

AS2111 & AS2141

Enterprise-Class ShDSL
Broadband router



Advanced Layer 3 and 2 features

Extensive IP routing and Ethernet/ATM functionalities with advanced QoS mechanisms

Secure

Data protection with IPSEC encryption and firewall security

Innovative

Cutting edge devices with state-of-the-art technology



AS21x1 is a ShDSL router family for high performance connections. The family includes two models, AS2111 and AS2141, differing for the Ethernet port number only.

AS21x1 offers a wide range of configurations that allow SME and SoHo customers to use any type of professional application, including ISP, LAN to LAN, VPN and videoconferencing.

Traffic Management Capabilities

AS21x1 supports traffic shaping and Quality of Service at both layer 3 and layer 2. It also provides interworking mechanisms between the two layers, which allow Telecom Operators the maximum flexibility in defining traffic management policies for transit switches/routers in their access & core networks.

VPN and Security Features

AS21x1 offers firewall functionalities to prevent unauthorized external hosts access to the internal LAN: access lists, Stateful Packet Inspection for hacker patterns and DoS attacks. AS21x1 allows VPN data protection on transmission between two sites supporting IP-in-IP, GRE, PPTP client/server and IPSec software and hardware encryption.

Powerful Configuration & Management

AS21x1 offers a web-based interface for easy configuration and monitoring. It includes remote management via an internal web server or Telnet server using the Command Line Interface.

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Technical Specifications



LED Indicators

- PWR
- LAN (1-4)
- ShDSL (Line1-Line2)

Physical Interfaces

- 1-port 10/100bT Eth (AS2111) with RJ-45 connector
- 4-port (AS2111/AS2141) 10/100bT Eth switch with RJ-45 connectors
- 1-port console with MiniDIN 8P connector

ShDSL Network Interfaces

- ShDSL 2/4-wire with two RJ-11 connectors
- Line rate from 200 up to 4608 Mbps
- Full rate ShDSL: ITU G.991.2 (G.ShDSL), ITU G.994.1 (G.hs), ETSI TS 101 524

IP Functions

- IP Routing
 - RIP v1/v1c/ v2, BGP, OSPF
 - Enhanced Network Address and Port Translation (NAPT) engine, with multiple ALGs (including SIP, TFTP and H.323)
 - DHCP Server/Client/Relay, DHCP Learning
 - Multicast IGMP v1/v2/v3, PIM
- Routing Filtering Redistribution
- Firewalling
 - Extended Access Lists
 - Stateful Packet Inspection including Denial of Service attacks
- IP Services
 - DNS proxy
 - VPN (GRE, IP, PPTP server/client)
 - IPSec with DES, 3DES and AES
 - ICMP, IGMP snooping, Telnet, TFTP
 - Layer 3 QoS according to DiffServ model (RFC2474, RFC2475)
 - Priority based queuing (Absolute Priority, WFQ, RED)
 - Extensive monitoring, tracing and troubleshooting facilities

Ethernet Services

- Self Learning Bridge with up to 1k MAC addresses and automatic ageing
- Full-Duplex IEEE 802.3x
- Half-Duplex back pressure flow control
- Automatic MDI/MDI-X crossover
- Broadcast/Multicast storm protection
- VLANs (802.1Q and 802.1p) port based management
 - Tag/Re-Tag/Untag
 - Trunking (VLAN multiplexing)
 - Priority based queuing

ATM

- Services
 - Up to 16 VCCs
 - Class of Services (CBR, VRB-rt, VBR-nrt, UBR+, UBR)
 - Voice and Data packets over different VCCs (VC bundling)
 - Selective CLP marking
 - F4/F5 OAM cells, AIS and RDI
 - ATM: ITU T-I.361, ITU T-I363.5, ITU T-I432, ITU T-I610, ITU T-I731
- Access protocols
 - IP over AAL-5, Ethernet over AAL-5 (RFC2684)
 - PPP over AAL-5 (RFC2364)
 - PPP over Ethernet (RFC2516)
 - LLC/SNAP and VC encapsulation

Authentication

- PAP/CHAP/MS-CHAPv1 and v2 authentication

Service Resiliency

- VRRP (RFC2338)

Management & Configuration

- Password Protected Access
 - 2 login levels
 - AAA and local authentication
- Local Management
 - Console port

- Extensive CLI
- Windows based wizard for configuration and firmware download
- Remote Management
 - CLI (internal Telnet Server)
 - HTTP (embedded WEB Server)
 - SNMP Agent (v1, v2c)
 - SSH
 - Syslog
 - Network Performance Monitor
 - Ping MIB
- Firmware upgrade: Local and Remote (TFTP client embedded)

Environment

- Operating Temperature: -5° + 45°C (23° + 113°F)
- Non-Operating Temperature: -40° + 70°C (-40° + 158°F)
- Operating Humidity: 10 + 93% (non-condensing)

Compliance & Approvals

- Storage: ETSI EN 300 019-2-1 T 1.3
- Transportation: ETSI EN 300 019-2-2 T 2.3
- Operating Conditions: ETSI EN 300 019-2-3 T 3.2
- EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3
- Protection: ITU-T K.21
- Safety: EN 60950-1

Power

- External power supply
- AC input voltage: 230 Vac
- AC input frequency: 50 Hz
- AC input current: 0.09 A

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