

8100 Series IAD

Broadband Access Solutions

HIGHLIGHTS

- 4 or 8 POTS ports with ADSL WAN interface
- Toll-quality voice
- Complete routing and bridging
- Integrated firewall: IP filtering
- 10/100 Ethernet LAN interface
- Remote management and provisioning
- Supports emerging VoIP specifications (SIP, MGCP) 'S' versions only
- Provides remotely managed migration path to VoIP
- Reduces or eliminates truck rolls to end customer site



The 8100 Series IAD is ideal for service providers looking to offer small- to medium-sized businesses a high-quality voice and data service over asymmetric digital subscriber lines (ADSL). With four or eight POTS ports and a full range of integrated features, the 8100 Series offers toll-quality voice and high-speed Internet access over a single copper pair—all in one box.

The 8100 Series is designed for international markets as well as the North American market. Country-specific line impedance and ring frequency settings are user selectable, providing for optimized configuration and operation.

The 8100 Series consists of access products provided in two versions: a base version supporting VoATM only and an "s" version that supports VoATM/VoIP in one device. Both the base and "s" versions are available in models equipped with four or eight POTS ports and an Ethernet interface capable of dynamic and static IP routing and bridging. In addition to support for Emulated Loop Control Protocol (ELCP), the 8100 Series provides the industry's broadest interoperability with DSLAMs and voice gateways.

The 8100 Series is especially attractive to customers because the integrated firewall and integrated router eliminate the need to purchase additional firewall and router hardware. With Dynamic Host Control Protocol (DHCP) and Network Address Translation (NAT), the 8100 Series automatically generates unique addresses for different workstations. This allows customers to enjoy the heightened security of hidden internal addresses without purchasing additional costly IP addresses. Remote diagnostics, provisioning, and easy upgrades are attractive to services providers because these features dramatically ease the deployment process and eliminate the need for costly truck rolls.

Above all, the Verilink 8100 Series offers top reliability in a proven product absolutely necessary for today's service providers, who are expected to provide dependable service to subscribers accustomed to uninterrupted telephone service. Verilink IADs are designed to meet CLASS-5 call completion rates of 99.99 percent and provide voice quality that is virtually indistinguishable from toll quality.



PART NUMBER AND DESCRIPTION

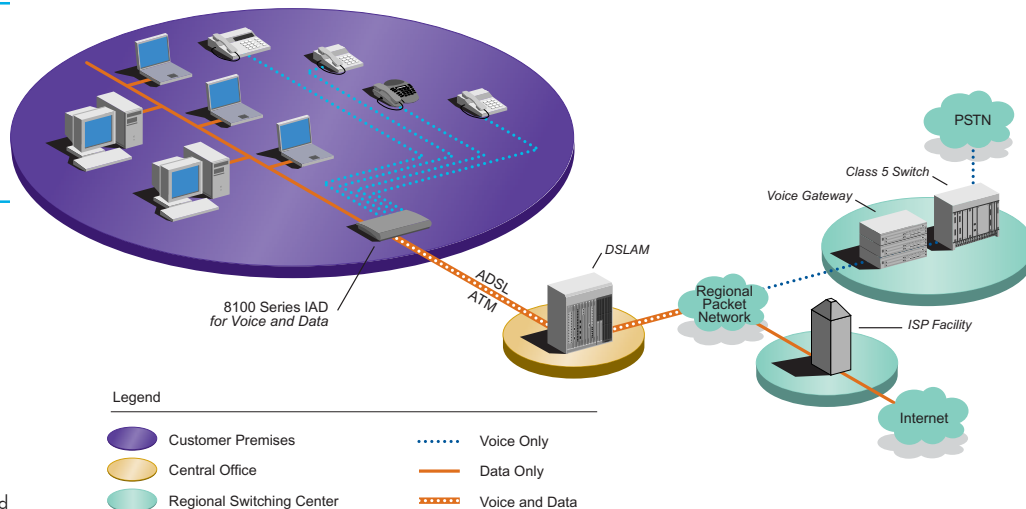
2200-70320-125 8108 Europe
 2200-70321-122 8108 Annex B Other Europe
 2200-70325-001 8104s NA
 2200-70324-001 8104 NA
 2200-70322-001 8108s NA
 2200-70320-001 8108 NA

VOICE FEATURES

Analog
 Voice Ports: 8 POTS ports (RJ-11)
 Failover: Analog input fail over to Line 1 (RJ-11)
 Signaling: Loop start, ground start
 Dialing: DTMF (tone), Pulse
 Ring Source: Internal
 Impedance: 600, 900, Complex (country-specific)
 REN: 5 REN per port, 16 REN total
 Loop Current: 20, 24 mA typical (country-specific)
 Idle State Voltage: .48 V typical
 Ring Voltage: Balanced 65 V rms $\pm 5\%$ at 5 REN load
 Ring Frequency: 20, 25, 50 Hz (country-specific)
 Gain/System Loss: Programmable, +3 to -9 dB
 Digital
 Compression: G.711 (64 kbps PCM), G.726 (32 kbps ADPCM), G.729a (8 kbps "s" version only)
 Encoding: A-law, μ -law
 Echo Cancellation: G.168 compliant (single reflector)
 Protocol Support: CopperCom, ELCP (af-vmoa-0145), Jetstream, LES (af-vmoa-0145), MGCP, SIP
 Fax Support: G3, G4, and analog V.17, V.29
 Modem Support: V.34, V.90
 Calling Features: Caller ID, flash hook, distinctive ringing, stutter dial tone, call forwarding, call waiting

WAN FEATURES

Interface
 WAN: ADSL-Annex A, B (RJ-11)
 Standards: ANSI T1.413 Issue 2; ITU-T G.992.2, G.992.1
 Transport: ATM
 ATM
 Adaptation Layers: AAL2 (voice), AAL5 (data)
 Encapsulation: RFC 1483 multiprotocol encapsulation over ATM; RFC 2364 (PPP over ATM); ITU 366.1, ITU 366.2 (AAL2)
 AAL2 Profiles: ATM: 9, 10, 11 and ITU: 1; "s" versions also support ATM Profiles 7,8, 12 and ITU 2
 Data: Up to 8 AAL5 PVCs
 Security: Software-configurable payload scrambling
 Voice QoS: CBR
 Data QoS: CBR, UBR
 Cell Delay Variation Buffer: Configurable 0-30 ms
 OAM Cell Handling: F4/F5 segment and end-to-end loopbacks

**VOICE GATEWAYS SUPPORTED**

DSLAMs Supported: ATM: Lucent, Nortel, Nokia, AccessLan, CopperMountain, Paradyne
 Voice Gateways Supported: CopperCom, JetStream, TdSoft, Broadsoft, MetaSwitch, Cirpack, NuERA Tollbridge.
 General Bandwidth, Accelerated
 AAL2/LES and ELCP and any af-vmoa-0145 compliant gateway
 SoftSwitches: NCS, LCS, MGCP 1.0, (RFC 2705.bis), SIP

DATA FEATURES

LAN Interface: 10/100Base-T (RJ-45)
 Bridging: IEEE 802.1d including spanning tree
 Routing: Default, Static, RIP1 (RFC 1058), RIP2 (RFC 2453), ICMP for IP
 Packet Processing
 DHCP: Server, Client (RFC 2131), Relay Agent (RFC 1542)
 PPP: PpPoA, PpPoE, PAP, CHAP, IPCP (RFC 1332) HCLC Support
 Management: SNMP via IP or EOC, MIB1, MIB2 (RFC 1213), Enterprise MIB, LES MIB
 Configuration: Console, Telnet (local, remote)

CONFIGURATION AND MANAGEMENT

10/100 Ethernet (Management or IP Gateway)
 Connection: 8-pin modular
 Network Protocol: TCP/IP based networks
 Data Rate: 10/100 Mbps
 Compatibility: 10/100Base-T
 Supervisory Port
 Connection: DB-9 female
 Data Rates: 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200 bps (default: 19.2 kbps)

Upgrades

Trivial File Transfer Protocol (TFTP) server and client for software upgrades and configuration
 Software download via gateway (wherever supported)
 Telnet (local and remote)
 Management: SNMP 1.0, SNMP 3.0, Telnet, Console

SECURITY FEATURES

Firewall: IP filtering (in and out)
 NAT: RFC 1631, Port translation, exported services, multi-NAT (up to 8 public IP addresses)
 Security: Multilevel password protection
 Other: Radius client support (RFC 2865)

ENVIRONMENTAL

Power Supply: External 90-240 VAC, 50/60 Hz
 Power: 8-Port: 20-watt nominal, 50-watt max; 4 port: 15-watt nominal, 30-watt max operating
 Operating Temp: 0° C to 40° C
 Storage Temp: -10° C to 70° C
 Operating Humidity: 5%-90% non-condensing
 Safety: UL 1950, CSA C22.2 No. 950-95, EN 60950:2000, IEC 60950:1999
 EMC FCC Part 15 Class B, EN55022, EN55024, EN61000-3-2, EN61000-3-3
 Telco: FCC Part 68
 LEDs: POWER, LAN LINK, LAN ACT, WAN LINK, VOICE
 Dimensions: 11.8" x 8.3" x 1.8"
 Weight: 1.8 lbs.
 Mounting: Stand alone or wall mountable

WARRANTY AND SUPPORT

Five-year warranty

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