3C-LINK
Creative Clever Cool

5G Front-haul

1U/2U/5U System

DATA SHEET

5G Front-haul

Semi-Active WDM System

Overview

The 5G fronthaul transmission semi-active WDM system launched by 3C-LINK Opto Co., Ltd. is mainly used to solve the problem of lack of optical cable resources for optical fiber remote transmission between DU-AAU in C-RAN architecture.

The scheme features active WDM on the DU side and passive WDM on the AAU side. Through the intervention of active equipment, the management and protection functions of the frontal transmission carrying network are realized.

At the same time, the simple and low-cost characteristics of remote passive are taken into account. The network reliability is improved, and the manageability and maintainability of the fronthaul transmission network are also improved.

Features

- Support CPRI 1~10 and eCPRI (10G/25G), compatible with STM-1/4/16/64, GE/10GE/25GE, and another multi-service unified bearing, transparent transmission, and maximize the value of frontal transmission network.
- Modular configuration, 1:6/12/18 optional, can achieve multi-directional multi-level convergence, and large-scale optical fiber saving.
- It can provide a variety of color optical modules, support CWDM 18 waves, MWDM 12 waves, meet the requirements of various line power budgets.
- Support optical layer 1:1 protection with protection switching time less than 50ms, improve network reliability.
- Support graphical interface network management, reconstruct wireless and transmission management domain and realize full monitoring of optical module and line status.
- The central office ends active WDM equipment supports AC 220 V and DC-48 V power supply options and 1 + 1 power input protection. Power failure of the equipment will not affect the service transmission.
- Remote passive WDM has outdoor deployment capability and flexible deployment location.

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Specifications

Item of Mux-Demux	CWDM			MWDM	
Channel Number	6	12	18	6	12
Central wavelength (nm)	1271~1371	1271~1491, 1271~1371 &1471~1571	1271~1611	1267.5~1314.5	1267.5~1374.5
Pair channel insertion loss (dB) (Without protection) A	≤3.0	≤4.0	≤4.4	≤3.0	≤4.0
Center wavelength deviation (nm)	±1.5			±1.0	
1dB channel bandwidth (nm)	≥13			≥5	
The flatness of passband (dB)	≤0.5				
Isolation of adjacent channels (dB)	≥30				
Isolation of non-adjacent channels (dB)	≥40				
Wavelength thermal stability (nm)	≤0.005				
Insertion loss thermal stability (dB)	≤0.007				
Polarization-dependent loss (dB)	≤0.15				
Return loss (dB)	≥40				
Protection switching time	<50ms				
Working temperature (°C)	0~+70				
Storage temperature (°C)	-40 ~+85				

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5G Front-haul Chassis

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Overview

3C-LINK 1U/2U/5U 19inch chassis can work with 5G Front-Haul card. The product has large transmission capacity, compact size, low power consumption and fully meets the requirements of data center/4G/5G application. It is suitable for both short-distance interconnection and long-distance transmission.

Physical Characteristics

Dimension

44.45mm (H) * 448mm (W) * 490mm (D)	1U
88.65mm (H) * 448mm (W) * 490mm (D)	2U
220.45mm (H) * 448mm (W) * 490mm (D)	5U

Suitable cabinet

19-inch

Power supply

1+1 redundancy power supply

- AC input: 100～240V, 47～63Hz
- DC input: -40V～-72V

Working environment

Working temperature: 0°C～45° C

Memory storage temperature: -40°C ~ 70°C

Relative humidity: 10%～90%, no condensation

Cooling method

The air flow direction is from the front to the rear

Out-band management interface

2xRJ45 network port

In-band management

GCC0/1/2

Maximum power consumption

400W

Open API

SNMP/NETCONF