



XH-16-1X2-U

Rack 16-1×2 Optical Switch

USER MANUAL

Introduction

Optical switch is a kind of light path control device. plays a control light path and convert the light path. XH-16-1X2-U consists of 16 pairs of 1x2 synchronous switch light path combinations of mechanical optical switch, optical switch light path control switch can be 16 button on the panel control, also can through the short-range RS - 232 serial port communication mode or remote RJ45 Ethernet communication by sending a program-controlled command control switch light path, equipment state of light path by the green light and red light shows light path.

Features

- ◆ Low insertion loss, Fast switching
- ◆ SerialNet, High Reliability, High Stability
- ◆ LED display panel. Visual display, Convenient operation.
- ◆ Transparent transmission signal. High stability and reliability.
- ◆ RS232 Control and Ethernet Remote Management

Applications

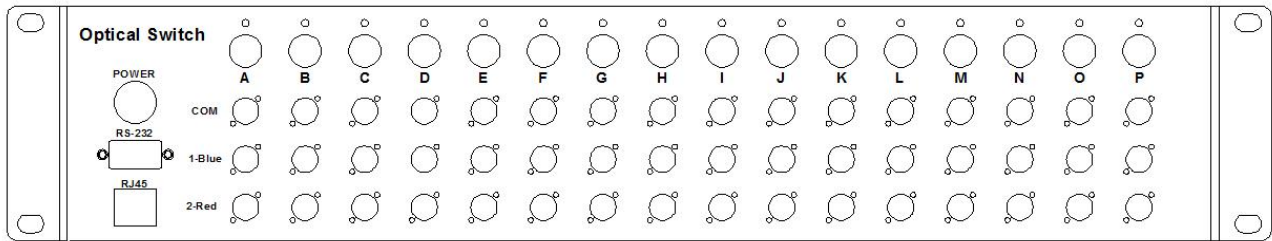
- ◆ FITL
- ◆ Automatic Measurement
- ◆ Optical Network Remote Monitoring
- ◆ Cable Monitoring and Maintaining system

Specifications

Parameters	Unit	Indicators
Channel No.		XH-16-1X2-U
Wavelength Range	nm	1260~1650nm
Insertion Loss	dB	Typ. ≤ 0.8 dB, Max. ≤ 1.5 dB
Repeatability	dB	$\leq \pm 0.02$
Return Loss	dB	≥ 50
Crosstalk	dB	≥ 55
WDL	dB	≤ 0.25
PDL	dB	≤ 0.05
Optical Power	mW	≤ 500
Switching Time	ms	≤ 10 ms (adjacent channel)
Fiber Type	um	SM,9/125
Connector		FC/APC
Monitoring Port		RJ45 & RS-232
Working Power Supply	V	AC:85~ 265 (50/60Hz)
Power Consumption	W	< 10
Operating Temperature	°C	-10 ~ 60
Size	mm	2U:483 x 250 x 89

Panel shows

Front panel



POWER: Equipment power switch

RS232: Serial communication interface

RJ45: Ethernet communication interface

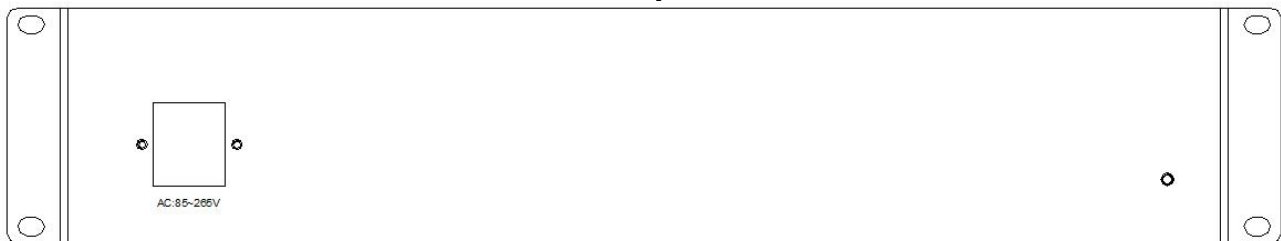
A~P: Optical switch control buttons and display lights

COM: Public End of Optical Path

1-Blue: Optical output 1 (LED Display Lights out)

2-Red: Optical output 2 (LED Display Light on)

Rear panel



AC: 85~265V: AC power supply interface

Default Setting

- RS-232: Baud rate:9600; Data bits:8 bit; Stop bit: 1 bit; Parity bit:NONE;
- RJ45: IP: 192.168.1.100 ; PORT: 5000; TCP/IP:TCP Server and UDP (Fixed port: 18888)

Communication Protocol

- “_” expression underline.
- Communication protocols are all capital letters.
- The communication protocol commands, "<" as the start,">" as a terminator.

Instruction set

Name	Instructions	Describe
Set Optical Switch Channel	Send: <OSW_OUT_ON01>	Setup the 01 optical switch channel to ON , returned successfully.
	Return1: <OSW_OUT_OK>	
	Send: <OSW_OUT_OF01>	Setup the 01 optical switch channel to OFF , returned successfully.
	Return1: <OSW_OUT_OK>	
	Send: <OSW_OUT_ON16>	Setup the 16 optical switch channel to ON , returned successfully.
	Return1: <OSW_OUT_OK>	
	Send: <OSW_OUT_OF16>	Setup the 16 optical switch channel to OFF, returned successfully.
	Return1: <OSW_OUT_OK>	
	Send: <OSW_OUT_ON00>	Setup all optical switch channel to ON, returned successfully.
	Return1: <OSW_OUT_OK>	
	Send:<OSW_OUT_OF00>	Setup all optical switch

	Return1: <OSW_OUT_OK>	channel to OFF, returned successfully.
Query Optical Switch Channel	Send: <OSW_OUT_?>	Query the optical switch channel, returned successfully;
	Return: <OSW_OUT_1111111111111111>	1111111111111111: Is the all optical switch state (0: ON, 1: OFF).
Set the IP Adresse	Send: <OSW_IP_192.168.1.100>	Setup the IP addresse to 192.168.1.100, returned successfully.
	Return: <OSW_IP_OK>	
Query IP Address	Send: <OSW_IP_?>	Query the IP address, returned successfully
	Return: <OSW_IP_192.168.1.100>	192.168.1.100: IP address to 192.168.1.100
Set the Port Number	Send: <OSW_PORT_5000>	Setup the port number to 5000, returned succe
	Return: <OSW_PORT_OK>	
Query Port	Send: <OSW_PORT_?>	Query the port number,

Number	Return: <OSW_PORT_5000>	returned successfully 5000: port number to 5000
Set the Subnet Mask	Send: <OSW_SM_255.255.255.0>	Setup the subnet mask to 255.255.255.0, returned successfully
	Return: <OSW_SM_OK>	
Query Subnet Mask	Send: <OSW_SM_?>	Query the subnet mask, returned successfully 255. 255. 255.0:subnet mask to 255. 255.255.0
	Return: <OSW_SM_255.255.255.0>	
Set the Default Gateway	Send: <OSW_GW_192.168.1.1>	Setup the default gateway to 192.168.1.1, returned successfully
	Return: <OSW_GW_OK>	
Query Default Gateway	Send: <OSW_GW_?>	Query the default gateway, returned successfully 192.168.1.1: default gateway to 192.168.1.1
	Return: <OSW_GW_192.168.1.1>	
Set the Baud Rate	Send: <OSW_BAUD_9600>	Set the baud rate to

	Return: <OSW_BAUD_OK>	9600, returned successfully
Query Baud Rate	Send: <OSW_BAUD_?>	Query the baud rate , returned successfully
	Return: <OSW_BAUD_9600>	9600: baud rate to 9600
Device Restarts	Send: <OSW_RESET>	Setup the device restarts ,
	Return: <OSW_RESET_OK>	returned successfully
Query Device Information	Send:<OSW_TYPE_?>	Query the device information
	Return: <OSW_TYPE_XH-16-1X2- U_1260~1650_SM,9/125_FA_A>	,returned successfully; Model: XH-16-1X2-U Wavelength Range : 1260~1650nm Fiber Type : SM,9/125um Connector: FC/APC Working Power Supply : AC:85~265V
	Send: <OSW_VERSION_?>	Query the version,

Query Version	Return: <OSW_VERSION_HARDWARE:V1.0.1SOFT WARE:V1.0.1>	returned successfully Hardware version: V1.0.1 SOFTWARE: V1.0.1
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Matters need attention

- ◆Return “<OSW01_ER>” is command syntax error occurred
- ◆In RS-232 serial port communication, the system require that the baud rate of dispatcher and sink should keep consistent