MX-OFSW-2X1

OPTICAL FIBER 2×1 SWITCH

USER MANUAL

CONTENT

1.0 PRODUCT SUMMARY

The MXOFSW-2X1 is a 2×1 prism optical switch. It will support two optical fibers input and one fiber output with an auto detect switch. The unit supports a wide operating wavelength range and a quick switching rate.

The MXOFSW-2X1- has two operational modes:

① Manual mode:

Through the LCD control interface or network, the user may trigger a switch of the fiber route in real time.

② Automatic mode:

Automatically detects and switches fiber inputs based on the parameters set by the user or requirement (example: if input A is set to -5 dBm, and if the input power drops to a level below -5 dBm, the unit will automatically switch to input B. Note the unit will switch back to input A once the level is restored to a value higher than -5 dBm).

*Note, Output B is optional and does not exist on this model.

The **MXOFSW-2X1** is mounted in a 19" rack 1U chassis. The LCD is located at the front panel and provides all operating parameters and the current operator scheme. The RS232 interface and RJ45 ethernet interface, for SNMP, provide remote management and control.

2.0 CONTROLS, INDICATORS, AND ALARMS

This section of the manual will give a brief overview of the available menus in the MXOFSW-2X1 series optical switch and their descriptions. All instructions in Section 2.0 refer to the representation of the front panel shown in the diagram below. The user may scroll through the menu using the push buttons found on the front panel, these are located just on the right of the LCD screen.

2.1 The menu and operation of the control panel

2.1.1   **Boot order**

A. Connect power supply.
B. Turn on power switch on the rear panel.

In order to make sure this device is working safely, the power supply of this device has a time delay function, when turned on, there is a delay of a few seconds. The status indicator will turn to green from red. The Digital panel displays the model of this device.

2.1.2 Start-up main menu

Pressing Select button will display below menu in sequence.

Menu # 1 - Descriptor
Read-only menu, indicates the description of this equipment.

Menu # 2 - INPUT A
Adjustable menu, indicates wavelength selection of A path

Menu # 3 - INPUT B
Adjustable menu, indicates wavelength selection of B path

Menu # 4 - INPUT A
Read-only menu, indicates the input optical power of INPUT A

Menu # 5 - INPUT B
Read-only menu, indicates the input optical power of INPUT B

Menu # 6 - OUTPUT
Read-only menu, indicates the output optical power (measured before switch loss)

Menu # 7 - Switch Type
Read-only menu, indicates the optical switch type

Menu # 8 - Switch Mode
Adjustable menu, displays the optical switch mode

Menu # 9 - UNIT TEMP
Read-only menu, indicates the temperature of unit

Menu # 10 - +5V monitor.
Read-only menu, indicates the +5V voltage monitor.

Menu # 11 - -5V monitor.
Read-only menu, indicates -5V voltage monitor

Menu # 12 - OPTIC SWITCH POINT
Adjustable menu, displays the current optic switch point.

Menu # 13 - IP
Adjustable menu, displays the IP address of SNMP

Menu # 14 - SUBMASK
Adjustable menu, displays the address of sub net mask

Menu # 15 - GATEWAY
Adjustable menu, displays the gateway address of SNMP.

Menu # 16 - TRAP ADDR1
Adjustable menu, displays the TRAP1 address of SNMP.

Menu # 17 - TRAP ADDR2
Adjustable menu, displays the TRAP2 address of SNMP

Menu # 18 - S/N
Read-only menu, indicates the serial-number

2.1.2 Menu assistant manual

1.   Set INPUT A/B

Under the menu of INPUTA/B, press ▲button to enter the sub menu and to select and modify value. Press ▼ button to select wavelength, press **SELECT** button to save and exit.

When the Switch Mode is selected as "Manual: A to 1;B to 2", select main channel output.

2.   Set optical switch mode

Under the menu of the Switch Mode, press ▲ to enter into sub-menu to amend. Press ▼ to select the switch mode, then press **Select** to save and exit.
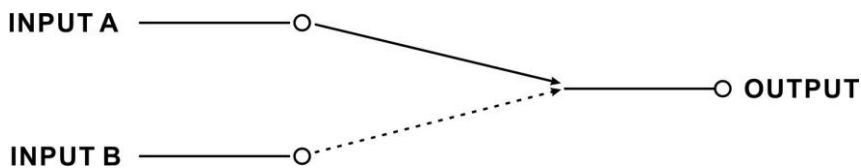
3.   Set optic switch point

Under the menu of the Optic Switch Point, press ▲ to enter into sub-menu to amend. Press ▼ to select the optic switch point, then press **Select** to save and exit. The value range may be set to +10 dBm to -10 dBm

4.   Set the IP address

Under the menu of IP, SUBMASK, GATEWAY, TRAP ADDR1, TRAP ADDR2, press ▲ button enter into sub menu to select modify value. Press ▼ to change the value, then press **Select** to save and exit.

3.0 OPERATION METHOD

Four indicators on the front panel show which light path is being used. Inputs are represented by A and B respectively, where A is the main input and B is the backup input. The main and standby optical paths are automatically switched:

The user can set the Optic Switch Point. This value on the primary input (input A) may be set between +10 dBm and -10 dBm. Once this is set, the unit will automatically switch to the secondary (input B) if this value falls below the setting. For example, if the Optic Switch Point value is set to -3 dBm, the unit will switch to the secondary if the optical power of input A falls below -3 dBm.

* If optical signal powers are both less than switch point power, the device will maintain the current state.

Supplemental: Web Interface

The MX-OFSW-2x1 may also be accessed from a web interface using the RJ45 port.

The web interface can be viewed using the default IP address 192.168.1.50
The default username is "admin", and the default password is "admin"
The categories will be displayed on the left side of the screen as follows:

IP Configuration – this feature allows you to modify the IP address and trap
information.

Analog Property – This page is pre-configured from the factory but may be
modified. These values represent the alarm thresholds.

Discrete Property – Future Feature - This feature is currently not active but is
planned for system power monitoring.

Device Configuration – Allows the user to set switch to automatic or allows user
to perform a manual switch. This also allows the user to select a switch point
between -10 dBm and +10 dBm (this value allows the switch to automatically
execute a switch when the Primary input (A) falls below this value.

Device Status – displays optical power, voltage, and temperature.

System Info – Provides the model, serial, and version numbers. You may add a
name and other info here.

Event Log – This screen displays a record of events or alarms

User Configuration – Allows the user to change username or password

Performance			Index			Supplement
			Min.	Typ.	Max.	
Optical features	Insertion loss	(dB)		1.6	2.5	
	Return loss	(dB)	55	60		
	Switch cross talk	(dB)	55	60		
	PDL	(dB)			0.2	
	Switching time	(mS)			20	
	Fiber type		9 / 125			
	Optical connector		SC/APC			Optional available
General feature	10/100M Ethernet interface		RJ45			
	Networking protocol		SNMP			
	Communication interface		RS232			
	Power supply	(VAC)	90		265	50 / 60Hz
	Operating temp.	(℃)	-20		65	
	Storage temp.	(℃)	-40		85	
	Relative humidity	(%)	5		95	
	Size (W) x (D) x (H)		19×10×1.75 (")			1U
			483×254×44 (mm)			

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