



COMPANY PROFILE

SHENZHEN HTFUTURE CO., LTD.

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About HTF

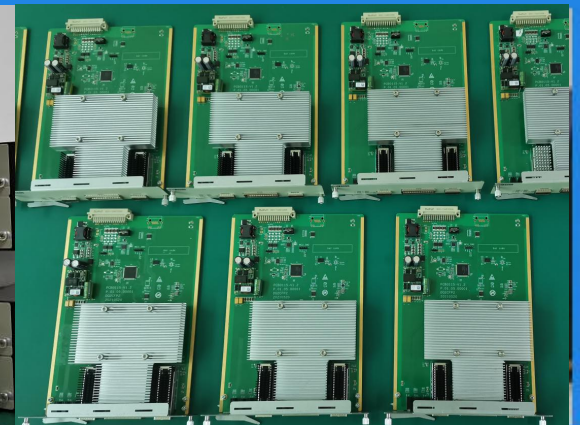
Shenzhen htfuture Co., Ltd is a professional supplier of WDM systematic solution and fiber optic products. as built by a team who has more than 10-year experiences in optical communication product R&D, fiber solution, component developing and manufacturing.

HTF supplies a broad range of optical communication products, including DWDM/OTN systematic transmission solution, **Single channel support 400G/200G/100G DWDM upgrade**, Optic Transceivers(SFP, SFP+, XFP, 10G QSFP+, 40G QSFP+ and 100G QSFP28), Customized MPO cable, DAC cable, AOC cable etc.

HTF has a strong R&D team. According to the development needs of the market, it has launched 100G 200G 400G DCI big data center interconnection DWDM equipment, as well as 5G mid-haul products and 5G fronthaul products. And obtained a number of patents in the fields of 100G, 200G DCI data center interconnection, 5G fronthaul and other fields.



FACTORY DISPLAY



The Aim Of HTFuture Is To Provide You Excellent Products, And The Same Time The Best Service Experience.



DEVELOPMENT HISTORY

2015

Founded in Shenzhen, dedicated to R&D and production of optical transmission products

2016

Successfully launched DWDM transmission system products

2017

Successfully entered the big data transmission market and developed a complete CWDM and DWDM product system

2018

Successfully developed a 100G DWDM transmission system and successfully applied it to the Silicon Valley 8x100G big data cloud transmission interconnection project

2019

Successfully developed 5G fronthaul semi-active products, which were successfully applied to Zhejiang Mobile's 5G fronthaul construction project

2020

Successfully developed single-wavelength 200G, 400G coherent optical ultra-long-distance transmission system, and successfully applied to Zhengzhou-Luoyang 360 long-distance transmission project

2021

Invested in the development of DCI data center interconnection products and entered the DCI market

2022

Established a 1500-square-meter Wuhan R&D Center in Wuhan, and cooperated with universities to continue to develop industry-leading core technologies and products with market competitiveness

HTF Honor



Passed the ISO9001 quality management certification system



Achieve the telecommunications network access license



National High-Tech Enterprise

Obtained quality management system certification in 2019 (certificate number GR201944201180)

The product has passed the network access license of the Ministry of Industry and Information Technology, license number: 28-C893-222601

Became a national high-tech enterprise since 2019 (certificate number GR201944201180)

HTF Honor



Two invention patents



12 computer software copyrights



9 utility model patents

The invention patents are: self-positioning optical module (authorized publication number: CN202210342221.1),

100G incoherent DWDM optical transmission system (authorized publication number: CN202110676034.2)

Example of obtaining copyright: MWDM 5G Fronthaul System V1.0 (Registration No. 2021SR1685366),

5G Fronthaul Protection System V1.0 (registration number: 2016SR228014),

40-wave DWDM transmission system V1.0 (Registration number: 2021SR1646856)

Utility model patents: Erbium Doped Fiber Amplifier (registration number CN201821350319.76)

Easy-to-install WDM transmission equipment (Registration number: 202221204038.7)

Repeater (registration number: CN201821355841.4)

Our Certificate

Product Quality FCC, CE, ROHS Certification Passed ISO9001 Certification.





Why choose HTF?

Give us your requirements, we do all of the rest for you.



Customized WDM Solution

Send us your requirements of optical transmission project, HTF professional technical support team offers you gratis solution 24/7 online. Aim to Provide high-capacity, cost-effective and high scalability transmission solution for Service Providers, Enterprise, Dark Fiber Providers, Financial Institutions and Universities, Expand your network capacity easily.



Quality Commitment

Provide high quality products and service, support you the finest value for your money. Strictly abide by ISO 9001:2015, Products passed ISO, FCC and CE certification, All products will pass rigorous test and inspection before shipping.



Best Service

We are here to help 24/7. HTF team with 3 ~ 10 years working experience and strong sense of responsibility. Flexible cooperation, OEM / ODM / small orders accepted, Sample orders shipped from stock in time, bulk orders lead time can be short to 3 to 7 days.



Reliable Partner

HTF Team aim to be your Reliable partner, Reliable Telecom Transmission Solution Provider and Manufacturer. Assist you to serve your clients and open more market. Together We Quest for the Best. Our belief is Integrity based, Strive for excellence, Win-win cooperation.

Advantages

Professional in Fiber Transmission



01

Professional team members, to provide you skilled products and services



02

Faster respond and faster delivery date



03

Steady company strategy, win-win together with all partners

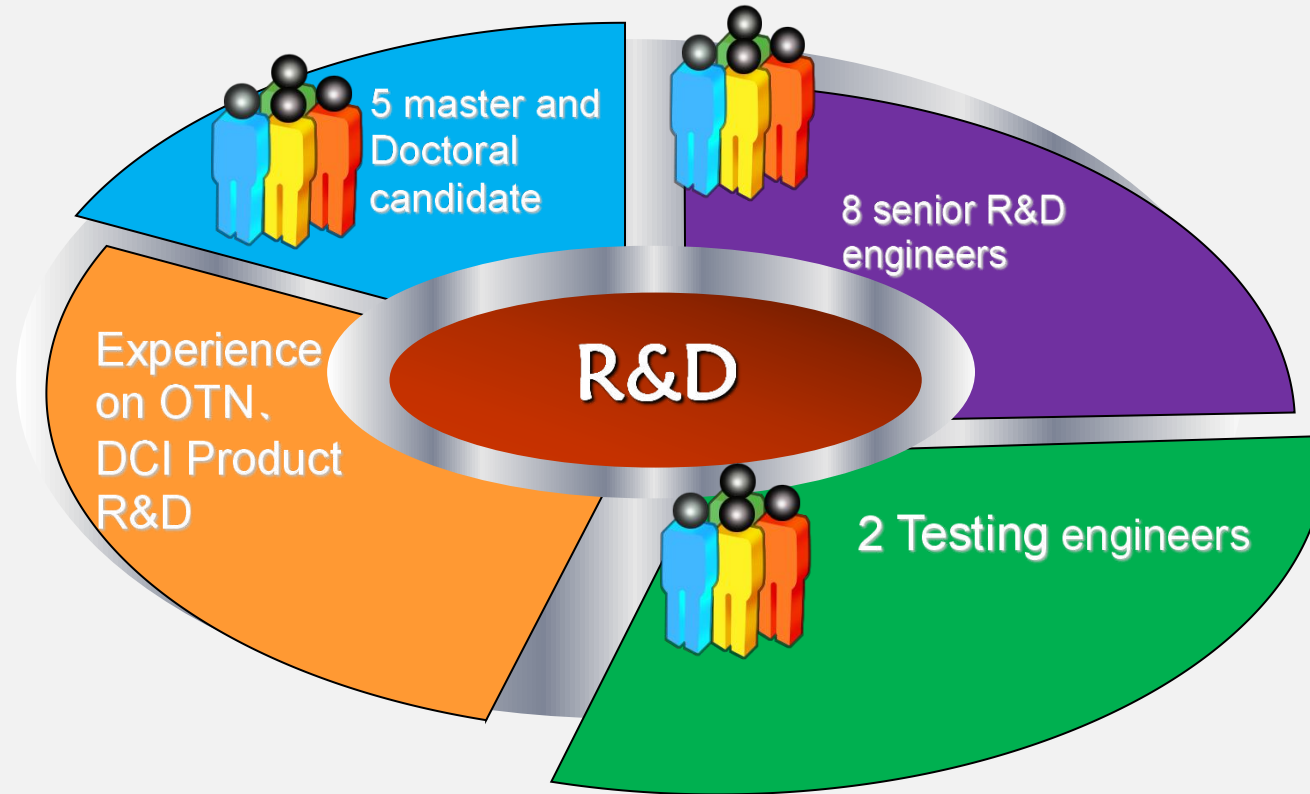


04

Energetic & warmly supports and services



R&D TEAM INTRODUCTION



Customer

Professional in Fiber Transmission



(Above customers are come from domestic market yet only)

02

Product Overview

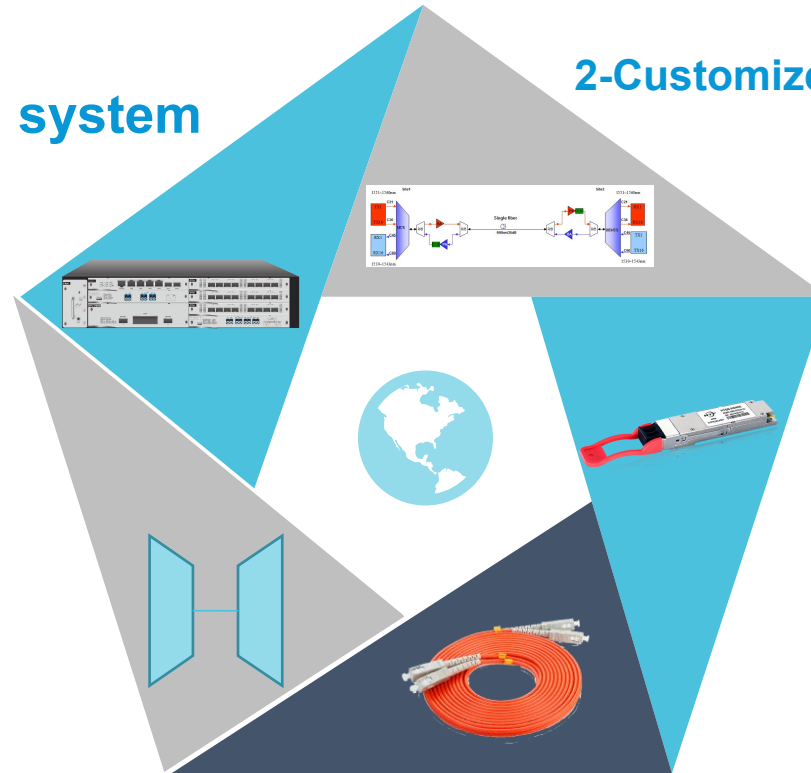
- Product Series
- Featured Products

HTF Product Series



1-OTN/DWDM optical transmission system

2-Customized DWDM transmission Solution Support



3-Optical Transceivers

4-CWDM/DWDM Mux Demux, CCWDM, AWG

5-Customized Fiber Optical Patch cord, DAC cable, AOC cable

**If need customized the product, We also can support.
Email us your detail requirement, We can discuss in details.**

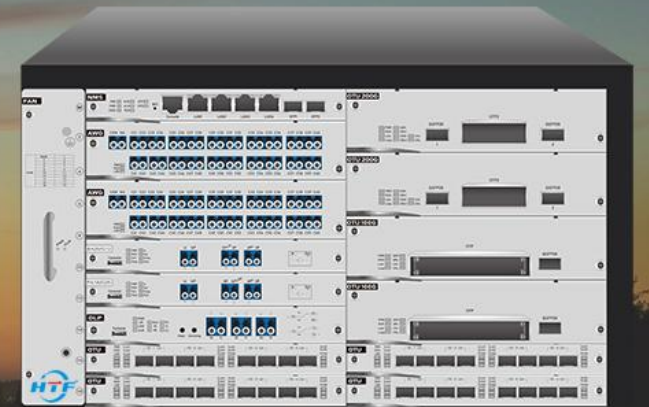
1-OTN/DWDM optical transmission system (HT6000)

How to build a large-capacity OTN/DWDM/CWDM transmission expansion solution for IDC and ISP operators?

HT6000 will support you, Easy expand your network capacity.

- Why HTF?
- Quality Guarantee
- Customized Transmission solution
- Affordable Cost
- 24/7 Technical Support
- Solve the Shortage Of Fiber Resources

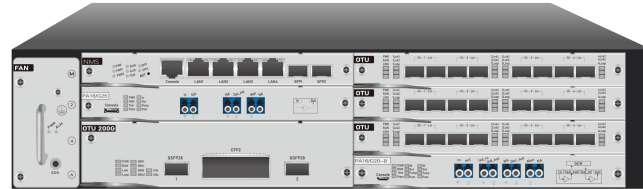
[More Details](#)



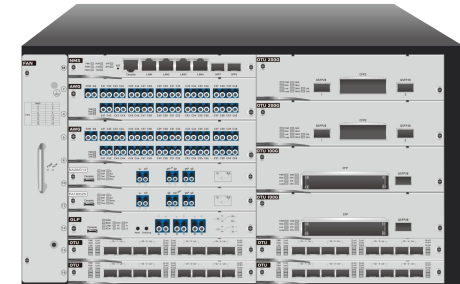
HT6000 OTN/DWDM optical transmission system



HT6000-CH04
Standard 1U, 19", 4 slots



HT6000-CH08
Standard 2U, 19", 8 slots



HT6000-CH20
Standard 5U, 19", 20slots

The HT6000 is a compact, high-capacity, low-cost OTN optical transmission system introduced by HTF. Dual power supply AC/DC optional, Multiple service card hybrid insertion, Support 10G/100G hybrid transmission.

It adopts CWDM / DWDM common platform design, supports multi-service transparent transmission, and has flexible networking and access capabilities.

Applicable to the national backbone network, provincial backbone network, metro backbone network and other core networks, to meet the needs of large-capacity nodes above 1.6T, is the industry's most cost-effective transmission application platform. Build a large-capacity WDM transmission expansion solution for IDC and ISP operators

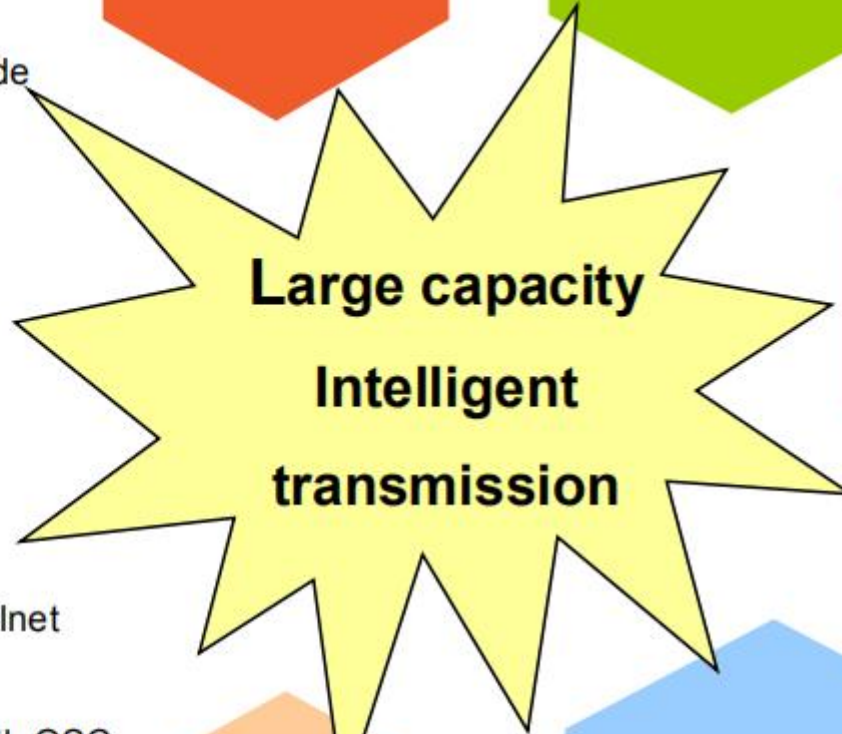
Ultra-wideband intelligent transmission platform

- Maximum support 96ch
- Single channel rate up to 100Gbps,
- support 10G/100G mixed transmission
- Smooth network upgrade

Super T-bit capacity

**Intelligent protection
High reliability**

- Customer side supports 1+1 protection
- Channel side supports 1+1 protection
- Multiplex side supports 1+1 protection
- Power supply supports 1+1 dual power supply redundancy protection



Flexible and transparent access to multiple services

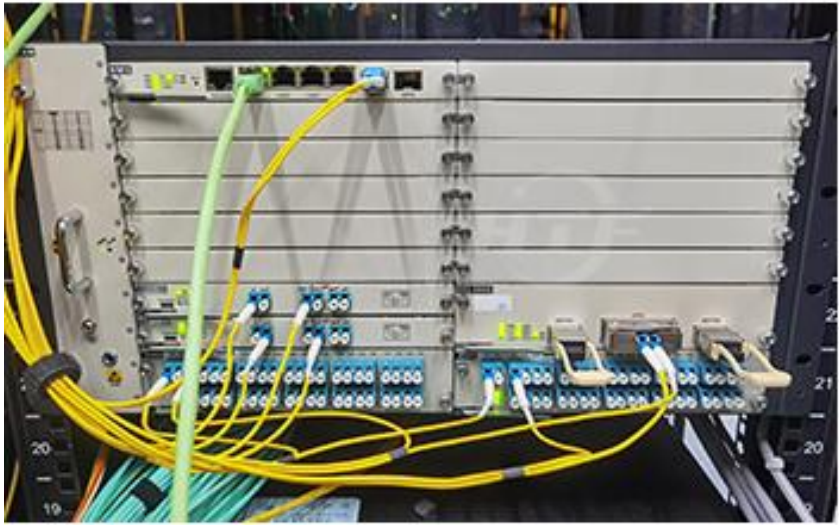
- IP:GE/10GE/100GE
- FC: 1/2/4/8/10Gbps
- SDH:STM-1/4/16/64
- CPRI:1/2/3/4/5/6/7

- Support SNMP, Web, Telnet management
- Remote management with OSC
- Real-time online monitoring, fast fault location
- Fully visual interface

Intelligent management platform

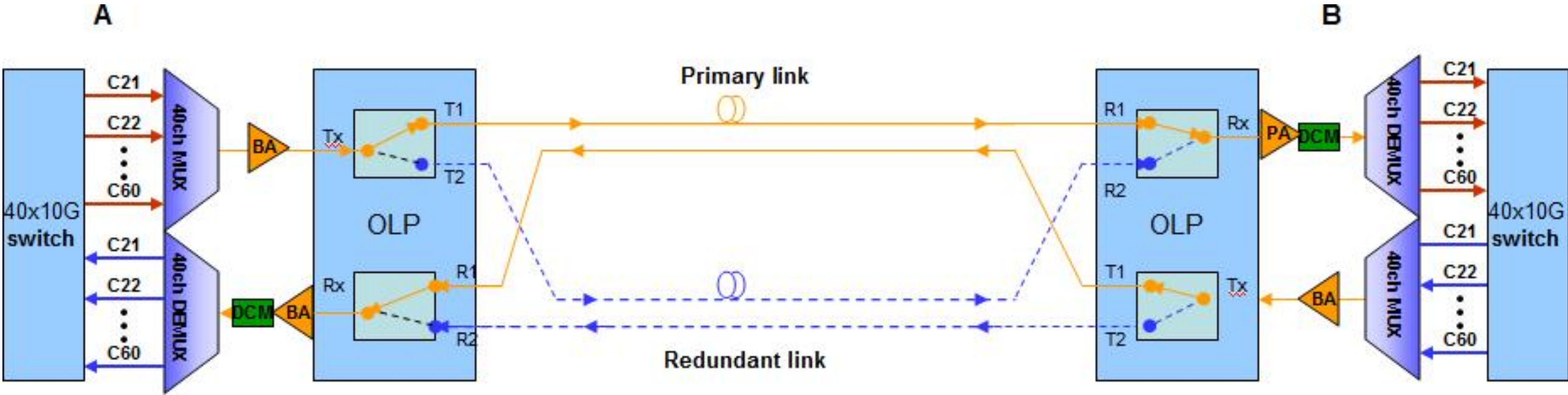
**Easy to operate
Simple maintenance**

- Modular design, support for hot swap
- Support wavelength adjustable,
- Support eye protection
- Management card automatic identification service card
- Service card automatically stores operational and fault information
- Service card supports online upgrade

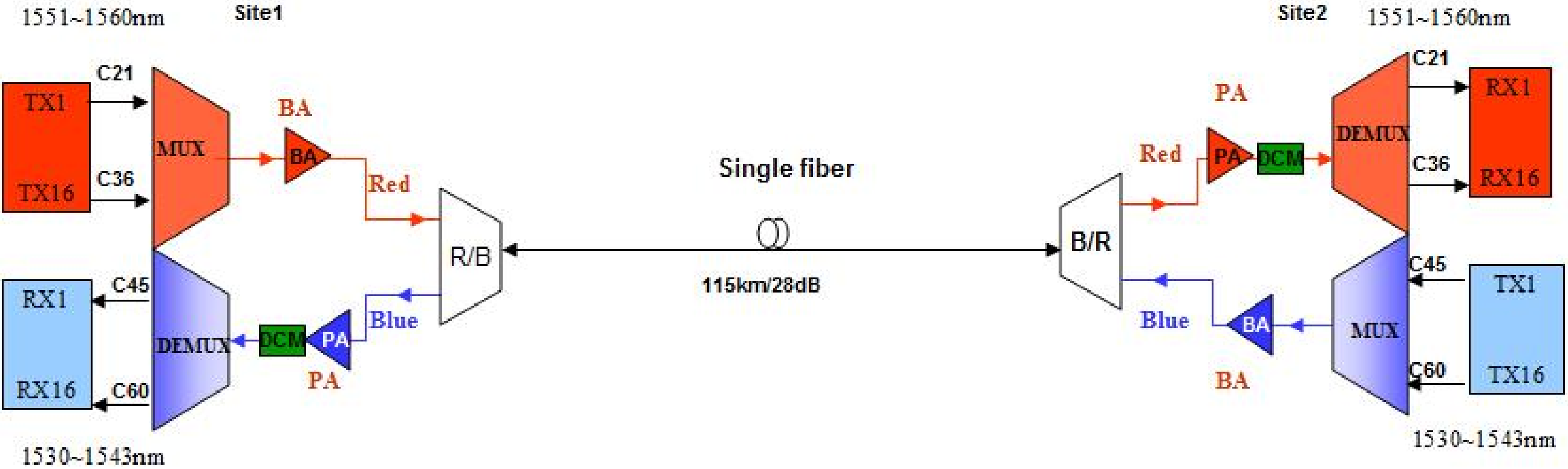


2-Customized DWDM transmission Solution Support

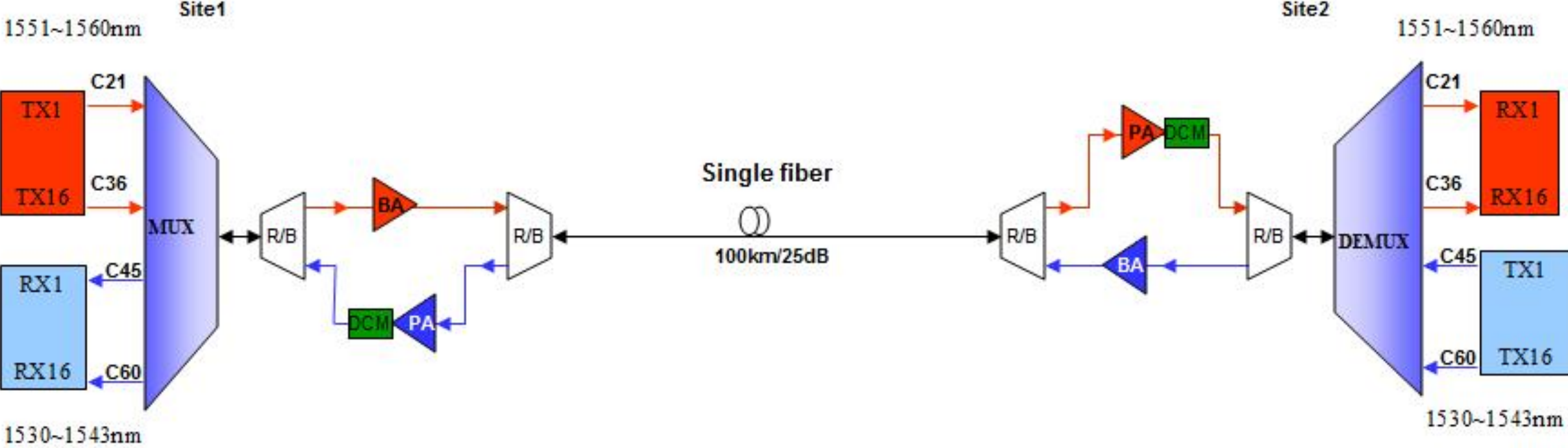
DWDM+OLP optical line protection Case



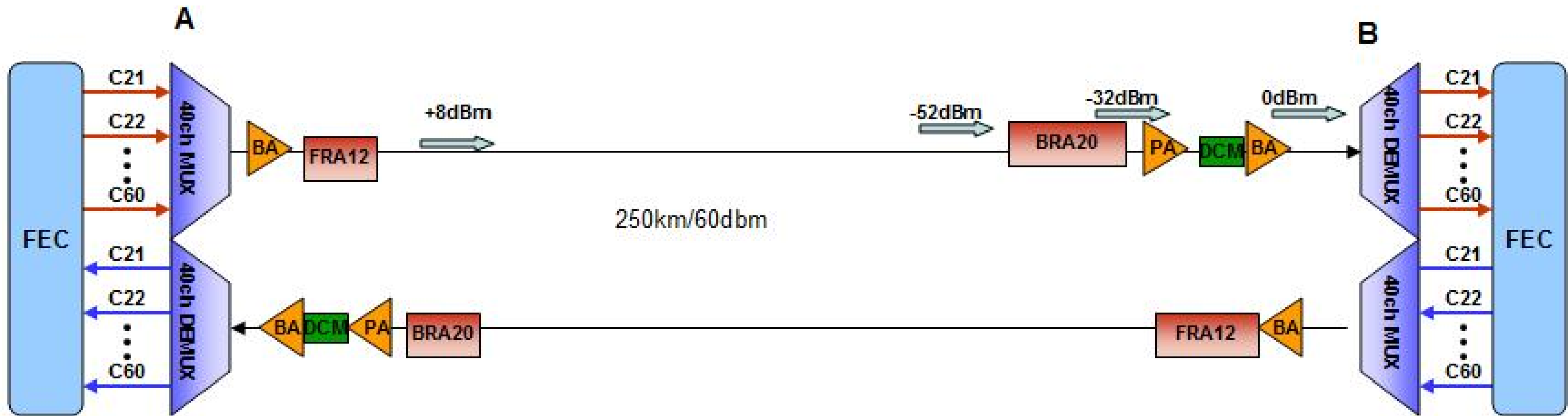
DWDM single fiber bidirectional networking case single MUX&DEMUX



DWDM single fiber bidirectional networking case single MUX/DEMUX

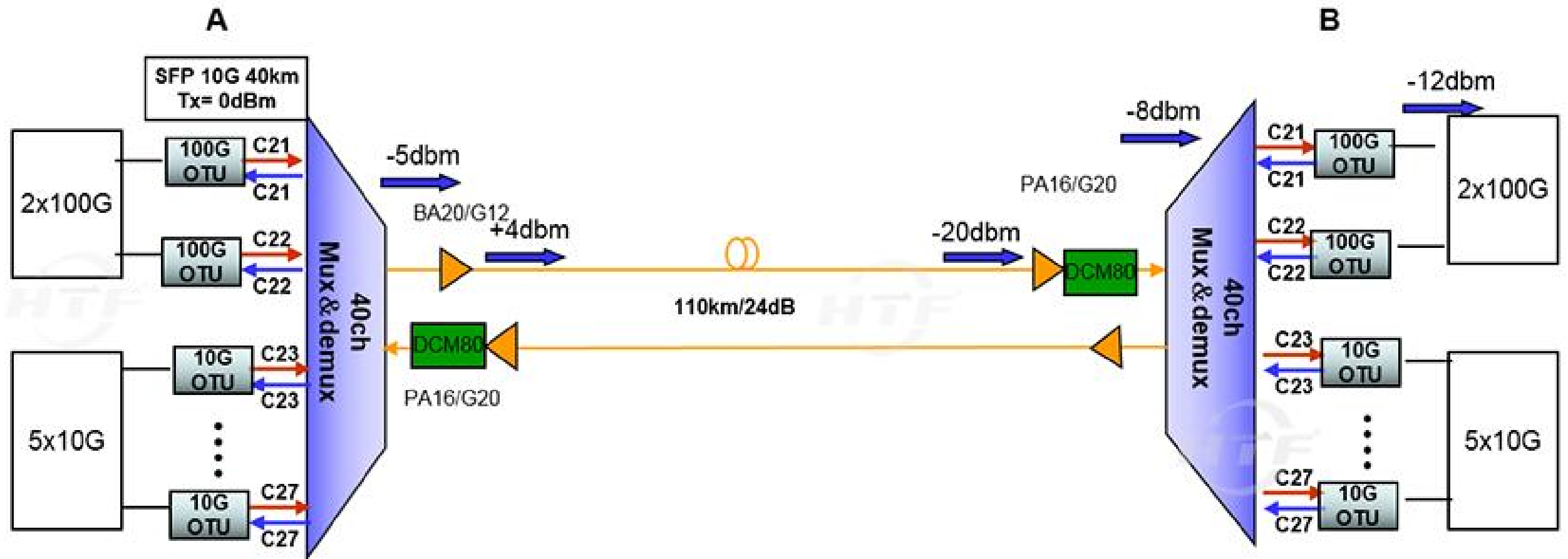


DWDM ultra long distance solution



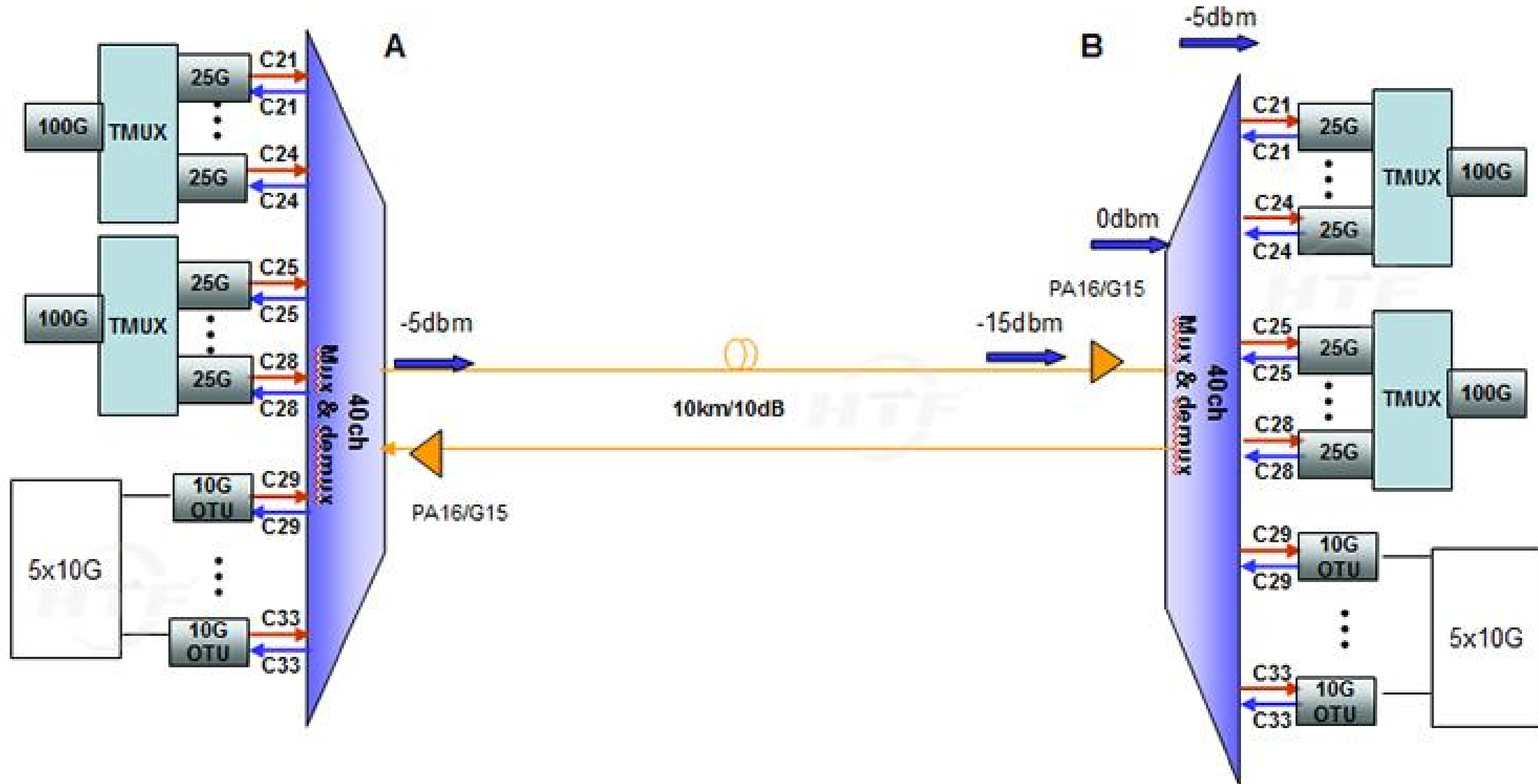
HT6000 Platform Transmit

2x100G+5x10G Ethernet Channels Over 110km



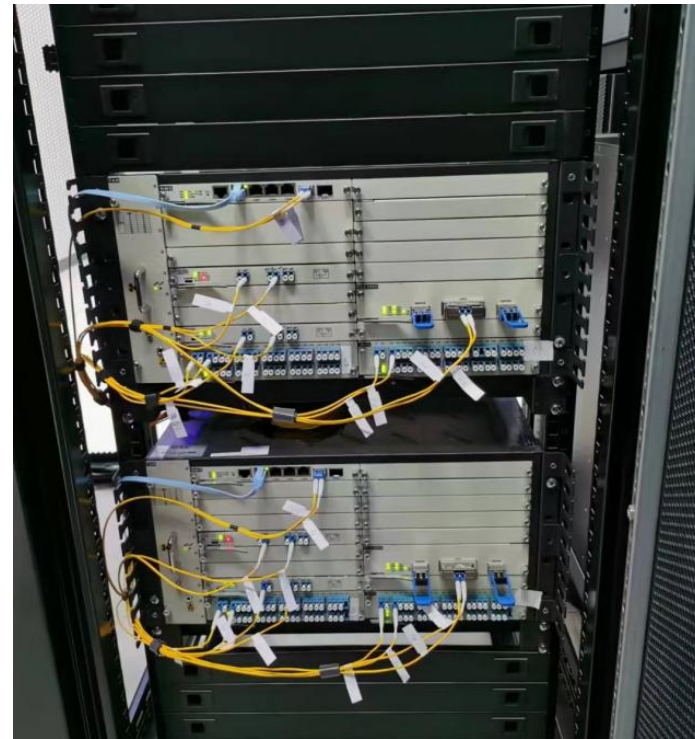
Cost Effective Solution For 100G 10KM

1 channel 100G QSFP28 is converted to 4x25G DWDM transmission,
and 4x25G is aggregated to 1x100G at the opposite end.
The interface that connects to your switch is also a 100G interface OSFP28.

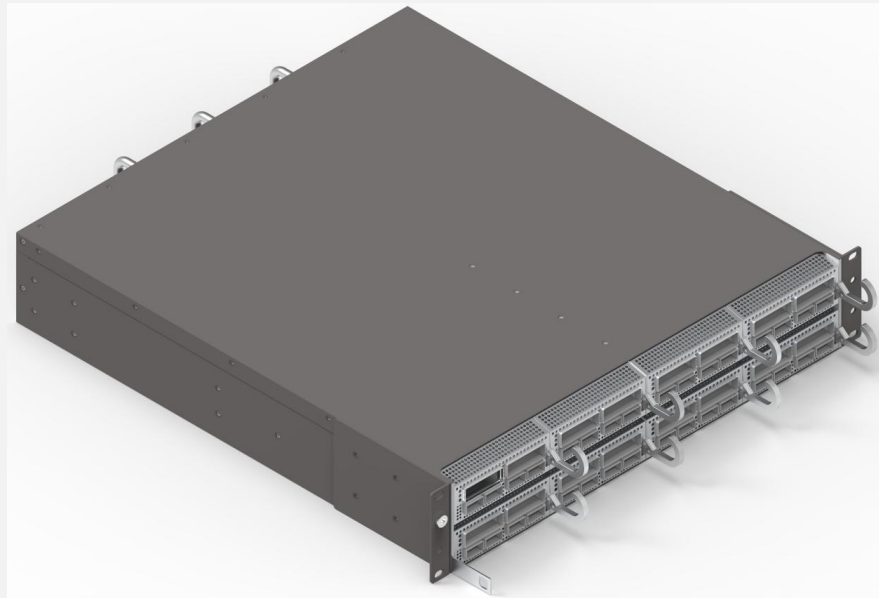
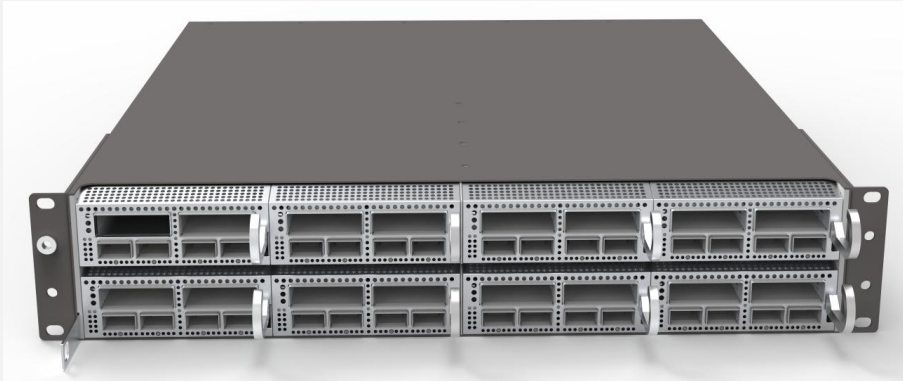


DWDM/OTN project site installation picture

**Assist our clients to install the OTN/DWDM equipment.
Make sure their new network project works perfect.**



Developing Product DCI-BOX



Advantages of HTF DCI-BOX:

With the evolution of 5G network, people's demands for big data is getting stronger and stronger. 2U DCI-BOX is a high-performance, large-capacity DCI platform developed for DCI data interconnection.

1. The maximum capacity of a single chassis is 6.4T, and the power consumption of a single 100G is as low as 18W, reaching the industry-leading level;
2. The line side supports 400G/200G/100G, and the client side supports 200G/100G/10G and other service access;
3. The optical layer supports the insertion of EDFA, OCM, AWG, OLP, TFF, WSS and other service boards;
4. Support optoelectronic hybrid insertion to meet customers' flexible configuration requirements;
- 5 Support NETCONF, TELEMETRY, CLI, WEB, SNMP multiple management methods; support OSPF, BGP networking;
6. Support main control and power 1+1 hot backup, high system safety and reliability.

HTF team will provide **Customized Suitable Cost-effective** solution for you, Based on your real using environment.

- Expand your network capacity,
- Reduce the project cost,
- Lifetime Technical support.



3-Optical Transceiver



- ✓ 10G SFP+
- ✓ 10G SFP+ BIDI
- ✓ 10G DWDM/CWDM SFP+



- ✓ 10G XFP+,
- ✓ 10G XFP+ BIDI
- ✓ 10G DWDM/CWDM XFP+



- ✓ SFP 155M, 1.25G, 2.5G, 4.25G
- ✓ SFP CWDM
- ✓ SFP DWDM
- ✓ SFP BIDI



CSFP 1.25G



40Gb/s QSFP+



100G QSFP28

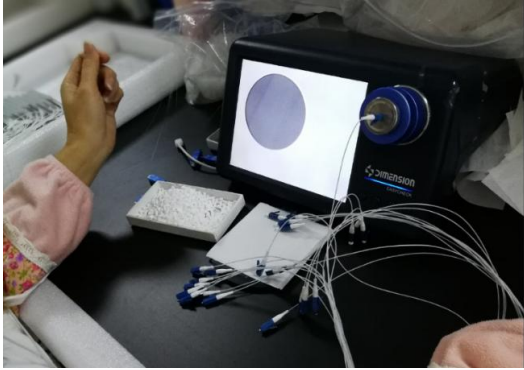
- 10G, 25G, 100G module
- Rigorous test and inspection
- ISO, RoHS, CE and FCC certified
- OEM/ODM/Small orders accepted

[More Details](#)



Quality Control in HTF

Professional in Fiber Transmission



Optical transceiver production



FBT Check



Fiber End Test

To make sure that each product before package, it's fiber ends are all clear.

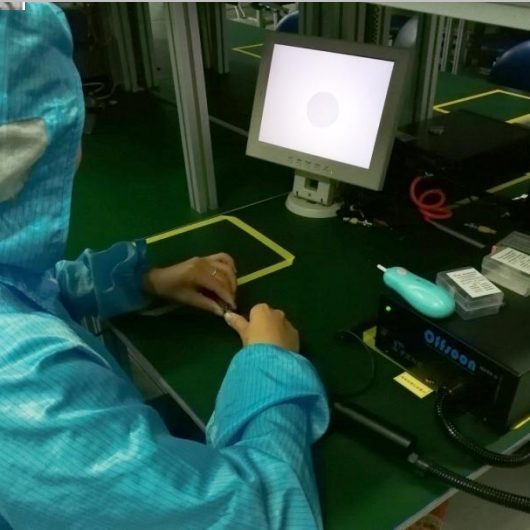


Welding

Weld relate components to the FBT board



Low & High Temperature Circling and Test

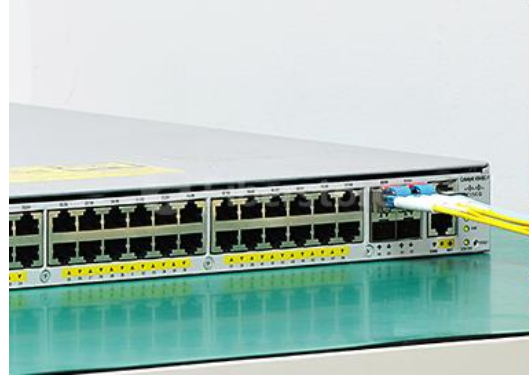


Package

Compatibility test



Cisco SFP-10G-LR 10km



Cisco SFP+ DWDM 40km



Huawei QSFP-LR4



Huawei QSFP-SR4



Cisco SFP-BIDI-LR 20km



Cisco QSFP-40G-LR4 10km



H3C QSFP-SR4 150m



H3C SFP+ 1310nm 10km

Test Equipment



Agilent 86100



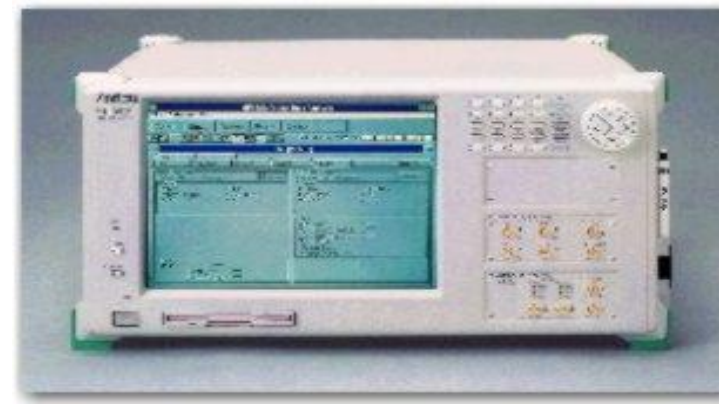
Q8384 optical spectral analyzer



81250 BERT

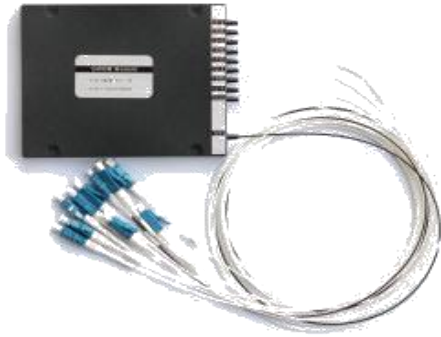


MP1570A SDH analyzer



MP1632A analyzer

4-CWDM/DWDM Mux Demux, CCWDM, AWG, OADM



**ABS box
CWDM/DWDM MUX/DEMUX**



**Plastic insert
CWDM MUX/DEMUX**



8CH/12CH/18CH Compact CWDM



**1U Rack
CWDM MUX/DEMUX**



**40/48 channel AAWG module
DWDM MUX/DEMUX**

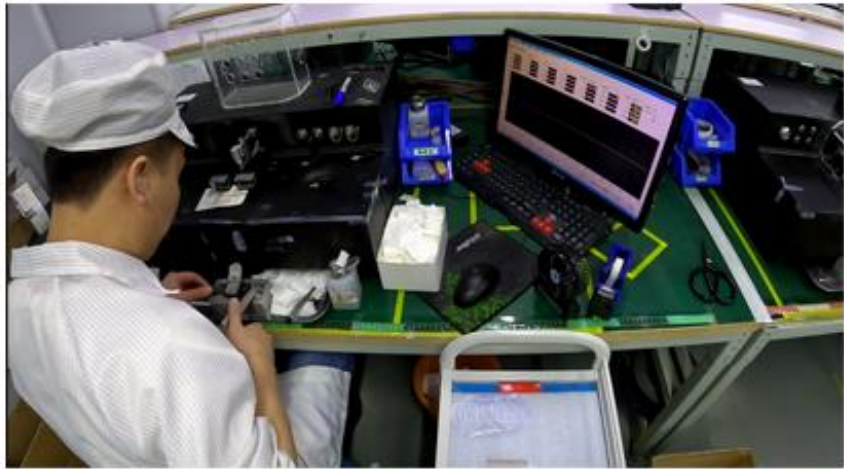


**1U 19" Rack
DWDM MUX/DEMUX, OADM**

FACTORY DISPLAY



The Aim Of HTFuture Is To Provide You Excellent Products, And The Same Time The Best Service Experience.



5-Customized MPO/MTP cable for Data Center

Available for:



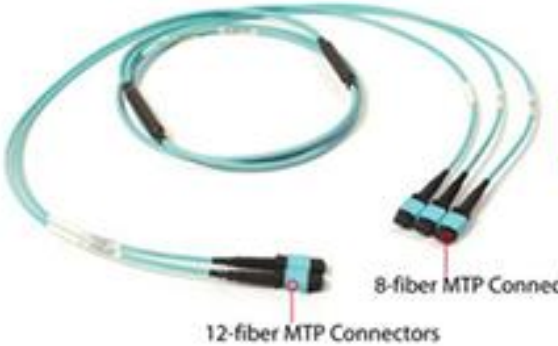
8F, 12F, 16F, 24F, 32F in one Connector



Armored MPO/MTP Trunk Cables



Standard 8-32F MPO/MTP trunk cable



MPO/MTP Conversion Cables

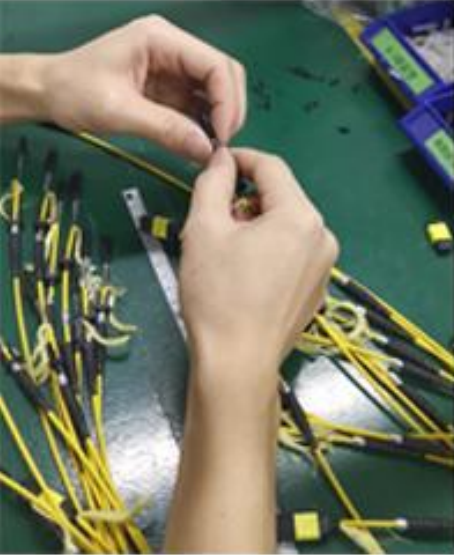


24-144F MPO/MTP Trunk cable

Straight harness cable assemblies-

Same fanout length tail or Different fanout length tail

			<p>Available with</p> <p>MPO-LC/SC/FC/ST/E2000 Simplex and Duplex</p> <p>MTP -LC/SC/FC/ST/E2000 Simplex and Duplex</p> <p>Different LC Uniboot,</p> <p>Fanout 2.0mm and 0.9mm</p> <p>Polarity A, Polarity B</p> <p>SM, OM1,OM2,OM3,OM4,OM5</p>
			
8F MPO/MTP- LC	12F MPO/MTP- LC	24F MPO/MTP- LC	



DAC cable for Data Center



+ 10G SFP+ DAC



+ 25G SFP28 DAC



+ 40G QSFP+ DAC



+ 40G QSFP+ to 4x10G SFP+ DAC



+ 100G QSFP28 DAC



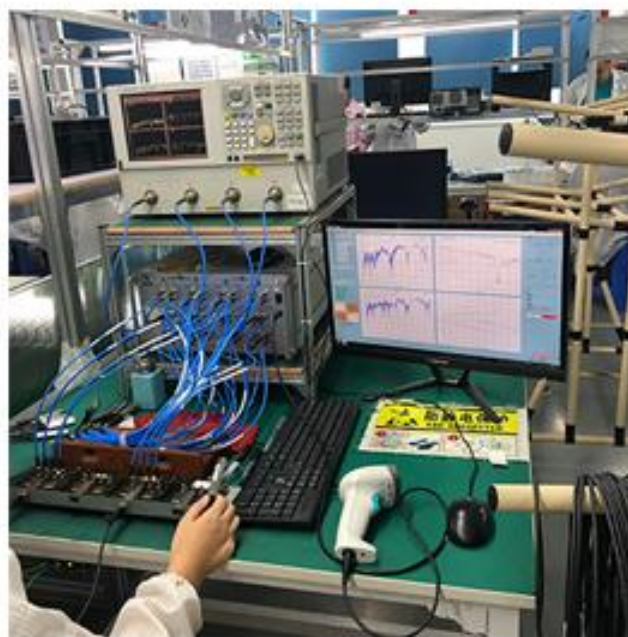
+ 100G QSFP28 to 4x25G SFP28 DAC



+ 400G QSFP-DD DAC Cable



+ HTF can support customized Length



The Aim Of HTFuture Is To Provide You Excellent Products, And The Same Time The Best Service Experience.

AOC cable for Data Center



+ 10G SFP+ AOC



+ 25G SFP28 AOC



+ 40G QSFP+ AOC



+ 40G QSFP+ to 4x10G SFP+ AOC



+ 100G QSFP28 AOC



+ 100G QSFP28 to 4x25G SFP28 AOC



+ 400G QSFP-DD AOC Cable



+ HTF can support customized Length

03

MARKET ANALYSIS

**The large-scale
development of data
center interconnection (DCI)
is driven by cloud business
and Internet customer
demand**

According to relevant reports, by 2025, the number of data centers (DC) will increase by 4 times, and the compound annual growth rate of data (DCI) traffic between data centers will reach 50%.

The growth of traffic between data centers has doubled the cost of leased lines. The traffic between DCs has gradually become the main traffic of the transmission backbone network.

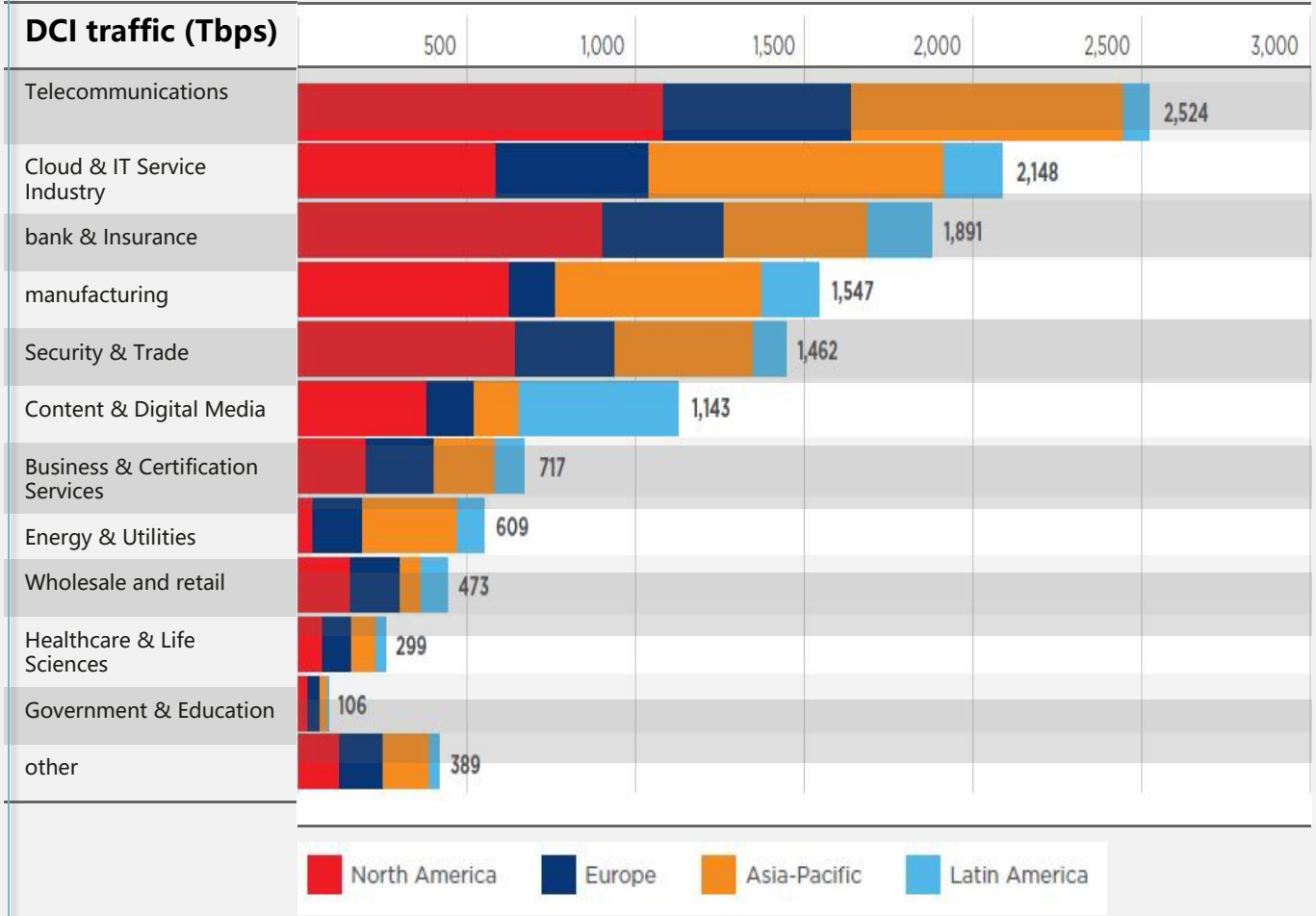
The network construction model based on the administrative division of traditional services will inevitably turn to the DC-centric network construction model. The new network construction mode realizes the Mesh interconnection between most network nodes, and the business adopts a one-hop direct way to minimize the delay through the network nodes to ensure the real-time exchange of data between DCs and meet the high real-time requirements of future cloud services sexual demands.

The traditional DCI data center interconnection uses bare optical fiber direct-drive interconnection. In this way, **a single optical fiber can only run a single channel of business, which is far from meeting the expansion requirements of large data, large bandwidth, and large traffic between DCs.** HTF launched Miniaturized and highly integrated DWDM/OTN solution.

DCI traffic in various industries around the world is growing rapidly, doubling on average every two years

DCI development trend

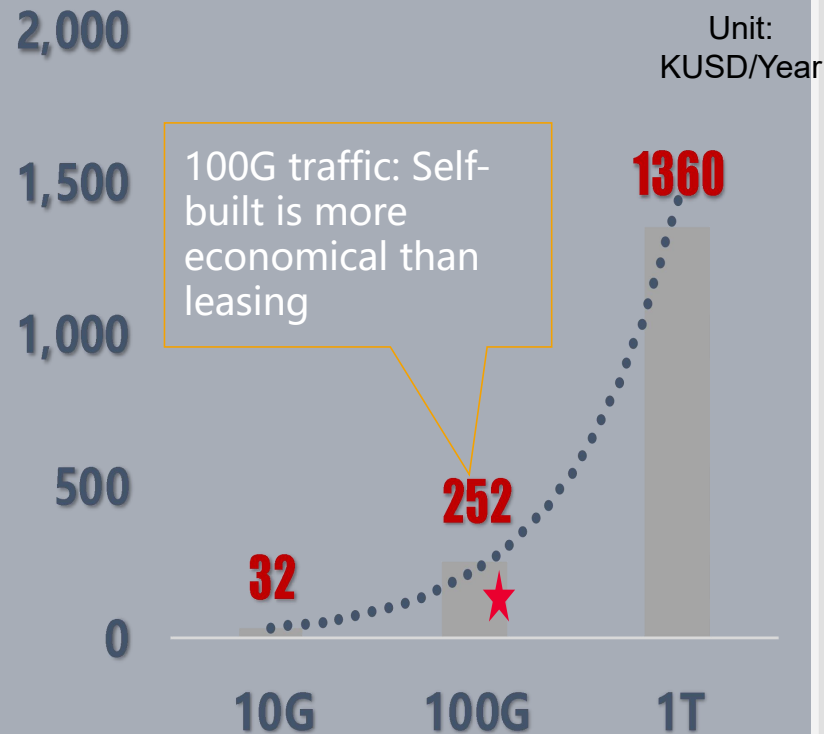
Global DCI capacity forecast and regional differences in various industries:



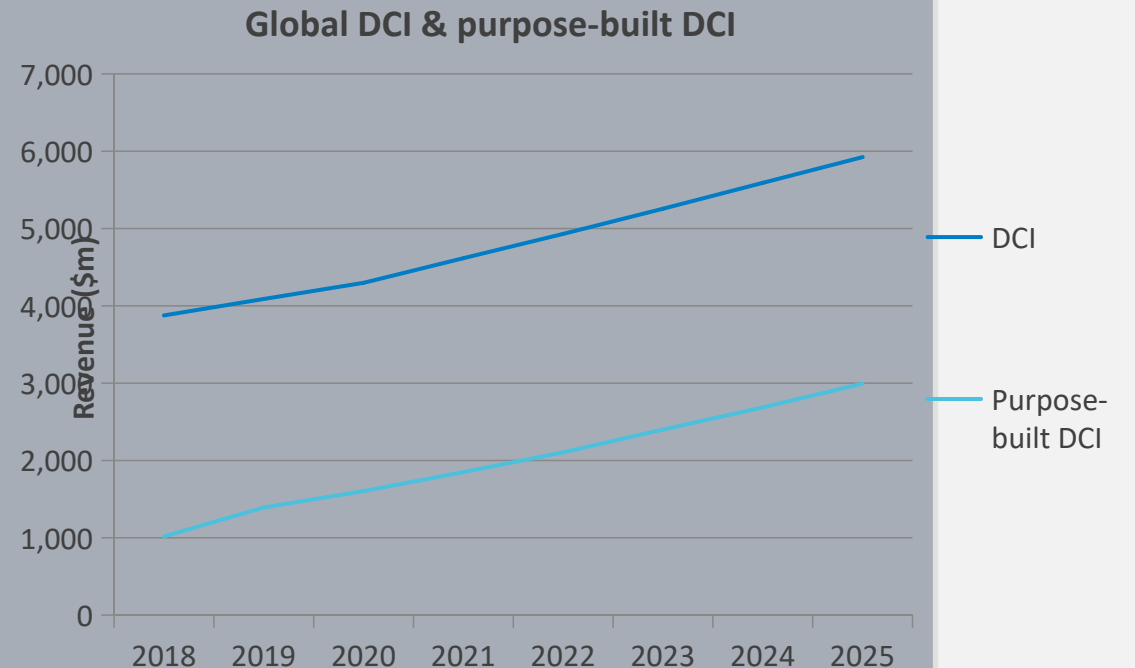
The increase in bandwidth leads to a sharp rise in leasing costs, making self-built DCI a better choice for enterprises

The sharp rise in leasing costs forces enterprises to build their own DCI

The average cost recovery period of self-built traffic network above 100G is **less than 1 year**



Rapid and steady growth in self-built DCI market investment



DCI scenarios are divided into long-distance interconnection, intra-city interconnection, and peripheral interconnection in hotspot areas

Long-distance interconnection: cross-regional interconnection between major data centers across the country, generally renting the backbone bandwidth of the operator for connection

Intra-city interconnection: mainly refers to the AZ connection between data centers in the city (individual provinces) and the core interconnection between Regions. It is the most important scenario of DCI at present. The distance between data centers is generally within 120km. Generally, bare optical fibers are rented and purchased independently. DCI-BOX photoelectric equipment, self-built WDM solution

Peripheral interconnection of hotspot areas: mainly refers to short-to-medium distance DCI across provincial-level administrative regions, such as areas around Beijing and Shanghai. Due to policy reasons, the scale and number of data centers are limited. In order to meet business development needs, a large number of data centers Born in the surrounding area, DCI-BOX equipment is generally used to solve the problem. Currently, interconnection requires the qualifications of 5 operators to solve compliance hidden dangers.

Diagram of DCI scenario

Internet

Data center interconnect

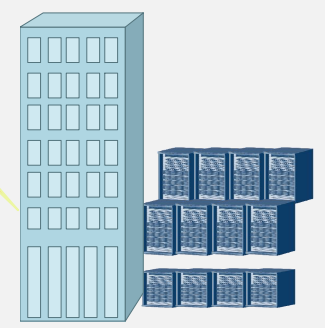
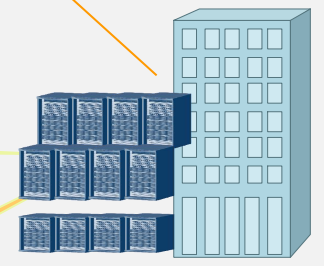
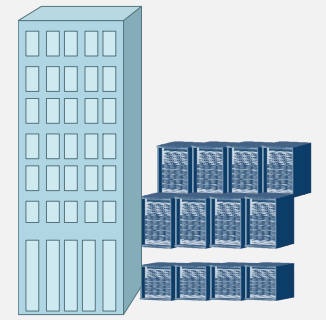
WAN interconnection

Data Center

Data Center

Data Center

Short distance metropolitan interconnection



Characteristics of Cloud Business and Internet Customer DCI Demand

Common requirements characteristics of OTT customer DCI scenarios:

Low latency, large bandwidth, low cost, WDM equipment matching DC environment, simple operation and maintenance, refined management, independent controllable, fast online

Top customers: represented by Ali, Tencent, etc.

It mainly consists of three parts: self-built data center (many) + rented third-party data center + rented operator data center, the data center is widely distributed, the local area is divided into large and small Regions, and each region is interconnected with large Regions

Bandwidth requirements: large-scale business, wide geographical distribution, large demand for Region (regional) interconnection, and strong demand for inter-regional short-distance and medium-long distance bandwidth

Carrier needs: scenarios such as long-distance and hotspot areas have a large demand for bandwidth, and there is a strong willingness to seek cooperation

Waist customers: represented by Baidu, Meituan, Kuaishou, ByteDance, etc.

It mainly consists of three parts: self-built data center (less) + rented third-party data center + rented operator data center, data centers are distributed in densely populated areas, and the local area is divided into large and small Regions (regions), and the large Regions (regions) in each region are interconnected

Bandwidth requirements: There are large bandwidth requirements in the local Region (region), and there are certain cross-regional Region (region) requirements

Operator requirements: MAN Internet provides end-to-end services in computer rooms, long-distance, hotspot areas and other scenarios have a small amount of bandwidth requirements

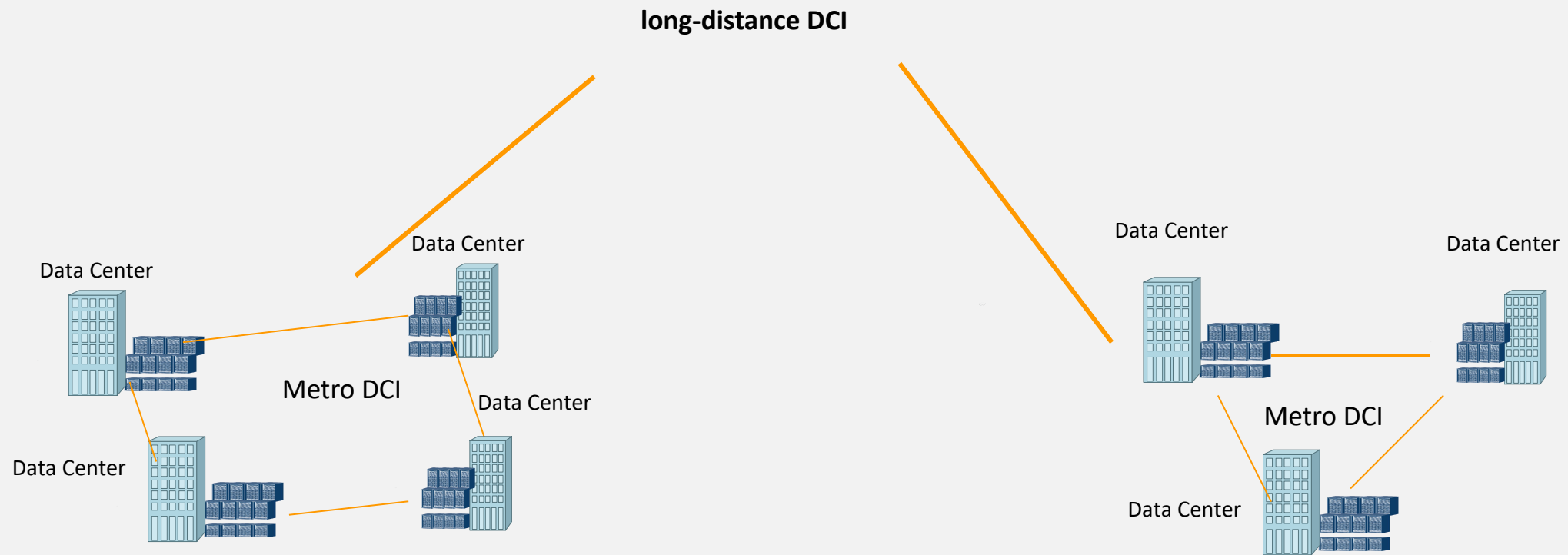
Small Internet customers: represented by Kingsoft Cloud, Youkede, etc.

Features of the data center: mainly lease third-party and operator computer rooms, some have self-built

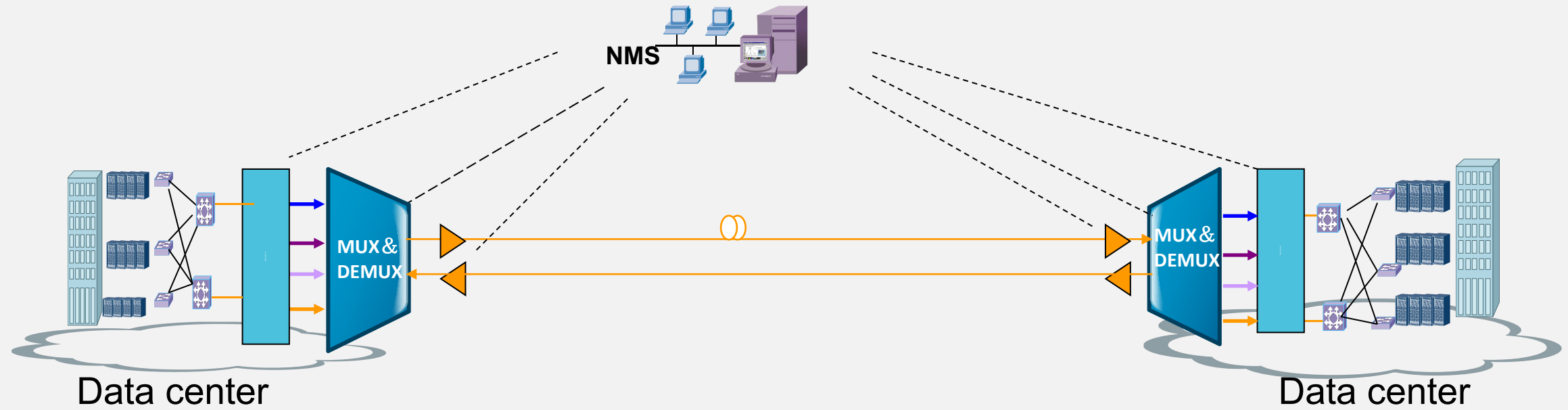
Bandwidth requirements: There are certain bandwidth requirements in the local Region, and less in cross-region Regions

Operator requirements: a small amount of cross-regional bandwidth requirements

Schematic diagram of a DCI scenario



OTT Vendor DCI Scenario Live Network Construction Mode



- Within the metropolitan area (generally refers to administrative units that do not cross the provincial level)
- The main and standby optical fiber rental operators or other unqualified companies that have optical fiber resources are billed monthly by the number of kilometers, ranging from 300 to 500 yuan/km
- Equipment selection and procurement are completed by OTT itself;
- Around the hotspot area (computer rooms are distributed in two adjacent provincial administrative units)
- After the Ministry of Industry and Information Technology launched the inspection of transmission violations in the middle and late 2018, it was required to rectify the illegal fibers within a time limit
- The utilization rate of Internet bandwidth around the hotspot area is extremely high, and the demand for bandwidth is urgent
- Long-distance interconnection (provincial administrative units with computer rooms distributed across the country)
- The rectification part of the original illegal construction, after the new construction, cut over the original business rectification, has complied with the regulations, and the subsequent expansion can designate equipment
- Lease the bandwidth part of the operator, and the operator provides end-to-end bandwidth (except for this part, the operation and maintenance of other parts are controlled by OTT itself)_____

DCI Equipment Market Forecast

According to a report released by Dell'Oro in 2017, total sales of data center interconnect (DCI) equipment will increase by 85% in the next five years, from \$2.7 billion in 2017 to \$5.1 billion in 2022 , with a five-year compound annual growth rate (CAGR) of 13%. DCI will drive strong demand for optical transmission.

QYResearch (Hengzhou Zhibo) reported that the fundamental driving factor of the optical transmission network market - bandwidth will continue to exist, and its value has been magnified in the context of the recent epidemic. Therefore, QYResearch predicts that **the optical transmission market (mainly composed of DWDM systems) will expand in 2020 and reach nearly 18 billion US dollars in the next five years.**

Leaders in optical transmission networks such as Huawei, ZTE, FiberHome, and Ciena have successively started to deploy DCI data center interconnection market, so accelerating the research and development of DCI equipment and deploying DCI data center interconnection is currently the top priority.

DCI -BOX equipment user group

Tencent 腾讯

腾讯优图

腾讯车联

ByteDance
字节跳动

TikTok

阿里巴巴
Alibaba.com

阿里云

滴滴出行
滴滴一下 美好出行

礼橙专车

hamta
software + network

Microsoft

Bing

SEAGATE

Opera 欧朋

sina 新浪网

小米
xiaomi.com

smartisan
锤子科技

WPS
Easy Collaborative - WPS

乐视

Swrobot 司为
智能机器人自动化

百度网盘
百度网盘

墨迹天气
关心天气·更关心你

京鱼座
京东出品 专注智慧生活

极客公园

视觉中国
VISUAL CHINA GROUP

HUAWEI

GTA 国泰安

京东云

京东数科
预见·改变·实现

CFSS 银雁

Video Link

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<https://www.youtube.com/channel/UCCP79V-zkNWP1tDzUoF3sUg>

THANKS !