



Agilent M9168C PXI Programmable Step Attenuator Module

DISCOVER the Alternatives...

Industries and Applications

- RF signal path attenuation simulation
- Engineering verification
- RF receiver sensitivity test
- Adjacent channel interference

Product Description

M9168C is a programmable step attenuator module based on the PXI hybrid platform, operating from DC to 26.5 GHz with a guaranteed 0.03 dB insertion loss repeatability for each section throughout the 5 million cycles operating life. Its excellent attenuation accuracy across a wide operating temperature range, ensures precise measurement. M9168C is a signal conditioning module that enhances the measurement accuracy and flexibility of PXI based RF and microwave test systems.



... Agilent **MODULAR** Products

Models

M9168C	PXI Programmable Step Attenuator, DC to 26.5 GHz
--------	--

Main Features and Benefits

Product features	Your benefit
Guaranteed 0.03 dB insertion loss repeatability throughout the operating life of up to 5 million cycles	Reduce downtime for recalibration, improve testing efficiency, therefore maximizing throughput
Broad attenuation range of 0 to 101 dB with 1 dB step	Maximize measurement accuracy and system flexibility
High attenuation accuracy and flatness of +/- 0.4 dB at 26.5 GHz	Superior attenuation accuracy ensures precise measurements, across a wide temperature range

Specifications

Hardware	
Size	2 slots wide module
Frequency	DC to 26.5 GHz
Attenuation resolution	1 dB, 5 dB and 10 dB step
Attenuation accuracy	Refer to Table 1 on page 2. Specified across operating frequency of 0°C to 50°C
Repeatability	0.03 dB guaranteed
Life cycle	5 million cycles per section (guaranteed)
Maximum input power	1 W (+30 dBm) avg. 50 W peak, (10 μs max)
Maximum reverse power	1 W avg. 50 W peak (10 μs max)
RF connector	3.5 mm (f), SMA compatible
Connector compatibility: cPCI, PXI-H, PXI-1	



Agilent Technologies

Software	
Software development platform	Microsoft Visual Studio with C/C++ Microsoft Visual Studio .NET with C# or Visual Basic, National Instruments LabVIEW, National Instruments, LabWindows CVI, The MathWorks MATLAB, Agilent VEE
Supported Operating Systems	Windows XP SP3, 32-bit Windows Vista 32-bit and 64-bit Windows 7 32-bit and 64-bit
Drivers Provided	IVI-COM, IVI-C, LabVIEW, MATLAB
Included GUI	Soft front panel
Application code examples	C, C++, C#, Visual Basic, VEE, MATLAB

Table 1. M9168C Attenuation Accuracy

Attenuation Setting for Step Ranges (dB)	DC to 18 GHz	18 to 26.5 GHz
1 to 2	0.35	0.4
3 to 6	0.55	0.7
7 to 10	0.7	0.8
11 to 20	1.2	1.4
21 to 40	1.4	1.6
41 to 60	1.9	2.5
61 to 80	2.5	2.7
81 to 101	3.7	4.0

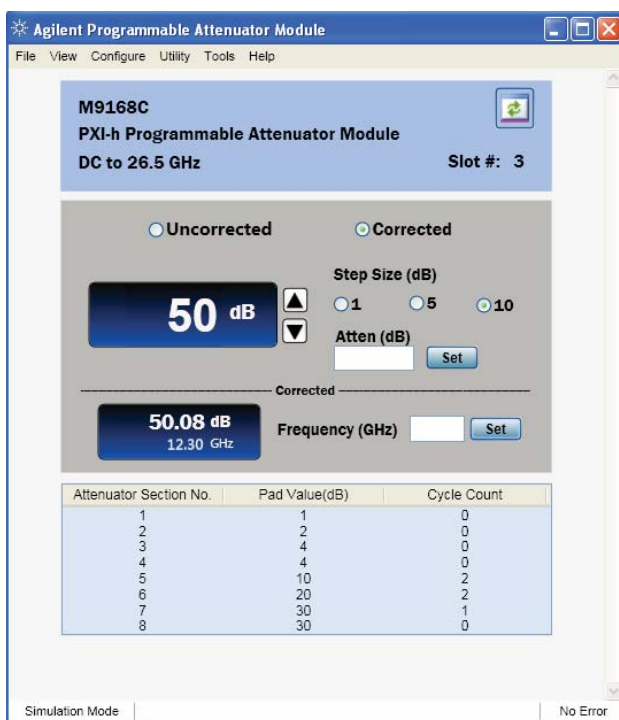


Figure 1. Soft front panel of M9168C provides an intuitive approach for program simulation and troubleshooting

Recommended Configuration

Model	Description
M9018A	PXIe Chassis, 18- slots, 3U, 8 GB/s
M9202A	PXIe IF Digitizer: 12-Bit, 1 GHz
M9361A	PXI Downconverter: 2.75 to 26.5 GHz
M9168C	PXI-h Programmable Attenuator Module, DC to 26.5 GHz

Ordering Information

Typical Product Configuration

Model	Description
M9168C	PXI-h Programmable Attenuator Module, DC to 26.5 GHz

Related products

M9392A	PXI Vector Signal Analyzer
M9351A	PXI Downconverter (50 MHz to 2.9 GHz)
M9360A	PXI Attenuator/Preselector
M9155/6/7C	PXI Switch Modules, DC to 26.5 GHz

Advantage Services: Calibration and Warranty

Agilent Advantage Services is committed to your success throughout your equipment's lifetime.

M9168C-UK6	Commercial calibration certificate with test data included
R-51B-001-C	1 year Return-to-Agilent warranty

Discover Agilent ...

www.agilent.com
www.agilent.com/find/modular
www.agilent.com/find/PXIattenuator
 USA: (800) 829-4444



For more information on Agilent Technologies' products, applications, or services, please contact your local Agilent office. The complete list is available at: www.agilent.com/find/contactus

PXI is a registered trademark of the PXI Systems Alliance.
MATLAB is a U.S. registered trademark of The Math Works, Inc.
Windows and MS Windows are U.S. registered trademarks of Microsoft Corporation.

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

© Agilent Technologies, Inc. 2011 Printed in USA, September 6, 2011
5990-8585EN