

# Agilent 11742A Blocking Capacitor

Data Sheet

**0.045 to 26.5 GHz**  
**Low insertion loss**



The Agilent Technologies 11742A offers a new level of performance in coaxial blocking capacitors. Featuring a frequency range of 0.045 to 26.5 GHz with low SWR (< 1.11 to 12.4 GHz and < 1.23 to 26.5 GHz) and low insertion loss, the 11742A is ideal for use with high frequency oscilloscopes.

The 11742A is also ideal for use in biased microwave circuits such as a DC block, suppressing low frequency signals which may affect the accuracy of your microwave and RF measurements.

The 11742A is an INSIDE block which places the capacitance in series with the center conductor, preventing low frequency signals from flowing along the center conductor. The male and female APC-3.5 mm connectors allow for excellent operation between 0.045 GHz and 26.5 GHz.



**Agilent Technologies**

Innovating the HP Way

## Agilent 11742A Specifications

<b>Frequency range (GHz)</b>	0.045 to 26.5 GHz
<b>Connector type</b>	APC-3.5 mm (m-f)
<b>Insertion loss</b>	
<b>0.045 to 12.4 GHz</b>	0.35 dB maximum
<b>12.4 to 26.5 GHz</b>	0.70 dB maximum
<b>Reflection coefficient</b>	
<b>0.045 to 8.0 GHz</b>	0.052 maximum (1.11 SWR)
<b>8.0 to 12.4 GHz</b>	0.062 maximum (1.13 SWR)
<b>12.4 to 26.5 GHz</b>	0.102 maximum (1.23 SWR)
<b>DC working voltage</b>	50 V maximum
<b>Environmental</b>	
<b>Temperature</b>	
<b>Non-operating</b>	-55 °C to +75 °C
<b>Operating</b>	-5 °C to +60 °C
<b>Altitude</b>	
<b>Non-operating</b>	50,000 ft
<b>Operating</b>	15,000 ft
<b>Humidity</b>	Cycling 5 days, +40 °C @ 95% RH
<b>Vibration</b>	0.015 in. 5-55-5 Hz 15 minutes 3 axes
<b>Shock</b>	100 g, 1 to 2 mS, 3 times 3 planes
<b>EMC</b>	Radiation interference is within the requirements of MIL-STD-461, method RE02, VDE 0871, CISPR Publication 11

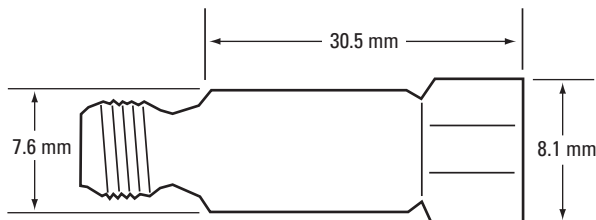


Figure 1. Outline drawing

### 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 on-site education and training, as well as design, system integration, project management, and other professional 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.

**Get assistance with all your test and measurement needs at:**  
[www.agilent.com/find/assist](http://www.agilent.com/find/assist)

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

Copyright © 1999, 2000 Agilent Technologies  
 Printed in U.S.A. 5/00  
 5965-5725E



**Agilent Technologies**

Innovating the HP Way

Test Equipment Depot - 800.517.8431 - 99 Washington Street Melrose, MA 02176

FAX 781.665.0780 - TestEquipmentDepot.com