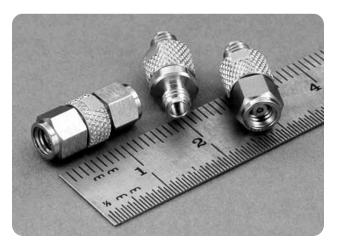


# Agilent 11920/1/2 Series 1, 1.85, 2.4 mm Coaxial Adapters

Technical Overview



- Increased measurement versatility
- Ease-of-use for On Wafer and Coaxial measurements

Agilent 11920A/B/C/D Adapters



Agilent 11921E/F/G/H Adapters



Agilent 11922A/B/C/D Adapters



### Increased measurement versatility

For Microwave and RF engineers making coax measurements at 50, 67 or 110 GHz, the Agilent Technologies 11920/1/2 series 1 mm adapters provide an easy way of measuring coaxial devices at high frequencies. The 11920 A/B/C, 1 mm to 1 mm are designed for the measurement of components with 50 ohm 1 mm connectors. The 11921 E/F/G/H, 1 mm to 1.85 mm and the 11922 A/B/C/D, 1 mm to 2.4 mm are intended to be used as general purpose adapters that are versatile and interchangeable. These adapters increase the capability needed to use test systems, such as the N5250A millimeterwave PNA Series.

### Ease of use for On Wafer and Coaxial measurements

Each connector has an air dielectric interface and a center conductor that is supported by a low-loss plastic bead. Available with male and female connectors, these 1 mm adapters provide ease-of-use for microwave engineers who need to connect their test systems. The 1 mm adapters allow engineers to make fewer connections directly to their test port while maintaining the accuracy of their test system.

### **Specifications**

Specifications describe the instrument's warranted performance over the temperature range 0 °C to 55 °C (except where noted). Supplemental characteristics are intended to provide information useful in applying the instrument by giving typical but nonwarranted performance parameters. These are denoted as "typical," "nominal," or "approximate."

Model Number	Coax connector Type	Frequency (GHz)	Return loss better than:	Insertion loss better than:	Repeatability typically better than:	Max CW Power
11920A	(m) to (m)	dc to 20	–24 dB	–0.5 dB	–35 dB	10 W
11920B	(f) to (f)	20 to 50	–20 dB			
11920C	(m) to (f)	50 to 75	–18 dB			
		75 to 110	–14 dB			

**Supplemental characteristics** 

**Supplemental characteristics** 

### 1 mm to 1 mm Adapters

### 1 mm to 1.85 mm Adapters

#### Insertion loss Max CW Model **Coax connector** Frequency (GHz) **Return loss** Repeatability typically Number better than: better than: better than: Power Type 1 mm --35 dB 11921E (m) to (m) dc to 67 -20 dB –0.5 dB 10 W 11921F (f) to (f) 1.85 mm -40 dB 11921G (m) to (f) 11921H (f) to (m)

#### 1 mm to 2.4 mm Adapters

### **Supplemental characteristics**

Model Number	Coax connector Type	Frequency (GHz)	Return loss better than:	Insertion loss better than:	Repeatability typically better than:	Max CW Power
11922A 11922B 11922C 11922D	(m) to (m) (f) to (f) (m) to (f) (f) to (m)	dc to 50	—20 dB	–0.7 dB	1 mm –35 dB 2.4 mm –44 dB	10 W

## **Environmental Specifications**

	Operating	Non-operating
Temperature Altitude	0 °C to 55 °C <15.000 meters (≈ 50.000 feet)	–40 °C to 75 °C <15.000 meters (≈ 50.000 feet)

**Note:** The operating temperature is a critical factor in the performance during measurements and between calibrations. Storage or operation within an environment other than that specified above may cause damage to the product and may void the warranty.

Non-operating environmental specifications apply to storage and shipment. Products should be stored in a clean, dry environment. Operating environmental specifications apply when the product is in use. Products should not be operated in a condensing environment.

## Web Resource

For more information about RF and microwave test accessories visit our web site: www.agilent.com/find/accessories



#### www.agilent.com/find/emailupdates

Get the latest information on the products and applications you select.

#### Agilent Technologies' Test and Measurement Support, Services, and Assistance

Agilent Technologies aims to maximize the value you receive, while minimizing your risk and problems. We strive to ensure that you get the test and measurement capabilities you paid for and obtain the support you need. Our extensive support resources and services can help you choose the right Agilent products for your applications and apply them successfully. Every instrument and system we sell has a global warranty. Support is available for at least five years beyond the production life of the product. Two concepts underlie Agilent's overall support policy: "Our Promise" and "Your Advantage."

#### Our Promise

Our Promise means your Agilent test and measurement equipment will meet its advertised performance and functionality. When you are choosing new equipment, we will help you with product information, including realistic performance specifications and practical recommendations from experienced test engineers. When you use Agilent equipment, we can verify that it works properly, help with product operation, and provide basic measurement assistance for the use of specified capabilities, at no extra cost upon request. Many self-help tools are available.

#### Your Advantage

Your Advantage means that Agilent offers a wide range of additional expert test and measurement services, which you can purchase according to your unique technical and business needs. Solve problems efficiently and gain a competitive edge by contracting with us for calibration, extra-cost upgrades, out-of-warranty repairs, and onsite education and training, as well as design, system integration, project management, and other professional engineering services. Experienced Agilent engineers and technicians worldwide can help you maximize your productivity, optimize the return on investment of your Agilent instruments and systems, and obtain dependable measurement accuracy for the life of those products.

#### Agilent T&M Software and Connectivity

Agilent's Test and Measurement software and connectivity products, solutions and developer network allows you to take time out of connecting your instruments to your computer with tools based on PC standards, so you can focus on your tasks, not on your connections. Visit www.agilent.com/find/connectivity for more information.

By internet, phone, or fax, get assistance with all your test & measurement needs

Phone or Fax United States: (tel) 800 452 4844 Canada: (tel) 877 894 4414 (fax) 905 282 6495 China: (tel) 800 810 0189 (fax) 800 820 2816 Europe: (tel) (31 20) 547 2323 (fax) (31 20) 547 2390 Japan: (tel) (81) 426 56 7832 Korea: (tel) (82 2) 2004 5004 (fax) (82 2) 2004 5115 Latin America: (tel) (305) 269 7500 (fax) (305) 269 7599 Taiwan: (tel) 0800 047 866 (fax) 0800 286 331 Other Asia Pacific Countries: (tel) (65) 6375 8100 (fax) (65) 6836 0525 Email: tm\_asia@agilent.com

#### On-line Assistance: www.agilent.com/find/assist

Product specifications and descriptions in this document subject to change without notice.

© Agilent Technologies, Inc. 1999, 2000, 2003 Printed in USA, October 21, 2003 5968-4318E

