



ADSL2+ VoIP (2 x FXS, FXO), Router and WIFI Specification

InterEdge IMD-1000 provides all the necessary functionalities for triple play applications. The ADSL2+ connectivity to the Internet provides speed up to 23 Mbits/s download and up to 1 Mbit/s up load. The router gives connectivity to 4 Ethernet ports and a wireless LAN. The IMD-1000 NAT allows up to 253 users on the Ethernet LAN simultaneously and up to 16 users on the 802.11g/b Wireless LAN simultaneously. 802.11g is the standard with throughput speeds of up to 54Mbps and advanced Orthogonal Frequency Division Multiplexing (OFDM). Offering several levels of security, the IMD-1000 is built with 64/128-bit WEP encryption and 802.11i (WPA /WPA-PSK). The IMD-1000 also provides residential gateway capabilities via its FXS and FXO ports. The VoIP module of the device will allow origination and termination of telephone calls and also connectivity of VoIP network to a PSTN network via its FXO port. The device also monitors the FXO line during power up to avoid the disconnection of an emergency call that might be in progress. In addition the IMD-1000 supports 3-Way video conferencing in conjunction with the V-3000 application from InterEdge. The IMD-1000 is easy to setup and maintain. All functions can be configured via a web browser.

ADSL specification	
Line Coding	Discrete Multi-Tone (DMT)
Standard Compliant	Full rate ADSL ANSI T1.413 Issue 2 ITU-T G.992.1 (G.dmt) Annex A, B and C ITU-T G.992.2 (G.lite) Annex A, B and C ITU-T G.992.3 (G.dmt.bis, ADSL2), Annex J (SADSL), Annex L (RE-DSL) ITU-T G.992.4 (G.lite.bis) ITU-T G.992.5 (ADSL2+) ITU G.994.1, G.996.1
Data Rate	Maximum transmission rate: Downstream up to 24 Mbps, and Upstream up to 1Mbps
Rate Adaptation	Data rate auto-negotiate in 32 kbps increments
VoIP specification	
Interface	Two FXS (Foreign Exchange Station) One FXO (Foreign Exchange Office)
Standard Compliant	G.711, G.723.1A, G.729 Voice coding G .711+1 Complex Vocoder for two channels G. .168 (2000) echo canceller DTMF/MF Tone detection/relay Tone Generation : DTMF, Busy, Dial and Ring back Support for class services Support BroadVoice16 and Wideband BroadVoice32 Support automatic provisioning Support Quality Of Service (QOS) for voice Support Fax Relay , T.38 Support Modem pass-through (V.92) Support North America Caller ID transmit



	Support PCM encoding : A-law and μ -law
ATM specification	
ATM Adaptation Layer	Support AAL5
VCs	Support 8 Permanent Virtual Circuits (PVCs)
Service Class	UBR, CBR, rt-VBR, nrt-VBR
OAM	ITU-T I.610 OAM Principles & Functions (include F4/F5)
Basic Protocol	
RFC 2684/1483	Multiple protocol encapsulation over AAL5: Support Logical Link Control (LLC) encapsulation Support VC-based multiplexing Support Bridged and Routing
RFC 2364	PPP over AAL5: Support LLC encapsulation Support VC-based multiplexing
RFC2516	Support PPP over Ethernet Relay Support PPP over Ethernet
RFC 1577	Classical IP over ATM
RFC 3435	MGCP
RFC 3621	SIP
Wireless 802.11g	
Standard Compliant	IEEE 802.11b and IEEE 802.11g draft standards
Data Rate	802.11g: 54, 48, 36, 24, 18, 12, 9 & 6 Mbps 802.11b: 11, 5.5, 2 & 1 Mbps
Modulation	802.11g: OFDM 802.11b: CCK (11 & 5.5 Mbps), DQPSK (2 Mbps), DBPSK (1 Mbps)
Operating Frequencies	2.4 ~ 2.497 GHz
Operating Channels	802.11g: 11 for North America; 13 for Europe; 14 for Japan 802.11b: 11 for North America; 13 for Europe; 14 for Japan
Security	Hardware 64/128-bit WEP engine; WEP weak key avoidance; TKIP; hardware AES engine supporting CCM and OCB, WPA, 802.1x, and 802.11i
Bridged Function	
IEEE802.1d	Transparent, learning bridge with spanning tree support. PPPoE relay
Routing Function	
Routing	IPv4, TCP, UDP, ICMP, ARP, RARP, proxy-ARP and Static Routing
RIP	Routing Information Protocol (RIP, RIPv2)
DHCP	DHCP Server/Client/Proxy
DNS	DNS relay
IGMP	IGMP v1, v2 Proxy
Security	
IP sharing	Network Address Translator (NAT)
Authentication	PPP with PAP/CHAP
VPN Pass Through	VPN: L2TP Client/Server & L2TP/PPTP Pass Through



VPN: IPSec Pass Through

Management

Management

Configuration through Web interface
 Configuration through Telnet connection
 SNMPv1 and MIB II (RFC1213)
 Implement Log & Trace function

F/W Upgrade

TFTP, FTP and HTTP for firmware download

Host USB Driver

OS Support

Windows 98, 2000, ME, XP , Linux

Interface Port

Antenna

One SMA Type Antenna

Power switch

One Power Switch

Power Jack

One Power Jack

Ethernet

Four RJ45 Ethernet ports

Reset

One Reset button

USB Device

N/A

USB Host

One USB 1.1 Master port , data rate up to 12Mbps

Phone

Two FXS

Line

One FXO

ADSL

One RJ11 ADSL port

Led Indication

On

Off

Flashing

Power

Power On

Power down

N/A

ADSL show time

ADSL Connect

ADSL Disconnect

Data transmission

ADSL Active

N/A

ADSL Off

Active

Ethernet 1

Ethernet link up

Ethernet link down

N/A

Ethernet 2

Ethernet link up

Ethernet link down

N/A

Ethernet 3

Ethernet link up

Ethernet link down

N/A

Ethernet 4

Ethernet link up

Ethernet link down

N/A

Phone 1

Phone 1 Connect

Phone 1 Disconnect

N/A

Phone 2

Phone 2 Connect

Phone 2 disconnect

N/A

USB Device

USB Connect

USB disconnect

N/A

USB Host

USB Connect

USB disconnect

N/A

Wireless

Wireless Link Up

Wireless Line Down

Data transmission

Line

Connection

Disconnection

N/A

Power Supply

Input Voltage

100-120VAC or 200-240VAC, 50/60Hz (Country dependent wall mount adapters will be provided)

Power Consumption

12VAC, 1.5A

Operating Environment

Operating Temperature

32 F to 104F (0C to 40C)

Non-Operating

Temperature

-4F to 149F (-20C to 65C)

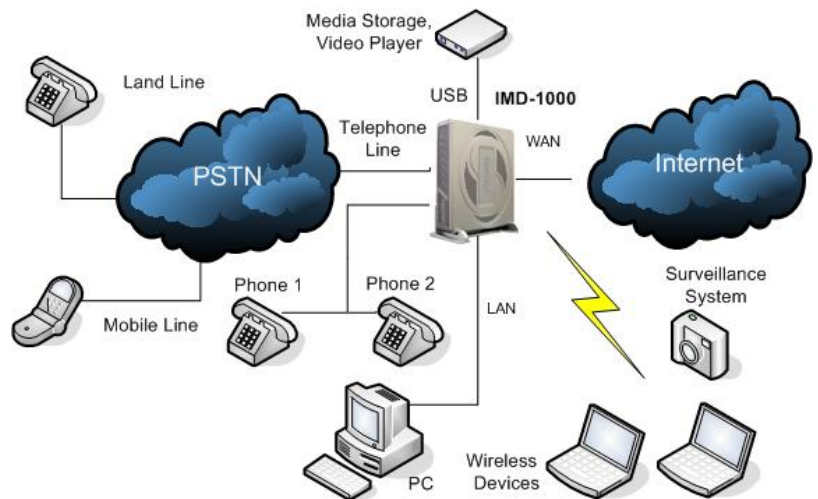


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IMD-1000 Triple-Play Data Sheet

Humidity	5% to 95% (non-condensing)
Regulatory Agency Compliance	
Operations and Safety	UL-1950 (V3) FCC Part 68
Emissions and Immunity	CE / FCC Part 15

IMD-1000 Typical Configuration



Wi-Fi, Voice, Video, Data, Router, Storage, Printer Server, Residential VoIP Gateway, Surveillance, etc...