

NEX10™

Miniature Low PIM RF
Connector



Radiall's NEX10™ series is a miniature and lightweight RF Coaxial connector with excellent intermodulation performance for outdoor telecom applications up to 20 GHz.

Growing demand for new generation equipment within the Telecom market requires a top performance solution with exceptional benefits and features. To develop this solution, Radiall has partnered with two leading RF connector manufacturers to develop a compact, robust, low-PIM connector: the NEX10.

With exceptional performance up to 20 GHz in order to meet the performance needs of customers, NEX10™ also features a compact design that is 50% smaller than 4.3-10. This unique solution also offers separation of electrical and mechanical reference planes, which maximizes intermodulation performance under static, dynamic vibrations and torque stress conditions.

NEX10™ is available in multiple configurations:

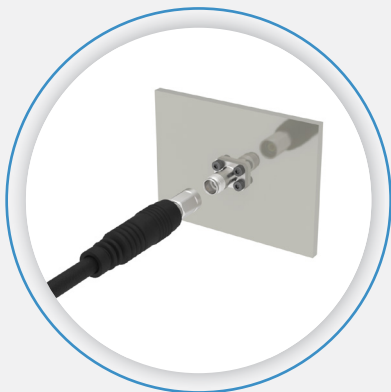
- Jack: square flange, bulkhead
- Plug: straight and right angle
- Screw-on and push-pull coupling mechanism
- Multi-coax
- Additional boot
- Jumper

MULTI-COAX MODEL

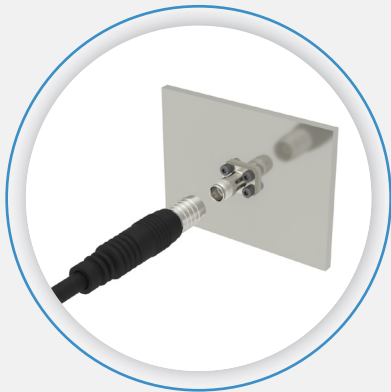




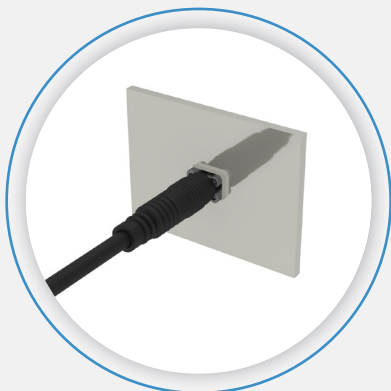
ADDITIONAL BOOTS



Screw



Quick lock



One common boot for screw and quick lock models

NEX10™ meets market needs by providing 4.3-10 connector advantages in a smaller size. The more robust and lightweight interface design allows for multi-coax interconnection solution.

Test/Characteristics	Values/Remarks
Impedance	50 Ω
Frequency	DC to 20 GHz
PIM (Passive Intermodulation)	-166 dBc, 2x43 dBm for all coupling types (static and dynamic)
Power	250 W @ 25 °C
	100 W @ 85 °C
	50 W @ 105 °C
	250 W @ 25 °C
Return Loss (typical)	36 db @ up to 4 GHz
	34 db @ up to 6 GHz
	30 db @ up to 10 GHz
	20 db @ up to 20 GHz
Durability	100 min. 500 for Test & Measurement types
Mating Characteristics	Quick-lock engagement force: 50 N Screw-on recommended torque: 3 Nm
Interface Retention Force	Quick-Lock 150 N min., Screw 500 N min.
Bending Force	>5 Nm
Screening Effectiveness	DC to 6 GHz (screw-on): -110 dB min.
	DC to 3 GHz (quick-lock): -90 dB min.
	3 to 6 GHz (quick-lock): -70 dB min.
Surge Current	±1 kA 10/350 μs pulse and ±4 kA 8/20 μs pulse
	±5 kA 10/350 μs pulse and ±20 kA 8/20 μs

FEATURES & BENEFITS

- Robust design for outdoor use
- Low PIM, independent of applied torque
- Multiple coupling mechanism of push pull and torque
- RF shielding
- Optimized for ¼" super-flexible corrugated and smaller flexible cables
- 12.7 mm minimum flange height
- Contact areas protected from damage

APPLICATIONS

- Small cell and MIMO
- DAS/In-building
- Antennas, radios and filter output
- Outdoor and indoor
- Applications requiring PIM stability in a compact size
- Multi-coax/Blind mate applications