ZYXEL

VES1724 Series

24-port Temperature-Hardened VDSL2 Box DSLAM
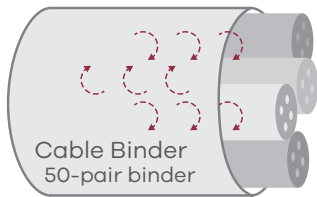
Benefits

Compliant with ITU-T G.993.2, G994.1, G.997.1 and G.993.5 vectoring and bonding

The VES1724 Series conforms to G.993.2, G994.1 and G.997.1 to ensure the interoperability with standard-compliant VDSL CPE.
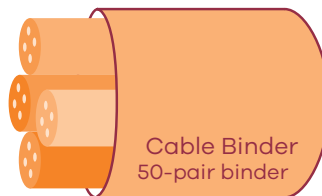
Without G.vector
Crosstalk affects DSL lines

Cable Binder
50-pair binder

With G.vector
Crosstalk is eliminated

Cable Binder
50-pair binder

Fanless design that enables passive cooling to sustain temperature-hardened requirement

Complies with VDSL2 standards including ITU-T G.993.2, G994.1 and G.997.1

A 24-port DSLAM with downstream/upstream performance of up to 100/100 Mbps (30a profile)

Comprehensive triple-play functions

Complete QoS for service differentiation

VDSL2 bonding & G.INP

Ultra high-speed transmission with 30a profile support

The VES1724 Series supports 30a profile with 100 Mbps in both upstream and downstream traffics. With two Gigabit combo ports to connect upper layer aggregation networks, the VES1724 Series can support low-concentration interconnection from the subscriber ports to the network interface ports.

* 17a profile only when vectoring enable.

** 1. VES1724-55C and VES1724-58V support 17a profile.
   2. VES1724-56B2 supports 30a profile.

SIP and H.248 for smooth voice over IP migration (VES1724-58V)

The Zyxel VES1724-58V has SIP and H.248 enabled, with which analog voice signals coming from subscriber lines can be digitalized and transmitted to the SIP or H.248 voice core. The capability enables operators to turn traditional voice exchange into VoIP core without any impact on the subscriber side. It also makes the migration pace to the entire VoIP infrastructure controllable.
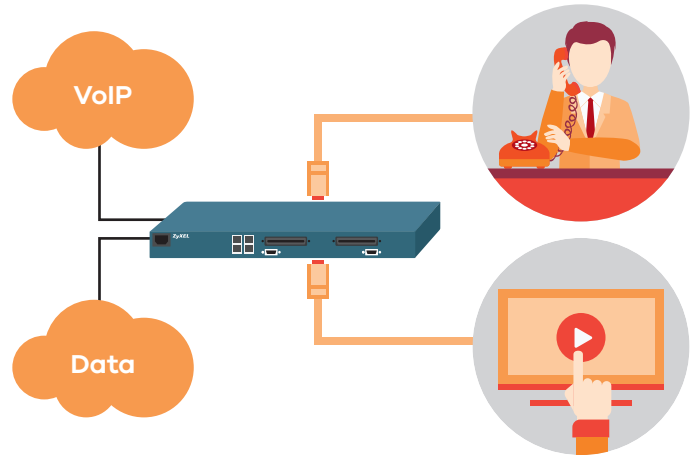

Triple-play ready

The VES1724 Series supports IGMP snooping to prevent unnecessary forwarding of multicast traffic to all subscribers and thus optimizes bandwidth utilization for multicast applications such as broadcast video. The VES1724 Series also supports the multicast VLAN feature that distributes the source to all the VLANs requesting the video stream. With a built-in splitter over POTS, the VES1724 Series allows the operators to provide triple-play services over the same copper wire.

VES1724 Series   **Gateway**   **Application**
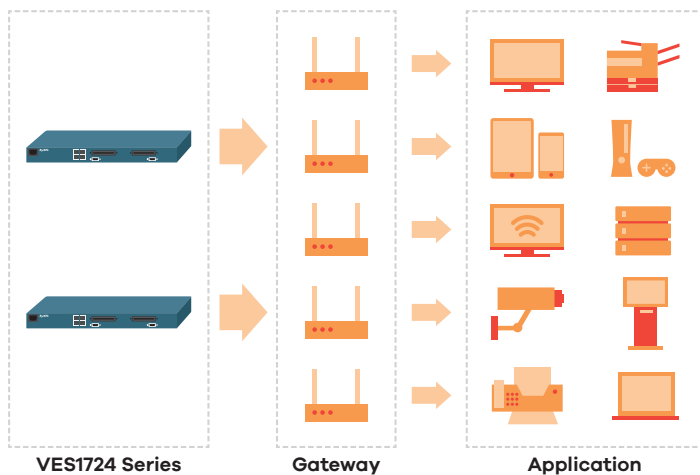
Sophisticated OAM&P features

The Zyxel VES1724 Series provides various management methods: local console port, Telnet, SSH, HTTP/HTTPS, and SNMP v1/v2/v3-based EMS (NetAtlas EMS). The management functions include alarm and status surveillance, configuration management, performance management and fault management. The VES1724 Series allows multiple administrative accounts with 3-level access privileges. The NetAtlas EMS also provides view-based MIB management that partial MIB objects can be defined and accessed for customization and security reasons. In addition, cluster management enables multiple MSAN administration sessions with a single/master IP address, while XML-based northbound interface is also equipped to interoperate with external OSS systems.
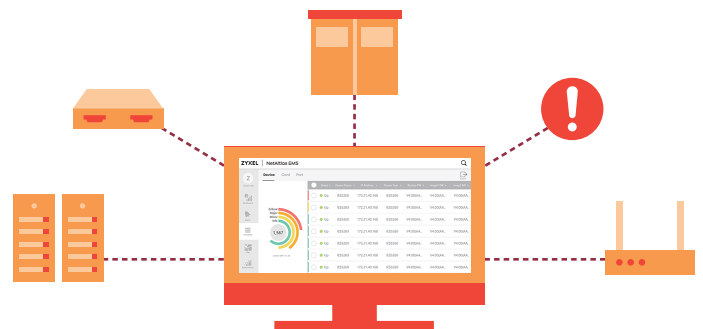
Temperature-harden and friendly remote-installation design

The Zyxel VES1724 Series can operate in the environment with temperature from -40°C to 65°C, which meets various Fiber-to-the-Node and Fiber-to-the-Curb environment conditions worldwide. Moreover, for the VES1724-58V, the rotational speed of the fan module is automatically adjusted according to the system temperature. With the fanless design for the VES1724-55C/56B2, the feature not only extends the MTBF, but also has lower audible noise, which is important if the VES1724 Series is installed in a residential neighborhood. The fan module is swappable in order to reduce the maintenance cost in the field.

AC/DC power with battery charger to facilitate field installations

The Zyxel VES1724 Series is a temperature-hardened remote system with dual power supply that can be powered by either AC or DC sources. The operator staff can easily power the mini MSAN and put it in service based on the power facility type at the installation site. Furthermore, because the VES1724-58V embedded battery charger function, customer doesn't need an additional SMR for powering the VES1724-58V and charging backup at the same time. It will reduce CAPEX and the effort for installation.
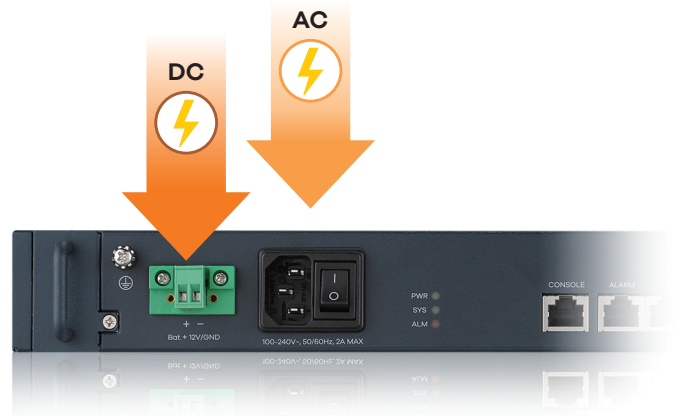
Model List

VES1724-56B2

VES1724-56B2

24-port VDSL2 DSLAM, with ETSI/ANSI splitter built-in, temperature hardened, dual power (-40°C to +65°C), fanless type

VES1724-55C

VES1724-55C (vectoring)

24-port VDSL2 DSLAM, with ETSI/ANSI splitter built-in, temperature hardened, dual power (-40°C to +65°C), fanless type

VES1724-58V
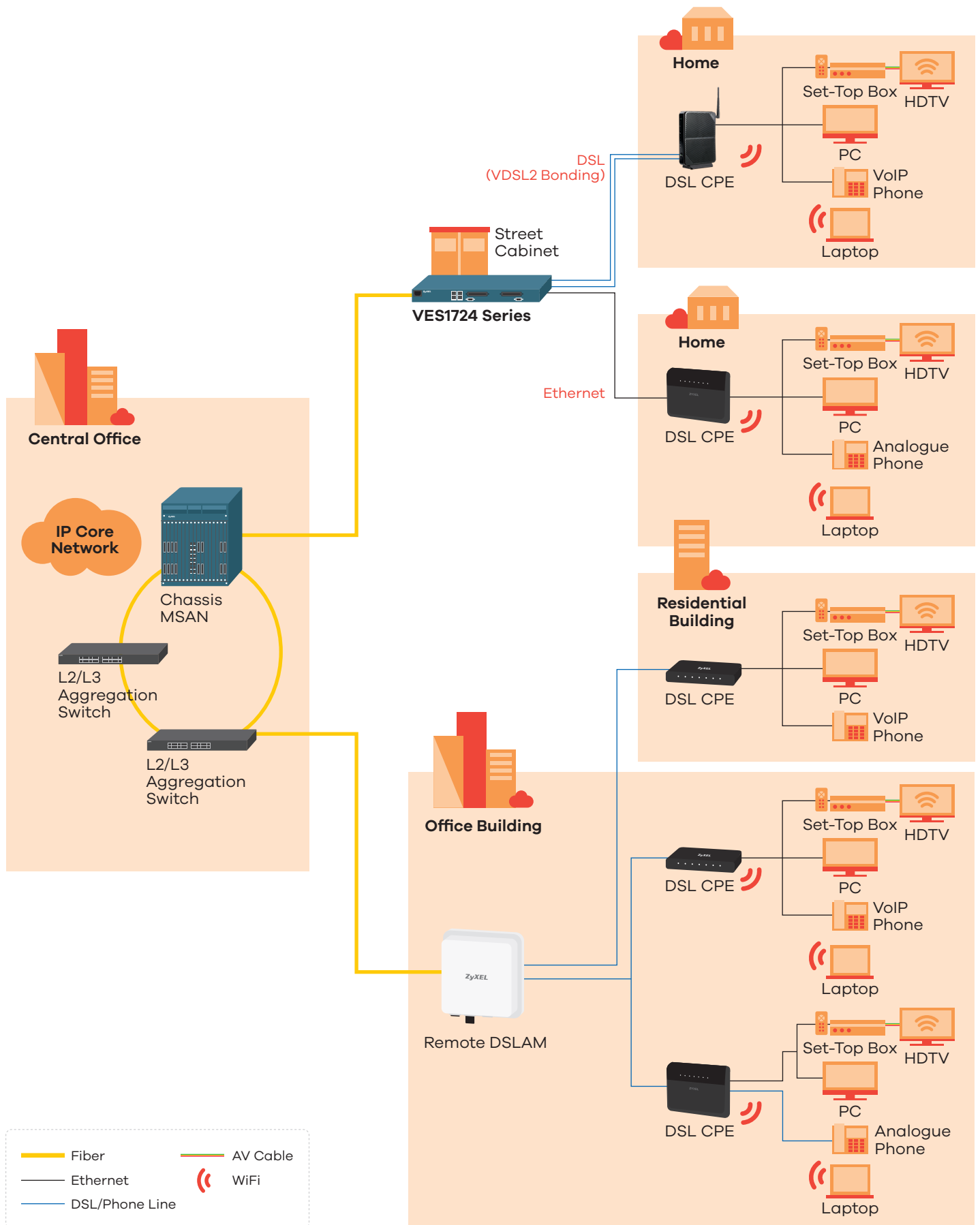
VES1724-58V (VoIP)

24-port Remote MSAN for VDSL2 and VoIP Services, (-40°C to +65°C), fan type

Application Diagram

Home

Set-Top Box
HDTV
PC
VoIP Phone
Laptop
DSL CPE

DSL (VDSL2 Bonding)

Street Cabinet

VES1724 Series

Home

Ethernet

Set-Top Box
HDTV
PC
Analogue Phone
Laptop
DSL CPE

Central Office

IP Core Network

Chassis MSAN

L2/L3 Aggregation Switch

L2/L3 Aggregation Switch

Residential Building

Set-Top Box
HDTV
PC
VoIP Phone
DSL CPE

Office Building

Remote DSLAM

Set-Top Box
HDTV
PC
VoIP Phone
Laptop
DSL CPE

Set-Top Box
HDTV
PC
Analogue Phone
Laptop
DSL CPE

Fiber
Ethernet
DSL/Phone Line
AV Cable
WiFi

Specifications

System Specifications

- 4 K MAC addresses (VES1724-58V)
- 16 K MAC addresses (VES1724-55C/ VES1724-56B2)
- 256 static MAC address filtering
- Port security
- Broadcast/Multicast/Destination lookup fail storm control
- Spanning tree protocol (IEEE 802.1D)
- QoS (IEEE 802.1P, 8 priority queues)
- Port-based and tag-based (IEEE 802.1Q) VLAN
- GVRP for automatic VLAN membership registration
- Link aggregation (IEEE 802.3ad)
- IGMP snooping
- MVR
- RMON
- SNMP
- MIB II, RFC1493, 2674 and 1757 MIB, and private MIB
- Web management
- FTP for firmware upgrade
- CLI through console port and telnet
- IPv6
- VDSL2 bonding
- ADSL2+ fallback & bonding
- G.INP (G.998.4)
- VDSL2 Vectoring (VES1724-55C)

VoIP (VES1724-58V)

- H.248:
  - ITU-T H.248 version1, version 2
  - ITU-T H.248.1 connection mode
  - Configurable RTP local port range
  - UL60950-1
  - IEC60950-1
  - Codec G.711 a/u law/G.723.1/G.726/ G.729
- SIP:
  - RFC2976, RFC3261, RFC3262, RFC3263, RFC3265, RFC3331, RFC3515, RFC3842, RFC3891, RFC3960, RFC4028
  - 3-way calling, call transfer and other call features (DND, call hold, call waiting)
  - FAX (T.38/G.711 pass through)
  - DTMF relay and pass through
  - Configurable numbering/ Dialing plan

Hardware Specifications

- 1U
- 19" rack mountable
- Hot swappable fan module (VES1724-58V)
- Front access:
  - One Telco 50 for 24 VDSL ports (VES1724-55C/56B2)
  - One Telco 50 for 24 POST ports (VES1724-55C/56B2)
  - One Telco 50 for 24 VDSL and VoIP ports (VES1724-58V)
  - 2-slot 100/1000 Mbps Ethernet uplink/downlink
  - 2-slot Gigabit fiber uplink/downlink (Combo)
  - Built-in POTS splitter supports 600 ohm ETSI (VES1724-55C/56B2)
- AC and DC dual power (Power redundancy):
  - AC input: 100 VAC to 264 VAC, 60 Hz ±3 Hz
  - DC input: -36 VDC to -72 VDC (VES1724-55C/56B2)
  - DC input: -12 VDC (VES1724-58V)
- Power consumption:
  - 63 W (VES1724-55C/56B2)
  - 108 W (VES1724-58V)

Physical Specifications

VES1724-55C/56B2

- Item dimensions (WxDxH): 440 x 250 x 44.35 mm (17.32" x 9.84" x 1.75")
- Item weight: 4,700 g (10.36 lb.)
- Packing dimensions (WxDxH): 550 x 395 x 175 mm (21.65" x 15.55" x 6.89")
- Packing weight: 5,300 g (11.68 lb.)

VES1724-58V

- Item dimensions (WxDxH): 440 x 243 x 44 mm (17.32" x 9.56" x 17.32")
- Item weight: 6,000 g (13.26 lb.)
- Packing dimensions (WxDxH): 571 x 197 x 163 mm (22.48" x 7.75" x 6.41")
- Packing weight: 7,000 g (15.47 lb.)

Environmental Specifications

Operating Environment

- Temperature: -40°C to 65°C (-40°F to 149°F)
- Humidity: 10% to 95% (Non-condensing)

Storage Environment

- Temperature: -40°C to 70°C (-40°F to 158°F)
- Humidity: 5% to 95% (Non-condensing)

Certification

- RoHS
- K.20
- ETSI300-019
- Safety
  - EN60950-1
  - CSA60950-1
  - UL60950-1
  - IEC60950-1
- EMC
  - FCC Part 15 Class A
  - EN55022 Class A

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Datasheet VES1724 Series