



VDSM2-1524

24x VDSL2 IP DSLAM

VDSM2-1524 is a 24-port VDSL2 IP DSLAM with 2 Gigabit Ethernet Combo interfaces built-in a 1.5U height design. VDSM2-1524 offers the fastest data rate over the existing copper infrastructure. In order to connect with the growing broadband applications, VDSM2-1524 provides the idea solution in the last mile. VDSM2-1524 is able to provide a faster data transmission easily with the latest VDSL2 technology in order to handle the rapidly growing demands of triple-play media. VDSM2-1524 supports the switch management functions, such as port speed configuration, port link aggregation, IEEE 802.1Q VLAN, Q-in-Q VLAN, and ACL security. In addition, it is featured with advanced functions, such as IGMP snooping, QoS, bandwidth control and etc. VDSM2-1524 allows its users to provide a better secured network service with enforcing security policies, such as MAC filter, Static MAC, IP/MAC binding and port security.

Feature

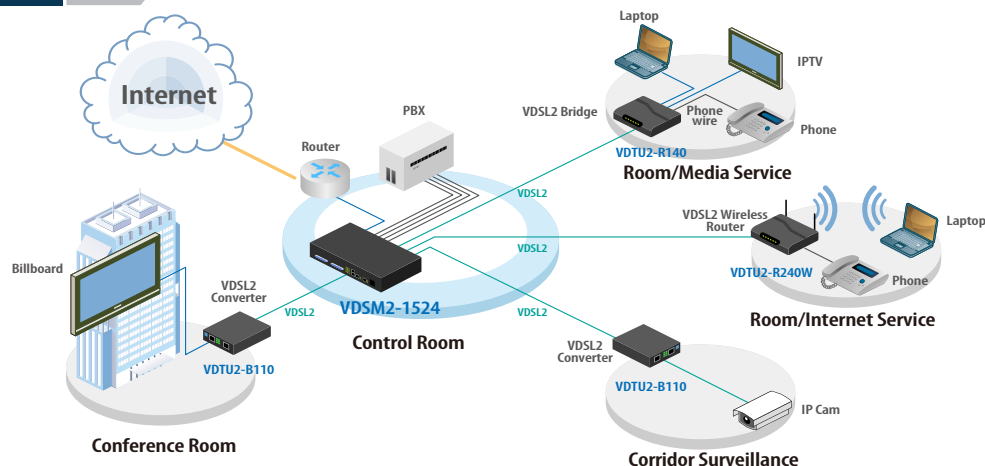
- 1.5U design, 24 VDSL2 ports splitter
- Supports VDSL2 Profiles, 8a, 8b, 8c, 8d, 12a, 12b, 17a and 30a
- Supports Traffic Classification, such as QoS, ToS, DSCP, etc
- Supports L2/L3 Content Filtering
- Configuration backup and restoration
- Supports, Port-Based VLAN, Protocol-Based VLAN, VLAN Mapping, etc
- Supports L2 Bridge Functions (IEEE 802.1d) and Multicast.
- DHCP Server/Relay/Client
- DNS Proxy
- Flexible Deployment and Maintenance.
- Web-based management with a user friendly interface
- Supports MTU 1790 bytes

Specifications

Chassis	1.5U High
Interfaces	24 VDSL2 Ports Two RJ-45 100/1000Mbps Ethernet Combo Ports Management Ethernet 1 x RS-232 Serial Console POTS Splitter
LED Indicators	SYS, ALM, LINK, ACT 24 x VDSL LEDs
Standards	VDSL2 ITU-T G.993.2 VDSL2 Profiles: 8a, 8b, 8c, 8d, 12a, 12b, 17a and 30a 802.1d L2 Bridging DHCP Server/Client/Relay IEEE 802.1Q VLAN (Port-based VLAN and Protocol-Based VLAN) VLAN Stacking (Q-in-Q) IEEE 802.1p Spanning Tree Protocol (STP) IEEE 802.3ad Link Aggregation
Protocols	IGMP Snooping/Proxy v1 and v2 Multicast Forwarding with IGMP Snooping v1 and v2 (RFC 1112 and RFC 2236)

Protocols	Up to 512 Multicast Channels Fast and Normal Leave Modes
Security	L2 Frame Filtering by MAC Addresses L3 Frame Filtering by IP Addresses, protocol ID, and TCP/UDP DHCP and ARP Broadcasting Frames Filtering Supports Secured Forwarding
Management	Supports OAM&P Functions Supports VLAN Priority Queue (IEEE 802.1p) Supports CoS, ToS, DSCP, etc. Supports SNMP v1/v2/v3 and MIB I/II Web-based Graphical User Interface, Telnet, CLI and SSH
Environment	Operating Temperature : -10 ~ 50°C Storage Temperature : -40 ~ 70°C Relative Humidity : Up to 95% (non-condensing)
Power	100-240V AC, 50-60Hz
Power Consumption	90Watts (max.)
Dimensions	435x260x67mm, 1.5U height
Regulatory Compliance	CE, FCC Part 15 Subpart B, VCCI, EN60950

Application



Ordering Information

Model Name	Description
VDSM2-1524	24-Port VDSL2 IP DSLAM with POTS Splitter (600 ohm)



VDSM2-1008

8x VDSL2 IP DSLAM

VDSM2-1008 is a compact 8-port VDSL2 IP DSLAM with 2 Gigabit Ethernet Combo interfaces and built-in POTS splitter. It is compliant to ITU-T G.993.2 standard and supports VDSL2 30a profile that features 100Mbps of symmetric data rate over the existing copper wires. VDSM2-1008 is an ideal choice for ISPs and System Integrators that are looking for a high performance broadband solution for their triple play (Video, Voice and Data) applications. VDSM2-1008 is designed to connect with the growing Carrier Ethernet infrastructure, it provides great flexibility for service providers to customize their services and brings them reliable, secure and high quality network access at low cost. In addition, VDSM2-1008 offers user-friendly management interfaces that allow service providers to monitor and control their services in a highly secure and efficient way. It features the supports for Port-based/ Protocol-based VLAN, Q-in-Q, VLAN Mapping, VLAN translation, L2/L3 frame filtering and secured forwarding. Furthermore, VDSM2-1008 supports traffic classification including CoS (802.1), VLAN ID, ToS and DSCP. With all these powerful and advanced features, VDSM2-1008 VDSL2 Mini IP DSLAM is the perfect solution for service providers to deploy their broadband access, IP Surveillance, Hospitality and MTU/MDU applications.

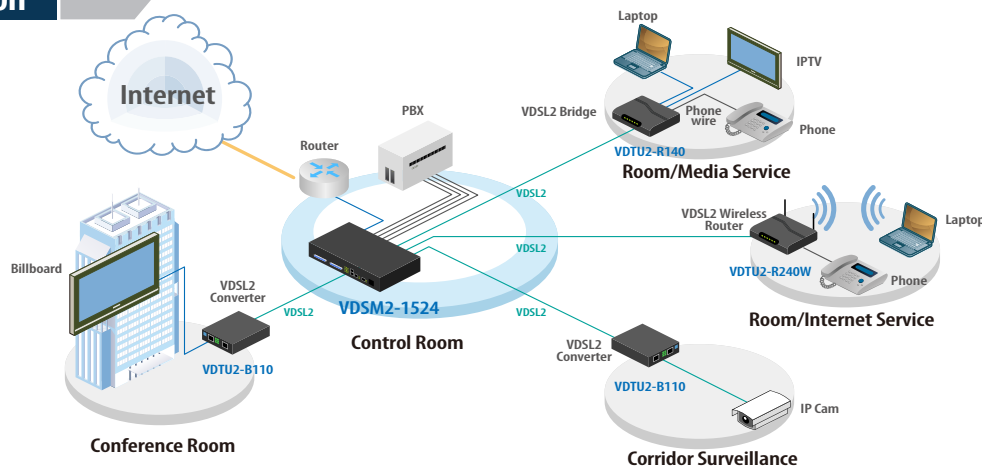
Feature

- 1U design, 8 VDSL2 ports with POTS splitter
- Provides 3-FAN cooling mechanism and support low/middle/full speed based on programming temperature
- Supports VDSL2 profiles 8a/8b/8c/8d/12a/12b/17a/30a
- Supports traffic classification, such as QoS, ToS and DSCP
- Supports Port Security with MAC address filtering
- Supports Port-Based VLAN, Protocol-Based VLAN and VLAN Mapping
- Supports IEEE 802.1d STP/IEEE802.1w RSTP & IEEE-802.1s MSTP
- DHCP /Client/Relay/Option82, DNS Proxy
- Flexible deployment and maintenance
- Web-based management with a user friendly interface
- Configuration backup and restoration
- Supports MTU 1790 bytes

Specifications

Interfaces	RJ-11 x 8 VDSL2 Ports / RJ-11 x 8 POTS Ports 2x Gigabit Ethernet Combo ports (100/1000Base-T and SFP) 1x RJ-45 Console Port 1x RJ-45 Alarm Port for 4 Alarm Inputs
LED Indicators	System : PWR Gigabit Port : LINK/ACT, SPEED 1000/100 Alarm : RUN/ALARM
Standards	VDSL : VDSL Link/Sync VDSL2 ITU-T G.993.2 VDSL2 Profiles: 8a, 8b, 8c, 8d, 12a, 12b, 17a and 30a 802.1d L2 Bridging DHCP/Client/Relay/Option82 IEEE 802.1q VLAN Tag base VLAN Stacking (Q-in-Q) IEEE 802.1d Spanning Tree Protocol (STP) IEEE 802.3ad Link Aggregation
Certification	CE, FCC Part 15 Subpart B, VCCI, EN60950
Dimensions	174 x 404 x 44.5 mm (D x W x H)
Power	100-240 V AC, 50-60 Hz
Power Consumption	30Watts maximum
Protocols	IGMP Snooping/Proxy v1, v2 and v3 Multicast Forwarding with IGMP Snooping v1 and v2 (RFC 1112 and RFC 2236) Multicast MAC address mapping Up to 512 Multicast Channels Profile-based Multicast Access Control (up to 8 profiles) Fast and Normal Leave Modes
Security	L2 Frame Filtering by MAC Addresses L3 Frame Filtering by IP Addresses, protocol ID, and TCP/UDP DHCP and ARP Broadcasting Frames Filtering Supports Secured Forwarding
Management	Local Management: RS-232 and Telnet CLI, Web/SNMP management Remote in-band Management: Web/SNMP/Telnet Supports SNMP v1/v2/v3
Environment	Operating Temperature : -10°C to 50°C Storage Temperature : -40°C to 70°C Humidity : 10% - 95% (non-condensing)

Application



Ordering Information

Model Name	Description
VDSM2-1008	8-Port VDSL2 IP DSLAM with POTS Splitter (600 ohm)



VDTU2-R240W

VDSL2 802.11n Wireless Router

VDTU2-R240W is a VDSL2/ADSL2+ 802.11n Wireless router with four fast Ethernet LAN ports and USB Host. It is compliant to ITU-T G.993.2 standard and supports VDSL2 30a profile that features 100Mbps of symmetric data rate over local loop. With built-in 802.11n technology, VDTU2-R240W can deliver wireless speed up to 300 Mbps and is perfectly suitable for triple play applications (video, voice and data). VDTU2-R240W VDSL2 Router is designed to meet the requirements of ISPs and carriers that intend to use one DSL device to cover end users in different loop range areas, it provides a great flexibility for their end-users to comply today's rapid-changing Internet demands. VDTU2-R240W VDSL2 is a cost-effective and high-speed Internet access solution that can provide users a smooth and reliable wireless connection.

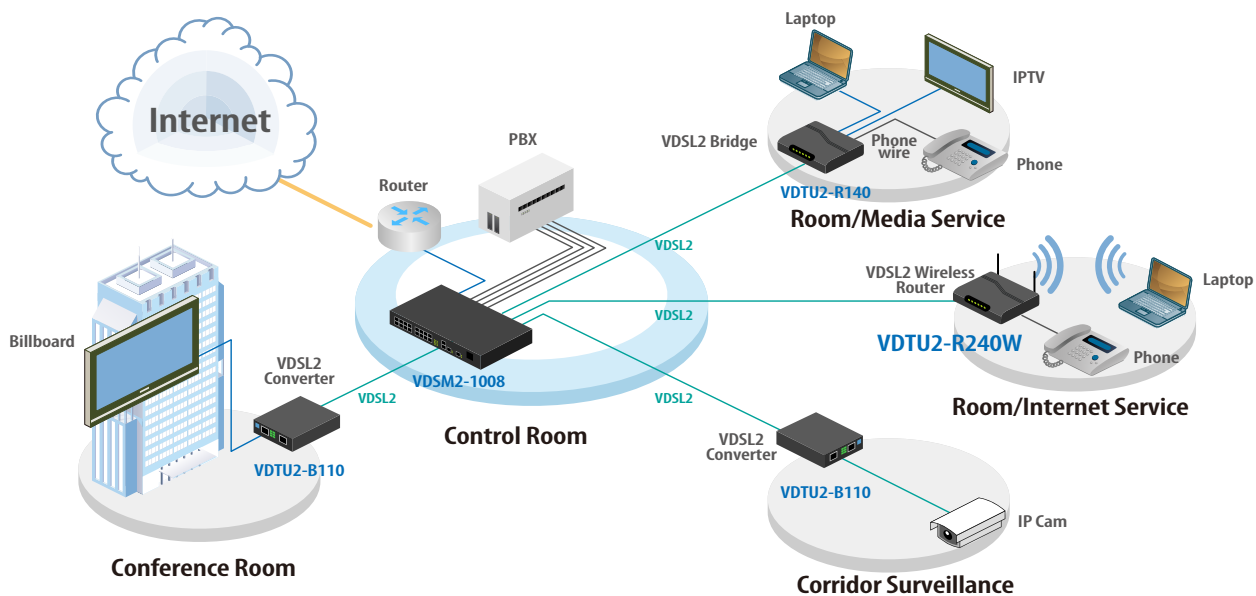
Feature

- Automatically switches from VDSL2 to ADSL2+
- Supports VDSL2 profiles 8a/8b/8c/8d/12a/12b/17a/30a
- Equipped with a one-click Wi-Fi Protected Setup (WPS) button
- Security protection with firewall
- Supports MTU 1790 bytes
- Web-based management with user friendly interface.
- Configuration backup and restoration
- TR-069 Remote Management (Optional)

Specifications

Interfaces			
LAN	4x RJ-45 10/100Base-TX Auto-sensing and Auto-MDIX switch, supports IPv6	WLAN	Compliant with IEEE 802.11b, 802.11g, and IEEE 802.11n standards 2.4 GHz configurable (5 GHz Optional) Up to 300 Mbps wireless operation rate RF Output Power: 15 ± 1.5 dBm in 2.4 GHz 64/128-bit Wireless security with WPA/WPA-PSK, PA2/WPA2-PSK, Mixed WPA/WPA2 support WPS (WiFi Protected Setup) for easy setup
USB	USB host x 1	USB	File Sharing 3G backup support
Wi-Fi	802.11b/g/n and 2 External antennas	VPN	VPN Pass-through
RST	"Factory reset" button & reboot button	Management	Web-based GUI for remote and local management (HTTP/HTTPS) Quick Start Wizard Configuration Backup and Restoration Firmware upgrade through TFTP/FTP and HTTP SNMP management with SNMP agent and MIB II Supports Syslog TR-069 (Optional)
WPS	WPS push button	QoS	ATMQoS : UBR (Default), CBR, VBR-rt, VBR-nrt 802.1p IP DSCP
Power	ON/OFF switch	Firewall	IPv6 Firewall Packet filtering URL filtering Parental control
DSL Compliance		Routing	Static routing and RIP v1/v2 (RFC 1058/2453) Supports IP/TCP/UDP/ARP/IGMP IP multicast and IGMP proxy (RFC 1112/2236) Network Address Translation (NAT/PAT) DNS relay and caching (RFC 1034/1035) DHCP server IP precedence (RFC 791) (Firewall router)
ADSL	G.dmt (ITU G.992.1) Annex A, B G.lite (ITU G.992.2) Annex A, B G.hs (ITU G.994.1) G.bond (ITU G.998.1) Maximum rate : 8 Mbps for downstream / 1 Mbps for upstream G.dm.bist + A196 (ITU G.992.3) Annex A, B G.lite.bis (ITU G.992.4) Annex A, B Maximum rate : 12 Mbps for downstream / 1 Mbps for upstream G.dmt.bisplus (ITU G.992.5) Annex A, B Maximum rate : 24 Mbps for downstream / 1,2 Mbps for upstream	Power	AC Adapter : 100V-240V± / 10% Output : DC 12VDC
ADSL2+	Up to 8 PVCs Supports encapsulation of bridged Ethernet over AAL5 (RFC 2684,formerly RFC1483) Supports encapsulation of routed IP over Ethernet over AAL5(IPoE) Supports encapsulation of routed IP over AAL5 (IPoA) Supports Classical IP according to RFC 2225 (formerly RFC1577) Supports PPPoA according to RFC 2364 Supports PPPoE(default) according to RFC 2516 Supports multiple levels of QoS	Certification	CE, FCC, RoHS compliant
VDSL2	ITU G.993.2 Annex A, B, C VDSL2 (ITU G.993.2) Annex A,B,C, support Band plans 997, 998 refer to Annex B Up to 17 Mhz profile (POTS/ISDN) Supports VDS2 profile 8a, 8b, 8c, 8d, 12a, 12b, 17a, 30a Supports ATM and PTM transparent (dual-priority & dual latency) for user data		

Application



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VDSL2 WiFi Router

Ordering Information

Model Name	Description
VDTU2-R240W	VDSL2 Wi-Fi Router with 4-Port 10/100-TX Ethernet



VDTU2-R140

VDSL2 Router with 4-Ports Ethernet

VDTU2-R140 is a single-VDSL2-port router with 4x 10/100Mbps Ethernet ports. It adopts the latest VDSL2 technology (ITU G.922.3), which has the extraordinary bandwidth and supports up to VDSL2 profile 30a, and it is perfectly suitable for triple play applications (video, voice and data). VDTU2-R140 is a cost effective solution that delivers high-speed Internet access to end-users over existing copper wire infrastructure. Also, it is designed to meet the requirements of ISPs and carriers that intend to use one DSL device to cover end users in different loop range areas. In addition, it provides great flexibility for their end-users to comply today's rapid-changing Internet demands. Based on the latest VDSL2 technology, VDTU2-R140 presents a cost-effective solution with high-speed Internet access over standard copper telephone cable.

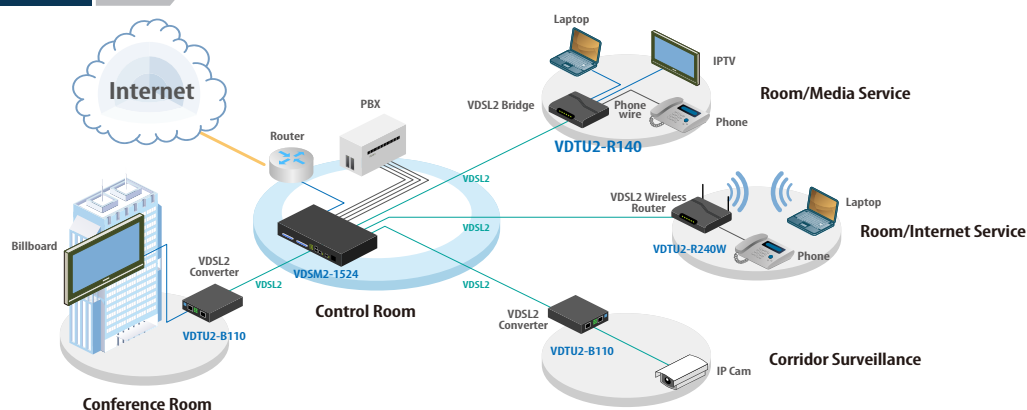
Feature

- Supports point-to-point mode (support both CO and CPE modes)
- Interoperable with major VDSL2 chipset solutions including Ikanos, Infineon, and Broadcom
- Supports up to VDSL2 profile 30a
- Supports up to 100Mbps for both Upstream and Downstream
- Built-in UPnP available, which allows automatic discovery and the broadband router's configuration
- IP/MAC address filtering
- Static route/RIP/RIP v2 routing functions
- Dynamic IP assignment
- Supports QoS to enhance traffic efficiency
- Supports NAT, which allows multiple users access the Internet with only one single external IP address
- IGMP Proxy and fast leave
- DHCP Server/Relay/Client. DNS Proxy, DDNS
- Embedded SNMP agent
- Web-based management with a friendly graphical user interface
- Configuration backup and restoration
- Supports MTU 1790 bytes

Specifications

Standards	Compliant with ITU VDSL2 standard G.993.2 Annex A, Annex B and Annex C Supports VDSL2 profile: 8a, 8b, 8c, 8d, 12a, 12b, 17a and 30a Band plan profile: symmetric (Plan 997) and asymmetric (Plan 998) Built-in POTS splitter to share voice and data (Optional)	LAN	Filtering functions for MAC/IP/Port. Port Based VLAN & IEEE 802.1q VLAN Tagging Port configuration for Bandwidth/Duplex/Speed/Flow control
Management	Web-based GUI for quick setup, configuration and management Firmware upgradable from Web SNMP management with SNMP agent and MIB II	Routing	Static routing and RIP v1/v2(RFC 1058/2453) Support IP/TCP/UDP/ARP/IGMP IGMP snooping and proxy (RFC 1112/2236) NAT ALGs for ICQ/NetMeeting/MSN/Yahoo Messenger DNS relay and caching (RFC 1034/1035) DHCP server, client and relay (RFC 2131/2132) Dynamic DNS IP precedence (RFC 791) (Firewall router)
Interfaces	Ethernet: 4 X RJ-45 connectors for Ethernet 10/100Mbps ports with Auto-MDI/MDIX VDSL: 1 X RJ-11 connector for VDSL2 port	Firewall	DMZ host Virtual server mapping (RFC1631) VPN pass-through for PPTP/ L2TP/ IPSec tunneling NAT firewall User access control
QoS	Port Based 802.1p ToS/DSCP 4 priority queues per port WRR/WFQ/SP/BE	Weight	300g
Power	AC Adapter : 100V-240V± / 10% Output : DC 12VDC	Dimensions	131.5 x 180 x 36.5 mm (D x W x H)

Application



Ordering Information

Model Name	Description
VDTU2-R140	VDSL2 Router with 4-Port Ethernet and POTS splitter (600 ohm)



VDTU2-B110

VDSL2 Ethernet Bridge

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VDSL2 Ethernet Bridge

VDTU2-B110 Ethernet Extender is a high-speed Ethernet Extender with one Ethernet port (RJ-45 connector) and one VDSL port (RJ-45 connector). It is a bridge mode modem, well accommodating VDSL2 (Very-high-data-rate Digital Subscribe Loop) technology to extend Ethernet service over single-pair phone line. It is compliant to ITU-T G.993.2 standard and supports VDSL2 30a profile that features 100Mbps of symmetric data rate over the existing copper wires. Supporting both symmetric and asymmetric transmission, it can reach up to 100/100 Mbps bandwidth (line rate) within 300M or 10/10 Mbps (line rate) for 1 Km long range connections. By providing ultra-high speed, VDTU2-B110 Ethernet Extender makes your telephone line achieve its best performance than before. It has the advantage of minimum installation time (simply as plug-n-play) and minimum expense by allowing video streaming and data to share the same telephone pair without interference.

VDTU2-B110 Ethernet Extender delivers everything needed to quickly deploy a high-speed IP-based network for providing high-speed Internet access, video-on demand services and voice services. The resulting compact, cost-effective form factor offers Systems Integrators, small business owners an attractive Long Reach Ethernet solution.

Feature

- Cost effective bridge function to connect two Ethernet LAN
- Supports flow control on Fast Ethernet port via PAUSE frame or Back Pressure
- IEEE 802.1Q VLAN tag transparent
- Easy installation via simple plug-and-play
- Selectable CPE and CO mode via DIP switch: Two working modes are built in the same unit, which keep the flexibility of installation and easy provision of service but lower inventory of service provider
- Selectable VDSL2 profile mode (17a or 30a): Support up to VDSL2 30a profile to ensure high data rate.
- Selectable target band plan:
Symmetric: Support the band plan G.997 and provide the symmetric transmission on both downstream and upstream.
Asymmetric: Provides highest line rate in short range in asymmetric mode.
- Selectable target SNR margin

Specifications

4-Pole DIP Switch	Selectable CO or CPE mode Selectable 30a or 17a (VDSL2 Profile) Selectable Band plan (Symmetric or Asymmetric) Selectable target SNR margin (6dB or 9dB)	VDSL Interface	RJ-45 connector DMT Encoding Complies with ITU-T G993.1/993.2/G.997.1 On-board surge protection
LAN Interface	RJ-45 connector Complies with IEEE 802.3/802.3u/802.3x 10/100 Base-T Auto-Negotiation, Auto-MDI/MDI-X	Dimensions	73.4 x 96.2 x 22.8 mm (D x W x H)
LED	LAN : ACT/LNK, 10/100Mbps, Half/Full Duplex VDSL : Power On/Off, CO/CPE, Idle/Trained/Link	Temperature	0°C ~45°C
Power supply	DC 12 Volt over 3.5mm DC jack ; 4.2 Watt maximum	Humidity	0%~95%RH (non-condensing)
		Certification	CE FCC Part 15 Class B EN60950

Application



Ordering Information

Model Name	Description
VDTU2-B110	VDSL2 10/100-TX Ethernet Bridge
FMC-CH17-AC/DC/AD	2U, 17-slot FMC converter Chassis with AC, DC or AD Power

VDTU2 - ☐☐☐☐
 Example: VDTU2 - B110
 Chassis Power Type
 FMC-CH17 - ☐☐
 Example: FMC-CH17 - AD