

# RF Feeder System

## RF Coaxial Connector Series

### N Type Coaxial Connectors

N type coaxial connectors have the characteristic of reliable and strong anti-vibration nature. The connector, which joined the coaxial cable by one whorl extensively, can be used in vibrational and abominable radio equipment, ground launch system.



#### Technical Characteristics

Item	Technical Standards
Temp. Scope	-40~+85℃
Relative Humidity	≤95%
Atmospheric Pressure	70~106Kpa
Characteristic Impedance	50Ω
Frequency Range	DC~11GHz
Working Voltage	1000V
Withstanding Voltage	≥2500V
Insulation Resistance	≥5000 MΩ
Contact Resistance	—
Outer Conductor	≤0.2 5 MΩ
Center Conductor	≤1MΩ
Voltage Standing Wave Ratio	—
Straight	≤1.10(≤2.2GHz)
Right Angle	≤1.15(≤2.2GHz)
Insertion Loss	≤0.12dB(@2.2GHz)
3rd Order Intermodulation at 2*20w	≤-150dBc
Durability (mating)	≥500 (cycles)



#### Material & Plating

Name	Materials	Electroplate
Outer Conductor	Brass	Silver or CuSnZn Plated
Contact Pin	Brass	Gold or Silver Plated
Socket	Beryllium or Tin Bronze	Gold or Silver Plated
Elastic Contact	Beryllium or Tin Bronze	Silver or CuSnZn Plated
Insulator	PTFE	—
Fastener	Brass or Metal Alloy	Nickel Plated
O-ring Sealing	Silicone Rubber	—

#### Application Standard

SJ/T11071 IEC60169-16 GJB681 MIL-C-39012

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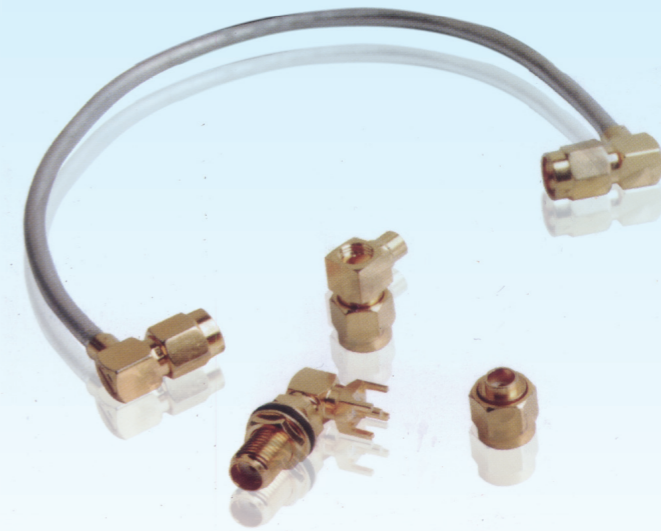
### SMA Type Coaxial Connectors

The inner diameter of outer conductor is 4.13 (0.163in) . Its screw coupling impedance is 50Ω. The SMA series connectors with semi-rigid and flexible RF cables are used for microwave applications which requiring high performance. They have small size but high reliability , and can be interchanged with the same type connectors in a broad range.



#### Technical Characteristics

Item	Technical Standards
Characteristic Impedance	50Ω
Frequency Range	0~12.4GHz
Working Voltage	330V
Withstanding Voltage	≥1000V
Insulation Resistance	≥5000MΩ
Contact Resistance	—
Outer Conductor	≤2MΩ
Center Conductor	≤3 MΩ
Voltage Standing Wave Ratio	—
Straight	≤1.10(≤2.2G)
Right Angle	≤1.15(≤2.2G)
Insertion Loss	≤0.15dB(6GHz)



#### Mechanical Characteristics

Center Conductor Retention Force	≥0.28N
Durability	≥500 cycles

#### Environmental

Temp. Range	-40℃~+55℃
Relative Humidity	≤95% (40℃±2℃)
Atmospheric Pressure	70~106Kpa

#### Material & Plating

Name	Materials	Electroplate
Body	Brass	Gold Plated
Contact Pin	Brass	Gold Plated
Elastic Contact	Beryllium-Tin Bronze	Gold Plated
Crimp Ferrule	Brass or Metal Alloy	Nickel Plated
Insulator	PTFE	—
O-ring Sealing	Silicone Rubber	—

#### Application Standard

GJB681A IEC60169-15 MIL-C-39012

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## RF Coaxial Connector Series

### BNC Type Coaxial Connectors

The type BNC series product is a kind of RF Coaxial Connector with a coupling machine. Its characteristic is a conjunction to connect and disconnect quickly etc. Extensively used for the conjunction with RF in the wireless equipments, electronic instrument, medical treatment equipment electric cable. Its characteristic resistance have two types: 50Ω and 75Ω.



#### Technical Characteristics

Electric Characteristics	
Characteristic Impedance	50Ω, 75Ω
Frequency Range	DC~4.0GHz
Working Voltage	500V
Withstanding Voltage	≥1500V
Insulation Resistance	≥5000MΩ
Contact Resistance	—
Outer Conductor	≤1mΩ
Center Conductor	≤1.5mΩ
Voltage Standing Wave Ratio	—
Straight	≤1.22
Right Angle	≤1.30
Mechanical Characteristics	
Center Conductor Retention Force	≥0.56N
Durability	≥500 (cycles)

#### Material & Plating

Name	Materials	Electroplate
Body	Brass	Nickel Plated
Contact Pin	Brass	Gold Plated
Socket	Beryllium Bronze	Gold / Silver Plated
Elastic Contact	Tin Bronze	Gold / Silver Plated
Crimp Ferrule	Copper Alloy	Nickel Plated
Insulator	PTFE	—
O-ring Sealing	Silicone Rubber	—

#### Application Standard

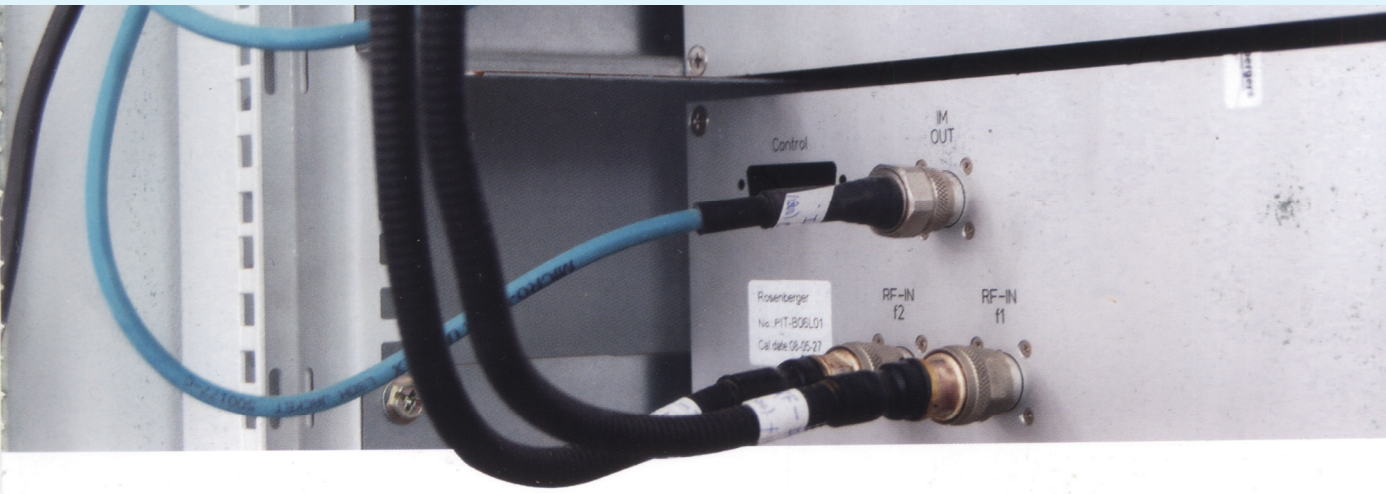
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# RF Feeder System

## RF Coaxial Connector Series

### TNC Type Coaxial Connectors

The type TNC product is a connector with thread connection device. The characteristic impedance is 50Ω. These connectors have characteristics of wide working frequency, reliable connection, great vibration performance. They are widely used in connection with RF coaxial cable in computer network, radio station, navigation spaceflight and microwave monitor system using radar etc.



#### Technical Characteristics

##### Electric Characteristics

Characteristic Impedance	50Ω
Frequency Range	DC~11GHz
Working Voltage	500V
Withstanding Voltage	≥1500V
Insulation Resistance	≥5000MΩ
Contact Resistance	—
Outer Conductor	≤2.5mΩ
Center Conductor	≤10mΩ
Voltage Standing Wave Ratio	—
Straight	≤1.22
Right Angle	≤1.30

##### Mechanical Characteristics

Center Conductor Retention Force	≥0.56N
Durability	≥500 (cycles)



#### Material & Plating

Name	Materials	Electroplate
Body	Brass	Nickel Plated
Contact Pin	Brass	Gold Plated
Socket	Beryllium Bronze	Gold / Silver Plated
Elastic Contact	Tin Bronze or Copper Alloy	Gold / Silver Plated
Crimp Ferrule	Copper Alloy	Nickel Plated
Insulator	PTFE	—
O-ring Sealing	Silicone Rubber	—

#### Application Standard

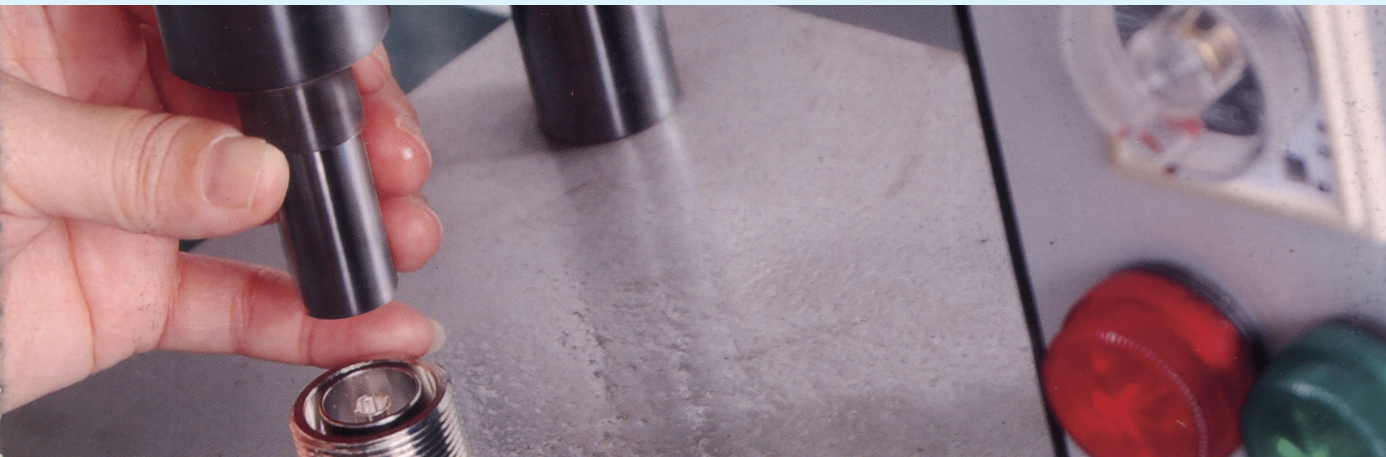
IEC 60169-17 CECC 22200 MIL-C-39012 GJB681A

# RF Feeder System

## RF Coaxial Connector Series

### SMB Type Connectors

The type SMB series products are like this: their inner diameter of outer conductor is 3mm (0.12in) . Their snap-on coupling-characteristic impedance is 50Ω. The series of connectors are one kind of low power miniature connectors with snap-on coupling mechanism and have the characteristics of light weight, small size and convenient connection. They are used to connect cables in RF circuits of electrical equipment.



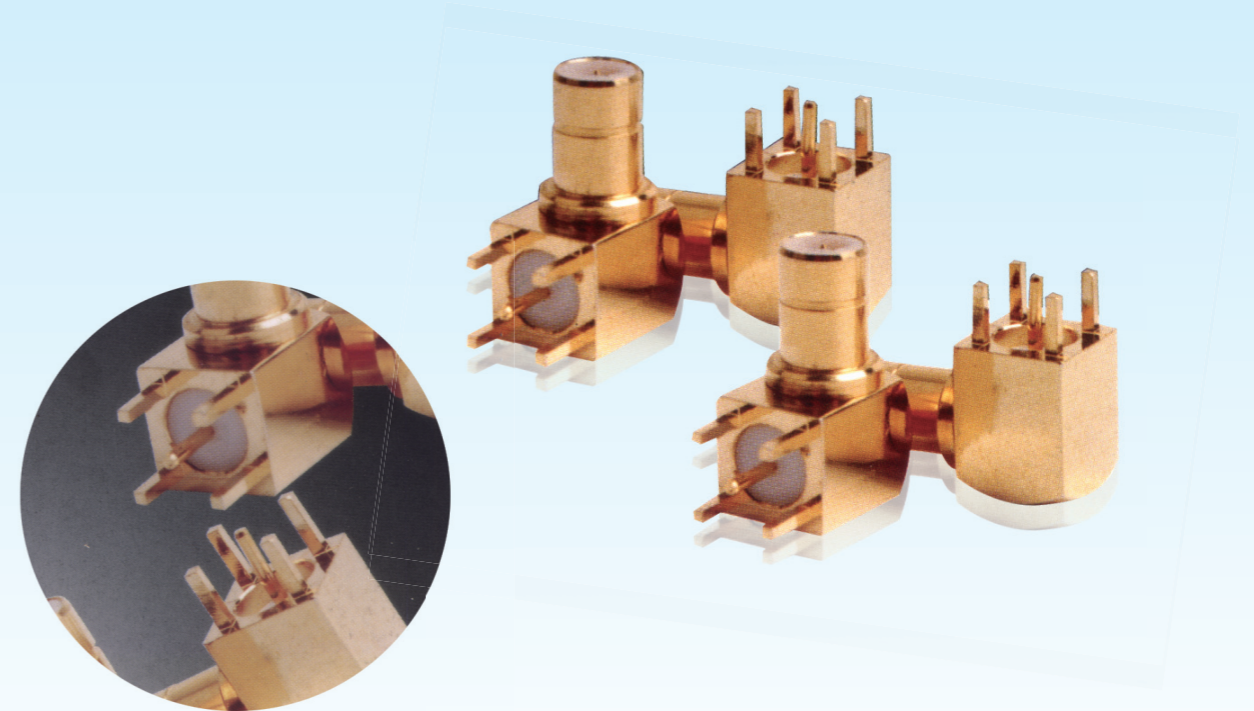
#### Technical Characteristics

##### Electrical Characteristics

Characteristic Impedance	50Ω
Frequency Range	0~4GHz
Working Voltage	330V
Withstanding Voltage	≥1000V
Insulation Resistance	≥1000MΩ
Contact Resistance	—
Outer Conductor	≤1mΩ
Center Conductor	≤6mΩ
Voltage Standing Wave Ratio	—
Straight	≤1.34 (3GHz)
Right Angle	≤1.45 (1GHz)
Insertion Loss	≤0.3dB (1.5GHz)

##### Mechanical Characteristics

Center Conductor Retention Force	≥0.28N
Durability	≥500 (cycles)



##### Environmental

Working Temperature	-55°C~+155°C
Relative Humidity	≤95% (40°C±2°C)
Atmospheric Pressure	70~106KPa

#### Material & Plating

Name	Materials	Electroplate
Body	Brass	Nickel Plated
Outer Conductor	Brass	Gold Plated
Center Conductor	Beryllium Bronze	Gold Plated
Crimp Ferrule	Copper Alloy	Nickel Plated
Insulator	PTFE	—
O-ring Sealing	Silicone Rubber	—

#### Application Standard

GJB681A IEC60169 MIL-C-39012