TDM over IP Gateway G4630

Description

G4630 offers a solution for extending traditional E1 services transparently over Ethernet network. The device converts the data stream coming from its TDM ports into Ethernet packets that are encapsulated using TDM over IP method and forwarded over Ethernet, G4630 offers point to point or point to multi-point synchronization for voice/leased line applications. G4630 also provide 4 Gigabit Ethernet ports for connectivity to IP networks and Ethernet devices. Management is performed locally by a terminal, or remotely via Web, Telnet, or SNMP.

Several versions of the unit are available, offering different of impedance types and 4x E1 ports to suite different application requirements.
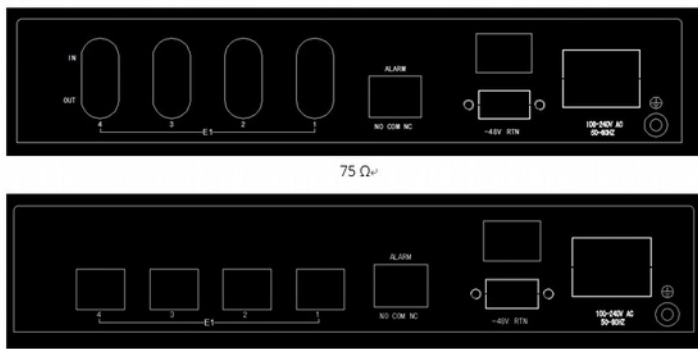
Features

Ethernet LAN

◆ Granular Ingress/Egress Bandwidth Control per port, per queue and per ACL Rule.

◆ Port Base VLAN & 4K 802.1Q VLAN Group.

◆ Supports flexible QinQ

◆ Supports 40 MIBs Counters

◆ 1M Bits on-chip buffer memory

◆ Supports 9K Bytes Jumbo Frame.

◆ Supports IEEE802.3az

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◆ Support port rate limit

TDM E1

75 Ω

◆ Support 4 channel TDM ports
◆ Comply with ITU-T G.703
◆ Support framed / unframed E1 Interface for TDM Payload to/from PSN Interface, NRZ Serial Interface with LOS/AIS detection
◆ Support 4 independent hardware-based adaptive clock recovery, Recovered clock jitter compliant to ITU-T G.823 (E1 Jitter Control)
◆ Independent configurable jitter buffer depth to compensate up to 256ms of Packet Delay Variation
◆ Support minimum run-trip latency delay, for voice or IP phone application
◆ Support Circuit Emulation Service over Ethernet (CESOE) transport over Ethernet /IP networks
◆ Complies with IEFT draft standard for CESoPSN(IETF RFC5086) and SAToP (IETF RFC4553); Metro Ethernet Forum MEF8 IA
◆ Support both Point-to-Point and Point-to-Multipoint operation
◆ Provide lost packets processing and compensation due to PSN impairment

Specification

Giga Ethernet Interface

Standard:	IEEE 802.3 / IEEE 802.3u
Interface:	IEEE 802.3/802.3u 10/100/1000M Base-T
Bridging Capability:	Complied with IEEE 802.1d transparent bridge
	Supports VLAN ID, Q in Q and up to 2048 MAC addresses learning
Connection Type:	RJ45, 4 ports
Ethernet packet size:	Maximum packet size up to 9K jumbo frame

SFP interface

Type	One 100Base-FX 802.3u interface or 10/100/1000Base-FX 802.3u

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interface, SFP type

Parameter   The detail specification is in order information required like fiber type, wavelength and optical power.

E1 Interface

Standard: ITU-T G.703, G.704,

No. of E1 output: 1~4, scaled down automatically per E1 alarms

Line rate: 2048 Kbps +/- 50 PPM

Line Code: HDB3

Framing: PCM31, PCM31C, PCM30, PCM30C

Pulse shape: Meet ITU-T G.703

Impedance: Balanced 120Ω+/-5% resistive or unbalanced 75Ω+/-5% resistive, software programmable

Connection Type: RJ-45 (120Ω) or BNC (75Ω)

Mechanic

Desktop (WxHxD)   234 x 155 x 44 mm

Operation

Temperature   0° ~ 50° C
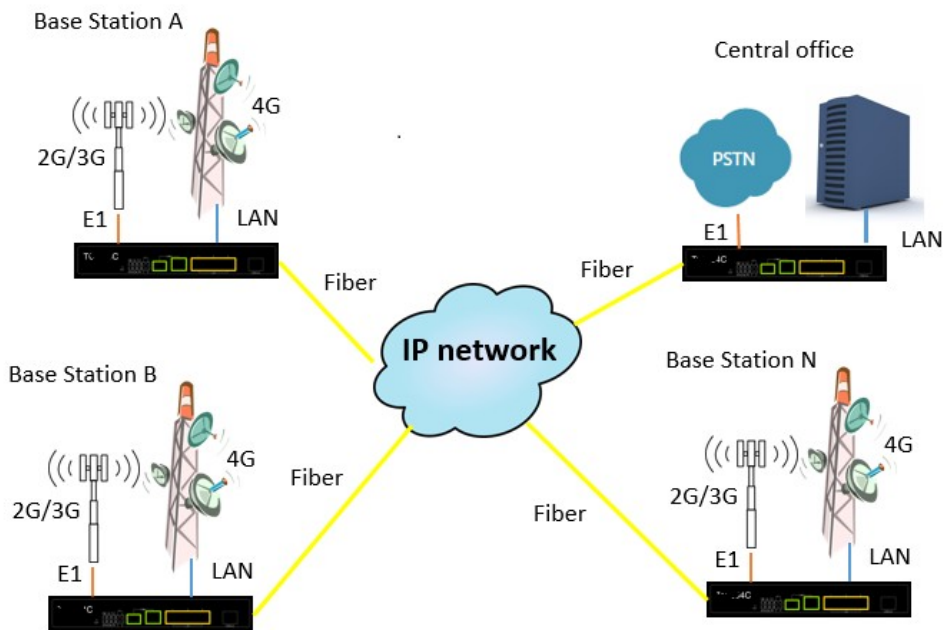
Humidity   5 ~ 95% non-condensing

Configuration

Local console (RS232)

Telnet access

Web-based GUI (HTTP)

Network Management

Web-based GUI for express setup, configuration and management

Menu-driven interface for local console and Telnet access

Password protected management and access control list for administration

SNMP management with SNMPv1/SNMPv2/v3

Software upgrade via web & TFTP server

Base Station A

Central office

4G

2G/3G

PSTN

E1   LAN

E1   LAN

Fiber   Fiber

IP network

Base Station B   Base Station N

4G   4G

2G/3G   2G/3G

Fiber

E1   LAN   Fiber   E1   LAN

Railway Proprietary Communication System

Operational Center

Station A

E1   E1 over IP GW

LAN

Customer private fixed
Telephony network

E1 over IP GW   LAN

IP Network

Station B   E1

LAN   E1 over IP GW

Customer private fixed
Telephony network

Station N   E1

Customer private fixed
Telephony network

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