1u 19 Inch Rack Mount 8ch CWDM 16 Channels Mini Fiber Mux Demux

Function description

The optical wavelength converter can be used to increase the transmission bandwidth and transmission distance of the network. It can make the network capacity increase exponentially and quickly without affecting the original business, and greatly improve the security of the network. It has functions such as optical relay, wavelength conversion, and transmission medium conversion between single-mode fiber and multi-mode fiber. It is suitable for multiplexing transmission and wavelength conversion of various digital signals (SDH, ATM, Ethernet, Fibre Channel) and analog signals in optical fiber in the range of 10Mb / s to 2.5 Gb / s.

1, Features

Low Insertion Loss

High Isolation

Low PDL

Compact Design

Good channel-to-channel uniformity

Wide Operating Wavelength:

From 1260nm to 1620nm

Wide Operating Temperature:

From -40°C to 85°C

High Reliability and Stability

2, Applications:

application

1. Network expansion and upgrade: It can convert any input optical wavelength to a fixed ITU-CWDM output optical wavelength, and simultaneously transmit up to a dozen optical signals in one fiber,

greatly expanding the transmission capacity and utilization of the fiber. Save time and cost of laying fiber optic cables, and do not affect original services when opening new services.

2. Mixed transmission of various types of signals: Suitable for SDH, ATM, Ethernet, Fibre Channel equipment upgrades, long-distance line relays, analog signal transmission, and digital and analog signals within 10Mb / s to 2.5 Gb / s Hybrid transmission in one fiber.

3.Mode conversion: It can complete the conversion of single-mode light waves into arbitrary single-mode and multi-mode light waves, which is suitable for various complicated network situations.

4. Wavelength conversion: complete the conversion of any wavelength of single-mode and multi-mode light waves into CWDM wavelength, or convert one CWDM wavelength to another arbitrary wavelength, and the transmission distance can reach hundreds of kilometers.

5, optical relay: multiple cwdm can be connected in series to increase the transmission distance (up to hundreds of kilometers).

6. Security networking: Using cwdm, multiple virtual optical networks (OPNs) can be formed in a single pair of fibers to isolate each other on the physical channel, so that the network is completely protected from all software viruses and hackers, and its security is much higher than that of general VPN, especially suitable for government, public security, banking and other fields.

3, Specification :

Technical Specifications							
Parameter	4 Channel	8 Channel	16 Channel				
Mux	Demux	Mux	Demux	Mux	Demux		
Channel Wavelength(nm)	1270~1610						
Center wavelength Accuracy(nm)	±0.5						
Channel Spacing(nm)	20						
Channel Passband(@-0.5dB bandwidth (nm)	>13						
Insertion Loss(dB)	≤1.6	≤2.5	≤3.0				
Channel Uniformity (dB)	≤0.6	≤1.0	≤1.5				
Channel Ripple (dB)	0.3						
Isolation (dB)	Adjacent	N/A	>30	N/A	>30	N/A	>30
	Non-adjacent	N/A	>40	N/A	>40	N/A	>40
Insertion Loss Temperature Sensitivity (dB/℃)	<0.005						

Wavelength Temperature Shifting (nm/℃)	<0.002
Polarization Dependent Loss (dB)	<0.1
Polarization Mode Dispersion (PS)	<0.1
Directivity (dB)	>50
Return Loss(dB)	>45
Maximum Power Handling(mW)	300
Operating Temperature(℃)	-5~+75
Storage Temperature (℃)	-40~85
Package dimension(mm)	L100xW80xH10 or L140xW100xH15

Product Images:

Fiber Expansion Solution

In some areas where telecommunication fiber optic cable resources are insufficient, and business is growing rapidly, and the expansion of optical fiber cables is inconvenient and inconvenient, CWDM can take advantage of a variety of older types of limited optical fiber cables, including G.653 optical cables that cannot be used on DWDM. The topology application method provides a bandwidth that is several times that of the existing transmission capacity to achieve two-way aggregation of multiple services between two points, which is more cost-effective than traditional DWDM. CWDM's capacity expansion process is very simple. Just add a pair of CWDM equipment at both ends to expand the

capacity of the optical cable by 8 times. The service interruption time is short during the capacity expansion process. After the capacity expansion is completed, the original services are not affected. Smooth transition.

With CWDM, it is very easy to distinguish different users by wavelength and provide users with the specified bandwidth required, so that operators can provide wavelength rental services more conveniently. At present, the CWDM of Tianjin Titan Communication Co., Ltd. provides a variety of interface speeds below 2.5G, which can meet the speed requirements of different users and increase the actual transmission capacity of optical fibers.

Point To Multipoint

From the transmission of different services from the core office to multiple branch offices to the construction of the access network between the convergence office and the client, CWDM can adapt to a variety of complex network environments. The use of CWDM access to transmit multiple data services can achieve non-interference, and the business transmission of each customer can be reliably and securely guaranteed. CWDM can also form a passive optical network with EPON or APON and interconnect with DISLAM to provide a good solution for the realization of fiber-to-the-building users (FTTH) and the integration of multiple services.

Generally, in order to implement point-to-multipoint applications in optical networks, a larger number of optical fibers are required to form a star topology. In the case of insufficient fiber resources, use an optical path to serially connect each branch that needs to transmit data. Differentiate users and services by defining wavelengths in advance. Use CWDM terminal multiplexing equipment and add / drop multiplexing equipment at each service node to achieve regional Multiplexing transmission of services and up and down transmission of services. In this way, it can be used to solve the different service transmissions between the central node and multiple branch nodes, thereby implementing a logical star structure with a simple physical optical path.