IP-Pipe G1620   TDM over IP

Fractional E1/T1 and LAN Gateway over IP Networks
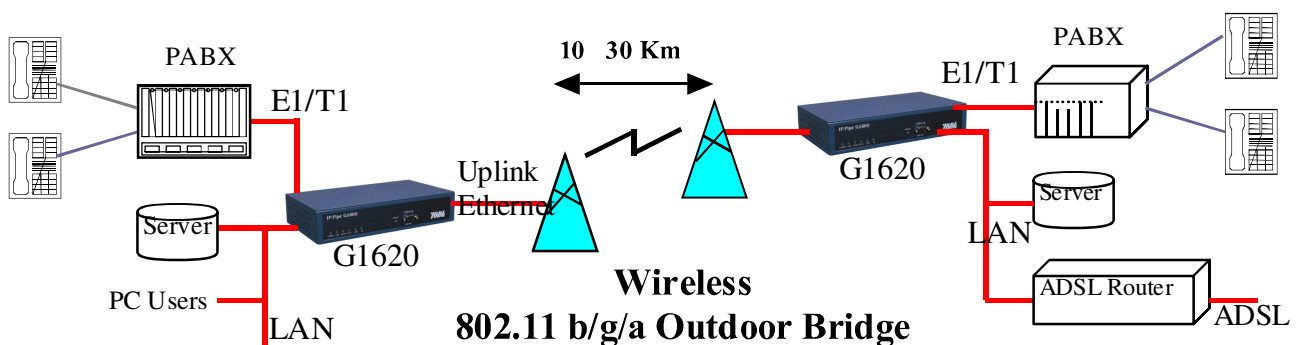

Advantages

TDM over IP Network

Integrated voice (E1/T1) and data (LAN)

Support Fractional E1/T1, Framed and Unframed interfaces

Complies with MEF/IETF PWE3 standard

Maximizes IP packet bandwidth utilization

Minimal installation and support costs

Optimized for 802.11b/g/a wireless IP packet switched infrastructures

Features

E1/T1 circuit plus LAN Gateway over IP packet

Unframed, fully framed and fractional E1/T1

Built-in Jitter Buffer for BER < 10**-7

Meets ITU-T clock jitter and wander standards

Auto-Negotiation 10/100BaseT Interface

Auto MDIX Ethernet bridge

QOS for E1/T1 (voice) over LAN Ethernet (data)

Configurable data rate limiting

Remotely upgradeable firmware

Remote SNMP and Local management

Very Low delay

Applications

Cellular E1/T1 backhaul

Broadband wireless voice/data access

Branch and campus PBX/LAN connectivity (Mountain & Island Resort)

Voice and data services over cable networks and xDSL

Description

Featuring one E1/T1 port, one LAN Ethernet port, and one WAN Ethernet port, the IP-Pipe G1620 allows carriers and enterprises to seamlessly and reliably connect TDM-based leased equipment and Ethernet users over a unified low cost wireless or wired Ethernet/IP-based infrastructure without any voice quality degradation. G1620 operates transparently to TDM signaling, ensuring seamless connectivity to any equipment that has physical E1/T1 interfaces such as PBX, Cellular base stations, SS7 signaling equipment and voice mail systems.

The IP-Pipe G1620 supports precise E1/T1 clock transmission and recovery over packet networks, and complies with ITU-T G.823 and G.824 timing standards while ensuring uncompressed toll voice quality. The G1620 implements the emerging Metro Ethernet Forum/IETF Pseudo-Wire Emulation Edge to Edge (PWE3) standard.

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Specifications

E1/T1 Transmission	Protocols	Triple mode: RTP, Minimal Header Ethernet, AAL1 – configurable	
	End to end delay	0.7 msec plus network delay jitter	
	Packet size	42-1496 bytes, configurable	
	Signaling relay	Transparent or guaranteed delivery (configurable)	
Clock Distribution	Clocking options	Loopback; Adaptive	
	Clock recovery algorithm	Proprietary, patent pending	
	Clock recovery performance	G.823 compliant	
	PDV compensation	0-800 msec, configurable	
Ethernet Traffic Processing	Rate limiting	0-100 Mbps, configurable	
	VLAN tagging and QoS	802.1p, 802.1q	
	Filtering/forwarding	1,000 MAC address bridging table	
IP traffic processing	Internet protocol support	Telnet, HTTP, TFTP, SNMP, TCP, UDP, RTP, ARP, ICMP	
E1/T1 Interfaces		**E1**	**T1**
	Connectors	BNC or RJ48 (optional)	BNC or RJ48 (optional)
	Standards	ITU-T Rec. G.703, G.704, G.706, G.732, G.823	AT&T TR-62411, ITU-T Rec. G.703, G.704, ANSI T1.403, G.824
	Framing	Unframed, CRC4 MF, CAS MF	Unframed, SF, ESF, D4
	Data rate (per port)	2.048 Mbps	1.544 Mbps
	Line code	HDB3, AMI	AMI, B8ZS
	Jitter/wander performance	ITU-T G.823	AT&T TR-62411
	Receive level	0 to –43 dB; 0 to –15 dB	0 to –36 Db; 0 to –15 dB
	Line impedance	120 Ohm (balanced)	100 Ohm (balanced)
Uplink Interface (Ethernet)	Port/connector	Auto-negotiating 10/100 Mbps RJ45 8-pin Ethernet	
	Standards	IEEE 802.3, 802.3u	
	Range	Up to 100m on UTP Cat5	
Local management interface	Port	RS232/V.24 (DTE) 115kbps D-type 9-pin (F)	
	User client	CLI client	
Remote SNMP management interface	Port	Network or user Ethernet port	
	User client	Telnet to CLI; GUI client; browser (optional)	
Environmental Conditions		Operating temperature 0-50℃/32-112℉ Humidity 0-95% non-condensing	
Power Supply		90~220VAC, -48VDC	
Enclosure Dimensions		26 cm x 15 cm x 4.5 cm	
Weight		2.5kgs	

All specifications are subject to change without notice