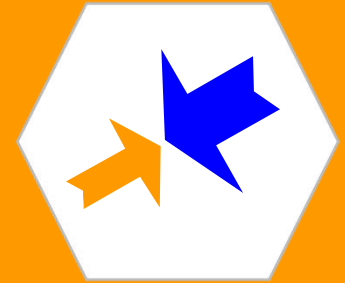


Manufacturer&Supplier of Professional Fiber Optic Cabling System

Products & Services & After sales services



Wirenet Telecom Technology Co.,Ltd

深圳威尔特通信科技有限公司

2023 VERSION

Add: 2rd floor, 2 Building, Jingheyuan Industry Park, No.2004 Xuegang Road, Bantian Street,
Longgang District, Shenzhen, China

Tel: 86-755-28461866 Fax: 86-755-28461781

Website: <http://www.wirenetfiber.cn>



Fiber Optic Splitter&WDM

WIRENET SPLITTER&WDM SERIES



Catolog

WIRENET

FIBER OPTIC SPLITTER AND WDM SERIES

- 1*N PLC splitter
- 2*N PLC splitter
- FBT coupler
- Rack mounted PLC splitter
- PLC splitter with cassette
- CWDM
- DWDM
- FWDM
- FIBER SWITCH
- EDFA



Description

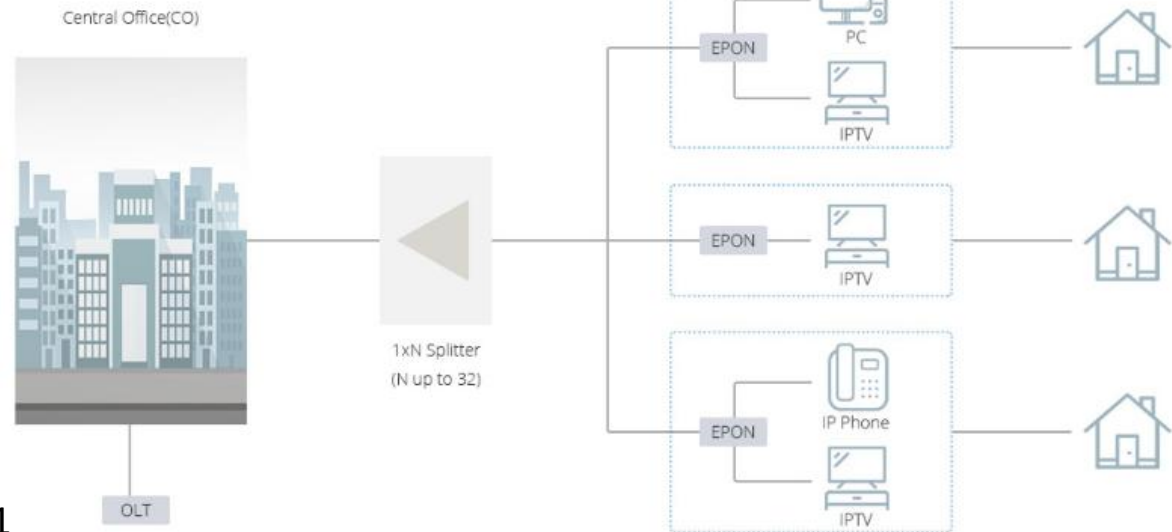
Planar lightwave circuit (PLC) splitter is a type of optical power management device that is fabricated using silica optical waveguide technology to distribute optical signals from Central Office (CO) to multiple premise locations

Feature

- Low Insertion loss
- Low PDL
- High Return Loss
- Uniform Power Splitting
- Compact Design
- Wide Operating Wavelength
- Wide Operating Temperature
- Excellent Environmental & Mechanical Stability
- Qualified Under Telcordia GR-1221 and GR-1209

Application

- FTTH (FTTB, FTTH, FTTC)
- Local Area Networks (LAN)
- CATV Systems
- Test Equipments





1×N PLC Splitters

Parameter	1*2	1*4	1*8	1*16	1*32	1*64	1*128
Operation wavelength(nm)	1260~1650						
IL(dB) (P/S Grade) Max	3.8/4.0	7.1/7.3	10.2/10.5	13.5/13.7	16.5/16.9	20.5/21	23.8/24.2
Loss uniformity (dB) Max.	0.6	0.6	0.8	1.2	1.5	2.0	2.5
RL (dB) Mini	55	55	55	55	55	55	55
PD Loss (dB) Max.	0.2	0.2	0.3	0.3	0.3	0.4	0.5
Directivity (dB) min.	55	55	55	55	55	55	55
Wavelength Dependent Loss (dB) Max.	0.5	0.5	0.5	0.8	0.8	1.0	1.2
Operation Temp (°C)	-40~85						
Storage Temp (°C)	-40~85						
Min. Dimen. (L.W.H)	40*4*4	40*4*4	40*4*4	60*7*4	60*7*4	60*12*4	NA
Module Dimen. (L.W.H)	100*80*10	100*80*10	100*80*10	120*80*18	120*80*18	140*115*18	NA
Mini Module Dimen. (L.W.H)	60*7*4	60*7*4	60*7*4	60*12*4	80*20*6	100*40*6	NA

Note: All the data above does not include connectors
 UPC Connectors: IL add 0.2 dB, APC Connectors: IL add 0.3 dB



2*N PLC Splitter

Parameters	2x2	2×4	2×8	2×16	2×32	2×64	2×128
Operating Wavelength (nm)	1260~1650						
Fiber Type	G657A or customer specified						
Insertion Loss (dB)	3.8	7.0	10.5	13.5	16.8	20.5/21.0	24.2/24.5
Loss Uniformity (dB)	0.4	0.5	0.8	1.0	1.2	2	2.5
Return Loss (dB)	55	55	55	55	55	55/50	55/50
Polarization Dependent Loss(dB)	0.2	0.2	0.2	0.2	0.2	0.35	0.35
Directivity (dB)	55	55	55	55	55	55	55
Wavelength Dependent Loss(dB)	0.3	0.3	0.3	0.5	0.5	0.5	0.5
Temperature Stability(-40~85 °C)(dB)	0.4	0.4	0.4	0.5	0.5	0.5	0.5
Operating Temperature (°C)	-25~75						
Storage Temperature (°C)	-25~75						
Device Dimension (mm) (L×W×H)	40×4×4	40×4×4	40×4×4	50×4×4	50×7×4	60×12×4	NA
Module Dimension (mm) (L×W×H)	100×80×10	100×80×10	100×80×10	120×80×18	140×115×18	140×115×18	140×115×18
Mini-Module Dimension (mm) (L×W×H)	50×7×4	50×7×4	50×7×4	60×12×4	80×20×6	100X40X6	NA

Note: All the data above does not include connectors
 UPC Connectors: IL add 0.2 dB, APC Connectors: IL add 0.3 dB



Fiber optic PLC&FBT

PLC Splitter

Fiber optic PLC packing

Package Type

- Steel Tube, Bare Fiber 250μm
- Steel Tube, loose tube 0.9mm
- Steel Tube,Ribbon fiber+ loose tube 0.9mm (with fanout kit)
- ABS Module Plastic Box 2.0mm
- LGX Box
- Cassette
- 19' Rack Mount

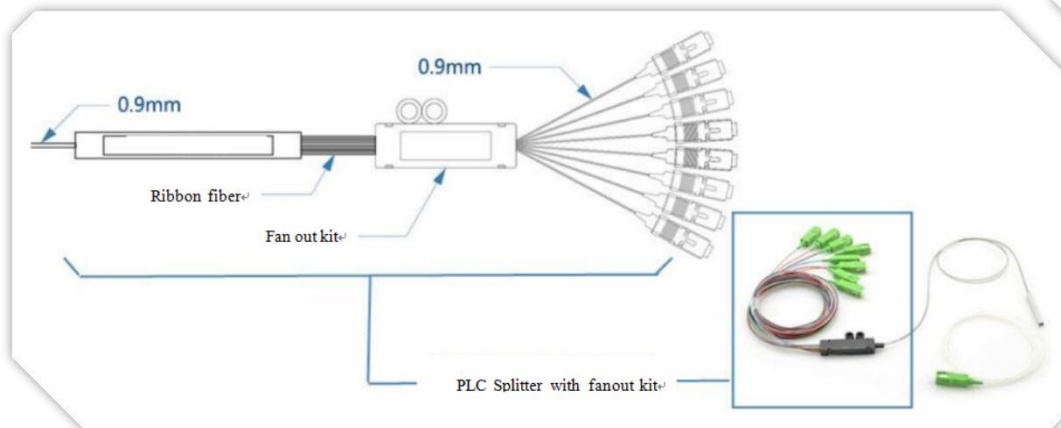
Steel Tube, Bare Fiber 250μm



Steel Tube, loose tube 0.9mm



Steel Tube,Ribbon fiber+ loose tube 0.9mm(with fanout kit)





Fiber optic PLC packing

19" Rack Mount (1U&2U)



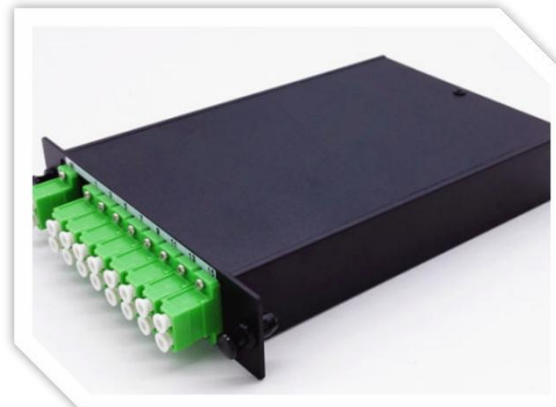
Cassette



ABS Module Plastic Box 2.0mm



LGX Box





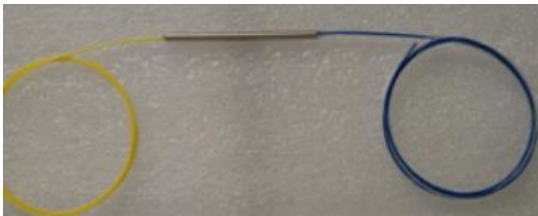
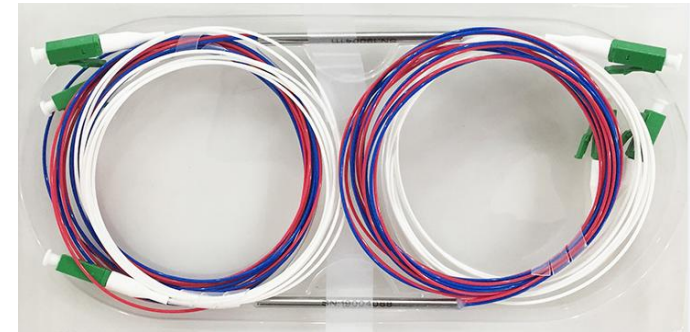
FBT coupler

Features:

- Low Insertion loss
- Low PDL
- High Return loss
- Uniform Power splitting
- Compact Design
- Wide Operating Wavelength
- Wide Operating Temperature
- Excellent Environmental & Mechanical Stability
- Qualified Under Telcordia GR-1221 and GR-1209

Applications

- FTTx(FTTB ,FTTH,FTTC)
- Passive Optical Networks(PON)
- Local Area Networks(LAN)
- CATV Systems
- Test Equipments





1*2 FBT

1*2 FBT

Parameter	Specification	Units
Channel Number	1*2	
Operation Wavelength	1310&1550	nm
Insertion Loss	<3.4	dB
Directivity	>55	dB
PDL	<0.15	
Return loss	>50	dB
Fiber type	SMF-28e	
Pigtail	Input	2mm loose tube
	Output	2mm loose tube
Fiber length	1.0+0.1/-0	m
Connector	SC/APC 2mm	
Tube mark	Input color: yellow/ Output color: yellow	
Package dimension	90*20*10	mm
Operation temperature	-10~+75	°C
Storage temperature	-40~+85	°C

2*2 FBT

Parameter	Specification	Units
Channel Number	2*2	
Operation Wavelength	1310&1550+/-40	nm
Insertion Loss	<3.6	dB
Directivity	>55	dB
PDL	<0.15	
Return loss	>50	dB
Fiber type	SM 9/125	
Pigtail	Input	2mm loose tube
	Output	2mm loose tube
Fiber length	1.0+0.1/-0	m
Connector	SC/APC 2mm	
Tube mark	Input color: yellow/ Output color: yellow	
Package dimension	A: L54*3.0 (OD)	mm
Operation temperature	-10~+75	°C
Storage temperature	-40~+85	°C

Note: 1. All insertion loss and insertion loss referenced without connectors.



Rack Mounted PLC splitter

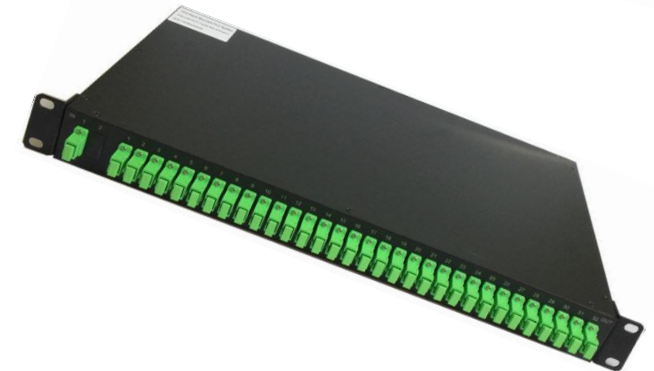
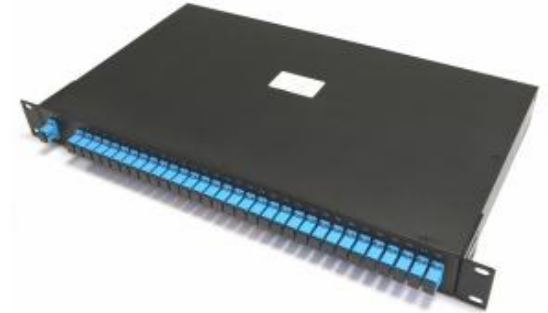
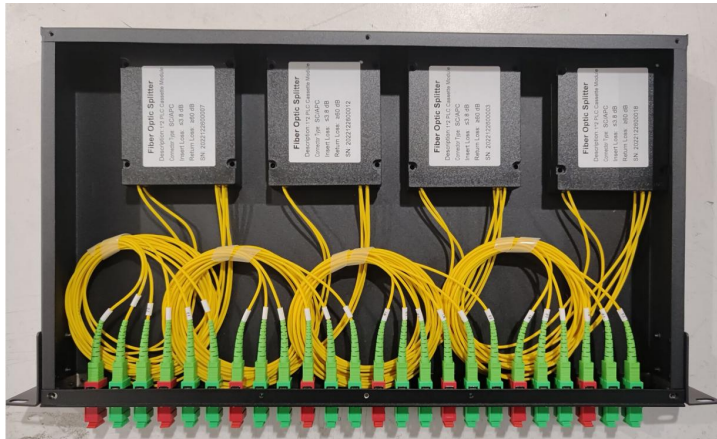
Rack mounted PLC splitter

Description

Rack Mount PLC Splitter is a high quality passive device. It is especially for passive internet (EPON, BPON, and GPON). we offers whole series of 1xN and 2xN Rack Mount PLC Splitter, including 1x2,4, 8, 16, 32 and 2x2,4, 8, 16, 32 type, they are available in the flexible form of 1U 19" rackmountable box and 2U 19" rackmountable box.

Features

- Low insertion loss, PDL and high Back Reflection
- Good channel-to-channel uniformity
- Wide Operating Wavelength: From 1260nm to 1650nm
- High Mechanical Stability and Reliability
- Wide Operating Temperature: From -40°C to 85°C
- Compact package



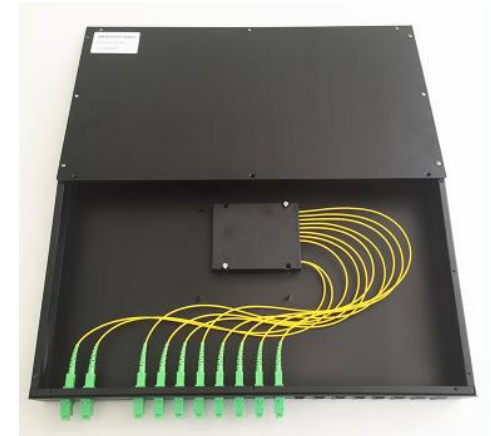
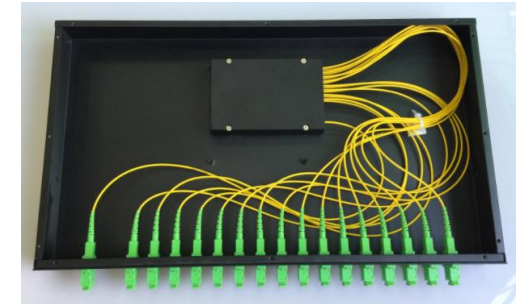


Rack mounted PLC splitter

Rack Mounted PLC splitter

Specifications

Product Model	1*32Rack Mount PLC Splitter	1*6Rack Mount PLC Splitter	1*16 Rack Mount PLC Splitter
Wavelength	1260nm to 1650nm	1310nm	1260nm to 1650nm
Insertion loss(db)	≤16.8	≤9.8	≤13.6
Uniformity(db)	≤1.5	≤0.6	≤1.2
PDL(db)	≤0.3	≤0.2	≤0.3
Directivity(db)	≥55	≥55	≥55
Reflection loss(db)	≥50	≥50	≥50
Connector Type	SC/APC		
Operating temperature	-40 ~ +85°C		
package	43*25*4.3cm		





PLC Splitter with cassette

Features:

- Low Insertion loss
- Low PDL
- High Return loss
- Compact Design
- Wide Operating Wavelength
- Wide Operating Temperature
- Excellent Environmental & Mechanical Stability
- Good channel-to-channel uniformity



Applications

- FTTx(FTTB ,FTTH,FTTC) System
- Passive Optical Networks(PON)
- CATV Systems
- Optical Signal Distribution





CWDM

Description

CWDM(Coarse Wavelength Division Multiplexer) is widely known as a ideal and profitable solution for short distance transmission because of its compact and can support O,E,S, C, L band which only asked for low performance laser diodes. Commonly there are total 18channels, spacing 20nm, widely be used as 1271,1291....to 1611nm.

CWDM is featured for high stable and low insertion loss with compact dimension and are available in LGX® module, High density box, ruggedized cassette, rack-mount, and customized housings.

Applications

- 5G front haul network
- Mixed Transmission of Various Signals
- Backbone Network
- Metropolitan Area Network

Feature

- Low insertion loss and low PDL
- High isolation
- Wide operating wavelength range
- Ultra Stable and Highly Reliable
- Epoxy-free optical path

Standard

RoHS

Free of hazardous substances according to RoHS2011/65/EU

Test Criteria

Telcordia GR-1209-CORE

Telcordia GR-1211-CORE





CWDM

Technical parameter

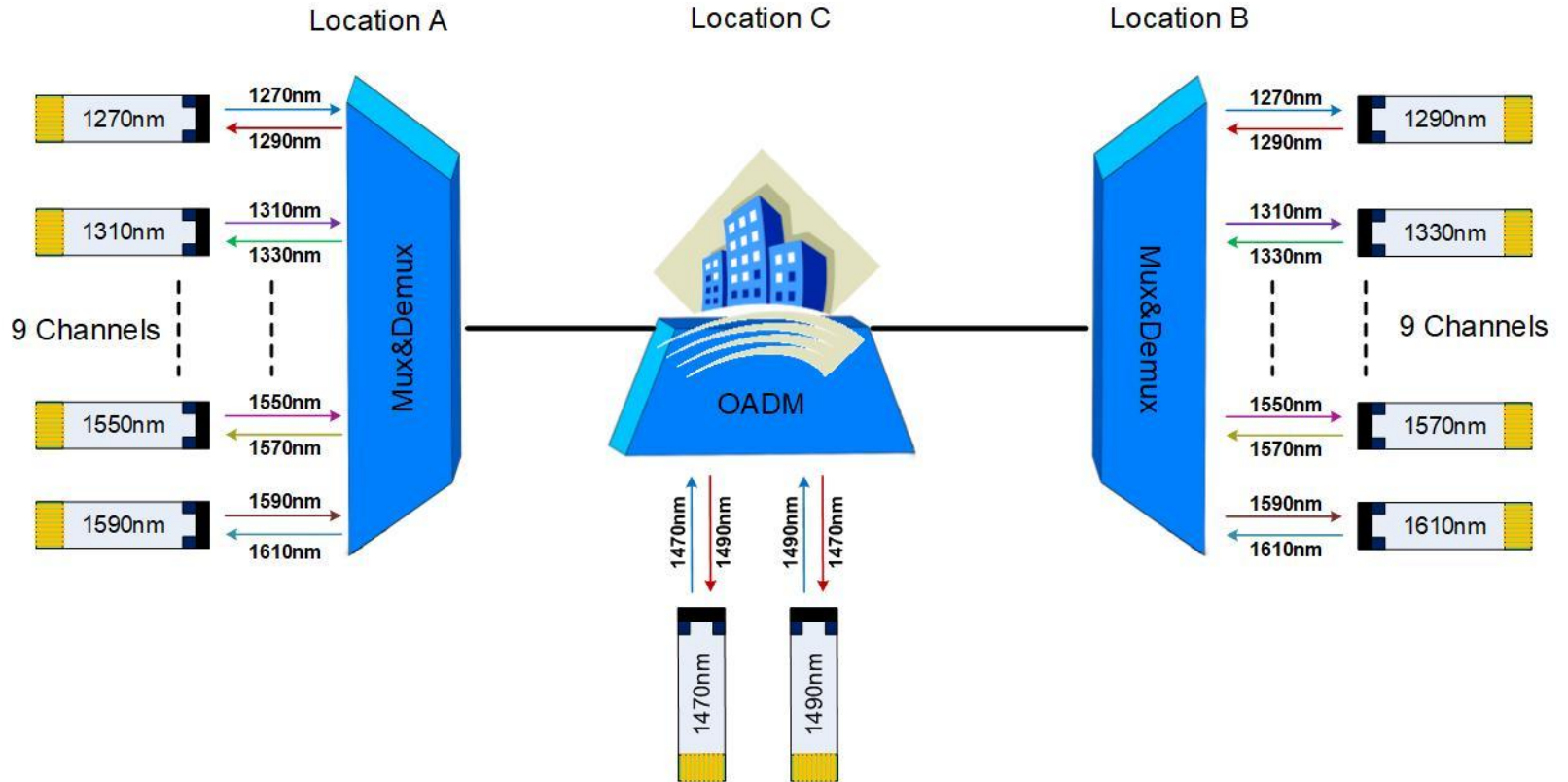
Parameter	Unit	Specification		
Operation wavelength	nm	1260~1620		
Number of Channels	Ch	4	8	18
Channel spacing	nm	20		
Central wavelength	nm	ITU Grid		
	nm	$\lambda_c \pm 6.5$		
Insertion loss	dB	1.4	2.6	3.7
Insertion loss(+1% Mon)	dB			
Insertion loss(+1310nm port)		<+0.3		
Insertion loss(+1% Mon+1310nm port)		<+0.6		
Adjacent channel isolation	dB	30		
Non-adjacent channel isolation		40		
Channel Ripple	dB	0.3		
Insertion loss temperature sensitivity	dB/°C	0.005		
Wavelength temperature shifting	nm/°C	0.002		
Return loss	dB	50		
Directivity	dB	50		
Polarization dependent loss	dB	0.2		
Polarization mode dispersion	ps	0.1		
Power handling	nW	500		
Operation temperature	°C	-5~+70		
Storage temperature	°C	-40~+85		





CWDM

Transmission





DWDM

Description

DWDM series single-channel DWDM are three-port filters that are used to add/drop a DWDM wavelength to/from a set of DWDM optical wavelengths, where the wavelengths are CH20, CH21. CH62 on the DWDM ITU grid (0.4 nm or 0.8 nm spacing). The filters are available in different versions of packaging, like SUS tube or glass tube only. All versions are designed for using in an outdoor environment within a temperature range of -40°C to +85°C.

Standard

RoHS

Free of hazardous substances according to RoHS2011/65/EU

Test Criteria

Telcordia GR-1209-CORE

Telcordia GR-1211-CORE



Applications

- Metropolitan Area Network
- Data Centre
- Backbone Network

Feature

- Wide Operating Wavelength Range
- Low Insertion Loss And Low PDL
- Compact Size
- Telcordia GR-1209 And GR-1221 Qualified





DWDM

Technical parameter

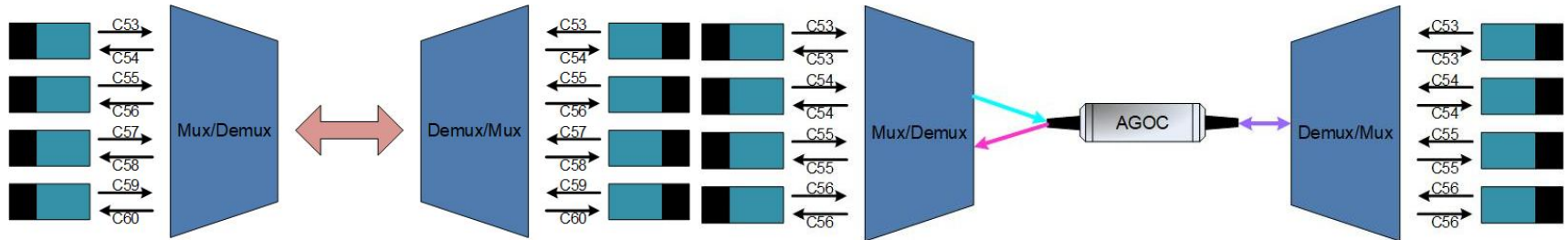
Parameter	Unit	Specification		
Operation wavelength	nm	1260~1620		
Number of Channels	Ch	4	8	16
Channel spacing	nm	0.8(100GHz)/1.6(200GHz)		
Central wavelength	nm	ITU Grid		
	nm	$c \pm 0.125$		
Channel passband@200GHz		$\lambda c \pm 0.25$		
Insertion loss	dB	1.7	2.9	4.8
Insertion loss(+1% Mon)	dB			
Insertion loss(+1310nm port)		<+0.3		
Adjacent channel isolation	dB	>30		
Non-adjacent channel isolation		>40		
Passband Ripple	dB	<0.3		
	dB	<0.2		
Directivity	dB	>50		
Return loss	dB	>50		
Polarization mode dispersion	ps	<0.1		
Power handing	Mw	<500		
Operation temperature	°C	-5~+70		
Storage temperature	°C	-40~+85		





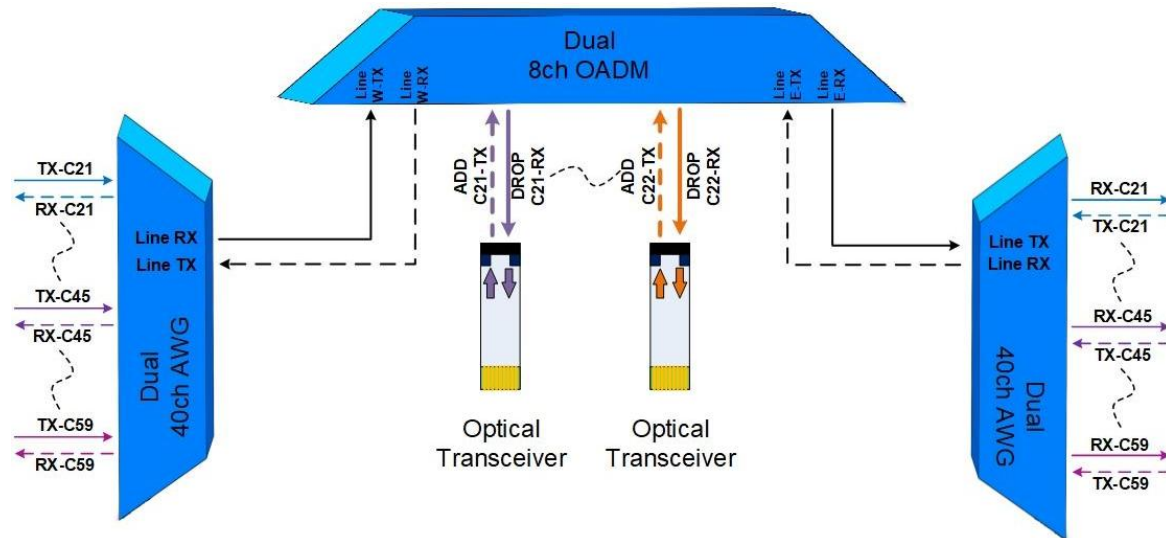
DWDM

Transmission



Single Fiber Bidirectional Transmission Mode
The wavelength of MUX and DEMUX is different

Dual Fiber Bidirectional Transmission Mode
The wavelength of MUX and DEMUX is same





FWDM

Description

An optical fiber filter WDM(FWDM) is a passive device that allows the propagation of the one-way light waves and that is sufficiently isolated from reflected light to improve the transmission efficiency of light waves. Apply to erbium doped fiber amplifier, the performances and technical applications of the optical isolator in detail.

An optically FWDM passive device made by Vsunlight is a passive device that transmits high-frequency signal energy in one direction, ensuring that light travels in only one direction. It is characterized by small forward insertion loss, high reverse isolation and high return loss. All versions are designed for use in an outdoor environment within a temperature range of $-10\text{ }^{\circ}\text{C}$ to $+70\text{ }^{\circ}\text{C}$.

Standard

RoHS

Free of hazardous substances according to RoHS2011/65/EU

Test Criteria

Telcordia GR-1209-CORE

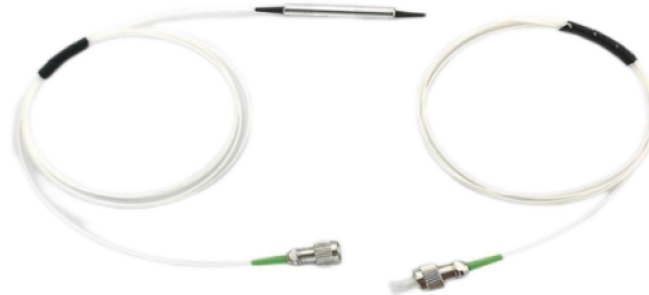
Telcordia GR-1211-CORE

Features:

- High isolation
- Low insertion loss
- High return loss
- Low polarization dependent loss(PDL)
- Low polarization mode dispersion
- Ultra Stable and Highly Reliable
- Epoxy-free optical path

Applications

- Fiberoptic Amplifiers
- CATV Fiberoptic Links
- Fiber Optic Systems Testing
- Telecommunications





FWDM

Technical parameter

Optical Performance

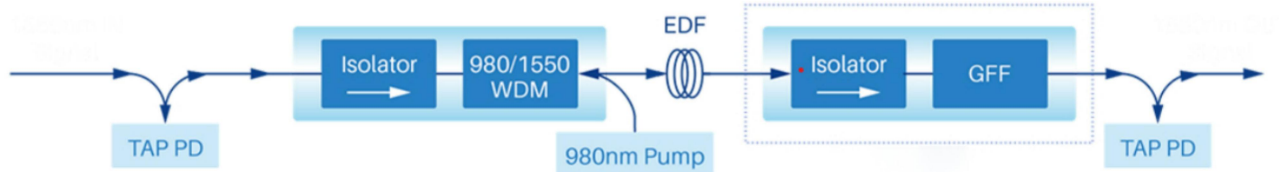
Parameter	Unit	Specifications			
Physical					
Package	/	Refer To The Ordering Information			
Environmental					
Operating Temperature	°C	-40 ~ +85			
Storage Temperature	°C	-40 ~ +85			
Optical Interface					
Connector	/	Refer To The Ordering Information			
Optical					
Structure	/	Single Stage		Dual Stage	
Operating Wavelength	nm	$\lambda_c \pm 15$		$\lambda_c \pm 30$	
Grade	/	P	A	P	A
Insertion Loss@Typ	dB	0.35	0.4	0.45	0.55
Insertion Loss@Max	dB	0.45	0.55	0.6	0.7
Isolation@ λ_c 23°C Typ	dB	40	35	50	45
Isolation@ λ_c 23°C Min	dB	30	28	45	42
Polarization Dependent Loss	dB	≤0.05	≤0.10	≤0.05	≤0.10
Polarization Mode Dispersion	Ps	≤0.25/0.05		≤0.05	
Return Loss	dB	≥60/55(Input/Output)			
Insertion Loss Temperature Sensitivity	dB/°C	≤0.005			
Power Handling	mW	≤500			



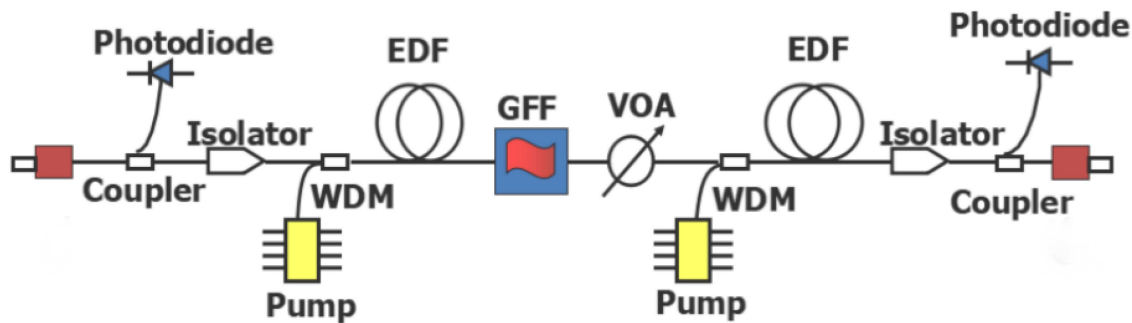
FWDM

Application

When optical signals are transmitted in optical fibers, they usually have certain losses. Therefore, in fiber optic networks, erbium-doped fiber amplifiers (EDFA) are required to amplify the light to compensate for the energy loss caused by insertion loss. As a very important optical amplifier device in medium and long distance fiber optic networks, EDFA has three main applications in fiber optic networks, including relay amplification, pre amplification, and post amplification, to ensure that optical signals can be transmitted for hundreds or even thousands of kilometers.



EDFA working principle diagram



Schematic diagram of EDFA optical path



AWG

Description

AWG is a spring passive device based on planar waveguide technology that requires no additional power or other power supplies. It has the advantages of low loss, high integration, good uniformity . A variety of channels, encapsulation modes and extended ports are available. Widely used in MAN,WDM transmission, Optical Add/Drop Multiplexing and so on. P grade are designed for use in an outdoor environment within a temperature range of -40°C to $+85^{\circ}\text{C}$.

Standard

RoHS

Free of hazardous substances according to RoHS2011/65/EU

Test Criteria

Telcordia GR-1209-CORE

Telcordia GR-1211-CORE

Applications

- Metropolitan Area Network
- Data Centre
- Backbone Network

Feature

- Wide Operating Wavelength Range
- Low Insertion Loss and High Isolation
- Telcordia GR-1209 and GR-1221 Qualified, Providing
- Excellent Environmental and Mechanical Stability
- Ultra Compact size
- Epoxy-free on optical path





AWG

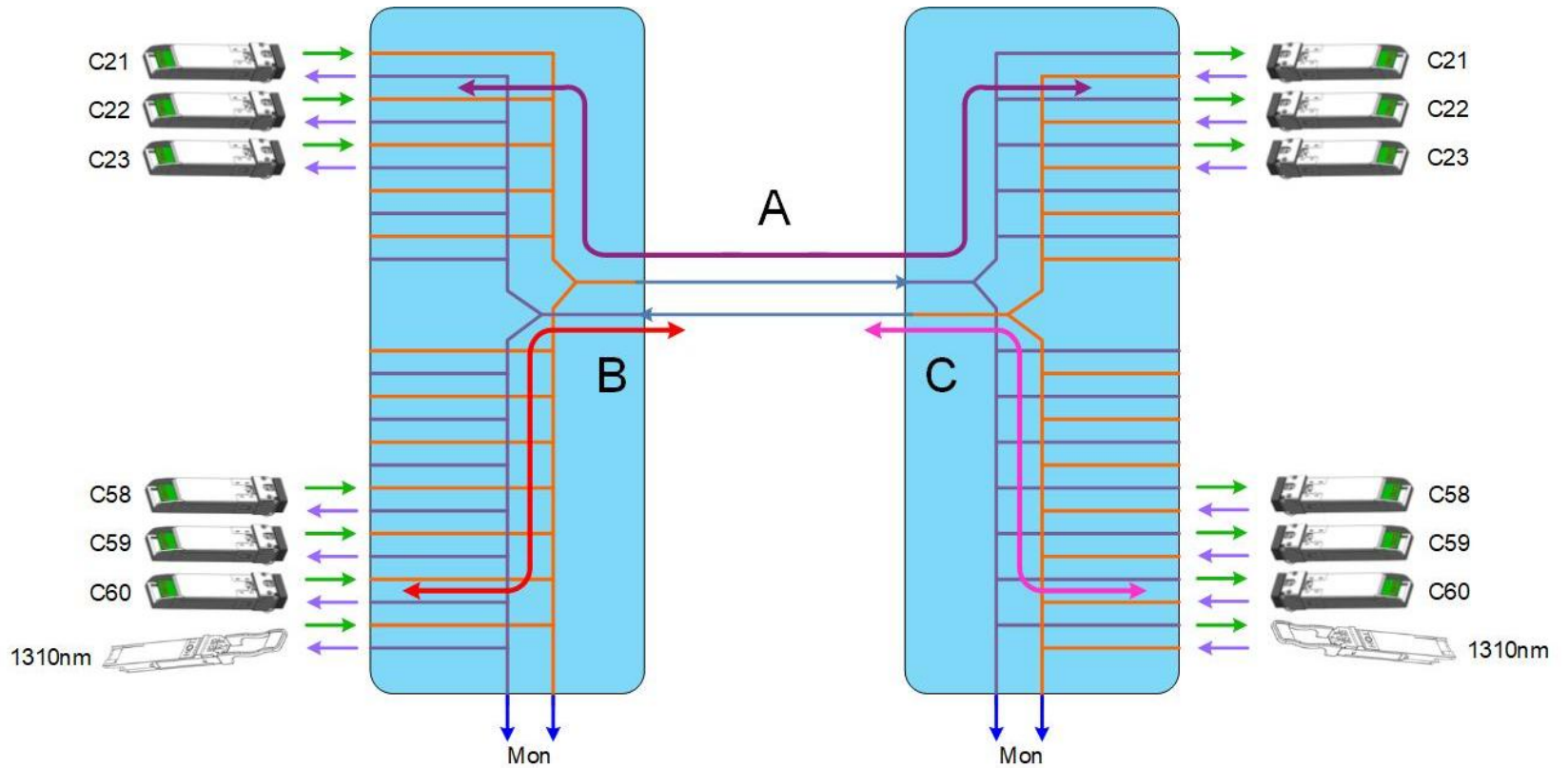
Technical specification

Parameter	Unit		Specifications	
Pass Band Type			Flat-Top	Gaussian
Operating band			C&L band	
Channel Count		CH	16ch~48ch	
Channel Offset		/	50G, 75G, 100G, 150G Optional	
Centre Wavelength		nm	ITU Grid	
Channel Count		CH	16ch~48ch	
Pass Band Type		/	Flat-Top	Gaussian
Wavelength Accuracy		pm	± 50	
Adjacent Channel Isolation	Min	dB	23	
Non-Adjacent Channel Isolation	Min	dB	30	
-1dB Bandwidth	Min	nm	0.4	0.2
-3dB Bandwidth	Min	nm	0.6	0.4
Channel Ripple	Max	dB	0.7	1.2
Insertion loss	Max	dB	5.5	4.0
Polarization Dependent Loss	Max	dB	0.5	
Return Loss	Min	dB	45	
Polarization Mode Dispersion	Max	ps	0.5	
Power Handling	Max	mW	300	
Operating Temperature		°C	-5 ~ +70 or -40~85	
Storage Temperature		°C	-40 ~+85	



AWG

Transmission





Mechanical optical switch

Mechanical Optical Switch

Description

The optical switch is an optical path conversion device, which plays the role of optical path conversion in the optical path.

In the optical fiber transmission system, it is used for multi-monitor, LAN, multi-light route translation for source, probe and protection Ethernet.

In the optical fiber test system, it is used for optical fiber, optical fiber equipment test and network

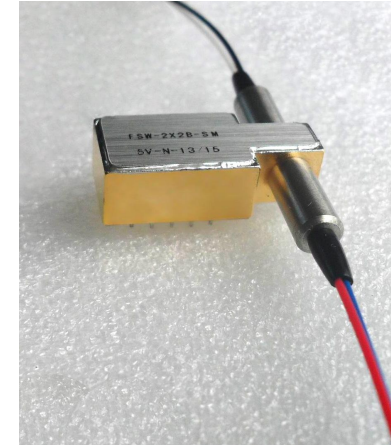
Network testing, fiber optic sensing multi-point monitoring system.

Features

- Low insertion loss
- Wide wavelength range
- Low channel crosstalk
- High stability, high reliability
- Unique patented technology, optical path without glue
- Locking and non-locking two control types

Application

- MAN
- Laboratory research and development
- System monitoring
- Dynamic configuration add-drop multiplexing



Locking vs. Unlocking

Locking type

the state is the last time the voltage is applied to the channel to emit light

Non-locking type

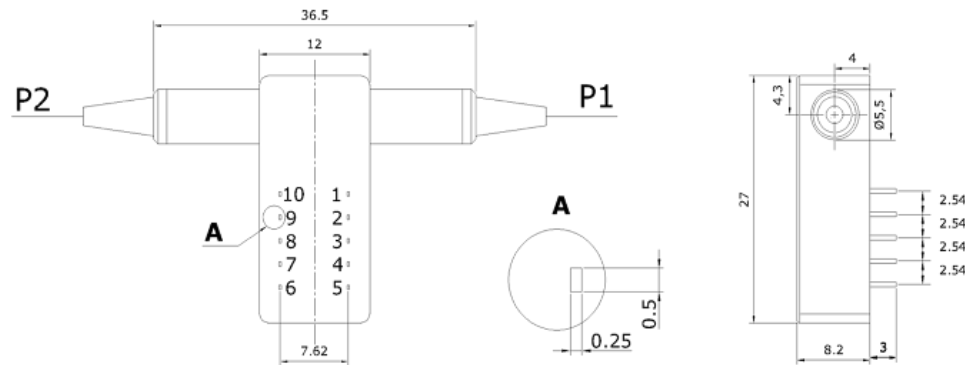
the state of the optical switch is always for a specific channel to emit light, switch to another channel when the voltage is applied, and bounce back to the original channel to emit light after power off



Optical Switch 1*1



Packing dimension



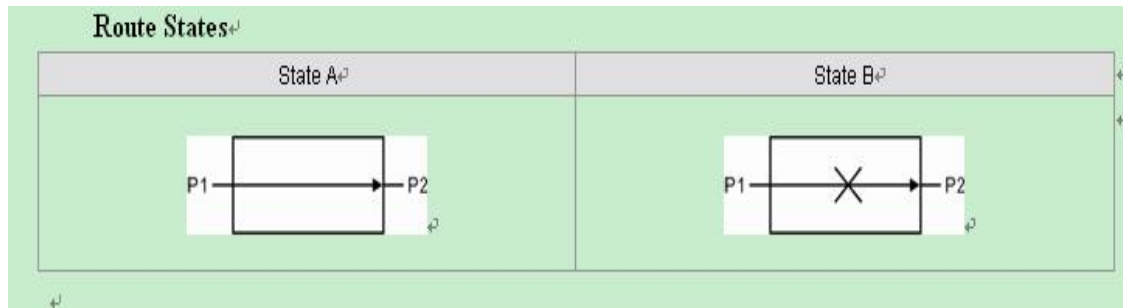


Optical Switch 1*1

Specification

Parameters		FY-1*1	
Wavelength Range	nm	670~980	1260~1650
Operating Wavelength	nm	670/785/850/980	1310/1490/1550/1625/1650
Insertion Loss	dB	Typ:0.5 Max:0.8	Typ:0.4 Max:0.6
Return Loss	dB	SM≥50、MM≥30	
Crosstalk	dB	SM≥70、MM≥65	
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	Time	≥10 ⁷	
Switch Time	ms	≤8	
Transmission Power	mW	≤500	
Operating Temperature	°C	-20~+70	
Storage Temperature	°C	-40~+85	
Weight	g	16	
Dimension	mm	(L)27×(W)12.6×(H)8.0 (±0.2)	

Application

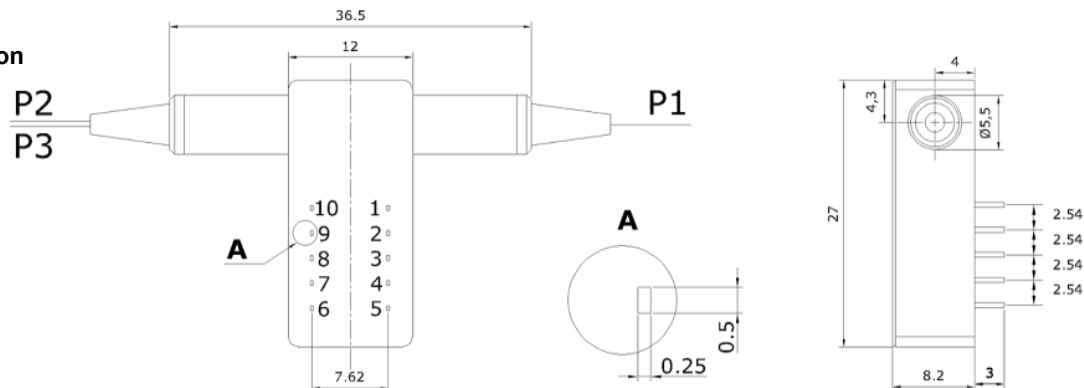




Optical Switch 1*2



Packing Dimension



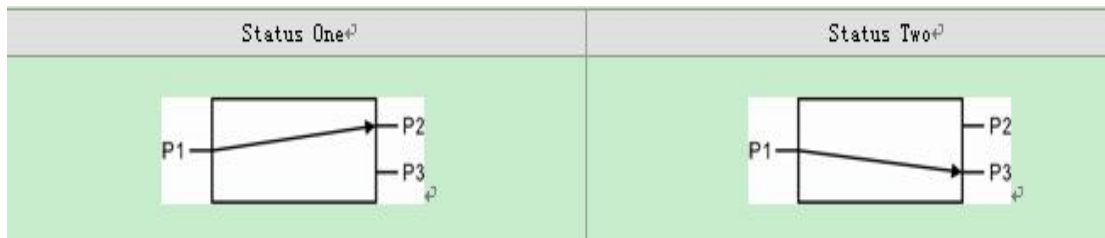


Optical Switch 1*2

Specication

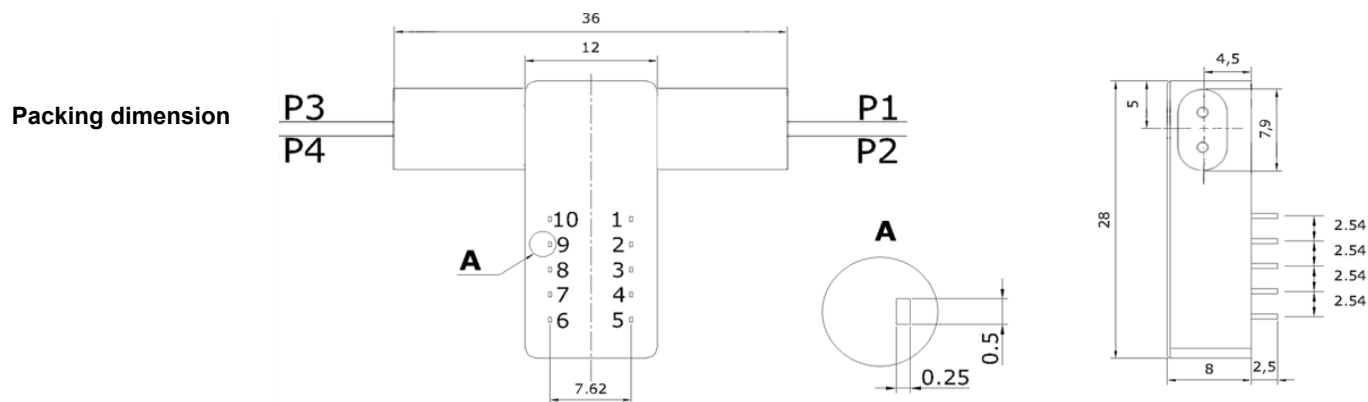
Parameters		FY-1×2	
Wavelength Range	nm	670~980	1260~1650
OperatingWavelength	nm	670/785/850/980	1310/1490/1550/1625/1650
Insertion Loss	dB	Typ:0.8 Max:1.2	Typ:0.5 Max:0.8
Return Loss	dB	MM≥30 SM≥50	
Crosstalk	dB	MM≥35 SM≥55	
PDL	dB	≤0.05	
WDL	dB	≤0.25	
TDL	dB	≤0.25	
Repeatability	dB	≤±0.02	
Power supply	v	3.0 or 5.0	
Lifetime	Time	≥10 ⁷	
Switch Time	ms	≤8	
Transmission Power	mW	≤500	
OperatingTemperature	°C	-20~+70	
Storage Temperature	°C	-40~+85	
Weight	g	16	
Dimension	mm	(L)27.0×(W)12.6×(H)8.0(±0.2)	

Application





Optical Switch 2*2



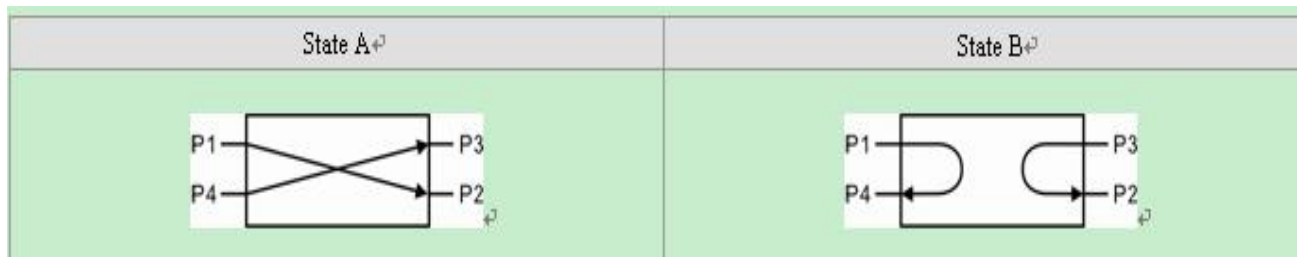


Optical Switch 2*2

Speciation

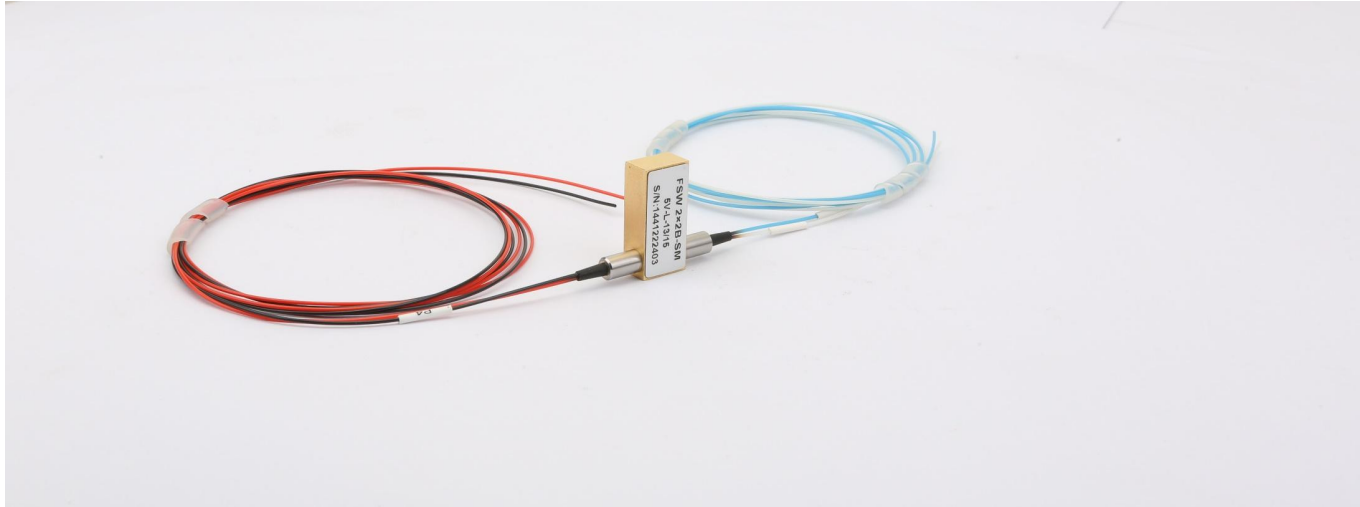
Parameters	Unit	2*2-S
WavelengthRange	nm	1260~1650
Operating length	nm	1310/1490/1550/1625/1650
Insertion Loss	dB	Typ:0.8 Max:1.0
Return Loss	dB	≥50
Crosstalk	dB	≥55
PDL	dB	≤0.05
WDL	dB	≤0.25
TDL	dB	≤0.25
Repeatability	dB	±0.02
Power Supply	v	3.0 or 5.0
Lifetime	次	≥10 ⁷
Switch Time	ms	≤8
Transmission	mW	≤500
Operating perature	°C	-5~+70
Storage Temperature	°C	-40~+85
Weight	g	16
Dimension	mm	(L)28.5×(W)12.6×(H)8.5(±0.2)

Application

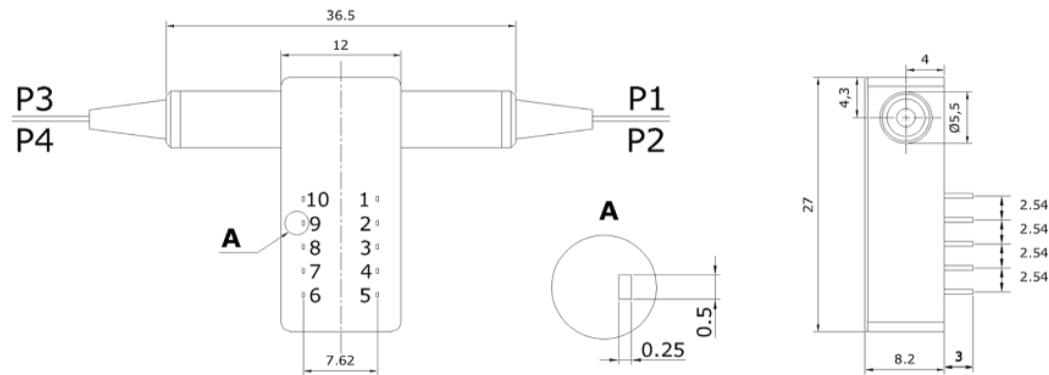




Optical Switch 2*2B (Bypass)



Packing dimension



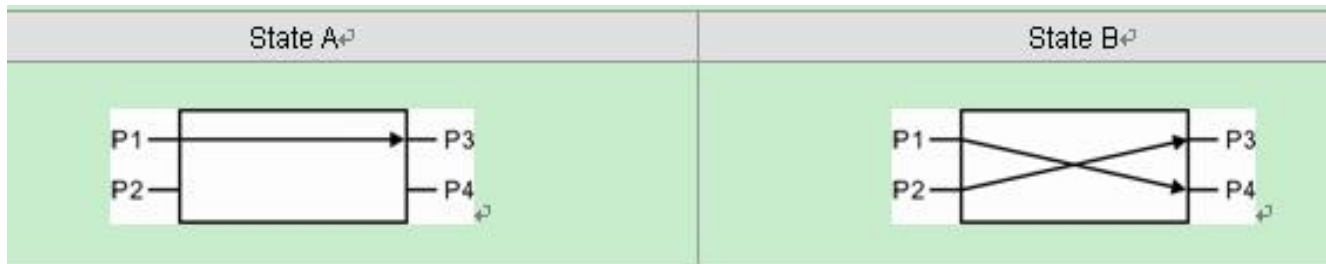


Optical Switch 2*2B (Bypass)

Specication

Parameters		2*2B	
Wavelength Range	nm	670~980	1260~1650
Operating avelength	nm	670/785/850/980	1310/1490/1550/1625/1650
Insertion Loss	dB	Typ:0.8 Max:1.2	Typ:0.6 Max:0.8
Return Loss	dB	MM≥30	SM≥50
Crosstalk	dB	MM≥45	SM≥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	times	≥10 ⁷	
Switch Time	ms	≤8	
Transmission Power	mW	≤500	
Operating Temperature	°C	-20~+70	
Storage Temperature	°C	-40~+85	
Weight	g	16	
Dimension	mm	(L)27.0×(W)12.6×(H)8.0(±0.2mm)	customization is available.

Application



14 Years

Manufacturer & Supplier of Professional Fiber Optic Cabling System



Thank you for your reading!

深圳威尔特通信科技有限公司

2023 VERSION

Add: 2nd floor, 2 Building, Jingheyuan Industry Park, No.2004 Xuegang Road, Bantian Street, Longgang District, Shenzhen, China

Tel: 86-755-28461866 Fax: 86-755-28461781

Website: <http://www.wirenetfiber.cn>