I. Integrated Transmission System

Vispace 1000 series products are a new generation of optical network platform with large capacity and multi-service access launched by Visint®. The platform has the characteristics of high business integration, high port density, rich business types and flexible configuration. It also supports SNMP-based C/S architecture graphical management interface, which provides a very clear fault location for management and maintenance and saves maintenance cost. It is widely used in telecommunication, radio and television, power, education, cloud computing and information security, etc. It is oriented to all-optical network and applied to the construction of national, inter-provincial and intra-provincial trunk lines, local metropolitan area network and various special networks. The platform has the characteristics of independent and transparent transmission signals, combined transmission of multi-channel signals, saving optical fiber resources, safety and reliability, and can help customers set up a network with long-distance, high reliability, safety and flexibility, disaster-resistant optical transmission which is the best solution to cope with the shortage of optical cable resources.

1. Integrated Transmission System (1U)

Product Introduction

Vispace 1000 Series 1U integrated transmission equipment is highly integrated and small. It adopts 19 inch standard 1U rack to provide 1+1 redundant backup of power (AC/DC optional), and is easy to install and use. 1U integrated transmission equipment can provide up to 4 service slots, supports different service cards to mix and insert and hot swapping, supports in-band and out-of-band network management; selects each channel bandwidth according to needs to meet different needs of customers; remote online upgrades, maintainability.

Figure 1: 1U Integrated Transmission Equipment

Product Feature

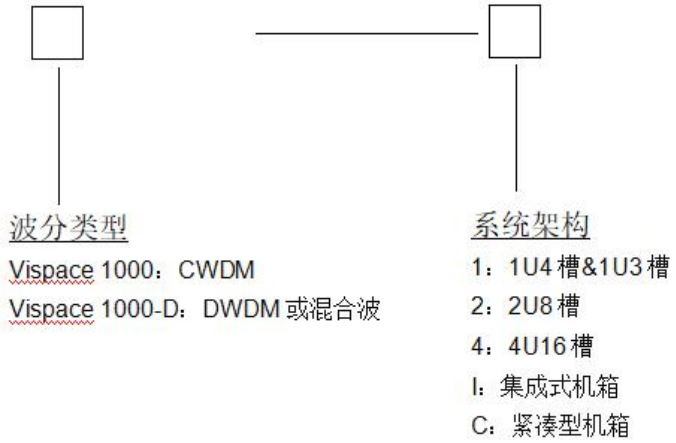
- Flexible networking, occupies less space, and super expansibility.
- Supporting CWDM/DWDM/EDFA/OLPS/OTAP and other business cards hot-swapping mode.
- Supporting SDH/SONET/POS/EPON/GPON/CPRI/SAN/ETHERNET service access at various rates.
- Supporting single-fiber unidirectional, single-fiber bidirectional, dual-fiber bidirectional chain, star and ring types and other networking methods.
- Supporting client access from different vendors, interconnecting with devices from multiple vendors, supporting client devices as single mode (1310nm/1550nm), multi-mode (850nm/1310nm), electrical port (RJ45), etc., can realize OADM optical add-drop multiplexing function, and intermediate nodes can be up and down wavelength.
- Supporting SNMP-based unified network management platform, the network management methods include CLI, WEB, NetRiver (graphical interface).
- Supporting 1 + 1 power hot swapping redundant backup, AC and DC power supply is optional.

Product Specification

System Parameter	Technical Index
Maximum capacity of single system	4, 8 and 16 waves.
Wavelength range	Compliance with ITU-T G.692, ITU-T G.695 standard.
Service access types	PDH, EPON, GPON. SDH: STM-1/STM-4/STM-16/STM-64/STM-256. SONET: OC-3/OC-12/OC-48/OC-192/OC-768, FE, GE, 10GE, 40GE, 100GE, CPRI 1~7, POS, FICON, ESCON, CATV.
Optical port transmission mode	Adopts 2R transmission mode, each channel supports 32M~111.81Gbit/s rate transparent transmission; Adopts 3R transmission mode, each channel supports155Mbit/s, 622Mbit/s, 1.25Gbit/s, 2.488Gbit/s, 4GFC, 8GFC, 10GFC, 11.3Gbit/s, 40Gbis/s, 100Gbis/s rate. (Optional).
Physical network topology	Chain type, Star type and Ring type.
Fiber type	G.652, G.653 (not recommended), G.655.
Network management mode	CLI, NetRiver, WEB.

Product dimension	482(W)*44(H)*285(D)(mm).	
Environmental requirements	Working temperature	-10℃ ~ 70℃.
	Storage temperature	-40℃ ~ 80℃.
	Relative humidity	5% ~ 95% no condensation.
Power supply requirements (standard value)	220V/AC, 50Hz; -48V/DC (optional).	
Safety and EMC	Compliance with FCC, UL, CE, TUV, CSA standards.	
Power consumption	<120W.	

Ordering Information:



2. Integrated Transmission System (2U)

Product Introduction

Vispace 1000 Series 2U integrated transmission equipment is highly integrated and small. It adopts 19 inch standard 2U rack to provide 1+1 redundant backup of power (AC/DC optional), and is easy to install and use. 2U integrated transmission equipment can provide up to 8 service slots, support different service cards to mix and insert and hot swap, support in-band and out-of-band network management; select each channel bandwidth according to needs to meet different needs of customers; remote online upgrade , maintainability.

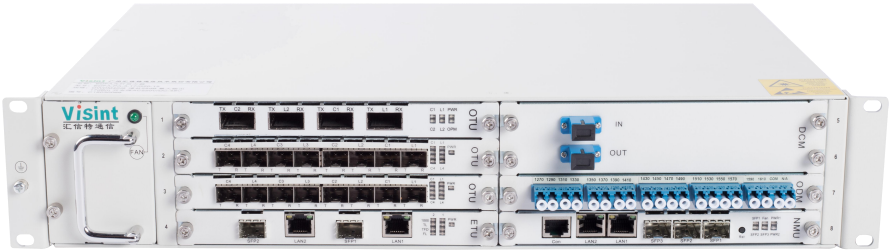


Figure 2: 2U Integrated Transmission Equipment

Product Feature

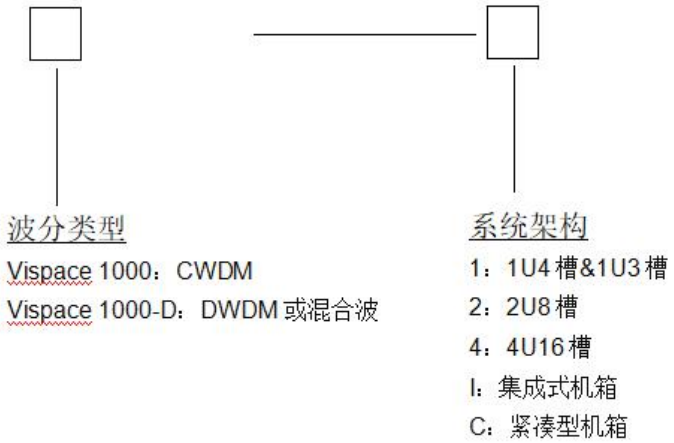
- Flexible networking, occupies less space, and super expansibility.
- Supporting CWDM/DWDM/EDFA/OLPS/OTAP and other business cards hot-swapping mode.
- Supporting SDH/SONET/POS/EPON/GPON/CPRI/SAN/ETHERNET service access at various rates.
- Supporting single-fiber unidirectional, single-fiber bidirectional, dual-fiber bidirectional chain, star and ring types and other networking methods.
- Supporting client access from different vendors, interconnecting with devices from multiple vendors, supporting client devices as single mode (1310nm/1550nm), multi-mode (850nm/1310nm), electrical port (RJ45), etc., can realize OADM optical add-drop multiplexing function, and intermediate nodes can be up and down wavelength.
- Supporting SNMP-based unified network management platform, the network management methods include CLI, WEB, NetRiver (graphical interface).
- Supporting 1 + 1 power hot swapping redundant backup, AC and DC power supply is optional.

Product Specification

System Parameter	Technical Index
Maximum capacity of single system	4, 8, 16 and 40 waves.
Wavelength range	Compliance with ITU-T G.692, ITU-T G.695 standards.
Service access types	PDH, EPON, GPON. SDH: TM-1/STM-4/STM-16/STM-64/STM-256. SONET: OC-3/OC-12/OC-48/OC-192/OC-768, FE, GE, 10GE, 40GE, 100GE, CPRI 1~7, POS, FICON, ESCON, CATV.
Optical port transmission mode	Adopts 2R transmission mode, each channel supports 32M~111.81Gbit/s rate transparent transmission. Adopts 3R transmission mode, each channel supports155Mbit/s, 622Mbit/s, 1.25Gbit/s, 2.488Gbit/s, 4GFC, 8GFC, 10GFC, 11.3Gbit/s, 40Gbis/s, 100Gbis/s rate. (Optional).
Physical network topology	Chain type, Star type and Ring type.
Fiber type	G.652, G.653 (not recommended), G.655.
Network management mode	CLI, NetRiver, WEB.
Product dimension	482(W)*89(H)*285(D)(mm).

Environmental requirements	Working temperature	-10℃ ~ 70℃.
	Storage temperature	-40℃ ~ 80℃.
	Relative humidity	5% ~ 95% no condensation.
Power supply requirements (standard value)	220V/AC, 50Hz; -48V/DC (optional).	
Safety and EMC	Compliance with FCC, UL, CE, TUV, CSA standard.	
Power consumption	<200W.	

Ordering Information:



3. Integrated Transmission System (4U)

Product Introduction

Vispace 1000 Series 4U integrated transmission equipment is highly integrated and small. It adopts 19 inch standard 4U rack to provide 1+1 redundant backup of power (AC/DC optional), and is easy to install and use. 4U integrated transmission equipment can provide up to 16 service slots, support different service cards to mix and insert and hot swap, support in-band and out-of-band network management; select each channel bandwidth according to needs to meet different needs of customers; remote online upgrade , maintainability.

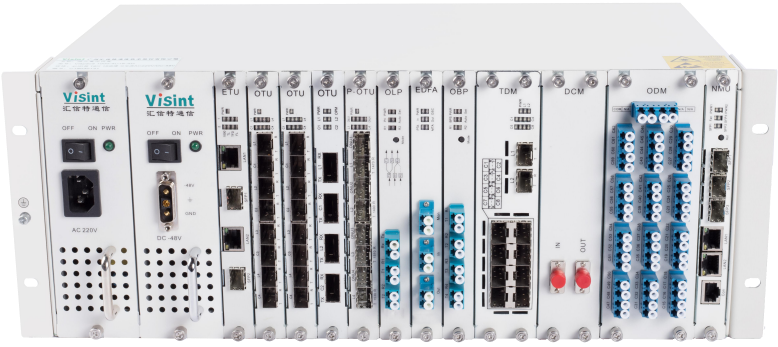


Figure 3: 4U Integrated Transmission Equipment

Product Feature

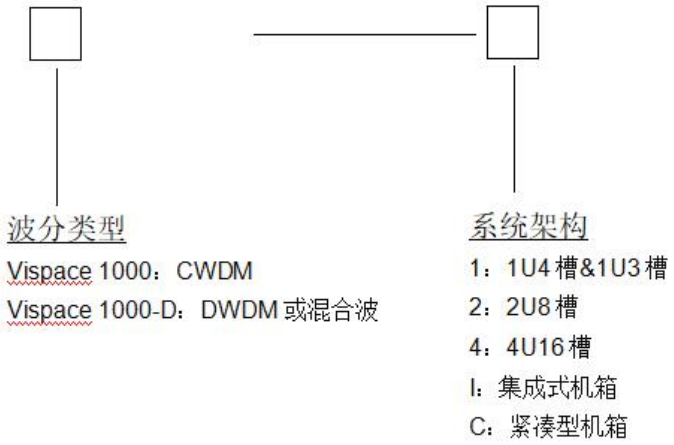
- Flexible networking, occupies less space, and super expansibility.
- Supporting CWDM/DWDM/EDFA/OLPS/OTAP and other business cards hot-swapping mode.
- Supporting SDH/SONET/POS/EPON/GPON/CPRI/SAN/ETHERNET service access at various rates.
- Supporting single-fiber unidirectional, single-fiber bidirectional, dual-fiber bidirectional chain, star and ring types and other networking methods.
- Supporting client access from different vendors, interconnecting with devices from multiple vendors, supporting client devices as single mode (1310nm/1550nm), multi-mode (850nm/1310nm), electrical port (RJ45), etc., can realize OADM optical add-drop multiplexing function, and intermediate nodes can be up and down wavelength.
- Supporting SNMP-based unified network management platform, the network management methods include CLI, WEB, NetRiver (graphical interface).
- Supporting 1 + 1 power hot swapping redundant backup, AC and DC power supply is optional.

Product Specification

System Parameter	Technical Index
Maximum capacity of single system	4, 8, 16, 40, 48, 80 and 96 waves.
Wavelength range	Compliance with ITU-T G.692, ITU-T G.695 standards.
Service access types	PDH, EPON, GPON, SDH: STM-1/STM-4/STM-16/STM-64/STM-256 SONET: OC-3/OC-12/OC-48/OC-192/OC-768, FE, GE, 10GE, 40GE, 100GE, CPRI 1~7, POS, FICON, ESCON, CATV.
Optical port transmission mode	Adopts 2R transmission mode, each channel supports 32M~111.81Gbit/s rate transparent transmission; Adopts 3R transmission mode, each channel supports155Mbit/s, 622Mbit/s, 1.25Gbit/s, 2.488Gbit/s, 4GFC, 8GFC, 10GFC, 11.3Gbit/s, 40Gbis/s, 100Gbis/s rate. (Optional).
Physical network topology	Chain type, Star type and Ring type.
Fiber type	G.652, G.653 (not recommended), G.655.
Network management mode	CLI, NetRiver, WEB.
Product dimension	482 (W)*177(H)*250(D)(mm).

Environmental requirements	Working temperature	-10℃ ~ 70℃.
	Storage temperature	-40℃~ 80℃.
	Relative humidity	5% ~ 95% no condensation.
Power supply requirements (standard value)	220V/AC, 50Hz; -48V/DC (optional).	
Safety and EMC	Compliance with FCC, UL, CE, TUV, CSA standard.	
Power consumption	<300W.	

Ordering Information:



II. PON Remote Extension Series

1. PON Transform Unit (POTU)

Product Introduction

POTU is developed by Visint® to solve the problem of limited optical ratio and transmission distance in the transmission of PON system. It applies OEO mode to amplify and shape the signal. At the same time, it uses downlink signal to extract clock and re-timing the signal, realizes signal 3R amplification, effectively enlarges the optical power of PON line, and solves the transmission distance problem. It is widely used in the fields of transmission remote, EPON cell access, optical fiber access and so on.

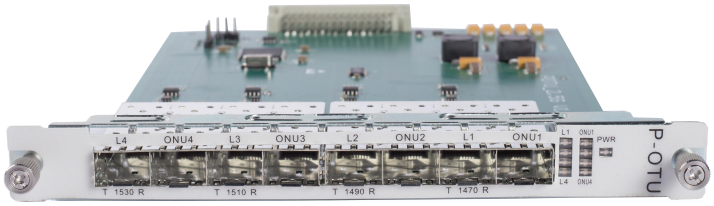


Figure 4: PON Transform Unit (POTU)

Product Feature

- Maximum remote distance: EPON/40KM, GPON/60KM.
- Supporting wavelength conversion of PON signal and realizes WDM function.
- Supporting optical power amplification and services transparent transmission of EPON and GPON.
- Supporting IEEE802.3ah, ITU-T G.984.X and national standards (YD/T 1475-2006).
- Supporting 3R (Re-amplifying, Re-shaping, Re-timing) and multi-level cascading of PON signals.
- Single board supports independent 4 channels bidirectional PON signal telescoping or 4 channels independent bidirectional PON signal wavelength conversion.
- Supporting SNMP-based unified network management platform, network management mode CLI, WEB, NetRiver (graphical interface).

Product Specification

System Parameter	Technical Index	
Supporting protocols	EPON (IEEE802.3ah), GPON (ITU-T G984.X).	
Upstream rate	1.25G burst signal.	
Downstream rate	1.488G continuous signal (GPON), 1.25G continuous signal (EPON).	
Compatibility	Compatible with OLT and ONU equipment of different manufacturer, supports business transparent transmission.	
Transmission Distance	EPON/40KM, GPON/60KM.	
Network management feature	NetRiver, WEB, CLI.	
Environmental requirements	Working temperature	-10℃ ~ 70℃.
	Storage temperature	-40℃ ~ 80.
	Relative humidity	5% ~ 95%.
Power consumption	<20W.	
MTBF	128053 hours.	

Ordering Information:

P-OTU ——— □ □ □

数据传输类型	链路传输距离	应用
U：局端ONU	S：20KM	1：EPON
T：远端OLT	M：40KM	2：GPON
	L：60KM	3：G&EPON

2. Amplifier (PON)

Product Introduction

PON remote amplifier is a PON link amplifier developed independently by Visint®. It follows ITU-T G.984.X and IEEE802.3ah standards, integrates PON technology and photoelectric conversion technology, realizes the extension of PON signal, and maximizes the coverage of GPON/60KM and EPON/40KM. It is fully suitable to the mainstream OLP/ONU devices in the market. It is suitable for the scenario of PON coverage with distance extension and line loss. No configuration required and completely transparent transmission, fast open, and improves the coverage efficiency of FTTH services.

Figure 5: Amplifier (PON)

Product Feature

- Compatible with G/EPON services, the maximum remote distance: EPON/40KM, GPON/60KM.
- Transparent protocol, low delay and good compatibility. It can be fully compatible with the mainstream OLT/ONU devices in the market.
- Supporting IEEE802.3ah, ITU-T G.984.X and national standard YD/T 1475-2006, supporting PON signal multi-level cascading.
- Supporting 3R (Re-amplifying, Re-shaping, Re-timing), supporting multi-level PON service amplification, optical module supports hot swapping.
- Effectively improve the utilization of OLT ports, increase the maximum spectrum of EPON from 1:32 to 1:64, and the maximum spectrum of GPON from 1:64 to 1:128.

Product Specification

System Parameter	Technical Index
Supports protocols	EPON (IEEE802.3ah), GPON (ITU-T G984.X).

Upstream	1.25G Burst signal.	
Downstream	2.488G continuous signal (GPON), 1.25G continuous signal (EPON).	
Compatibility	Compatible with OLT and ONU equipment of different manufacturer, supports business transparent transmission.	
Receiving sensitivity on OLT side	-30~-3 dBm (1.25G).	
Receiving sensitivity on ONU side	-28~-8dBm (Burst signal).	
OLT side emission Power	1dBm.	
ONU side emission power	2dBm.	
Environmental requirements	Working temperature	-10℃ ~ 70℃.
	Storage temperature	-40℃ ~ 80℃.
	Relative humidity	5% ~ 95%.
Power consumption	<7W.	
MTBF	128053 hours.	

Ordering Information: