C