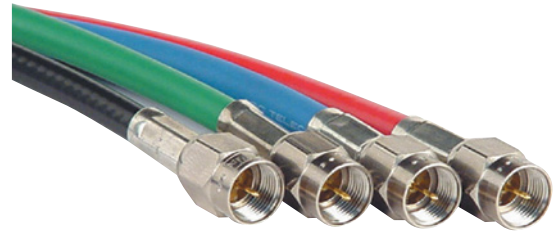


# Broadcast Connectors

## Coax Connectors – F Connectors

CommScope's high-performance F connectors are designed for demanding digital applications where a high-quality, high-performance F connector is required. These connectors provide superior return loss (-30 dB to 3 GHz) and are the perfect choice for use in digital headends, satellite down links, and high-performance customer premises applications.



### Features

- All-crimp two-piece design goes together the same as a BNC
- Combines the superior electrical performance of a BNC with the superior RF performance of an F connector
- True 75  $\Omega$  design for performance up to 3 GHz
- Crimp-on center pin provides outstanding connection rather than relying on the copper center conductor of the cable
- Gold-plated locking center pin just like a BNC connector
- Diamond-knurled crimp hub and long .500" crimp sleeve provides higher pull-off force than typical F connector types
- Long 3/8" wrench flats make connector threading easier
- Precision machined parts for greater unit to unit consistency
- Exclusive molded center conductor insulator provides a truer impedance match over PVC and Teflon types
- Same strip and crimp dimensions as our standard BNC plugs, common tooling
- Cable sizes for RG59, RG187, and RG6 available
- Termination plugs in 1% and precision 0.1% available

### F Connectors

#### Electrical

<b>Characteristic Impedance:</b>	75 $\Omega$
<b>Voltage Rating:</b>	1000 Volts RMS
<b>Insertion Loss:</b>	< 0.6 dB 1 MHz to 1 GHz (measured with 1 meter of 728 cable)
<b>Return Loss:</b>	Better than 35 dB to 1 GHz; 30 dB to 2 GHz; 26 dB to 3 GHz
<b>Contact Resistance:</b>	.030 $\Omega$ maximum change post environmental
<b>Insulation Resistance:</b>	200 M $\Omega$ minimum change

#### Mechanical

<b>Mechanical Durability:</b>	500 cycles minimum
<b>Center Contact Retention:</b>	6 lbs. min
<b>Coupling Mechanism:</b>	80 lbs. min
<b>Cable Pulloff Force:</b>	Dependent on cable size
<b>Cable Bend and Twist:</b>	500 cycles min
<b>Coupling Nut Proof Torque:</b>	Torque 20 in/lb min
<b>Interface Dimension:</b>	See interface detail below

#### Environmental

<b>Thermal Shock:</b>	-40° C to 35° C operating; -55° C to 85° C, non-operating
<b>Moisture Resistance:</b>	0% to 95%; MIL-STD-202 Method 106
<b>Corrosion (Salt Spray):</b>	MIL-STD-202 Method 101, Test Condition B
<b>Flammability:</b>	UL 94-VO rated (center conductor insulator)
<b>Vibration:</b>	MIL-STD-202 Method 201
<b>Solvent Resistance:</b>	MIL-STD-202 Method 215

#### Finish

<b>Body:</b>	Tarnish-resistant electroless nickel plating
<b>Center Conductor:</b>	50 millionths inch gold plating MIL-G-45204 Type 1, Grade C, Class 1; requires .042" crimp station die