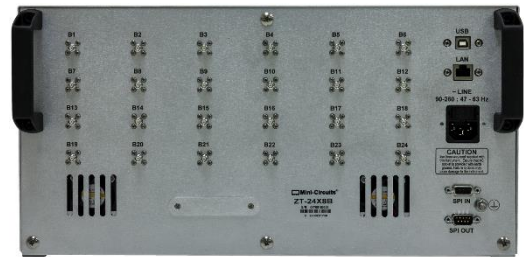


USB & Ethernet Controlled 24x8 Blocking Switch Matrix

ZT-24X8B

50Ω 600-6000 MHz



Product Overview

Mini-Circuits' ZT-24X8B is a high performance, 24 by 8 blocking switch matrix, covering the key worldwide telecoms bands from 600 MHz to 6GHz. The system is housed in a compact, 5U height, 19-inch rack-mountable chassis with 8 RF "A" ports on the front panel and 24 RF "B" ports on the rear, all SMA female.

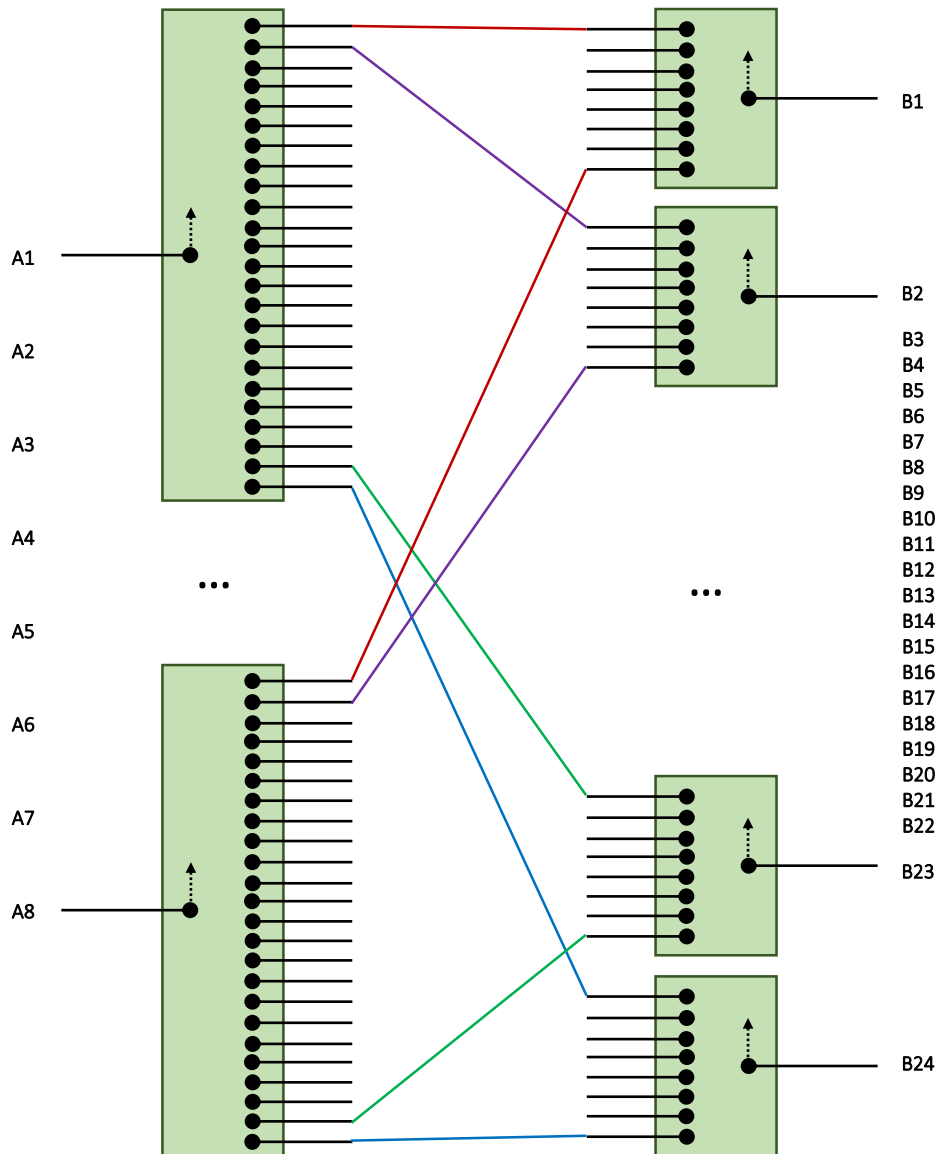
This bi-directional, blocking configuration allows the 8 "A" ports to be connected to any combination of the 24 "B" ports in a one to one arrangement. Multiple ZT-24X8B matrices can be combined to construct complex, high volume test environments.

The system includes both USB and Ethernet control interfaces along with a built-in touchscreen, providing a range of flexible control options. Software support is provided through our easy-to-use GUI application for remote control over a network, or local control through USB. ActiveX and .NET API objects (for Windows environments) and HTTP / Telnet support ensure compatibility with most common programming environments.

Please contact testsolutions@minicircuits.com for support



Functional Block Diagram



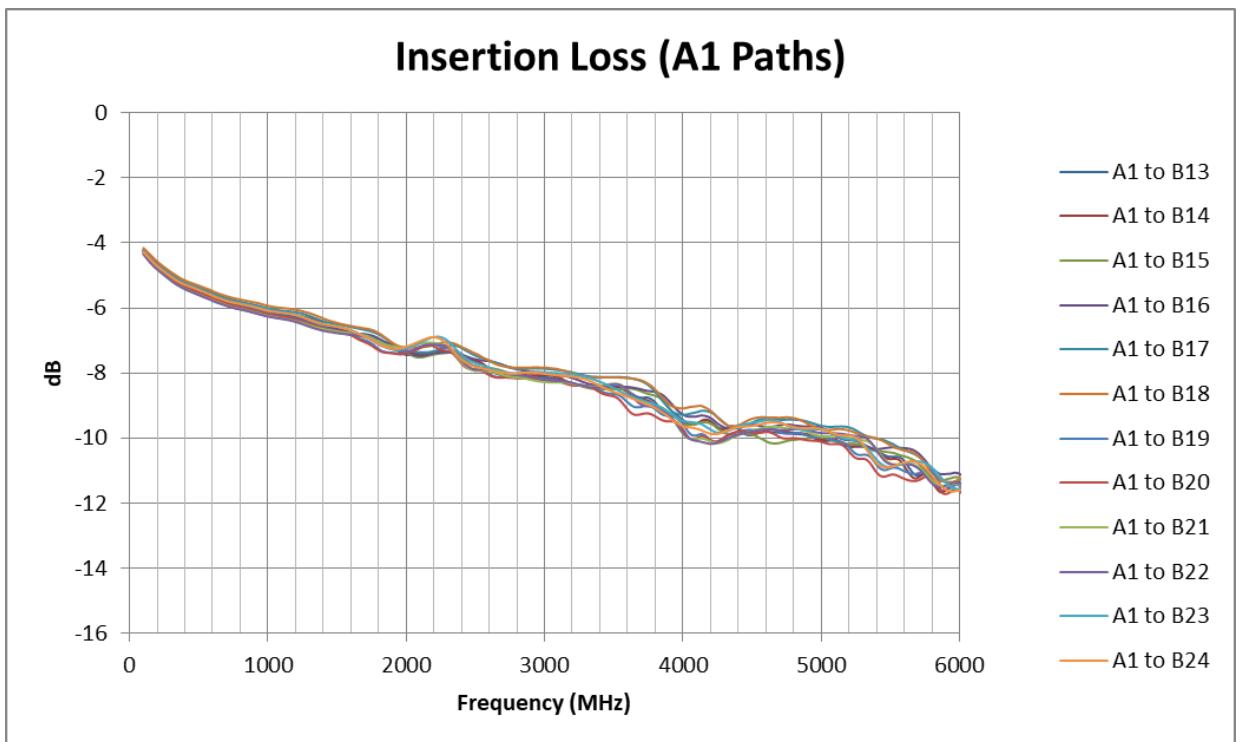
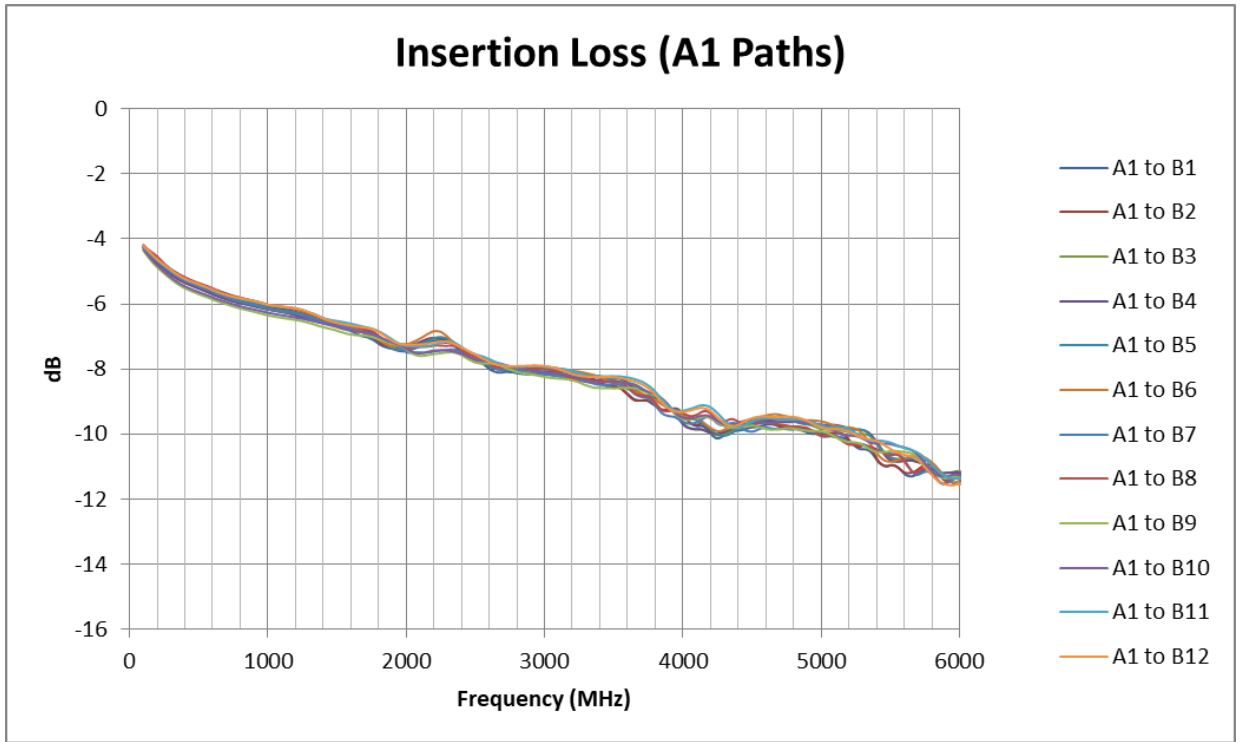
Mechanical Specifications

Dimensions	19" (W) x 5U (H) x 20" (D)
Case Material	Aluminum (with protective coatings to prevent corrosion)
Case Drawing	99-01-2571
Feet	3/4" x 3/4" Square Slides
RF Connectors	SMA female
Front Panel Marking	Line 1: Mini-Circuits part number Line 2: 24 x 8 Switch Matrix (600-6000 MHz)
Front panel	a) 8 x RF "inputs" (SMA female) b) ON/OFF switch with indicator light c) Carry handles
Rear panel	a) 24 x RF "outputs" (SMA female) b) AC mains power supply input c) USB & RJ45 control connections d) SPI In / SPI Out daisy-chain control connections e) Label with date code/serial number/MCL part# for traceability
Control Interface	USB and Ethernet TCP/IP supporting HTTP and TELNET protocols
Power supply	a) AC mains power supply (90-260 V, 47-63 Hz) b) 2A, 250V fuse rating
Operating temp	0° to +50° C

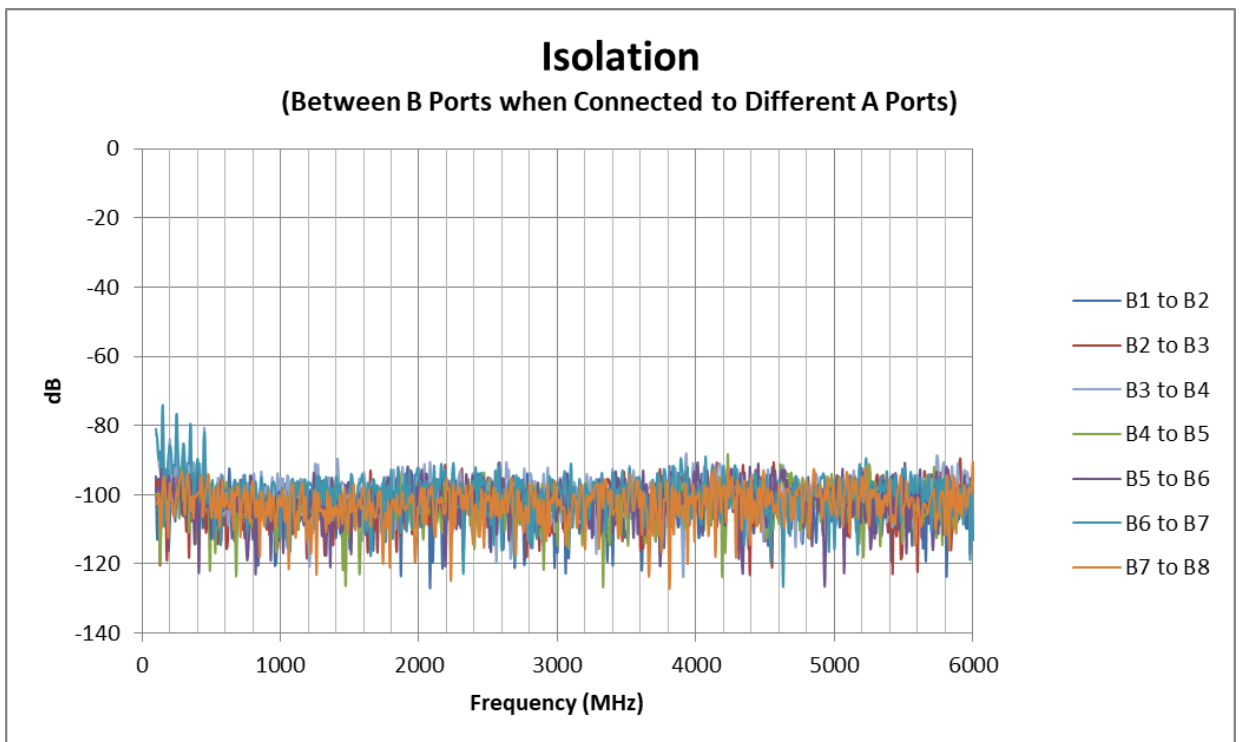
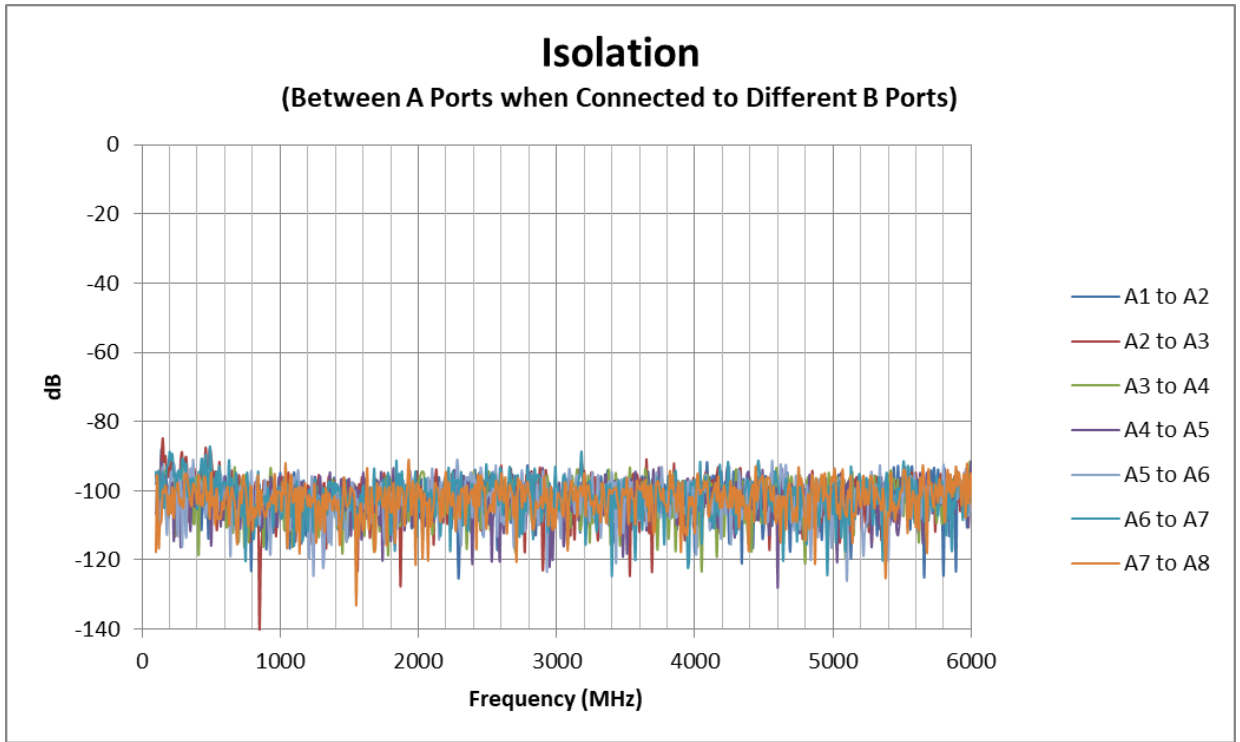
Electrical Specifications at 25°C

Parameter	Conditions	Min	Typical	Max	Unit
Frequency		600		6000	MHz
Insertion Loss	600 – 1200 MHz		7.0	8.0	dB
	1200 – 2700 MHz		8.0	9.0	
	2700 – 6000 MHz		11.0	12.5	
Return Loss			12.0		dB
Isolation			90.0		dB
Input Power	Through Path Ex. A1 – B1			+27	dBm
	Into any Internal Termination. Ex. A1 to Internal Load of B1			+17	

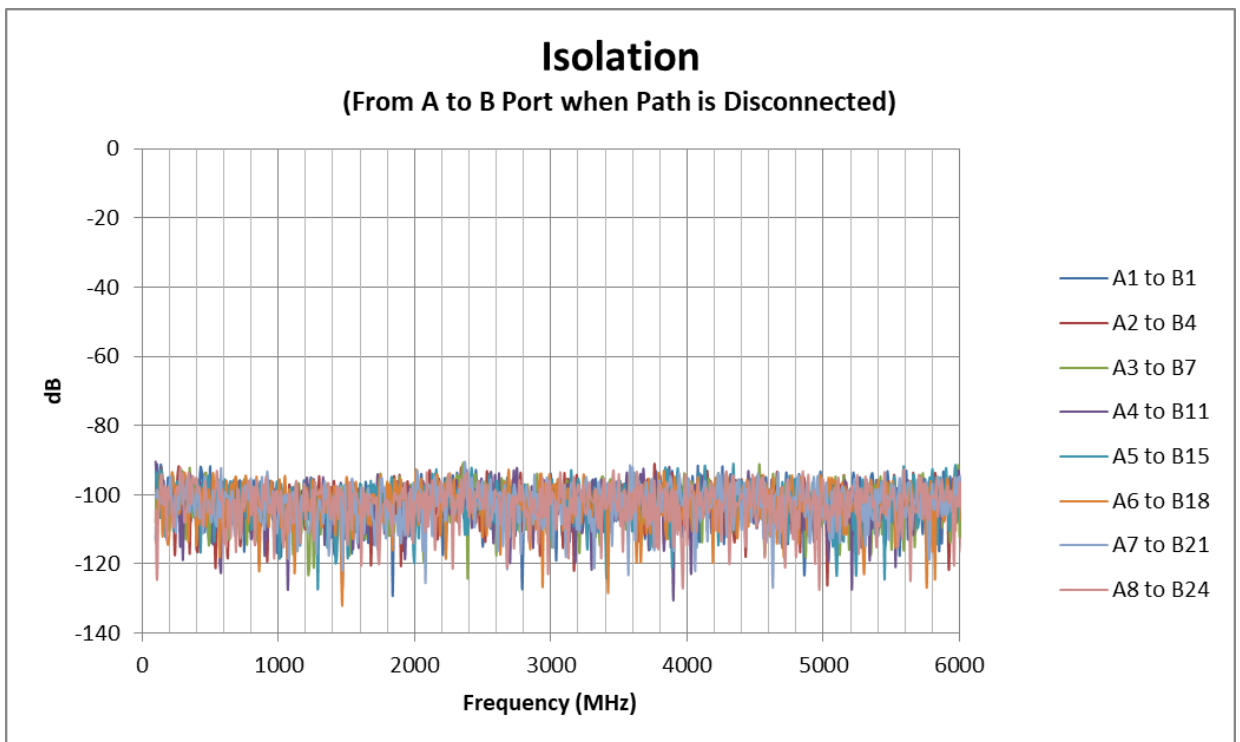
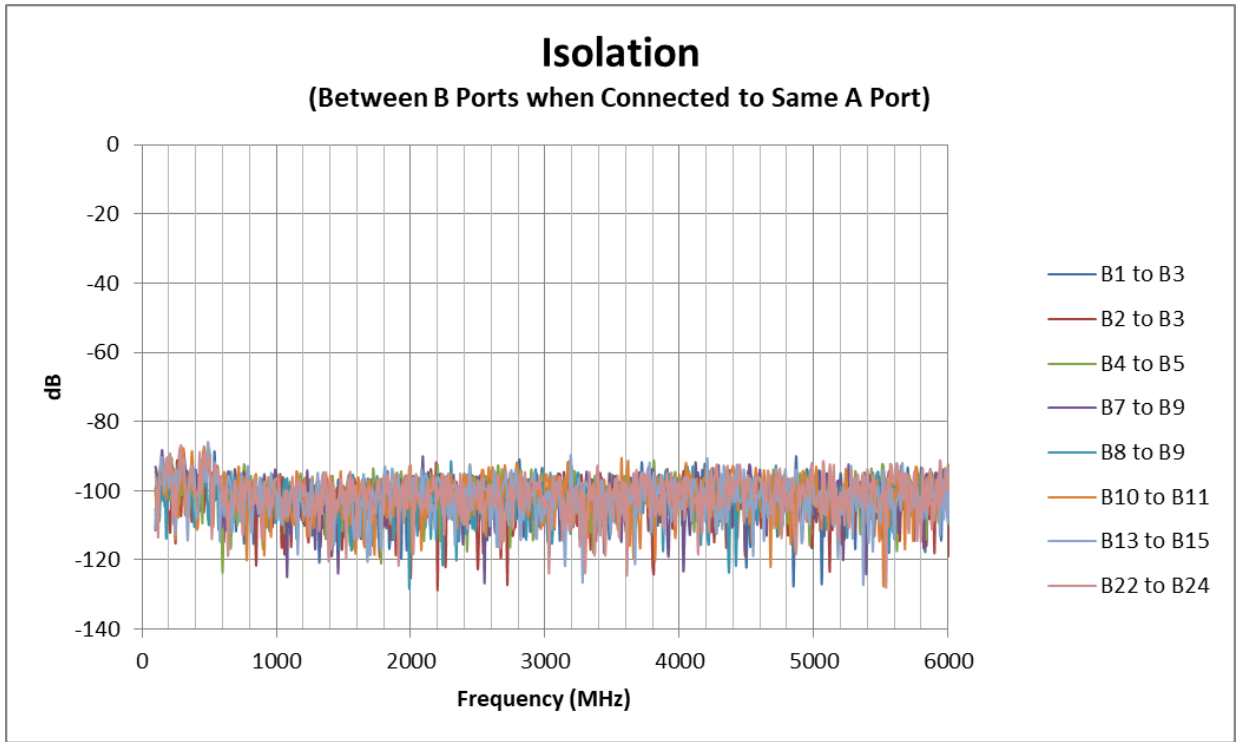
Typical Performance Data



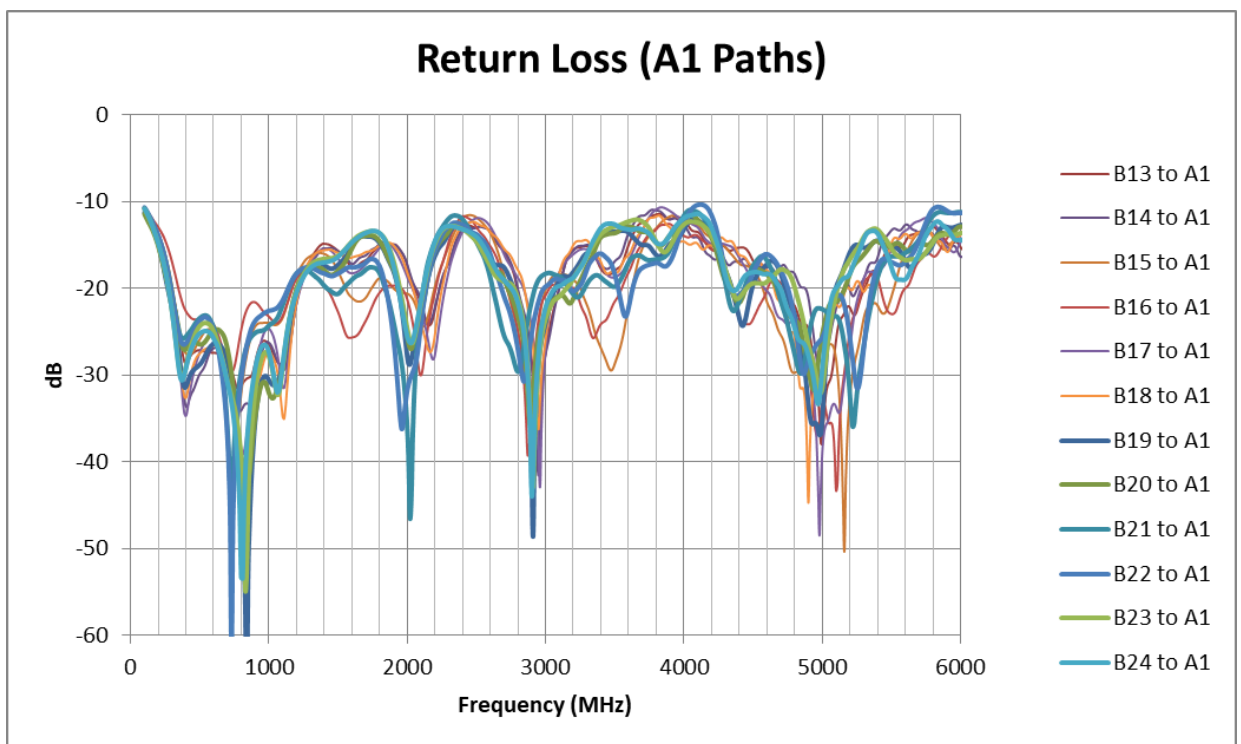
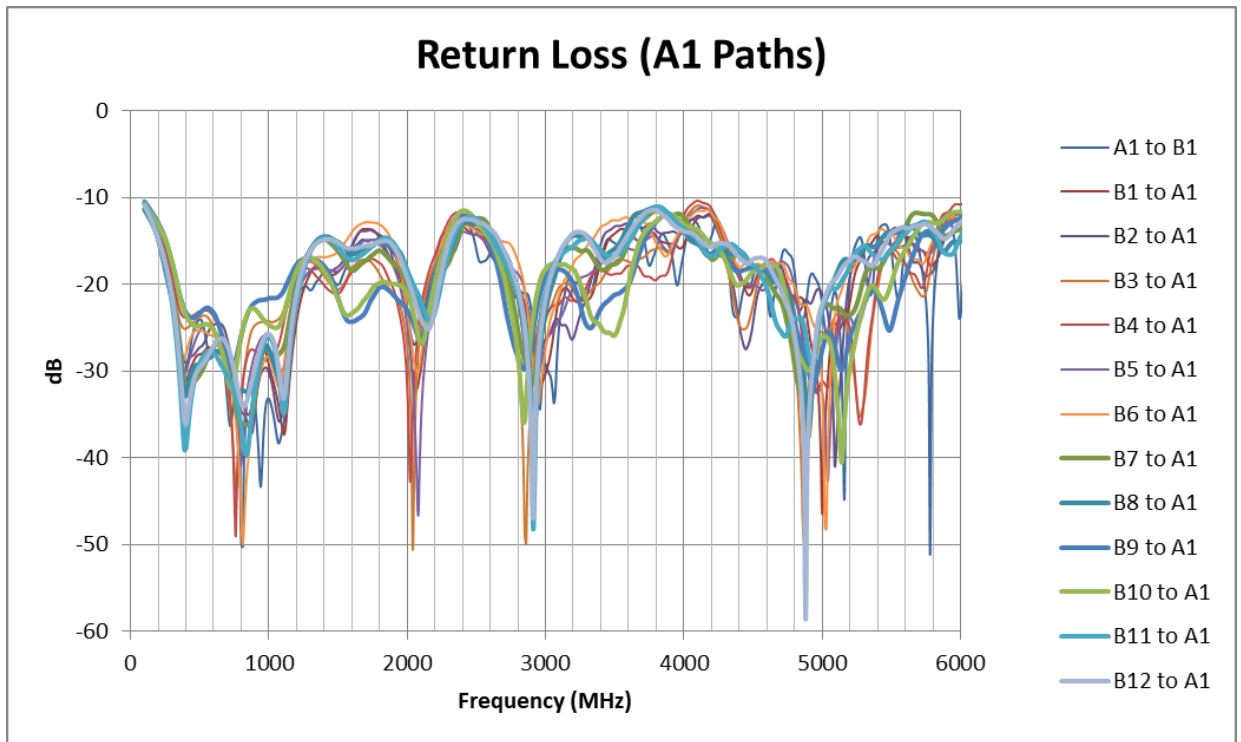
Typical Performance Data



Typical Performance Data



Typical Performance Data



Software Specifications

Software & Documentation Download:

- Mini-Circuits' full software and support package including user guide, Windows GUI, DLL files, programming manual and examples are available on request
- Please contact testsolutions@minicircuits.com for support

Minimum System Requirements:

Parameter	Requirements	
Interface	USB HID & Ethernet (HTTP & Telnet)	
System Requirements	GUI	Windows 98 or later
	USB API DLL	Windows 98 or later and programming environment with ActiveX or .NET support
	USB Direct Programming	Linux; Windows 98 or later
	Ethernet	Windows, Linux or Mac computer with a network port and Ethernet TCP / IP support
Hardware	Pentium II or later with 256 MB RAM	

Application Programming Interface (API)

Ethernet Support:

- Simple ASCII / SCPI command set for attenuator control
- Communication via HTTP or Telnet
- Supported by most common programming environments

USB Support (Windows):

- ActiveX COM DLL file for creation of 32-bit programs
- .NET library DLL file for creation of 32 / 64-bit programs
- Supported by most common programming environments (refer to application note [AN-49-001](#) for summary of supported environments)

USB Support (Linux):

- Direct USB programming using a series of USB interrupt codes

Full programming instructions and examples available for a wide range of programming environments / languages.

Graphical User Interface (GUI) for Windows - Key Features

- Connect via USB or Ethernet
- Run GUI in “demo mode” to evaluate software without a hardware connection
- View and set all switch paths with simple button clicks
- Graphically view the active switch paths
- Configure Ethernet settings
- Upgrade firmware
- Send SCPI commands for custom control

