Co-Directional 64K-FE Protocol Converter

OP-PC-64K-FE

Shenzhen Optostar Optoelectronics Co., Ltd

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Overview

The G.703 (Co-Directional G.703) interface divides 64Kbps cycle into 4 unit intervals, it uses “0101” represent “0”, “1100” represent “1". By alternating transformation polarity of the adjacent block, binary signals convert three-level signals. In every 8th group destroyed block of alternating polarity, thus to transmit 8KHz timing signal. By the above coding, G.703 co-directional 64Kbps signal could achieve transmitting the timing signal of 64KHz and 8KHz and 64KHz and the data signal of 64Kbit/s in the same direction with a pair balanced line.

OP-PC-64K-FE Co-Directional 64K-FE Protocol Converter provides one co-directional G.703 interface and one Ethernet interface to achieve 10/100Base-T Ethernet data transmission on the G.703 channel. It is a high performance, self-learning Ethernet bridge. This device is the extension device of Ethernet, using network (PDH/SDH/Microwave) that provide G.703 channel to achieve local and remote Ethernet interconnecting with serial interfaces at a lower cost. The device has inter-set loop test function to facilitate the project launching and daily maintenance.

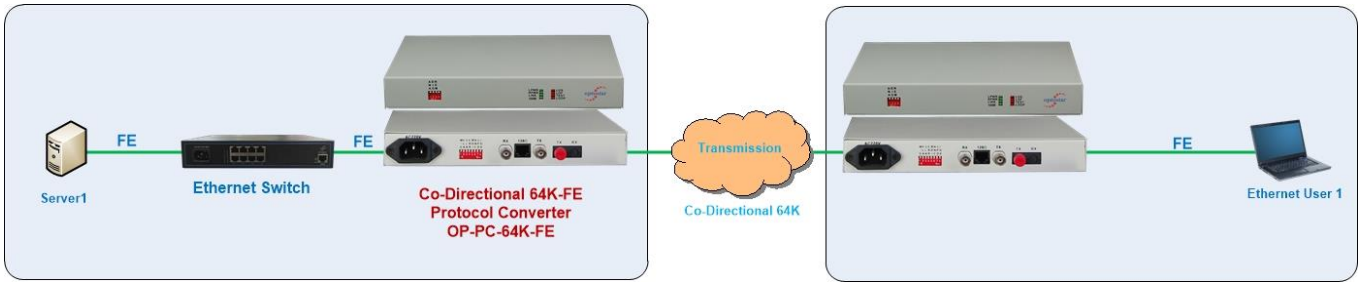
Prduct Features

- Based on self -copyright IC
- Can Realize Ethernet data transmission in one Co-directional G.703 circuit
- Inter-set dynamic Ethernet MAC address (4,096) with local data frame filtering
- The local device can manage the remote device
- Have the function of G.703 loop back check, and indicate on LED
- Can differentiate the reason of Co-directional G.703 lose signal is that the remote device power-off or directional G.703 line broken
- Ethernet interface supports 10M/100M, half/full duplex auto- adaptable, supports VLAN
- Ethernet interface supports AUTO-MDIX (crossed line and straightly connected line self-adaptable);
- Provide 2 clock types: Co-Directional G.703 master clock and G.703 line clock;
- The local device can forced the remote device rate follow it(when the device is unframed mode, that is invalid)
- Have three Loop Back Mode: G.703 interface Loop Back (ANA)、Ethernet interface Loop Back(DIG)、Command the remote Ethernet interface Loop Back(REM)
- Support self-adaptable 120 Ohm balance;

Technical Parameter

OP-PC-64K-FE Co-Directional 64K-FE Protocol Converter	
Ethernet interface (10/100M)	
Interface rate	10/100 Mbps, half/full duplex auto-negotiation
Interface Standard	Compatible with IEEE 802.3, IEEE 802.1Q (VLAN)
MAC Address Capability	4096
Connector:	RJ45, support Auto-MDIX
Co-Directional G.703 Interface	
Interface rate	64Kbps±50ppm;
Interface Standard	comply with protocol ITU-T G.703;
E1 Impedance	120Ω (balance);
Jitter tolerance	In accord with protocol G.742 and G.823
Maximum Transmission Distance	up to 500m
Dimension	
Product Size	216X140X31mm(WXDXH)
Simple packaging	274X193X84mm(WXDXH)
Piece Weight	1.2KG
Operation Environment	
Operating temperature	0°C~50°C
Storing temperature	-40°C~+70°C
Relative humidity	95 %
No causticity and solvent, dust free, and no strong magnetic interference.	
Power	
Voltage	AC180V ~ 260V；DC –48V；DC +24V
Consumption	≤10W
Warranty	2 Year Warranty, Life-time Maintenance

Application



Order Information

Model	Description
OP-PC-64K-FE	**Co-Directional 64K-FE Protocol Converter**

Package include

No	Package List
1	Co-Directional 64K-FE Protocol Converter
2	User Guide
3	Warranty Card

Important Notice

Performance figures, data and any illustrative material provided in this data sheet are typical and must be specifically confirmed in writing by OPTOSTAR before they become applicable to any particular order or contract. In accordance with the OPTOSTAR policy of continuous improvement specifications may change without notice.

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