

OSW-2x4/4x4/D2x4/D4x4 Optical Switch

◇ Application

- Metropolitan Area Network
- R&D in Laboratory
- System Monitoring
- Configurable OADM

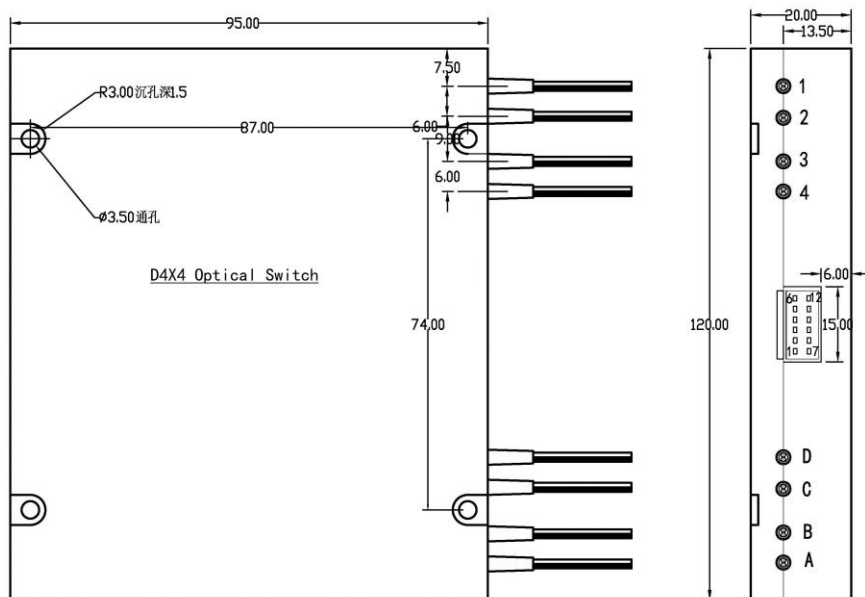
◇ Features

- Low Insertion Loss
- Wide Wavelength Range
- Low Crosstalk
- High Stability, High Reliability
- Epoxy-free on Optical Path
- Latching and Non-latching



Parameters		OSW-2x4/4x4/D2x4/D4x4	
Wavelength Range	nm	650~1310	1260~1670
Testing Wavelength	nm	780/850/980/1064/1310	1310/1490/1550/1625/1650
Insertion Loss	dB	Typ:1.0,Max:1.5	Typ:1.2 ,Max:1.8
Return Loss	dB	≥30	≥50
Crosstalk	dB	≥35	≥55
PDL	dB	≤0.05	
WDL	dB	≤0.25	
TDL	dB	≤0.25	
Repeatability	dB	≤±0.02	
Power supply	v	3.0 or 5.0	
Lifetime	Cycle	≥10 ⁷	
Switch Time	ms	≤8	
Transmission Power	mW	≤500	
Operation Temperature	°C	-20~+85	
Storage Temperature	°C	-40~+85	
Operation Temperature	°C	-20~+85	
Extinction Ratio1	dB	≥18	

Size:



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Pins:

Pin No.	Type(I/O)	Name	Function
1	Input	/RESET	TTL
2	Input	D0	TTL, D0 is low, and D4 is high, Example: 00000b=1 CH; 11111b=32 CH。
3	Input	D1	
4	Input	D2	
5	Input	D3	
6	Input	D4	
7	Out	/READY	TTL, Ready (High=Not ready, Low=Ready)
8	Out	ERROR	TTL, Error (High=Error, Low=No error)
9	Power in	GND	Ground
10	Power in	5V	5.0±5% VDC Power Supply (max 500mA)
11	S-	RS232	RX (B)
12	S+	RS232	TX (A)

TTL control logic:

No.	/RESET	D4	D3	D2	D1	D0	4X4			
Reset	0	X	X	X	X	X	A-1	B-2	C-3	D-4
State 1	1	0	0	0	0	0	A-1	B-2	C-3	D-4
State2	1	0	0	0	0	1			C-4	D-3
State3	1	0	0	0	1	0		B-3	C-2	D-4
State4	1	0	0	0	1	1			C-4	D-2
State5	1	0	0	1	0	0		B-4	C-2	D-3
State6	1	0	0	1	0	1			C-3	D-2
State7	1	0	0	1	1	0	A-2	B-1	C-3	D-4
State8	1	0	0	1	1	1			C-4	D-3
State9	1	0	1	0	0	0		B-3	C-1	D-4
State10	1	0	1	0	0	1			C-4	D-1
State11	1	0	1	0	1	0		B-4	C-1	D-3
State12	1	0	1	0	1	1			C-3	D-1
State13	1	0	1	1	0	0	A-3	B-1	C-2	D-4
State14	1	0	1	1	0	1			C-4	D-2
State15	1	0	1	1	1	0		B-2	C-1	D-4
State16	1	0	1	1	1	1			C-4	D-1
State17	1	1	0	0	0	0		B-4	C-1	D-2
State18	1	1	0	0	0	1			C-2	D-1
State19	1	1	0	0	1	0	A-4	B-1	C-2	D-3
State20	1	1	0	0	1	1			C-3	D-2
State21	1	1	0	1	0	0		B-2	C-1	D-3
State22	1	1	0	1	0	1			C-3	D-1
State23	1	1	0	1	1	0		B-3	C-1	D-2
State24	1	1	0	1	1	1			C-2	D-1

Attention: It is not possible to select the same output for two inputs at the same time! This command is illegal.

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RS232 control instructions:

- (1) The device only executes one programmable command at a time. Usually, the next instruction can only be sent after the program returns the corresponding value.
- (2) OSWXX represents the device address identifier bit. The setting of identification bits is to facilitate users to control multiple devices with a single serial port in situations where serial port resources are scarce. For example, OSW01 represents the first device, and OSW03 represents the third device. Unless otherwise specified or required, the factory setting of the device is OSW01.
- (3) All letters in the communication protocol are capitalized.
- (4) "_" represents underline.
- (5) All valid data starts with "<" and ends with ">".
- (6) Communication data bit: 8, checksum bit: none, stop bit: 1, baud rate: 9600.

Remote control command table	
Instruct	Describe
<OSWXX_PN_?>	Read device model information。 Information format for device models。 <OSWXX_PN_XXXX-XX-XX-XX-XX-XX-XXX> Example: TX:<OSW01_PN_?> RX:<OSW01_PN_1X16-MM-13-15-90-15-FA-01A>
<OSWXX_SN_?>	Read device serial number information Information format of device serial number <OSW01_SN_YYMMXXXXXXXXXX> Example: TX:<OSW01_SN_?> RX:<OSW01_SN_170701003001>
<OSWXX_OUT_?>	Read the current output channel Example: TX:<OSW01_OUT_?> RX:<OSW01_OUT_A&1_B&2_C&3_D&4>
<OSWXX_OUT_A&Y_B&Y_C&Y_D&Y>	Set the current output channel Example: TX: <OSW01_OUT_A&1_B&2_C&3_D&4> RX:<OSW01_OUT_OK>
<OSW_ADD_?>	Query the current address number of the device Example: TX:<OSW_ADD_?> RX:<OSW01_OK>
<OSWXX_ADD_YY>	Set device address number Example: TX:<OSW01_ADD_03> RX:<OSW03_OK> Note: If the device address number 01 is changed to 03 and the setting is successful, the current address number of the device will be changed and stored.

Ordering Information: OSW- A-B-C-D-E-F-G

A	B	C	D	E	F	G
	Mode	Wavelength	Control Type	Fiber diameter	Fiber Length	Connector
2X4	SM:SM,9/125um	85: 850nm	L: Latching	25:250um	05:0.5m	OO:None
3X4	M5:MM,50/125um	13: 1310nm	N: Non-Latching	90:900um;	10:1.0m	FP: FC/PC
4X4	M6:MM,62.5/125um	14: 1490nm		20:2.0mm	X:Other	FA: FC/APC
D2X4		15: 1550nm		X: Other		SP: SC/PC
D3X4		162: 1625nm				SA: SC/APC
D4X4		165: 1650nm				SP: ST/PC
		13/15:1310/1550nm				SA: ST/APC
		X:Other				LP: LC/PC
						LA: LC/APC
						X: Other