



## 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 $\sqrt{f}$ GHz (straight)
	0.06dB max. x $\sqrt{f}$ 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