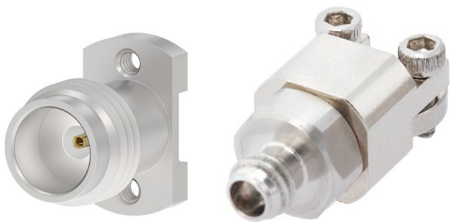


High-Frequency RF Connectors and Adapters

High-Frequency RF Connectors and Adapters offer a versatile, robust, reusable, compact and easy-to-install high-frequency coaxial connection to microstrip or stripline transmission lines. Designed for high-precision applications, these connectors and adapters are ideal for single-layer or multilayer PCBs and millimeter wave (mmWave) frequencies up to 115 GHz.



ADVANTAGES AND FEATURES

Offers high-precision electrical performance

These connectors minimize VSWR, insertion loss, electrical noise and interference while providing optimal impedance matching, minimizing signal reflection and loss across microwave and mmWave frequencies up to 115 GHz. End-launch jacks place the contact parallel to the signal trace, further improving signal integrity.

Enhances flexibility with a range of size and frequency options

The 1.0, 1.85, 2.4 and 2.92mm connectors designed for single-layer and multilayer PCBs include vertical and end-launch options with microstrip or stripline termination that reduces design constraints.

Frequencies	DC to 115 GHz, depending on version
Impedance	50 Ohms
Connectors	1.0, 1.85, 2.4, 2.92mm
Attachment	Mechanical (screw) with compression mount or soldered contact
Material	Passivated stainless steel (body), gold-plated beryllium copper (contact)
Operating Temperatures	-40 to +125°C (1.0mm) -55 to +125°C (1.85, 2.4, 2.92mm)

Reduces cost by utilizing a reusable design

Solderless screw and compression attachment options are available that permit easy installation on the PCB and support simple removal and reuse.

Facilitates use with high-density, compact applications

The compact narrow-block design has a smaller footprint, allowing PCB signal traces to be located closer together.

Ensures consistency and durability

Precision-machined construction ensures tight tolerances and superior quality, enhancing signal integrity and minimizing errors in high-performance applications.



High-Frequency RF Connectors and Adapters

MARKETS AND APPLICATIONS

Aerospace and Defense

Electronic defense systems
High-frequency and satellite communications
Radar systems

Networking

High-frequency cabling systems
High-speed signal integrity test boards
Hyperscale computing architecture

Telecommunications

5G and 6G networks
5G microwave backhaul systems
Point-to-point radios



Benchtop Test and Measurement Equipment



Radar Systems



5G Microwave Backhaul Systems

Test and Measurement

224G and 448G test equipment
Automated test equipment
Benchtop test and measurement equipment
Field-portable test equipment
Network analyzers

SPECIFICATIONS

Reference Information

Packaging: Individually bagged
Designed in: Millimeters
2011/65/EU RoHS Compliant: Yes
2006/1907/EC REACH Compliant: Yes

Mechanical

Connectors: 1.0, 1.85, 2.4, 2.92mm
Configurations: End launch, vertical launch jacks
Attachment Method: Mechanical (screw) with compression mount or soldered contact
PCB Architecture: Microstrip or stripline
Durability (min.): 500 cycles

Electrical

Operating Frequency Range:
1.0mm—DC to 115 GHz
1.85mm—DC to 70 GHz
2.4mm—DC to 50 GHz
2.92mm—DC to 40 GHz
Impedance: 50 Ohms
VSWR (max.):
1.0mm—1.4:1 at 115 GHz
1.85mm—1.35:1 at 70 GHz
2.4mm—1.2:1 at 50 GHz
2.92mm—1.15:1 at 40 GHz
Return Loss:
1.0mm— ≥ 15.56 dB up to 115 GHz
1.85mm— ≥ 15 dB up to 70 GHz
2.4mm— ≥ 20 dB up to 50 GHz
2.92mm— ≥ 20 dB up to 40 GHz
Data Characterization Rates:
1.0mm—Up to 448Gbps
1.85mm—Up to 224Gbps
2.4mm—Up to 112Gbps
2.92mm—Up to 112Gbps

Physical

Contact: Gold-plated beryllium copper
Other Metal Parts: Passivated stainless steel
Operating Temperatures: -40 to +125°C (1.0mm)
-55 to +125°C (1.85, 2.4, 2.92mm)