G.703 / FastEthernet Interface Converter

TAHOE 283
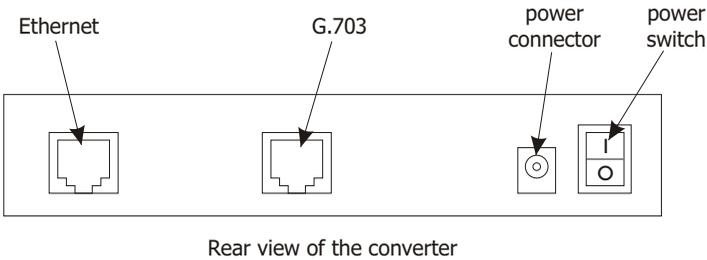
TAHOE

FREEDOM OF COMMUNICATION

1. Introduction

Tahoe® 283 converter allows connecting of two LANs through an E1 line terminated with balanced G.703 interfaces.

Converters work as transparent bridges, that is both interconnected networks appear as a single LAN, as if both were plugged into the same Ethernet switch.

Converter automatically learns, which Ethernet addresses are heard on one and which on the other side. As a result local traffic is not sent through the WAN link - converter discovers packets destined for the other LAN and only those are directed to the G.703 interface.

2.   Interfaces

Ethernet   G.703   power   power
                                                             connector   switch

Rear view of the converter

2.1.   G.703 Interface

The G.703 interface is equipped with a RJ-45 connector having following pinout:

Pin	Signal
1	RX +
2	RX -
3	
4	TX +
5	TX -
6	
7	
8	

The RX+ pin of the converter should be connected to the TX+ pin of the other device, the RX- pin to the TX- pin, TX+ to RX+ and TX- to RX-

2.2.   Ethernet Interface

The Ethernet interface is used to connect the converter to the LAN. It may work at 10 or 100 Mbps and in either half or full duplex mode. The choice between these modes is done automatically.

Converter should be connected to a switch using a straight patch-cord and to a PC or a router using a cross-over patch-cord.

3. Status LEDs

On the front panel there are four LEDs indicating device status:

- **WAN Link** - when lit, indicated synchronization to the other G.703 device
- **WAN Act** - blinks to signal the activity of the G.703 port
- **LAN Link** - when lit, indicates proper Ethernet connection between the converter and the switch or other device
- **LAN 100M** - when lit, indicates successful negotiation of 100 Mbps transfer rate on the Ethernet port
- **LAN Act** - blinks to signal the activity of the Ethernet port

4. Technical Data

- processor:
  ARM

- memory:
  8 MB SDRAM

- MAC table size:
  10 000 entries, automatic entry removal after 30s

- G.703 port:
  unframed, 2048 kbps
  balanced, 120
  HDB3 line coding
  -43 dB receiver sensitivity - up to 2000m reach

- dimensions:
  200 mm (width) x 130 mm (length) x 45 mm (height)

- power supply:
  15V, 400mA
  external power supply included

- environmental conditions:

storage:	temperature	-20°C to 65°C
	humidity	5 to 95%
operation:	temperature	0°C to 50°C
	humidity	0 to 85%

5.   Declaration of Conformity

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TAHOE
Piotr Kaczmarzyk
ul. Uniwersytecka 1
50-951 Wroclaw, Poland

We declare that the product Tahoe 283 complies with the regulations of the following European Directives:

- ○ **73/23/EEC**   low voltage safety requirements
- ○ **89/336/EEC**   EMC requirements
- ○ **99/5/EEC**   radio & telecommunication terminal equipment requirements

The compliance of Tahoe 283 with the requirements of the above mentioned directives is ensured by complete application of the following harmonized European Standards:

- ○ **EN 60950:2000**
- ○ **EN 55022:1998**
- ○ **EN 61000-6-1:2002**
- ○ **EN 61000-6-3:2002**

Signed: Piotr Kaczmarzyk
Position: Director

Signature:

Date: 2 Feb 2004
Place: Wroclaw, Poland