



A complete offering for High bandwidth asymmetrical services — residential data, voice, and multiple video channels

- The fastest speed with the most advanced and flexible DSL transport available, adjustable speeds for multiple service offerings down/up stream Up to 24/1.2 Mbps
- Application flexibility, with asymmetric data transport over a single copper pair (software configurable)
- Compliant with ITU, ANSI and ETSI standards
- POTS/ISDN in overlay mode
- Deployment from CO, cabinet or basement, multi-tenant units/multi-dwelling units



Hardened ADSL2+ Mini IP DSLAM

IES-1248-51A

Benefits

Better utilization of bandwidth

The IES-1248-51A (AC Power Input) is an IP-based DSLAM that terminates all the ATM circuits and converts traffic directly to deliver the most popular broadband IP services. It also provides a distinct advantage over typical ATM-based DSL access system due to the fact that IP is the natural approach for data transmission. It offers better bandwidth utilization, ease of use, as well as the low-cost advantage. With the highly compact and temperature-hardened design, simple installation and easy adaptation to local POTS/ISDN splitter requirements, the IES-1248-51A can be deployed in indoor and outdoor enclosures.

A robust, capable ADSL2+ solution

With this standalone ADSL2+ IP DSLAM, service providers can offer residential and business users access to high-bandwidth services on demand; such as streaming video, online gaming, multimedia applications and multiple video channels on a single network connection. The IES-1248-51A also offers medium/small businesses and home offices IP connectivity, VPNs, VLANs, high-quality video conferencing, long-reach Ethernet and legacy service interconnection, as well as asymmetric connectivity as fast as 24Mbps. The IES-1248-51A DSL solution for POTS/ISDN is a sophisticated ADSL2+ device wielding full compliance to existing standards, the latest DSL technology, compactness, low power consumption, integration with existing platforms and network manageability. The combination of a superior line code, modern signal processing techniques and state-of-the-art ASIC design add up to a compact, energy-saving ADSL2+ modem with excellent performance, transparent backward ADSL/ADSL2 compatibility, robust interference resistance and flexible configurability.

Service Applications

- A complete service offering bundling data, voice and video services
- Residential: broadband Internet access, streaming audio and video, gaming, high quality video distribution, VoD, and telecommuting
- Medium and small businesses: IP connectivity, VPNs, VLANs, high quality video conferencing, long reach Ethernet or legacy service interconnection, asymmetric to 24 Mbps
- Low cost reliable transport for backhauling applications, such as mobile base station connectivity over ADSL
- VoDSL services, legacy services and WAN interconnection, bridging or routing, VPNs, provided through appropriate CPE
- Cost-effective broadband access for higher margin services such as VoD, gaming, and multimedia applications

Specifications

ADSL2/ADSL2+ Interface

- Support G.992.3 and G.992.5 ATM Transmission Convergence (ATM-TC) function
- Support G.992.3 and G.992.5 Spectral Mask
- Support EOC and Overhead Channel Access defined in ITU-T Rec. G.992.3 and ITU-T Rec. G.997.1
- Support the latency path function specified in ITU-T Rec. G.992.3 and G.992.5
- Support loop diagnostic function specified in ITU-T Rec. G.992.3 and G.992.5
- Support the power management capability specified in ITU-T Rec. G.992.3 and G.992.5
- Support the capability of the Seamless Rate Adaptation (SRA) on-line configuration specified in ITU-T Rec. G.992.3 and G.992.5

Network Interface

- IEEE 802.3u 100BASE-Tx
- IEEE 802.3ab 1000BASE-T
- IEEE 802.3z 1000BASE-Lx/1000BASE-Sx
- SFP mini GBIC

ATM Functionality

- Support Point-to-Point Virtual Circuit Connection (VCC) in the Network
- Provide the Peak Cell Rate (PCR) configurable parameter for UBR services specified in ATM Forum Traffic Management 4.0
- Provide the Peak Cell Rate configurable parameter for CBR services specified in ATM Forum Traffic Management 4.0
- Provide the Peak Cell Rate (PCR) and Sustainable Cell Rate (SCR) configurable parameters for rt-VBR and nrt-VBR services specified in ATM Forum Traffic Management 4.0
- The over-subscription of bandwidth is permitted, i.e., total DSL bandwidth can be larger than bandwidth of DSLAM network interface for UBR service
- Support the downstream traffic shaping function for each ATM PVC connection
- Support the Fault Management (FM) functions of the ATM layer F5 OAM cells for End-to-End Loopback defined in ITU-T Rec. I.610
- Support 64k PVC

IP Functionality

- Support ICMP (Internet Control Message Protocol) function, and respond the ICMP request message sent from NMS or other system

Subscriber Management

- Support the Ethernet MAC filtering function
- Support 64k MAC addresses
- Support the DHCP relay agent option 82 function
- Support 802.1x
- Support port isolation function
- Support RFC2684 bridged mode payload encapsulation method
- Support the IPSec/L2TP/PPTP VPN pass-through function
- Support RFC2516 PPPoE packet forwarding function

VLAN & VLAN Bridge Functions

- Provide 1024 configurable VLANs
- The VLAN tagging complies with IEEE 802.1Q
- Support VLAN bridge function of mapping of multiple PVCs to one VLAN ID
- Support the IEEE 802.1Q VLAN tagging
- Support GVRP function

Reliability

- Support 802.1w RSTP

QoS

- Support configurable IEEE 802.1p priority queue function and support 4 levels
- Support configurable mapping function between ATM PVC and 802.1p priority queue

Multicast capability for IP network interface

- Support RFC2684 bridged mode multicast service
- Support Internet Group Management Protocol (IGMP) version 2 specified in RFC2236
- Support IGMP snooping function
- Support 256 multicast groups
- Support 144 copies for each multicast group

Management

- Local management through a craft terminal
- Support the In-band IP interface for managing the Network

- Support SNMP (Simple Network Management Protocol) v1.0 & v2c (RFC1157)
- The management activities can be performed by SNMP operations
- Support SNMP MIB(s)
- Support standard SNMP traps so that these traps can be reported to other NMSs
- Centralized Management Software — EMS supporting

Hardware Specifications

Hardware Configuration

- Two TELCO-50 connectors for 48-port ADSL/ADSL2/ADSL2+
- Two TELCO-50 connectors for 48-port splitter card
- One mini RJ11 console port for local management
- Two 100Base-TX/1000Base-T or two mini GBIC for uplink/subtending
- One DB9 for 3 in and 1 out alarm contact
- Hot-swappable fan module
- DC Input connector

Power Requirements

- Voltage: AC power input (100 V ~ 240 V)
- Power: max. 90 Watts

Physical Specifications

- 19" and 23" Rack-mountable
- Force cooling by FAN
- Temperature hardening
- Built-in splitter
- Dimensions: 439.8 (W) x 251 (D) x 66 (H) mm
- Weight: 7.2 Kg

Environmental Specifications

- Operating Temperature: 0°C ~ 65°C
- Storage Temperature: -40°C ~ 85°C
- Operating Humidity: 10% ~ 95% (non-condensing)
- Storage Humidity: 5% ~ 95% (non-condensing)

Certification

- EMC/ESD: FCC part 15 Class A; EN 55022, EN 55024 Class A; ETS 300 386
- Safety: ITU-T K.20, Appendix C; CSA 60950; EN 60950; IEC 60950; UL 60950
- Reliability: ETS 300 019
- NEBS Compliant

For more product information, visit us on the web www.ZyXEL.com

Corporate Headquarters
ZyXEL Communications Corp.
Tel: +886-3-578-3942
Fax: +886-3-578-2439
Email: sales@zyxel.com.tw
http://www.zyxel.com
http://www.zyxel.com.tw

ZyXEL Denmark A/S
Tel: +45 39 55 07 00
Fax: +45 39 55 07 07
Email: sales@zyxel.dk
http://www.zyxel.dk

ZyXEL France SARL
Tel: +33 (0)4 72 52 97 97
Fax: +33 (0)4 72 52 19 20
Email: info@zyxel.fr
http://www.zyxel.fr

ZyXEL Hungary
Tel: +36-1-336-1646
Fax: +36-1-325-9100
Email: info@zyxel.hu
http://www.zyxel.hu

ZyXEL North America
Tel: +1-714-632-0882
Fax: +1-714-632-0858
Email: sales@zyxel.com
http://www.us.zyxel.com

ZyXEL Poland
Tel: +48 (22) 333 8250
Fax: +48 (22) 333 8251
Email: info@pl.zyxel.com
http://www.pl.zyxel.com

ZyXEL Spain
Tel: +34 902 195 420
Fax: +34 913 005 345
Email: sales@zyxel.es
http://www.zyxel.es

ZyXEL UK Ltd.
Tel: +44 (0) 1344 303044
Fax: +44 (0) 1344 303034
Email: sales@zyxel.co.uk
http://www.zyxel.co.uk

ZyXEL Czech s.r.o.
Tel: +420 241 091 350
Fax: +420 241 091 359
Email: info@zyxel.cz
http://www.zyxel.cz

ZyXEL Finland Oy
Tel: +358-9-4780 8400
Fax: +358-9-4780 8448
Email: sales@zyxel.fi
http://www.zyxel.fi

ZyXEL Germany GmbH.
Tel: +49 (0) 2405-6909 0
Fax: +49 (0) 2405-6909 99
Email: sales@zyxel.de
http://www.zyxel.de

ZyXEL Kazakhstan
Tel: +7-327-2-590-699
Fax: +7-327-2-590-689
Email: sales@zyxel.kz
http://www.zyxel.kz

ZyXEL Norway A/S
Tel: +47 22 80 61 80
Fax: +47 22 80 61 81
Email: sales@zyxel.no
http://www.zyxel.no

ZyXEL Russia
Tel: +7 (095) 542-8920
Fax: +7 (095) 542-8925
Email: info@zyxel.ru
http://www.zyxel.ru

ZyXEL Sweden A/S
Tel: +46 (0) 31 744 77 00
Fax: +46 (0) 31 744 77 01
Email: sales@zyxel.se
http://www.zyxel.se

ZyXEL Ukraine
Tel: +380 44 494 49 31
Fax: +380 44 494 49 32
Email: sales@ua.zyxel.com
http://www.ua.zyxel.com

