SHDTU04bF-ET10RS
SHDUT04bAF-ET10RS

G.SHDSL.bis ATM EFM Router

The G.SHDSL.bis ATM EFM Router is 2-wire or 4-wire Ethernet Bridge/Router that complies with G.991.2 standards and has an optional built-in four port 10Base-T /100Base-TX auto-negotiation and auto-MDIX switch. The G.SHDSL.bis ATM EFM Router provides multi-rate 2-wire / 5.7Mbps and 2.3Mbps or 4-wire 11.4Mbps and 4.6Mbps payload rates over existing single or two pair copper wire. The G.SHDSL.bis ATM EFM Router is designed not only to optimize the service bit rate from central office to customer premises but also integrates high-end Bridging/ Routing EFM bonding capabilities with advanced functions such as virtual server mapping and VPN pass through. The G.SHDSL.bis ATM EFM Router allows customers to leverage the latest in broadband technologies to meet their growing data communication needs. In bridge mode, the four switching ports may be configured for IEEE802.1Q VLAN or port based VLAN applications. The modem can be configured in either central or client mode providing a point-to-point solution.

Feature

- Supports Ethernet over ATM over SHDSL
- Full ATM protocol stack implementation over G.SHDSL.bis
- Adaptive rate installation maximizes data rate based on loop conditions
- Standard ITU G.991.2 (2004) supports improved reach, speed and interoperability compared to conventional G.SHDSL
- Supports point-to-point configurations
- Local management interface via console port
- Intuitive Web based management
- SNMP management with SNMPv1/v2 and MIB II
- Build-in advanced SPI firewall (Firewall routers)
- Efficient IP routing and transparent learning bridge to support broadband Internet services
- VPN pass-through for safeguarded connections

- DMZ host/Multi-DMZ/Multi-NAT; multiple PCs on a LAN with only one IP address
- PPPoA and PPPoE support user authentication with PAP/CHAP/MSCHAP
- Raw and time stamped statistics
- Supports firmware upgrade via web interface
- EFM (Ethernet in the First Mile) bonding per IEEE 802.3-2005;2/4-wire bonding for HDLC per G991.2

Specifications

Interface		
	WAN	SHDSL.bis: ITU-T G.991.2 (2004) Annex A/B/F/G
		Support EFM Bonding and SHDSL M-Pair mode
		Line Code: TC-PAM 16/32/64/128
		Data Rate: N x 64 Kpbs (N=3~89) using TC-PAM 16/32 Max. 5.696Mbps (1-Pair) Max. 11.392Mbps (2-Pair) N x 64 Kbps (N=3~239) using TC-PAM 64/128 Max. 15.296 Mbps (1-Pair) Max. 30.592 Mbps (2-Pair)
		Impedance: 135 ohms
	LAN	RJ-45 x 4-Ports 10/100 Base-T Ethernet ports
Serial Console		RS-232(Female) Connector
Factory Default Reset		Push Button
LED		Power: (Green)
		WAN: LINK/ACT (Green), one LED per pair
		LAN (Port 1 ~ Port 4): LINK/ACT (Green:100M, Orange:10M)
		ALARM: (Red)
G.SHDSL		Support G.991.2 / G994.1 standards
		TC-PAM line modulation
		Configurable as either server or client mode
		OAM IEEE 802.3 chapter 57 compliant
		IEEE 802.3 2BASE-TL (aka 802.3ah) compliant
		Rate negotiating / Manually rate adaptation configuration
		Connection Loops: 1 pair (2 wires)
		Support IPoE
		Support PPPoE
Routing/ Bridge Support		IP (RFC 791) routing is supported
		TCP, UDP, ICMP, IGMP v1 and v2, ARP, RIP v1, RIP v2, OSPF, BGP-4
		Transparent bridging (IEEE 802.1D)
		PPP BCP (RFC 3185) support
		IGMP snooping

ATM Support		
ATM Support		Multiple protocols over AAL5 (RFC1483) (Not support IPoA/PPPoA)
		Only 1 PVC
EFM Support		EFM mode compliant to IEEE 802.3
		PPP over Ethernet (RFC2516)
		Support of OAMPDU information and functionality (ITU-T Y.1731)
		OAMPDU Event Notification, Variable Request, Variable Response, Loopback Control
		VLAN base QOS (802.1P/Q), Priority Queue
Internet Access Sharing		NAT (includes multi-to-multi NAT) / SUA, 8192 NAT sessions
		Port restricted cone NAT
		SIP ALG pass-through
		NAT server (Port forwarding)
		Multi-NAT
		Dynamic DNS
		DHCP server/client/relay
Security		User Authentication (PAP, CHAP) with PPP (RFC 1334, RFC 1994)
		Microsoft CHAP
		Stateful packet inspection firewall
		Content filter
		Prevent Denial of service
		Access control of service
		Real-time attack alert and log
Network Management		Web-based Configuration, Command-line interface
		Password-protected Telnet support
		SNMP MIB I /MIB II support
		TFTP & FTP firmware upgrade and configuration backup
		Dying Gasp

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VPN	IPSec VPN support, 10 VPN tunnels	**Others**	DNS Proxy
	IKE/ Manual Key, DES/ 3DES/AES Encryption		UNIX syslog
	MD5/ SHA1 Authentication, FQDN		Each Ethernet port can be only tagged or only untagged
	NETBIOS pass-through for IPSec, IPSec VPN keep-alive		Application QoS
	IPSec NAT Traversal		IPv6
Diagnostics Capabilities	The router can perform self-diagnostic tests. These tests check the integrity of the following circuitry: –FLASH memory –SDSL circuitry –RAM –LAN port		

Ordering Information

Model Name	Description
SHDTU04bF-ET10RS	4-Port 10/100Base-TX ATM Bridge / Router w/Firewall (2-wire 5.7Mbps)
SHDTU04bAF-ET10RS	4-Port 10/100Base-TX ATM Bridge / Router w/Firewall (4-wire 11.4Mbps)