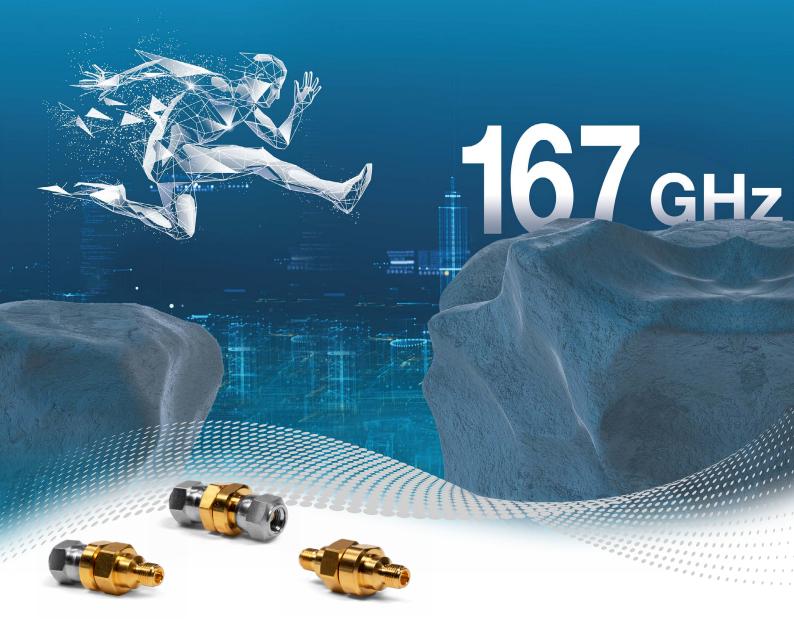
SPINNER 0.8 mm Coaxial Connector System



Enables Fully Traceable Measurements Up to 167 GHz



HIGH FREQUENCY PERFORMANCE WORLDWIDE spinner-group.com



The SPINNER Group

For nearly 80 years, the SPINNER Group has been setting new standards worldwide in high-frequency technology. Based in Munich with production facilities in Germany, Hungary and China, SPINNER currently has over 900 employees. Our international network of subsidiaries and distributors supports customers in over 40 countries.















TEST & MEASUREMENT

COMMUNICATION

BROADCAST

SATCOM/SPACE

INDUSTRY

SUBSEA/OFFSHORE

RF Measurement

These days, up-to-date measurement equipment is essential for all development, production, testing and quality control departments that deal with RF signals on coaxial lines. Particularly for vector network analyzers, high-precision connectors, terminations, and adapters are a must.

The same statement applies to calibration kits and mechanical accessories such as gauges for checking mating face dimensions or torque wrenches for tightening coupling nuts. In all of these cases, SPINNER has established new, extremely high standards of precision which most users would not want to do without.

Precisely measured values are especially important when transmitting high power levels. Other major applications

include extensive testing of mobile communications systems such as terahertz communication, terabyte ethernet high-speed data transmission, quantum research.

SPINNER supplies coaxial measurement equipment of outstanding electrical and mechanical quality for use at frequencies up to 250 GHz.

Coaxial and Waveguide Measurement Devices

Coaxial & waveguide measurement devices made by SPINNER are needed for:

VNA / S-Parameter Measurement

- Calibration and verification standards
- Air lines
- · Rotary joints
- Articulated lines
- Adapters
- · Connector gauges

Millimeter Wave Measurement

- Ruggedized test port adapters
- mmWave waveguide-to-coaxial adapters
- 0.5 mm, 0.8 mm & 1.0 mm coaxial connector systems
- 1.35 mm E Connector
- EasyLaunch PCB connectors
- EasySnake flexible dielectric waveguides
- Connectivity solutions for RF anechoic chambers

PIM Measurement and Test Automation

- · EasyDock push-pull adapters
- · Low PIM switches
- Low PIM test cables
- · Low PIM rotary joints
- Low PIM loads
- Low PIM passive intermodulation standards

Connectivity Solutions for RF Anechoic Chambers

- · Ruggedized test port adapters
- mmWave waveguide-to-coaxial adapters
- · Panel feedthroughs
- Articulated lines
- · EasySnake flexible dielectric waveguides
- Rotary joints

Need to Meet Requirements of 5G and Future 6G Technologies?





One of the great challenges in the development of new communication technologies like 6G in the sub-millimeter section such as the D-band frequency range is the flawless and reliable electrical interconnection technology.

Until recently, narrowband rectangular waveguide components were the only option available. Then, the coaxial 0.8 mm connector system (IEC 61169-64) emerged as a standardized solution, eliminating the need for costly plumbing and providing improved bandwidth and measurement capabilities. However, SPINNER goes a step further.

Introducing our revolutionary 0.8 mm coaxial connector system with strengthened outer conductor, offering unmatched precision and performance up to 167 GHz. Our advanced design features a durable solid 0.8 mm interface that ensures damage-free repeated connections while delivering superior electrical characteristics for maximum measurement accuracy.

Compared to standard 0.8 mm connectors, our connectors are highly reliable over extended use, maintaining quality, efficiency and full compatibility.

Our state-of-the-art technology features exceptional flexibility and is suitable for measurement applications in all industries. Our system is one of the most versatile options available, providing high-frequency measurement capabilities up to 167 GHz.

For unparalleled precision and performance, choose SPINNER's advanced "strengthened 0.8 mm coaxial connector system". Experience reliable connectivity like never before.

Design Goals

0.8 mm precision interface with:

- Accurate alignment of the outer conductor
- Well-defined reference plane
- Maximized return loss
- High connector repeatability

- Suitable for precision S-parameter measurements
- Operating frequency range: DC to 167 GHz
- Specially designed load element up to 167 GHz

Special Design Features

Solid 0.8 mm Female - Highly Robust Mechanics

The outer conductor contour of the female connector has been designed with a thicker jacket. Benefit: Eliminates the risk of damaging the standard 0.8 mm female interface.

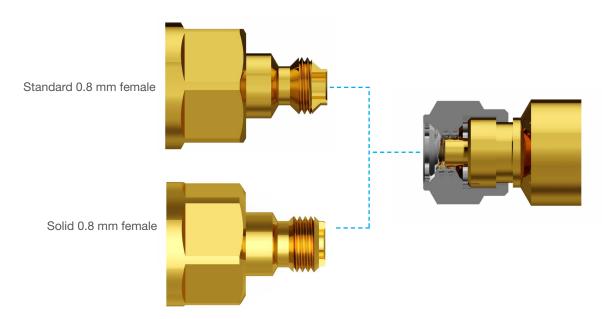
Comparison of Wall Thicknessess

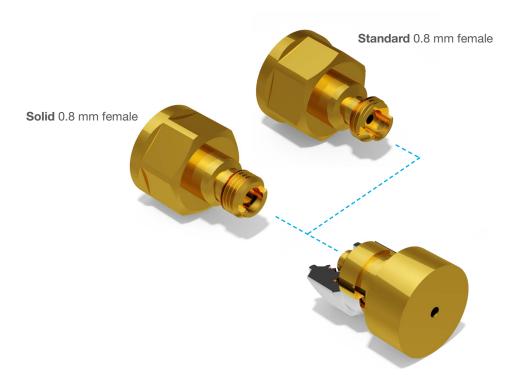
- Left: Standard 0.8 mm female with delicate outer contour
- Right: Solid 0.8 mm female version with reinforced design





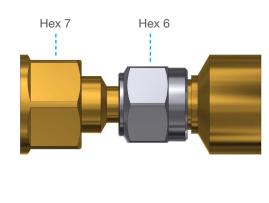
The Solid 0.8 mm Female Connector is Fully Compatible with the Standard 0.8 mm Male Connector

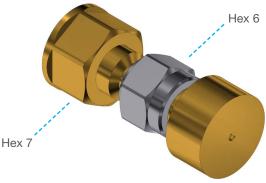




Wrench Size to Prevent Accidental Use

In contrast to the coupling nut of the 0.8 mm interface, which uses a 6 mm wrench size, the wrench flats for counter-holding have been designed with a 7 mm size. This prevents accidental use of the counter-holding wrench on the coupling nut, which should be tightened with a torque wrench.





Overview, DC to 150 GHz, Model Parameters



Use Cases

- SOLR Calibration from DC to 150 GHz (Short-Open-Load-Reciprocal VNA two port calibration, also known as unknown thru calibration*)
- Calibration verification from DC to 150 GHz
- Measurement of connector pin depths
- Model parameters

Description	Qty	Part Number	Use Case	BN 530850	BN 530851
Frequency range				DC to 150 GHz SOLR calibration	DC to 150 GHz SOLR calibration verification
Calibration data type				Model pa	arameters
Traceability				•	/
Calibration document				Factory calibration ce	ertificate per ISO 9001
Short circuit termination, female, offset 3.890 mm	1	BN 530836	SOLR		•
Short circuit termination, male, offset 3.890 mm	1	BN 530833	SOLR	•	•
Open circuit termination, female, offset 3.890 mm	1	BN 530832	SOLR	•	•
Open circuit termination, male, offset 3.890 mm	1	BN 530831	SOLR	•	•
Thru, female / female	1	BN 530842	SOLR	•	•
Thru, male / male	1	BN 530841	SOLR	•	•
Thru, male / female	1	BN 530843	SOLR		•
Matched load, female	1	BN 530840	SOLR	•	•
Matched load, male	1	BN 530839	SOLR		•
Torque wrench 6 mm / 45 N·cm	1	BN 238748C0001	Tightening		•
Torque wrench 6 mm / 34 N·cm	1	BN 238749C0001	Tightening		
Double open-ended spanner 7 mm ⁽¹⁾	1	BN 238750	Counteracting		•

[•] Included o Optional

¹ In opposite to the coupling nut of the 0.8 mm interface with 6 mm wrench size, the wrench flats for counter holding have been designed in 7 mm. This prevents the accidental use of the counter holding wrench on the coupling nut, which should be tightened with a torque wrench.

Overview, DC to 150 GHz, Model Parameters

Description	Qty	Part Number	Use Case	BN 530850	BN 530851
Connector gauge for female mating face	1	BN 530816	Pin depth measurement	0	•
Connector gauge for male mating face	1	BN 530815	Pin depth measurement	0	•
Short circuit termination, female, offset 3.090 mm	1	BN 530845	Verification	0	•
Short circuit termination, male, offset 3.090 mm	1	BN 530844	Verification	0	•
Mismatched load, female	1	BN 530847	Verification	0	•
Mismatched load, male	1	BN 530846	Verification	0	•
Short circuit termination, female, offset 5.179 mm	1	BN 530838	Verification	0	•
Short circuit termination, male, offset 5.179 mm	1	BN 530835	Verification	0	•
Adapter, R 1.4k to 0.8 mm female	2	BN 533192	Adaption	0	0
Adapter, R 1.4k to 0.8 mm male	2	BN 533193	Adaption	0	0

[•] Included o Optional

Calibration Standards - Glossary

Technical Document TD-00247

https://www.spinner-group.com/images/download/technical_documents/SPINNER_TD00247.pdf

Overview, DC to 167 GHz, Model Parameters



Use Cases

- SOLR Calibration from DC to 167 GHz (Short-Open-Load-Reciprocal VNA two port calibration, also known as unknown thru calibration*)
- Calibration verification from DC to 167 GHz
- Measurement of connector pin depths
- Model parameters

Description	Qty	Part Number	Use Case	BN 530890	BN 530891	BN 530892
Frequency range				DC to 167 GHz SOLR calibration	DC to 167 GHz SOLR calibration measurement of connector pin depths	DC to 167 GHz SOLR calibration calibration verification measurement of connector pin depths
Calibration data type					Model parameters	
Traceability					*	
Calibration document				Factory ca	alibration certificate per	ISO 9001
Short circuit termination, female, offset 3.890 mm	1	BN 530836	SOLR		•	
Short circuit termination, male, offset 3.890 mm	1	BN 530833	SOLR		•	
Open circuit termination, female, offset 3.890 mm	1	BN 530872	SOLR		•	
Open circuit termination, male, offset 3.890 mm	1	BN 530871	SOLR		•	
Matched load, female	1	BN 530876	SOLR		•	
Matched load, male	1	BN 530875	SOLR		•	
Thru, female / female	1	BN 530879	SOLR		•	
Thru, male / male	1	BN 530878	SOLR		•	
Thru, male / female	1	BN 530880	SOLR		•	
Torque wrench 6 mm / 45 N·cm	1	BN 238748C0001	Tightening		•	
Torque wrench 6 mm / 34 N·cm	1	BN 238749C0001	Tightening		•	
Double open-ended spanner 7 mm ⁽²⁾	1	BN 238750	Counteracting		•	

[•] Included o Optional

² In opposite to the coupling nut of the 0.8 mm interface with 6 mm wrench size, the wrench flats for counter holding have been designed in 7 mm. This prevents the accidental use of the counter holding wrench on the coupling nut, which should be tightened with a torque wrench.

Overview, DC to 167 GHz, Model Parameters

Description	Qty	Part Number	Use Case	BN 530890	BN 530891	BN 530892
Connector gauge for female mating face	1	BN 530816	Pin depth measurement	0		•
Connector gauge for male mating face	1	BN 530815	Pin depth measurement	0		•
Short circuit termination, female, offset 3.090 mm	1	BN 530845	Verfication	0		•
Short circuit termination, male, offset 3.090 mm	1	BN 530844	Verfication	0		•
Short circuit termination, female, offset 5.179 mm	1	BN 530838	Verfication	0		•
Short circuit termination, male, offset 5.179 mm	1	BN 530835	Verfication	0		•
Mismatched load, female	1	BN 530847	Verfication	0		•
Mismatched load, male	1	BN 530846	Verfication	0		•

[•] Included o Optional

Calibration Standards - Glossary

Technical Document TD-00247

https://www.spinner-group.com/ images/download/technical_documents/SPINNER_TD00247.pdf

Overview, DC to 167 GHz, Model and S Parameters



Use Cases

- SOLR Calibration from DC to 167 GHz (Short-Open-Load-Reciprocal VNA two port calibration, also known as unknown thru calibration*)
- Calibration verification from DC to 167 GHz
- Measurement of connector pin depths
- Model and S parameters
- Works perfectly with the new Keysight Frequency Extenders NA5305A (170 GHz) and NA5307A (250 GHz) when used with the appropriate SPINNER inter-series adapters

Description	Qty	Part Number	Use Case	BN 530890C0001	BN 530891C0001	BN 530892C0001
Frequency range				DC to 167 GHz SOLR calibration	DC to 167 GHz SOLR calibration measurement of connector pin depths	DC to 167 GHz SOLR calibration calibration verification measurement of connector pin depths
Calibration data type				ľ	Model and S parameters	5
Traceability					✓	
Calibration document				Factory ca	alibration certificate per	ISO 9001
Short circuit termination, female, offset 3.890 mm	1	BN 530836C0001	SOLR		•	
Short circuit termination, male, offset 3.890 mm	1	BN 530833C0001	SOLR	•		
Open circuit termination, female, offset 3.890 mm	1	BN 530872C0001	SOLR	•		
Open circuit termination, male, offset 3.890 mm	1	BN 530871C0001	SOLR		•	
Matched load, female	1	BN 530876C0001	SOLR		•	
Matched load, male	1	BN 530875C0001	SOLR		•	
Thru, female / female	1	BN 530879C0001	SOLR		•	
Thru, male / male	1	BN 530878C0001	SOLR		•	
Thru, male / female	1	BN 530880C0001	SOLR	•		
Torque wrench 6 mm / 45 N·cm	1	BN 238748C0001	Tightening	•		
Torque wrench 6 mm / 34 N·cm	1	BN 238749C0001	Tightening		•	
Double open-ended spanner 7 mm (3)	1	BN 238750	Counteracting		•	

[•] Included o Optional

³ In opposite to the coupling nut of the 0.8 mm interface with 6 mm wrench size, the wrench flats for counter holding have been designed in 7 mm. This prevents the accidental use of the counter holding wrench on the coupling nut, which should be tightened with a torque wrench.

Overview, DC to 167 GHz, Model and S Parameters

Description	Qty	Part Number	Use Case	BN 530890	BN 530891	BN 530892
Connector gauge for female mating face	1	BN 530816	Pin depth measurement	0	•	
Connector gauge for male mating face	1	BN 530815	Pin depth measurement	0	•	
Short circuit termination, female, offset 3.090 mm	1	BN 530845C0001	Verfication		0	•
Short circuit termination, male, offset 3.090 mm	1	BN 530844C0001	Verfication		0	•
Short circuit termination, female, offset 5.179 mm	1	BN 530838C0001	Verfication		0	•
Short circuit termination, male, offset 5.179 mm	1	BN 530835C0001	Verfication		0	•
Mismatched load, female	1	BN 530847C0001	Verfication		0	•
Mismatched load, male	1	BN 530846C0001	Verfication		0	•

[•] Included o Optional

Calibration Standards - Glossary

Technical Document TD-00247

https://www.spinner-group.com/ images/download/technical_documents/SPINNER_TD00247.pdf

Calibration Standards

Verification Standards

Part Number	Description	Frequency Range	
BN 530844	Short circuit termination, 0.8 mm male (Offset length 3.09 mm), model parameter		
BN 530844C0001	Short circuit termination, 0.8 mm male (Offset length 3.09 mm), model and S parameter		
BN 530845	Short circuit termination, 0.8 mm female (Offset length 3.09 mm) model parameter		
BN 530845C0001	Short circuit termination, 0.8 mm female (Offset length 3.09 mm), model and S parameter	DC to 167 GHz	
BN 530835	Short circuit termination, 0.8 mm male (Offset length 5.179 mm), model parameter	20 (0 107 (11)2	
BN 530835C0001	Short circuit termination, 0.8 mm male (Offset length 5.179 mm), model and S parameter		
BN 530838	Short circuit termination, 0.8 mm female (Offset length 5.179 mm), model parameter		
BN 530838C0001	Short circuit termination, 0.8 mm female (Offset length 5.179 mm), model and S parameter		
BN 530846	Load, mismatched, 0.8 mm, male, 14 to 40 Ohms	DC to 150 GHz	
BN 530847	Load, mismatched, 0.8 mm, female, 14 to 40 Ohms	DC to 150 GHZ	
BN 530848	Load, mismatched, 0.8 mm, male, 14 to 40 Ohms, model parameter		
BN 530848C0001	Load, mismatched, 0.8 mm, male, 14 to 40 Ohms, model and S parameter	DC to 167 GHz	
BN 530849	Load, mismatched, 0.8 mm, female, 14 to 40 Ohms, model parameter	DG to 16/ GHz	
BN 530849C0001	Load, mismatched, 0.8 mm, female, 14 to 40 Ohms, model and parameter		

Offset Shorts

Part Number	Description	Frequency Range
BN 530844	Short circuit termination, 0.8 mm male (Offset length 3.09 mm), model parameter	
BN 530844C0001	Short circuit termination, 0.8 mm female (Offset length 3.09 mm), model and S parameter	
BN 530845	Short circuit termination, 0.8 mm female (Offset length 3.09 mm), model parameter	
BN 530845C0001	Short circuit termination, 0.8 mm female (Offset length 3.09 mm), model and S parameter	
BN 530837	Short circuit termination, 0.8 mm female (Offset length 4.554 mm), model parameter	
BN 530837C0001	Short circuit termination, 0.8 mm female (Offset length 4.554 mm), model and S parameter	DC to 167 GHz
BN 530835	Short circuit termination, 0.8 mm male (Offset length 5.179 mm), model parameter	
BN 530835C0001	Short circuit termination, 0.8 mm male (Offset length 5.179 mm), model and S parameter	
BN 530838	Short circuit termination, 0.8 mm female (Offset length 5.179 mm)	
BN 530838C0001	Short circuit termination, 0.8 mm female (Offset length 5.179 mm), model and S parameter	

Calibration Standards

Loads, mismatched, 14 to 40 Ohms

Part Number	Description	Frequency Range
BN 530846	Load, mismatched, 0.8 mm male, 14 to 40 Ohms	DC to 150 GHz
BN 530847	Load, mismatched, 0.8 mm female, 14 to 40 Ohms	DO to 130 GHZ
BN 530848	Load, mismatched, 0.8 mm male, 14 to 40 Ohms, model parameter	
BN 530848C0001	Load, mismatched, 0.8 mm male, 14 to 40 Ohms, model and S parameter	DC to 167 GHz
BN 530849	Load, mismatched, 0.8 mm female, 14 to 40 Ohms, model parameter	DC to 107 GHZ
BN 530849C0001	Load, mismatched, 0.8 mm female, 14 to 40 Ohms, model and S paramter	

Inter-Series Adapters

Part Number	Description	Frequency Range		
BN 534950	Adapter, precision, 1.35 mm male, 0.8 mm female			
BN 534951	Adapter, precision, 1.35 mm male, 0.8 mm male	DC to 00 GHz		
BN 534954	Adapter, precision, 1.35 mm female, 0.8 mm female	DC to 90 GHz		
BN 534955	Adapter, precision, 1.35 mm female, 0.8 mm male			
BN 533164	Adapter, precision, 1.0 mm female, 0.8 mm male			
BN 533165	Adapter, precision, 1.0 mm male, 0.8 mm female	DC to 120 GHz		
BN 533166	Adapter, precision, 1.0 mm male, 0.8 mm male	DO to 120 GHZ		
BN 533167	Adapter, precision, 1.0 mm female, 0.8 mm female			
BN 530865	Adapter, precision, 0.8 mm male, 0.5 mm female			
BN 530866	Adapter, precision, 0.8 mm female, 0.5 mm female	DC to 167 GHz		
BN 530867	Adapter, precision, 0.8 mm male, 0.5 mm male	DC to 167 GHz		
BN 530868	Adapter, precision, 0.8 mm female, 0.5 mm male			

Waveguide-to-Coaxial-Adapters

Part Number	Description	Frequency Range
BN 533138	Adapter, precision, R 900 (WR 10), 0.8 mm female	
BN 533139	Adapter, precision, R 900 (WR 10), 0.8 mm male	75 to 110 GHz
BN 533156	Adapter, precision, R 900 (WR 10), 0.8 mm male, with easy coupling nut	
BN 530829	Adapter, precision, R 1.2k (WR 8), 0.8 mm male RUG	90 to 140 GHz
BN 533137	Adapter, precision, R 1.2k (WR 8), 0.8 female	90 to 140 GHz
BN 533150	Adapter, precision, R 1.2k (WR 8), 0.8 female, right-angle	90 to 140 GHZ
BN 533173	Adapter, precision, R 1.4k (WR 7 / WR 6.5), 0.8 mm female, right-angle	110 to 150 GHz
BN 533192	Adapter, precision, R 1.4k (WR 7 / WR 6.5), 0.8 mm female	110 to 167 GHz
BN 533193	Adapter, precision, R 1.4k (WR 7 / WR 6.5), 0.8 mm male	110 to 107 GHZ

Ruggedized Test Port Adapters

Part Number	Description	Frequency Range
BN 535156	Adapter, precision, 1.0 mm female RUG, 0.8 mm female	
BN 535157	Adapter, precision, 1.0 mm female RUG, 0.8 mm male	DC to 120 GHz
BN 535160	Adapter, precision, 1.0 mm female RUG, 0.8 mm male RUG	
BN 530829	Adapter, precision, R 1.2k (WR 8), 0.8 mm male RUG	DC to 140 GHz
BN 535147	Adapter, precision, 0.8 mm female RUG, 0.8 mm female RUG	DC to 150 GHz
BN 535148	Adapter, precision, 0.8 mm male RUG, 0.8 mm male, panel 4 hole	DO 10 130 GHZ
BN 535161	Adapter, precision, 0.5 mm female RUG, 0.8 mm male RUG	
BN 535141	Adapter, precision, 0.5 mm male RUG, 0.8 mm male	
BN 535142	Adapter, precision, 0.5 mm male RUG, 0.8 mm female	DC to 167 GHz
BN 535153	Adapter, precision, 0.5 mm socke RUG, 0.8 mm male	
BN 535154	Adapter, precision, 0.5 mm female RUG, 0.8 mm female	

Board Connectivity



Part Number	InterfaceType	Frequency Range	Return Loss, typ.
BN 533408	0.8 mm female	DC to 150 GHz	21 dB @ DC to 26.5 GHz 19 dB @ 26.5 to 40 GHz 14 dB @ 40 to 90 GHz 10 dB @ 90 to 110 GHz 8 dB @ 110 to 150 GHz
BN 530861	0.8 mm female	DC to 167 GHz	21 dB @ DC to 40 GHz 15 dB @ 40 to 90 GHz 10 dB @ 90 to 167 GHz

The PCB layout plays a decisive role in determining return loss in an application.

Cable Connectors (thru-male)

Part Number	Interface Type	Frequency Range	Return Loss, min./typ.
BN 530825	0.8 mm male, UT-034	DC to 150 GHz	15 dB/17 dB @ DC to 90 GHz 12 dB/15 dB @ 90 to 110 GHz 10 dB/12 dB @ 110 to 150 GHz
BN 530826	0.8 mm male, UT-031-LL	DC to 167 GHz	18 dB/22 dB @ DC to 40 GHz 15 dB/18 dB @ 40 to 90 GHz 12 dB/15 dB @ 90 to 110 GHz 10 dB/12 dB @ 150 to 167 GHz

Cable Connectors (solder pin)

Part Number	Interface Type	Frequency Range	Return Loss, min./typ.	
BN 530827	0.8 mm male, UT-034	DC to 150 GHz	20 dB/25 dB @ DC to 40 GHz 16 dB/20 dB @ 40 to 90 GHz 14 dB/18 dB @ 90 to 110 GHz 12 dB/15 dB @ 110 to 150 GHz	
BN 530828	0.8 mm male, UT-031-LL	DO 10 130 GHZ		
BN 530823	0.8 mm male, UT-031-LL	DC to 167 GHz	20 dB/25 dB @ DC to 40 GHz 16 dB/20 dB @ 40 to 90 GHz 14 dB/18 dB @ 90 to 110 GHz 12 dB/15 dB @ 110 to 167 GHz 20 dB/25 dB @ DC to 40 GHz 16 dB/20 dB @ 40 to 90 GHz 14 dB/18 dB @ 90 to 110 GHz	
BN 530824	0.8 mm female, UT-031-LL			
BN 530830	0.8 mm female, EZ-20-LA			
BN 530863	0.8 mm male, EZ-20-LA		12 dB/15 dB @ 110 to 150 GHz 9 dB/12 dB @ 150 to 167 GHz	

Single Channel Coaxial Rotary Joint



Part Number	Interface Type A	Interface Type B	Frequency Range	VSWR, max.
BN 8350BNE1	0.8 mm female	0.8 mm female	DC to 150 GHz	1.2 @ DC to 26.5 GHz 1.4 @ 26.5 to 70 GHz 1.5 @ 70 to 120 GHz 1.6 @ 70 to 150 GHz

DC-Block, inner conductor separated



Part Number	Interface Type A	Interface Type B	Frequency Range	Return Loss, typ.
BN 530885	0.8 mm female	0.8 mm female	DC to 150 CU-	15 dB @ 160 kHz to 80 GHz
BN 530886	0.8 mm male	0.8 mm female	DC to 150 GHz	10 dB @ 80 GHz to 150 GHz

Matched Loads 0.8 mm



Part Number	Description	Frequency Range	Power Handling	Return Loss, typ.
BN 531716	Matched load 0.8 mm male	DC to 150 GHz	1 W	10 dB @ DC to 150 GHz
BN 531718	Matched load 0.8 mm female			

Accessories

Connector Gauges



Part Number	Description
BN 530815	Connector pin depth gauge for 0.8 mm male connectors
BN 530816	Connector pin depth gauge for 0.8 mm female connectors

Torque Wrenches



Part Number	Description
BN 238748C0001	Torque wrench 6 mm, 0.45 N·m, break-over type
BN 238749C0001	Torque wrench 6 mm, 0.34 N·m, break-over type
BN 238750	Counter wrench 7 mm

Notes		



HIGH FREQUENCY PERFORMANCE WORLDWIDE

SPINNER designs and builds cutting-edge radio frequency systems, setting performance and longevity standards for others to follow. The company's track record of innovation dates back to 1946, and many of today's mainstream products are rooted in SPINNER inventions.

Industry leaders continue to count on SPINNER's engineering excellence to drive down their costs of service and ownership with premium-quality, off-the-shelf products and custom solutions. Headquartered in Munich, Germany, the global frontrunner in RF components remains the first choice in simple-yet-smart RF solutions.

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