4-wire G.SHDSL Bridge Router

Internet Access Features

- Efficient IP routing and transparent learning bridge to support broadband Internet services
- NAT/PAT feature lets user both conserve valuable IP address space and reduce IP address management, meanwhile, also protects certain attack from outer network or internal workstations.
- Full ATM protocol stack implementation over SHDSL / SHDSL.bis
- PPPoA and PPPoE support user authentication with PAP/CHAP/MS-CHAP
- DMZ host/Multi-DMZ/Multi-NAT enables multiple workstations on the LAN to access the Internet for the cost of IP address

Advanced Internet Functions

- Easy configuration and management with password control for various application environments
- SNMP management with SNMPv1/SNMPv2 agent and MIB II
- Console and remote (Telnet or HTTP) administration allow users or service providers to locally or remotely diagnose network problems in details
- Symmetrical data rate from 384Kbps to 11.4Mbps
- Virtual LANs (VLANs) offer significant benefit in terms of efficient use of bandwidth, flexibility, performance and security
- VPN pass-through for safeguarded connections
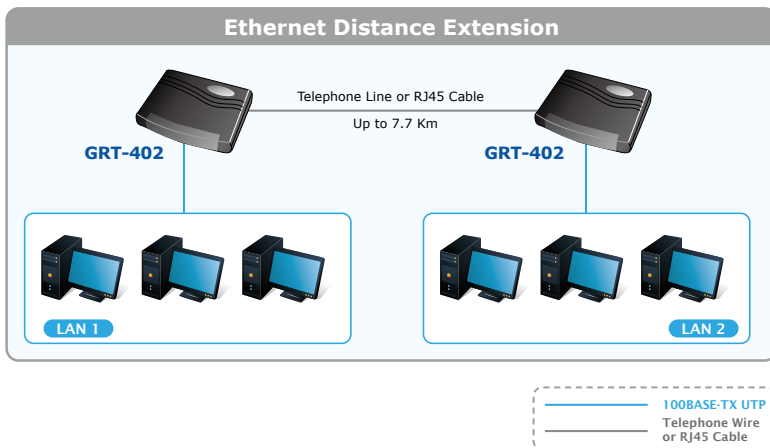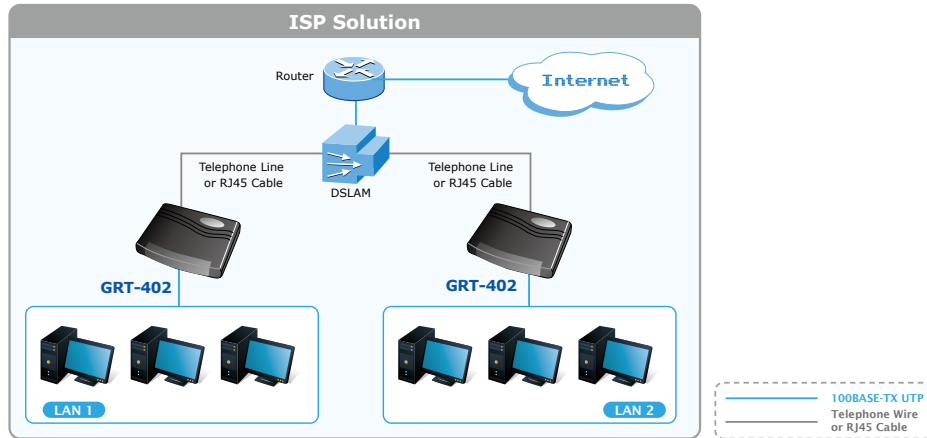
4-wire (4-port) G.SHDSL EFM Router Solution

Based on digital subscriber line (DSL) technology, PLANET's new DSL product, the GRT-402, provides an affordable, flexible and efficient Internet access solution for SOHO (small office/home office) customers, while reducing deployment and operation costs from service providers. Using existing telephone lines, the GRT-402 concentrates on all traffic onto a single high-speed trunk for Internet activities or shares a corporate intranet. Through the simple-yet-powerful management user interface of the GRT-402, network administrators can complete a managed network deployment simply in seconds.

Ethernet Distance Extension

Telephone Line or RJ45 Cable
Up to 7.7 Km

GRT-402   GRT-402

LAN 1   LAN 2

100BASE-TX UTP
Telephone Wire or RJ45 Cable

High-speed Symmetric Data Transmission

With bandwidth of up to 11.4Mbps, the GRT-402 outperforms both T1's at 1.544Mbps and E1's at 2.048 Mbps. By using a standard RJ-45 or phone wire as a connection medium, the installation and equipment costs of the GRT-402 are dramatically less than that of T1, E1 and Frame Relay. Using integrated bridging and routing support, two GRT-402s can be connected as a LAN-to-LAN network connection at the distance up to 7.7km (4.8 miles) via regular phone wire.

Built-in PPPoE Feature

The GRT-402 built-in PPPoE feature enables both the users and the service providers to make use of the existing PPP/PAP/CHAP based authentication and accounting infrastructure. The built-in PPPoE feature saves time by eliminating the need to install software.
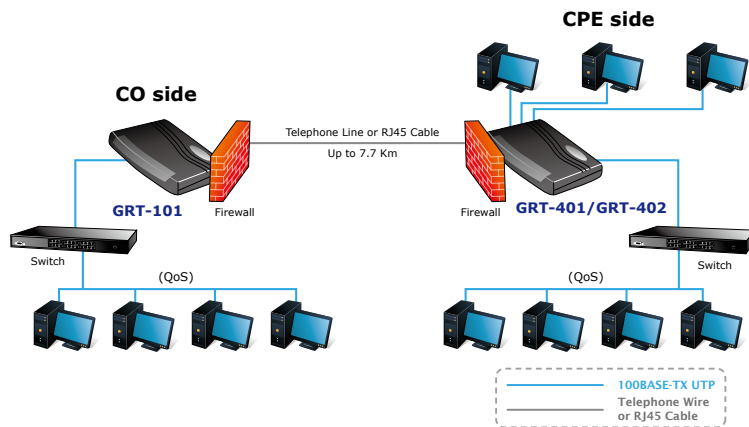
High-speed Internet Access

G.SHDSL is the best solution to quickly providing cost-effective, high-speed network service for enterprises and SME users or SOHO users who need high-speed symmetrical Internet connections. By utilizing the existing telephony infrastructure, network installation is simple and straightforward. With up to 11.4Mbps full duplex speed IP telephony, website hosting and various broadband services can be easily provisioned.
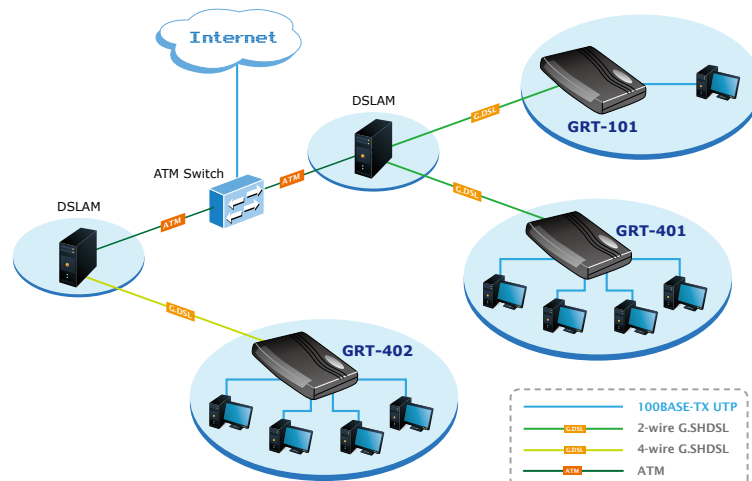

Applications

Ethernet Distance Extension (LAN to LAN Connection)

The GRT-402 is Excellent for Ethernet distance extension over existing telephone wires. With just one pair of AWG-26 copper wires, you can easily connect two Ethernet networks with a maximum 5.7Mbps (at maximum 2.4km/1.6miles) full duplex transfer rate. Low-rate application is possible up to the maximum distance of 7.7 km/4.8 miles.

ISP Solution

G.SHDSL is the best solution to quickly providing cost-effective, high speed network service to enterprises and SME users or SOHO users which need high-speed symmetrical Internet connection. By utilizing existing telephony infrastructure, the network installation is simple and straightforward. With up to 11.4Mbps full duplex speed IP telephony, website hosting and various broadband services can be easily provisioned.

Specifications

Model	GRT-402
Hardware	
WAN	
Interface	1 x RJ45
SHDSL	ITU-T G.991.2 (Annex AF, Annex BG, Annex ABFG) ITU–T G.991.2 rev2 (.bis) ITU-T G.991.4 (G.hs)
Encoding Scheme	TCPAM-16,TCPAM-32
EFM Bonding	IEEE 802.3ah PAF
Data Rate	N x 128Kbps (N=3~89)
Impedance	135 ohms
LAN	
Interface	4 x RJ45
Ethernet	10BASE-T, 100BASE-TX
Data Rate	10/100Mbps, full/half-duplex
Console port	
Interface	RS232
LED Indicator	
General	PWR, ALM
WAN	LNK, ACT
LAN	4 x LNK/ACT
Software	
Routing	IP Routing Static Routing and RIPv1/RIPv2 IP masquerading NAT DHCP server DNS relay and caching Natural NAT firewall IP precedence (RFC 791)
Bridging	IEEE 802.1D transparent learning bridge
Configuration	Local console (RS-232) , Telnet, Web (HTTP), password control
Network Management	SNMP v1 / SNMP v2 agent MIB II
ATM	Up to 8 PVCs UBR/CBR traffic shaping AAL5 OAM F5 loopback ATM Forum UNI 4.0
AAL5 Encapsulation	VC multiplexing and SNAP/LLC Ethernet over ATM (RFC 2684/1483) PPP over ATM (RFC 2364) Classical IP over ATM (RFC 1577)
PPP	PPP over Ethernet (RFC 2516) PPP over ATM (RFC 2364) User authentication with PAP/CHAP/MS-CHAP
Physical/Electrical	
Dimensions (W x D x H)	187 x 145 x 33 mm
Power	12V DC, 1.0A
Power Consumption	9 watts / 30.6 BTU
Operating Temp.	0 ~ 45 degrees C
Storage Temp.	-20 ~ 70 degrees C
Operating Humidity	0 ~ 95 degrees C (non-condensing)
Storage Humidity	0 ~ 95 degrees C (non-condensing)
EMC/EMI	FCC, CE

Ordering Information

GRT-402	4-Wire G.SHDSL Bridge / Router

Ordering Information

GRT-101	G.SHDSL Bridge / Router
GRT-401	G.SHDSL Bridge Router with 4-port Switch

GRT-402v4