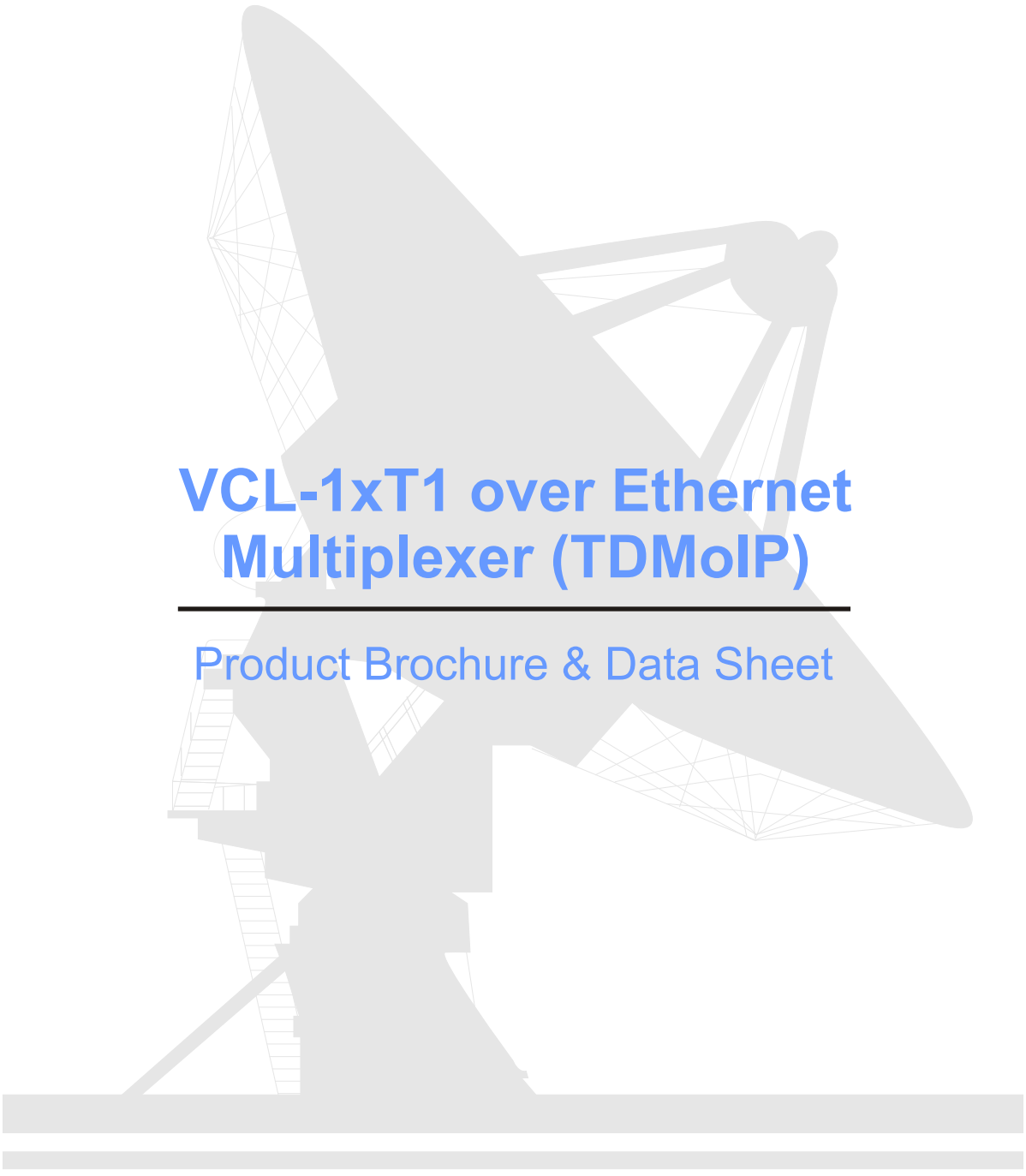

VCL-1xT1 over Ethernet Multiplexer (TDMoIP)

Product Brochure & Data Sheet

COMARRA

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Description

The VCL-1xT1 over Ethernet multiplexer (TDMoIP) product is used to provide 1T1 communication channel over Ethernet or IP Networks. This product transmits information at T1 (1544kbit/s).

VCL-1xT1 over Ethernet Multiplexer (TDMoIP)

To transport T1 channels over an Ethernet or an IP network, and to accelerate traditional telecom services to migrate to the IP packet networking technology, the VCL-1xT1 over Ethernet multiplexer product uses TDMoIP technology. This solution transports the legacy T1 data through the existing Ethernet or IP network.

VCL-1xT1 over Ethernet multiplexer product is a new generation of TDMoIP technology with IP circuit emulation that supports transportation of 1T1 over an Ethernet or an IP network. The uplink Ethernet port and user data port are IEEE 802.3 compliant, 10 / 100BaseT auto-sensed ports.

The state-of-art design provides the highest availability with the accurate timing signal and data bit stream reconstruction. Predefined system parameter profiles that according to different application requirements; ultimately simplifies the installation process and saving maintenance cost.

Telecom and Enterprise users can save significant access and equipment costs and generate new revenue resources by offering different types of legacy services over Ethernet networks. It is also suitable for connecting to the Ethernet based wireless equipment to achieve fast deployment of T1 services. One particular application is to provide a combination of Ethernet and T1 services using low cost Wireless LAN bridges, or over RPR Ethernet rings. Operators can use the VCL-1xT1 over Ethernet multiplexer to provide a provide a combination of Ethernet and legacy T1 (TDM) services over wired or wireless packet networks, or RPR rings.

TDM technology occupies fixed transmission bandwidth which is suitable for real-time applications such as voice and video. Ethernet technology is based on statistical multiplexing, transmitting and exchanging information in packets. It does not take up a fixed transmission bandwidth, which is good for achieving higher bandwidth utilization. But Ethernet technology does not provide adequate QoS for real time applications.

The VCL-1xT1 over Ethernet can be used to emulate transparent T1 channels over an Ethernet link with an acceptable QoS (Please see the note: QOS, below), so that a majority of the existing T1 based applications can be readily setup over Ethernet LANs and WANs.

(**Note:** QOS shall depend on the quality of the Ethernet link and packet losses)

Features

- User-friendly Web server supported for easy setup and maintenance
- 2 Uplinks (1+1), 1 T1
- Stable T1 clock recovery, low jitter and wander
- Low processing delay for T1 channel, high bandwidth usage efficiency
- Resist to packet loss, with PCM frame synchronization protection
- User definable encapsulation packet size for different application
- Support Ethernet encapsulation and UDP/IP protocol encapsulation.
- Support VLAN settings for T1 service and in band VLAN management.
- Enough jitter buffer to resist packet delay variation (PDV)
- Local and remote T1 LOS and AIS and packet loss indication

Application

Point to Point VCL-1xT1 over Ethernet

Application Diagram

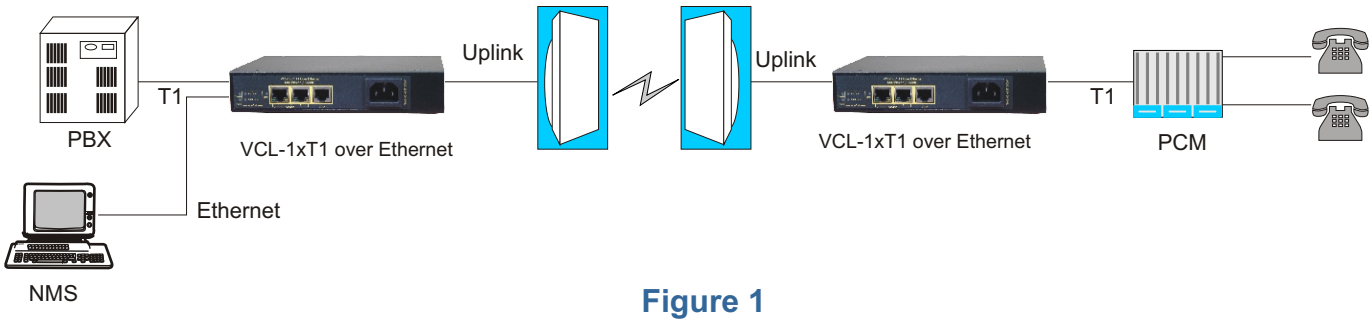

Figure 1
(a) Point to Point Application

Technical Specifications

Item	Description		
Model	VCL-1xT1 Over Ethernet Multiplexer (TDMoIP)	2 Uplinks(1+1), 2 T1	
End to end delay Latency	Ethernet to T1 frame conversion delay	4-5 ms approximately	
Jitter/Buffer Size		Max 120 ms	
Interfaces	Uplink	2 Uplink Ports Comply with IEEE 802.3 Speed and duplex auto- negotiation or manual Web Manager Supported	
	T1 Port	2 T1 Ports Comply with G.703 Impedance: T1-120Ω	
Power	Supply	A	DC -48V (-36V ~ -72V)
		B	AC ~220V (100V ~ 260V)
	Consumption	≤ 4W	
Working Environment	Temperature	0°~ 50°C	
	Relative Humidity	≤90% (non-condensing)	
Dimension	W x H x D (mm):	185 x 35 x 136.5	

Interoperability Table with Wireless Bridges

LOGO	Manufacturer	Place	Model
MOTOROLA intelligence everywhere / CANOPY	MOTOROLA	USA	CANOPY 5700BH, 5700BH20, BH45, Gemini series, Spectra series etc.
alvarion We're on your wavelength.	Alvarion	Israel	BREEZENET DS.11, 28B,LB etc
proxim WIRELESS NETWORKS	Proxim	USA	Tsunami™ series, QuickBridge20 etc
	Wi-Comm United	Canada	Ultima 3 series Libra 5800 series
InfiNet wireless	Infinet Wireless	Russia	RWR 5000 mini

Note: More wireless bridges are supported

Notes :

Technical specification are subject to change without notice.

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