

SPINNER

0.5 mm Coaxial Connector System Reaching New Heights!

250 GHz

167 GHz – 0.8 mm System

120 GHz – 1.0 mm System



DC to 250 GHz Testing – Now Possible



HIGH FREQUENCY PERFORMANCE WORLDWIDE
spinner-group.com



The SPINNER Group

For 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 800 employees. Our international network of subsidiaries and distributors supports customers in over 40 countries.



TEST & MEASUREMENT



COMMUNICATION



BROADCAST



SATCOM/SPACE



DEFENSE



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, terahertz communication, terabit 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

SPINNER 0.5 mm Portfolio Overview

Engineered for seamless integration with Keysight's new NA5305A and NA5307A frequency extenders (170/250 GHz)

Standard Coaxial Adapters



Part Number (BN)	Description	Frequency Range
530865	Adapter; precision, 0.8 mm male, 0.5 mm female	DC to 167 GHz
530866	Adapter; precision, 0.8 mm female, 0.5 mm female	
530867	Adapter; precision, 0.8 mm male, 0.5 mm male	
530868	Adapter; precision, 0.8 mm female, 0.5 mm male	
535939	Adapter; 0.5 mm male, 0.5 mm male	DC to 250 GHz
535940	Adapter; 0.5 mm female, 0.5 mm female	
535941	Adapter; 0.5 mm male, 0.5 mm female	

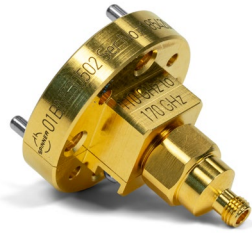
Ruggedized Coaxial Adapters



Part Number (BN)	Description	Frequency Range
535163	Adapter; precision, 1.0 mm male, 0.5 mm female RUG	DC to 120 GHz (resonance-free up to 134 GHz)
535164	Adapter; precision, 1.0 mm female, 0.5 mm female RUG	
535167	Adapter; precision, 1.0 mm female RUG, 0.5 mm female RUG	
535161	Adapter; precision, 0.8 mm male RUG, 0.5 mm female RUG	DC to 167 GHz
535141	Adapter; precision, 0.8 mm male, 0.5 mm male RUG	
535142	Adapter; precision, 0.8 mm female, 0.5 mm male RUG	
535153	Adapter; precision, 0.8 mm male, 0.5 mm female RUG	
535154	Adapter; precision, 0.8 mm female, 0.5 mm female RUG	
535162	Adapter; precision, 0.5 mm male RUG, 0.5 mm female RUG	DC to 250 GHz
535172	Adapter; precision, 0.5 mm female RUG, 0.5 mm female RUG	

SPINNER 0.5 mm Portfolio Overview

Waveguide-to-Coaxial Adapters



Part Number (BN)	Description	Frequency Range
530502	Adapter; precision, R 1.4k (WR 7 / WR 6.5), 0.5 mm female	110 to 170 GHz
530503	Adapter; precision, R 1.4k (WR 7 / WR 6.5), 0.5 mm male RUG	
530520	Adapter; precision, R 1.4k (WR 7 / WR 6.5), 0.5 mm female RUG	
530506	Adapter; precision, R 1.8k (WR 5.1), 0.5 mm female	140 to 220 GHz
530507	Adapter; precision, R 1.8k (WR 5.1), 0.5 mm male RUG	
530521	Adapter; precision, R 1.8k (WR 5.1), 0.5 mm female RUG	
530508	Adapter; precision, R 2.2k (WR 4.3), 0.5 mm female	170 to 250 GHz
530509	Adapter; precision, R 2.2k (WR 4.3), 0.5 mm male RUG	
530522	Adapter; precision, R 2.2k (WR 4.3), 0.5 mm female RUG	

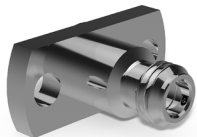
Board Connectivity



Part Number (BN)	Description	Frequency Range
530504	Board launch connector 0.5 mm-f	DC to 220 GHz
530505	Board launch connector 0.5 mm-f	DC to 250 GHz
67480A	Sample box with evaluation board equipped with 2 pcs. BN 530504	DC to 220 GHz
77747A	Sample box with evaluation board equipped with 2 pcs. BN 530505	DC to 250 GHz

SPINNER 0.5 mm Portfolio Overview

Fixed Connectors



Part Number (BN)	Description	Frequency Range
530523	Fixed connector, 0.5 mm-f panel 2 hole	DC to 250 GHz
530531	Fixed connector, 0.5 mm-f panel 4 hole	

Cable Connectors



Part Number (BN)	Description	Frequency Range
530510	Cable connector; 0.5 mm male, 0.031", e.g. UT-031-LA, EZ-031-LA	DC to 175 GHz
530512	Cable connector; 0.5 mm female, 0.031", e.g. UT-031-LA, EZ-031-LA	
530513	Cable connector; 0.5 mm male, 0.023", e.g. UT-020, EZ-20	DC to 250 GHz
530514	Cable connector; 0.5 mm female, 0.023", e.g. UT-020, EZ-20	
530517	Cable connector; 0.5 mm thru-male, 0.023", e.g. EZ-20-LA	
530518	Cable connector; 0.5 mm male, 0.023", e.g. EZ-20-LA	
530519	Cable connector; 0.5 mm female, 0.023", e.g. EZ-20-LA	
530527	Cable connector; 0.5 mm female RUG, 0.023", e.g. EZ-20-LA	
530529	Cable connector; 0.5 mm male RUG, 0.023", e.g. EZ-20-LA	

SPINNER 0.5 mm Portfolio Overview



Cable Assemblies



Part Number (BN)	Description	Frequency Range
535831	Coaxial cable assembly; 0.5 mm male, 0.5 mm male, SPCA023-02	DC to 250 GHz
535835	Coaxial cable assembly; 0.5 mm female, 0.5 mm female, SPCA023-02	
535834	Coaxial cable assembly; 0.5 mm male, 0.5 mm female, SPCA023-02	
535836	Coaxial cable assembly; 0.5 mm male, 0.5 mm male, SPCA023-02	
535837	Coaxial cable assembly; 0.5 mm female RUG, 0.5 mm female RUG, SPCA023-02	
535838	Coaxial cable assembly; 0.5 mm male RUG, 0.5 mm female RUG, SPCA023-02	

SPINNER 0.5 mm Portfolio Overview

Torque Wrenches – Break-over Feedback



Be sure to use a torque wrench for the 0.5 mm test port connectors.

For Keysight NA5305A/7A's:

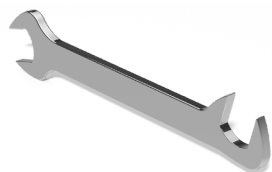
- For torquing non-ruggedized connectors using the inner threads, use the 12 mm torque wrench with 34 N·cm nominal torque
- For torquing ruggedized connectors using the outer threads, use the 12 mm torque wrench with 113 N·cm nominal torque.

Part Number (BN)	Connector System	Use Case	Wrench Size ¹	Torque	Color
238748C0001	1.0 mm 0.8 mm	Non-ruggedized connectors	6 mm	45 N·cm	●
238749C0001 ²	0.8 mm		6 mm	34 N·cm	●
238751C0001	0.5 mm		5 mm	34 N·cm	●
238753C0001 ²	0.8 mm RUG 0.5 mm RUG	Non-ruggedized connectors - using inner thread of male RUG connectors	12 mm	34 N·cm	●
238752C0001	0.8 mm RUG 0.5 mm RUG	Ruggedized connectors - using outer thread of male RUG connectors	12 mm	113 N·cm	●

1) AF = width across flats (wrench flat size)

2) recommended torques for 0.8 mm connectors

Spanners - Double Open-ended



Part Number (BN)	Connector System	Use Case	Wrench Size ¹
238750	1.0 mm 0.8 mm 0.5 mm	Counteracting non-ruggedized female connectors	7 mm
238754	1.0 mm RUG 0.8 mm RUG 0.5 mm RUG	Counteracting ruggedized female connectors	12 mm

1) AF = width across flats (wrench flat size)



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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