Optical Transmission Network System OTN1000

With the rapid development of the Internet, the bandwidth pressure caused by the spurt growth of data traffic makes it imperative to introduce a 100G system into the transmission network. Therefore, Fiberwdm has introduced a new generation of high-capacity, long-distance 100G wavelength division transmission Equipment OTN1000 series products. The product uses advanced transmission technology and high integration technology to support single-channel transmission rate from 100Mbps to 100Gbps, and provides wide bandwidth, large capacity and fully transparent transmission for 200Gbps and 400Gbps expansion, enabling smooth upgrade of capacity. It provides a stable platform for multi-service operation and future network upgrade and expansion. It is widely used in operators, broadcasting, IDC, finance, government, cloud network, big data and other industries.

ONT1000A 1U RACK

ONT1000B 2U RACK

ONT1000C 5U RACK

Features

- **Huge capacity transmission**

Supports 96×100G ultra-large capacity transmissions, that is, single fiber transmission capacity up to 9.6Tb/s, and support 80/96×10G/100G hybrid transmission, supporting smooth upgrade from 40 waves to 80 waves, 48 waves to 96 waves. It ensures low investment and smooth expansion in the early stage of network construction to meet the growing bandwidth demand in the future.

- **Excellent 100G transmission performance**

100G system adopts PDM-QPSK coding technology for coherent detection, supports SD-FEC, B2B OSNR tolerance index is excellent, adopts industry advanced DSP processing technology, dispersion tolerance is 22000 ps/nm, and supports 1200 km or more of non-electric relay transmission. Save investment and greatly facilitate operation and maintenance.

- **Flexible and comprehensive service access capability**

Supports 100M-100G any service access: CPRI1~10, eCPRI, FE/GE/10GE/25GE/40GE/100GE, FC 1G~32G, STM-N, OTU1/2/3/4, etc. Transparent transmission reduces the cross-transmission delay of the circuit.

- **Telecom Reliable protection**

Supports multiple network protection schemes such as optical layer 1+1 channel protection and optical line side 1+1 protection, providing multiple protection for important equipment units and optical fiber lines.

Support AC 220V, DC -48V power supply, 1+1 power protection.

◆ **Excellent structure, convenient and easy to maintain**

It adopts 1U, 2U, 5U standard 19-inch rack design, completely configuration-free installation, device plug-and-play, and unified network management platform, providing complete network and equipment performance monitoring capabilities.

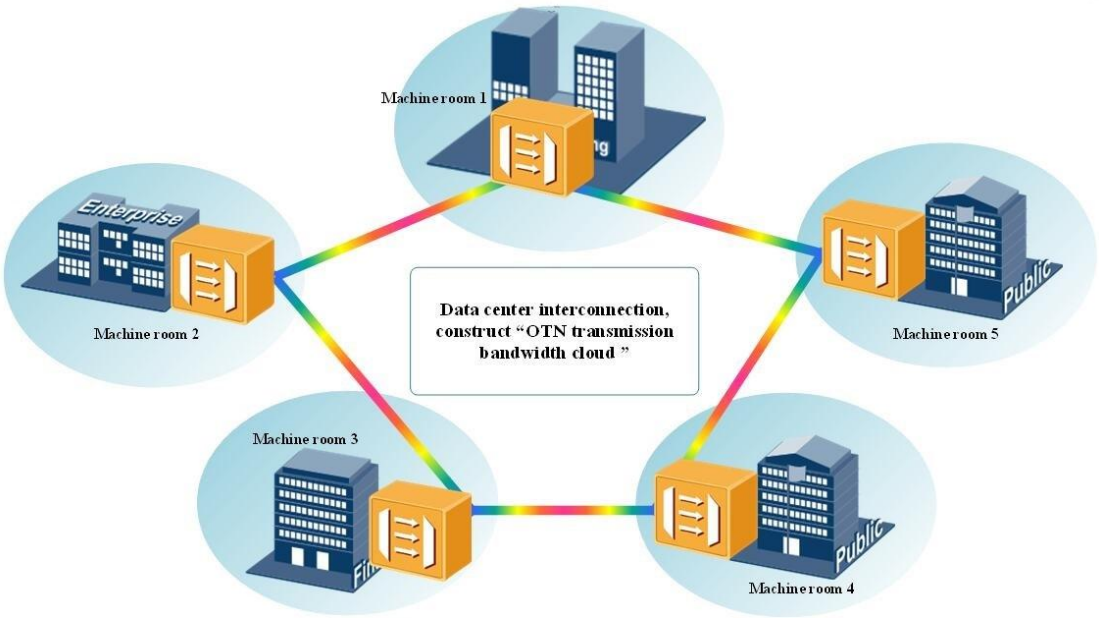
Product specification

Function	Note		
Product model	OTN1000A	OTN1000B	OTN1000C
Equipment Size （H x W x D, mm）	1U: (back-power supply) 44×442×280	2U: (front -power supply) 88×442×220	5U: (front -power supply) 220×442×220
Service slot	4 slots	8 slots	16 slots
Power consumption	120W (Max)	180W (Max)	450W (Max)
Max channel number	CWDM: 18 wavelength, DWDM: 96 wavelength（50GHz）		
Single channel max rate	100Gbit/s		
Line side rate	1.25Gbit/s, 2.5Gbit/s, 8Gbit/s, 10Gbit/s, 16Gbit/s, 25Gbit/s, 40Gbit/s, 100Gbit/s		
Support service	STM-1/4/16/64/256、OC-3/12/48/192/768 OTU-1/2/3/4 FE/GE/10GE/25GE/40GE/100GE FC 1G/2G/4G/8G/16G/32G EPON, GPON, CPRI 1/2/3/6/7/10, eCPRI		
Clock features	Support IEEE 1588V2		
Network topology	Point to point, chain type, star type, ring type		
Network level protection	Optical channel 1+1 protection, optical multiplex 1+1 protection, optical line 1+1 protection		
Equipment level protection	Power supply backup		
Network management	SNMP, Web, CLI, Telnet		
Installation	"19"and 23" cabinets, ETSI 300mm/600mm cabinets Wireless outdoor base station cabinet, FTTX outdoor cabinet, hanging wall		
Working temperature range	-10℃～60℃		
Working humidity range	5~95% no condensation		
Storage temperature range	-40℃～85℃		
Heat dissipation	Fan cooling		
Power supply mode	AC: 90 ~ 260V or DC: -36 ~ -72 V		

Applications of OTN transmission bandwidth cloud

Description：

With deepening of informatization in the industry, larger-particle Ethernet services have been gradually rising, which leads to the fast growth of the traffic in the access layer, metro area layer and backbone network. Therefore, the construction of the multiple service transmission platform and the provision of high capacity channel has become a new development direction for the transmission network technology. The solution of "OTN transmission broadband cloud" is just born for this. The "OTN transmission broadband Cloud" is a blend of advanced technology of 10G~100G and large capacity OTN photoelectric cross. Just like the "cloud computing", it has formed a large-capacity, dynamic shared, quickly accessible, intelligent and reliable network.



Highlights in the Solution

1.Construct the large volume pipe with the 100G technology, and allow the entire network to share 100G broadband channel via OTN technology at the same time;
2.Meet the scheduling demand for large capacity and flexible network, support 40->80 wave or 10G->100G modular expansion, ensure the network to smoothly upgrade to 8T massive transfer, which not only saves the initial investment but also satisfies the future network development for many years;
3.OTN transmission broadband cloud solves the industry various clients' challenges in the industry planning, construction, maintenance and other aspects and brings the client a experience of "zero waste large broadband, rapid release and zero waiting, and zero service interruption"
4.Unified management, intelligent network management, real-time monitoring of network running status all guarantee the stability of the network.