## **GETTING STARTED**



# MXS-9200 OPTICAL SWITCH





## **POWER ON THE SYSTEM**

To power the MXS-9200 Optical Switch, plug in the power connector and switch the power rocker to the ON position. The POWER LED indicator on the front panel will illuminate to indicate the system is on. The system will take a minute or two to start up completely. The ACTIVE LED indicator will illuminate during the startup period while the SERVICE LED will remain off.



## **ACCESS THE WEB GUI**

The Web GUI is accessible by entering the hostname or the IP address into a web browser. Please find the hostname and the IP address from the front panel display.

#### NOTES:

- If your network is configured using DHCP, the IP address will be automatically assigned.
- If your network is configured using Static IP addresses, you will need to enter the IP address using the front panel keys.

On your first attempt to connect, you may receive the following warning: **Your connection is not private**. Click on **Advanced** and proceed to reach the log in page. You can later install the SSL certificate that creates an encrypted link between the MXS-9200 server and your web browser

Your connection isn't private	
Attackers might be trying to steal your information from <b>192</b> passwords. messages. or credit cards). <u>Learn more about this</u>	2.168.11.103 (for example, s warning
NET::ERR_CERT_AUTHORITY_INVALID	
Advanced	Go back

Use the provided default username mxs9200admin and password mxs9200admin to log into the MXS-9200 system for the first time. Once users are created, they can use their unique credentials to log in.





#### NOTES:

- Full documentation is available through the drop-down menu in the upper right hand corner.
- Access the controls for your MXS-9200 Switch by opening the Group 1 window and then opening the X1 device window



Now the WEB GUI will appear as below.

= EXFO Designed by DiCon mxs92	10-4a4f	🔘 🚇 mxx12200admin   🗸
Dashboard ^	Dashboard – Widget View Changes applied	Take Snapshot
Widget View	<pre><group> v :</group></pre>	Expand All Collapse all Search resources Clear
Diagram View Tile View	Group 1	Expand All Collapse All 🖌 🔺
Terminal		
Logs	18 x 18 MEMS 3D Matrix Switch	
▲ Errors	✓ Wavelength Settings	
@ Snapshots	Range Connect	
Macros	M Port(s) Portnumber to N Port(s) Portnumber Gomec Disconnect	
💽 Settings 🗸 🗸	Search and Filter	
88 Devices	Search Channels / Connections Clear	
21. Users ∨	Active Connections	
	Image: Constraint of the state of	
Apr 5th 2025   1:09 pm	1 2 3 4 8 6 7 8 9 10 11 12 13 14 15 16 17 18	Revert Apply

From the WEB GUI you will now have full control over the Switch, as well as various settings and tools.

#### HINT:

If you make a change to a switch setting, you must click on **Apply** (bottom right corner) to confirm the action.





## **INSTALLING SSL CERTIFICATES**

To create an encrypted link between the MXS-9200 server and your web browser before connecting, follow the instructions under "Installing SSL certificates" in the manual located under Interfaces/Web GUI.

#### NOTES:

- Installing the certificate will avoid the "Your connection is not private!" warning message on future log-ins using the **host name**. If you log-in using the **IP address** you may still receive the "Your connection is not private!" message.
- Installing the SSL certificate is not necessary for the system to function, but provides protection against potential security attacks.



### **REMOTE CONTROL**

Once the IP address is assigned, you can initialize a connection with the MXS-9200 using the IP address and port 10001. Once your connection is established, whether in a user session or within a script or compiled software, the following EXFO SCPI commands are supported.

#### NOTES:

- · SSH protocol, REST API, and RS232 connections are also supported
- Any software written for the previous MXS-9100 Optical switch will be fully compatible when used with your MXS-9200 model.
- SCPI command parameters, examples and details are provided in the user documentation.

#### HINT:

Use the **WEB GUI** Terminal page to validate the SCPI Command syntax and structure, when writing scripts and/or debugging.

COMMAND	DESCRIPTION
:ROUTe[1n]:CLOSe	This command will park the indicated input to the off position.
:ROUTe[1n]:OPEN	This command will open the selected input port, setting it back to the position it had before being closed
:ROUTe[1n]:OPEN:STATe?	This command will indicate if a requested input is optically open.
:ROUTe:OPEN:STATe:ALL?	This command will return a list of optically open and close for all the inputs
:ROUTe[1n]:PATH:CATalog?	This command will return the type of matrix switch in use (Ex: 16x16).
:ROUTe[1n]:SCAN	This command will set the specified input channel to the specified output channel.
:ROUTe[1n]:SCAN?	Queries to which output channel the specified input channel is set.
:ROUTe:SCAN:ALL?	This command will return a list of all the output channels for each input.
:ROUTe:SCAN:OUT? n	This command will return the input channel for any given output, 'n'.
:ROUTe[1n]:SCAN:NEXT	This command increments the output channel number to which the specified input channel is connected.
:ROUTe[1n]:SCAN:PREV	This command decrements the output channel number to which the specified input channel is connected.



:ROUTe[i]:SCAN:SYNChronous?	Always returns "ON".
:ROUT:SCAN:LIST (X1,Y1),(X- 2,Y2,)(Xn,Yn)	This command sets multiple input channels to the specified output channels.
:SYSTem:ERRor?	Error query
:SYSTem:VERSion?	SCPI version query
:SNUMber?	Returns the module serial number.
:STATus?	Returns the module status string according to the IQS-9100 manual, page 87. This will almost always be "READY".
*CLS	Clear Status
*ESE	Standard Event Status Enable
*ESE?	Query Standard Event Status Enable
*ESR?	Query Event Status Register
*IDN?	Query Identification
*RST	Reset
*SRE	Service Request Enable
*SRE?	Query Service Request Enable
*STB?	Query Status Byte
WEN n	This command will either enable or disable an auto-save switch state feature. The default for this command is set to disabled.
WEN?	Query if the WEN command is enabled or disabled
WL n	Sets the wavelength of calibration. 'n' is a variable with three possible values: $0 = 1310 \text{ nm}$ , $1 = 1550 \text{ nm}$ , $2 = 1625 \text{ nm}$ . Ex: WL 1 will set the matrix switch for optimal optical performance at 1550 nm.
WL n?	Queries the value of 'n' used in the wavelength set command. Returns the wave- length in units of nm, with two decimal points. Ex: WL 1? returns 1550.00.
WL?	Queries the value of the variable 'n' used in the 'WL n' command. Ex. WL? will return a '1' if the wavelength is currently set to 1550 nm.
QCT?	Query the total number of times that switch states have been recorded.
*OPC	Operation Complete
*OPC?	Operation Complete Query
*SAV [register]	Save optical state.
*RCL [register]	Recall optical state. This command restores the device to the saved state specified by register
*TST?	Self-Test
*WAI	Wait-to-Continue