

Tahoe 4681

8-wire (4-pair) G.shdsl+ modem card with FastEthernet interface



Standards

G.shdsl modem, conforms to ITU G.991.2

Throughput

up to 22.7 Mbps on an 8-wire (4-pair) line

Modulation

TCPAM-32

- up to 30% greater reach in comparison to HDSL modems
- up to three times higher throughput over the lines with bandwidth limiting devices such as low-pass filters

Interface

Ethernet 10/100 Base-T

Features

- TCP/IP router
- NAT/masquerade
- firewall
- telnet management
- SNMP management
- serial console management
- DHCP/BOOTP server (dynamic assigning of IP addresses and other parameters to each network station)
- DHCP/BOOTP Relay Agent (relaying of the DHCP/BOOTP requests to a central server)
- firmware upgrade using TFTP
- managed or unmanaged bridge functionality
- logging through syslog
- VLAN support
- additional protection against unauthorized LAN access
- measurement of inside temperature
- automatic traffic balancing among four DSL lines
- individual throughput settings for each line (in case of quality differences between the lines)
- automatic fall back to 6-, 4- or 2-wire transmission in case of line failure

The Tahoe 4681 card is the same as the Tahoe 684 modem, but it has a form of a card that can be inserted into the Tahoe DSL Access Multiplexer.

Each pair of the card achieves data transmission with speeds up to 5 Mbps on the distance of a few kilometres. The pairs can be bundled into 4-wire or 8-wire trunks giving speeds reaching 22 Mbps - much more than any other xDSL modem technology can provide.

Balanced division of transferred data for four pairs not only increases throughput, but also extends the reach at lower speeds.

Thanks to the line bundling you can connect four Tahoe 681 modems, two Tahoe 682 modems or one Tahoe 684 on the other end of the lines. The traffic on these lines may be mixed together in bridge mode or separated using VLANs. In the latter case you may define a DSL port as an untagged and the Ethernet port as tagged one and separate traffic on an external Ethernet switch.

Modem Reach:

The values below were measured on an 0.5mm diameter test line and should be treated as approximate values. The real values may be different than those provided below – they can be higher on high quality lines and lower on lines of inferior quality.

Throughput	Reach
22784 kbps	2600 m
16896 kbps	2900 m
14336 kbps	3200 m
12344 kbps	3500 m
9728 kbps	3800 m
6272 kbps	4200 m
4864 kbps	4800 m
3072 kbps	5900 m
2048 kbps	6900 m
1024 kbps	7500 m

Technical Details:

Processor	Motorola PowerPC 100MHz
Memory	4MB SDRAM, 1MB Flash
Efficiency	up to 15 000 packets per second
Network Protocols	TCP, IP, UDP, ICMP, TFTP, SNMP, DHCP, BOOTP, PPP, Frame Relay, HDLC, Cisco® HDLC, IEEE 802.1q
WAN Encapsulation	ATM AAL5
Dimensions	30 mm (width) x 128 mm (height) x 185 mm (depth)
Weight	190 g