Coaxial connectors 4.3-10

Very low passive intermodulation

Due to its mechanical design, the universal 4.3-10 jack type can be mated to all plug types – the screw-on, the hand-screw and the quick-lock plug.

Coaxial connectors 4.3-10

Very stable PIM connector series

1. Very low passive intermodulation
2. High density design
3. Low weight
4. High flexibility for different installation
5. Excellent electrical performances

Benefits for OEMs and network operators
Reduction of space requirements in mobilecom systems
Reliable and PIM-free site installations
Independency of torque limits
Installation failures

Key features

✓ Excellent RL and PIM performances independently from the torque applied or mechanism used
✓ High screening efficiency
✓ Electrical contact protected against accidental hits
✓ Compactness: the connector is fitting in 1 inch flange (25.4 mm)
✓ Low weight (60 % lighter compared to bigger RF interfaces)
✓ 3 possible mechanical connections (screw, hand screw and quick lock) on 1 universal female connector
✓ IEC standardization

Benefits

✓ High density module design because of smaller flange and a minimum pitch 25.4 mm for hand screw and quick lock
✓ Light weight modules because of low components weight and no need of thick-walled modules (no torque or small torque required)
✓ High flexibility in the choice of the best matching coupling mechanism according to the application
✓ Reliable electrical performance
✓ Easy installation

Very low PIM – independent of torque

The new 4.3-10 connector series is characterized by best electrical performance and very low passive intermodulation – independent of torque – giving it the potential to become the leading connector system in future mobile applications.

Due to its dimensions, 4.3-10 connectors are the perfect evolution of currently used connector systems in the mobile communication industry. Electrical and mechanical planes have been separated, leading to significantly lower coupling torque. 4.3-10 connectors are available with screw-on, hand-screw and quick-lock coupling mechanisms.
Coaxial connectors 4.3-10

Very low passive intermodulation

Series 4.3-10 – Technical data

**ScrewType 4.3/10**

Male Straight for 1/2 " SF Superflex feeder cable

Ref.: CO03822

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The 4.3-10 interface dimensions conform to the international standards IEC 61169-54

**ELECTRICAL SPECIFICATIONS IEC 61169-1**

Nominal impedance: 50 Ω

Frequency range: up to 6 GHz

VSWR

- (DC-3GHz) ≤1.10
- (3-6GHz) ≤1.20

Centre and outer contact resistance

- Initial ≤ 1.0 mΩ
- After conditioning ≤ 1.5 mΩ

Insulation resistance

- Initial ≥ 5 GΩ
- After conditioning ≥ 200 MΩ

Proof voltage at sea level r.m.s. values at 40 Hz to 60 Hz: 2500 V

Intermodulation

- 2 x 20 W −165 dBc
- 2 x 40 W −160 dBc
Coaxial connectors 4.3-10

Very low passive intermodulation

Series 4.3-10 – Technical data

MECHANICAL SPECIFICATIONS IEC 61169-1

Mechanical operations: > 100 operations

Centre contact captivation (axial force): 30 N

Coupling torque (screw): ≥ 5 Nm, proof torque: 8 Nm

Engagement force (quick-lock): typ. 100 N

Separation force (quick-lock): typ. 80 N

Tensile strength of coupling mechanism (quick-lock): ≥450N

Material and plating

Material: Plating
- Body: Brass Tri-Alloy
- Insulator: PTFE
- Center conductor: Phosphor bronze – Ag
- Other: Brass Ni

ENVIRONMENTAL SPECIFICATIONS IEC 61169-1

Temperature range: –55 to +90 °C

Sealing: IP67

High temperature endurance: 250 h at 85 °C

Salt-fog test: 96h

Regulatory Compliance/Certifications

RoHS 2011/65/EU RoHS Compliant

Designed, manufactured and/or distributed under quality management system
4.3 - 10
COMPLETE RF PART
FEATURING IMPROVED
SYSTEM LEVEL PERFORMANCE