BEST CONTACTS FOR YOUR SUCCESS

Telegärtner
KARL GÄRTNER GMBH

NETWORKING COMPONENTS
COAXIAL CONNECTORS
CABLE ASSEMBLIES
PRECISION TURNED PARTS
PLASTIC INJECTION MOULD PARTS
INDUSTRIAL ELECTRONICS

· LOW PIM
· SMALL SIZE
· HIGH PERFORMANCE

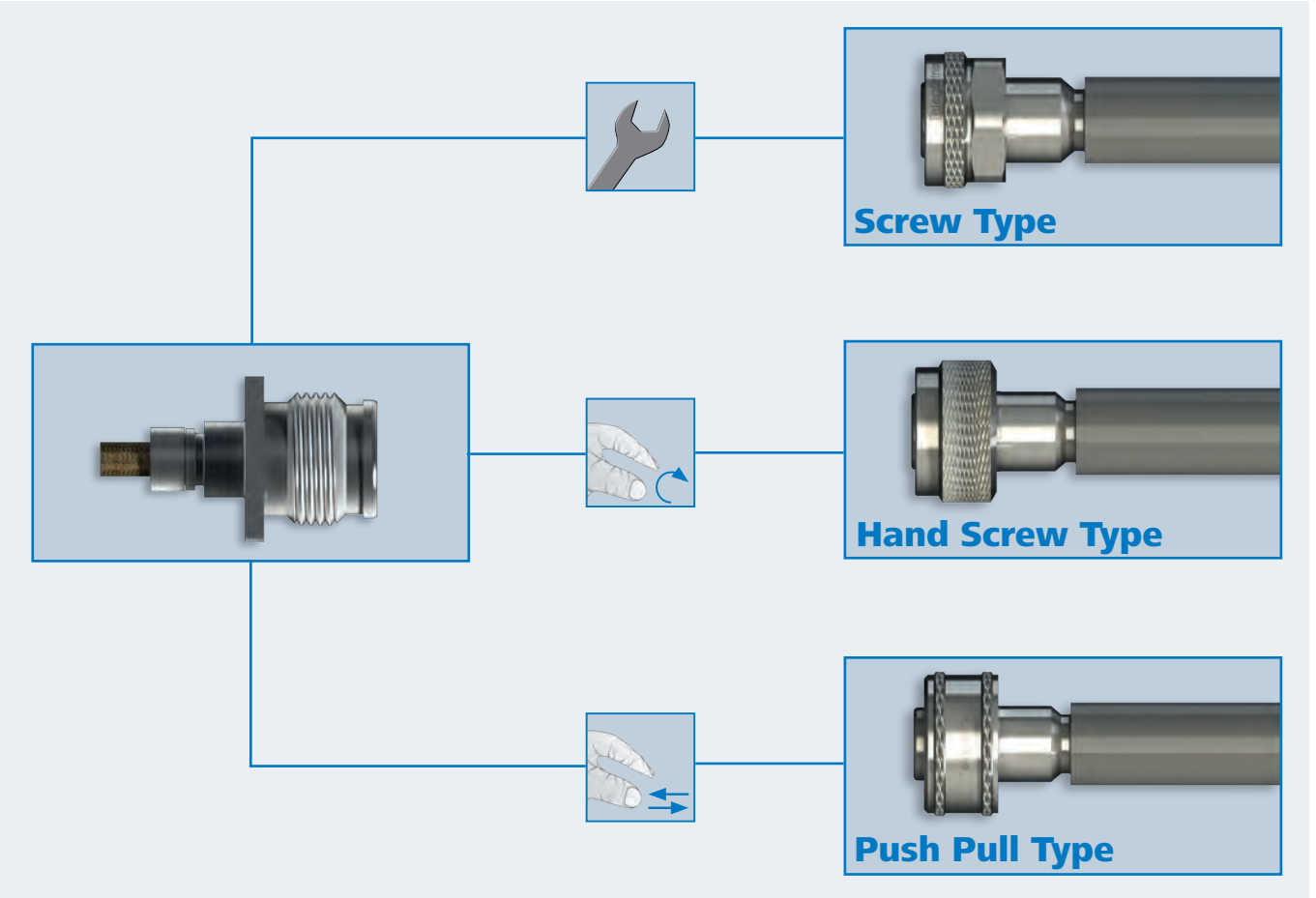
Coax

2.2-5 Series Connectors

Downsized Low PIM Performance

Connectors play a decisive role in the good performance in transmission of RF signals between base stations or remote radio heads and antennas. In the future, mobile networks will require RF signal transmission to be implemented with tighter and tighter space constraints, less losses and the lowest interferences with regard to passive intermodulation. These market requirements led in the last few years to the introduction of the 4.3-10, of which Telegärtner was one of the co-developers.
This connector is now preparing to replace the 7-16 series which has long since been seen as the market standard. However, at the same time as this, and bearing in mind small cells and 5G requirements, the trend towards further miniaturization is pushing ahead at full pace.
The 2.2-5 series has taken the successful concept of the 4.3-10 and turned it into a smaller design. Whilst the 4.3-10 typically requires the same space as a classic N connector, the 2.2-5 only has the standard space requirements of the TNC series. Despite the clear reduction in size and weight, the 2.2-5 series possesses comparable electrical and thermo-climatic properties to the 4.3-10 series and can be used with cables up to ½" corrugated cable both indoors and outdoors.

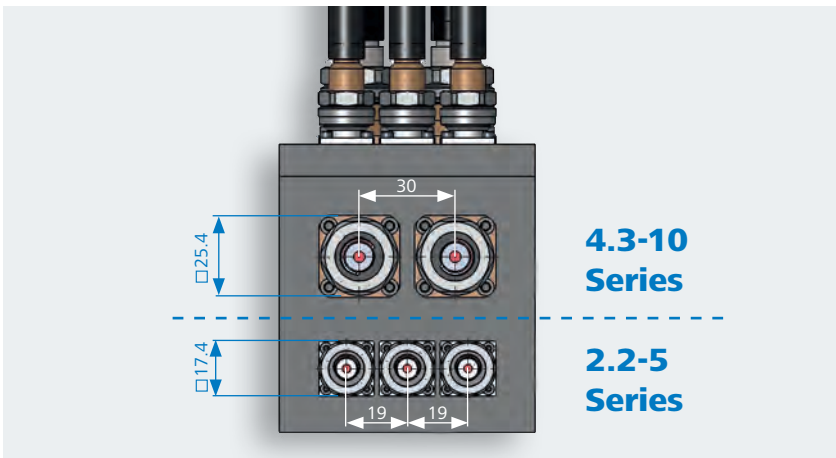
1 Jack - 3 Plug Designs



Technical Data

IP classification	IP68
Passive intermodulation	- 166 dBc @ 2 x 43 dBm
Mating cycles	100
Voltage proof	1.5 kV @ 50 Hz
Frequency range	up to 20 GHz
Impedance	50 Ω
RoHS-conform	2002/95/EC
Working temperature	-40°C to +85°C
Power handling	250 W (2 GHz)
Recommended torque (Screw Type)	3 Nm

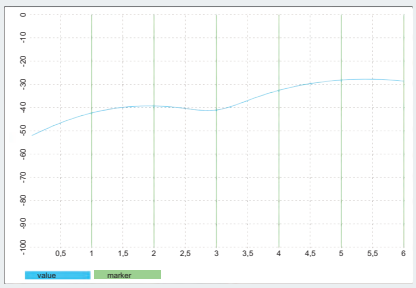
Compact Design



The 2.2-5 series enables a robust and PIM stable design in the smallest space. The space requirements for a typical 4 hole flange jack are only 17.4 x 17.4 mm. This is the same as the usual mounting surface for the TNC series. Therefore the 2.2-5 requires around 53 % less space than the 4.3-10 series and 70 % less space than the 7-16 series. Hand in hand with the size and material reduction, there is also a cost and weight reduction, meaning this series is ideal for small cell applications. Despite the small size, relatively thick and therefore low loss cables up to ½" can be used.

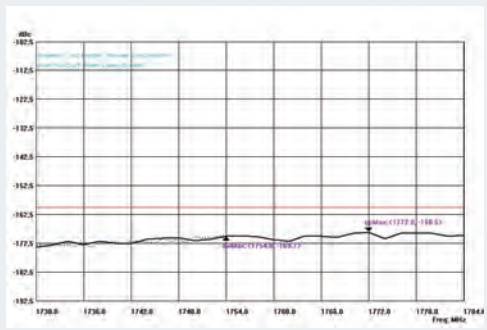
Electrical Performance

Return Loss



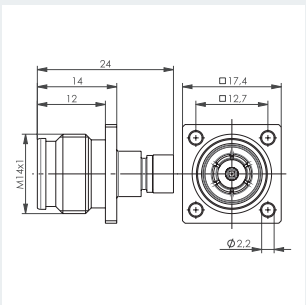
frequency	value
1,000 GHz	-42,28 dB
2,000 GHz	-39,24 dB
3,000 GHz	-41,02 dB
4,000 GHz	-32,55 dB
5,000 GHz	-28,12 dB
6,000 GHz	-28,58 dB

PIM

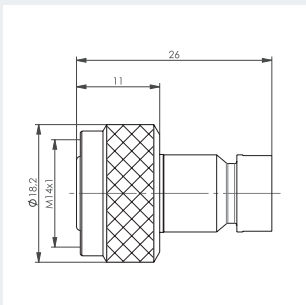


< -166 dBc
(2x 43 dBm)

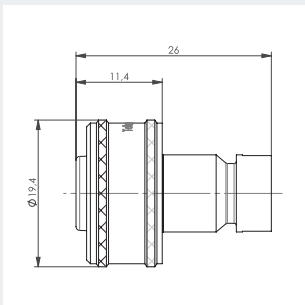
Drawings



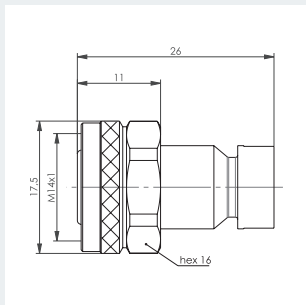
2.2-5 Panel Jack



2.2-5 Straight Plug
Hand Screw Type



2.2-5 Straight Plug
Push Pull Type



2.2-5 Straight Plug
Screw Type

Advantages

- Space and weight savings due to compact design
- Optimized for 1/4", 3/8", 1/2" corrugated cables
- Very low PIM values independent from torque and coupling mechanism
- Contact areas protected from damage even when not mated
- Screw, Hand Screw and Push-Pull options wit same jack

More Customised: assembling RF cables online

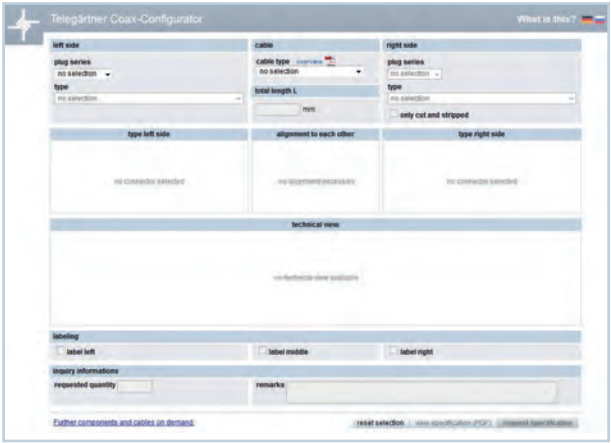
Do you want to assemble RF cables with coaxial connectors individually and add strain relief, labelling and cable length according to your requirements? Then the COAX configurator developed by Telegärtner is just what you need:

… **simple,** and is available to you around the clock

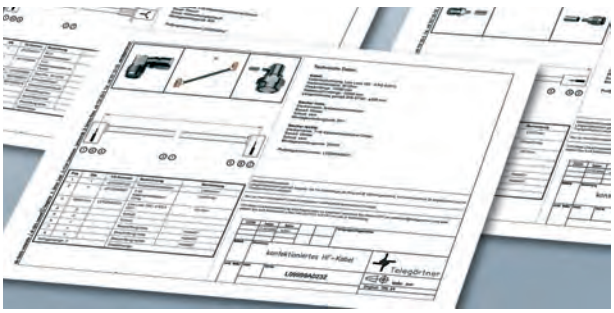
… **fast,** and allows you to configure your customised assembly with just a few clicks, thanks to a logical and easy-to-understand user-guidance

… **user-orientated**, and offers you exactly the information you require in order to configure your individual cable assembly

User-friendly input mask …



… and creation of a clear specification (PDF)



⇨ for individually assembled RF cables

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