

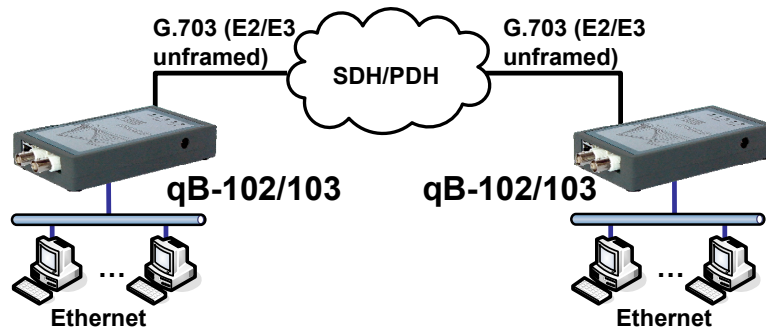
qBRIDGE-102 and **qBRIDGE-103** are high performance converters/bridges that can be used for connection of remote segments of 10/100Base-TX Ethernet networks over standard G.703 (E2 unframed and E3 unframed) channels (SDH or PDH network). qBRIDGE-102/103 enables connection of two LANs through a unframed G.703 stream with fixed 8448 Kbps for qBRIDGE-102 and 34368 Kbps for qBRIDGE-103 throughput. Embedded ASIC-based hardware bridge offers very high reliability and performance. ASIC-based architecture allows eliminating performance problem (especially when there is a large amount of short Ethernet frames to transfer over G.703 interface). Peak device performance is 90000 frames per second that is more than enough for any type Ethernet traffic processing.



The converter is also useful for connecting remote LAN segments through copper line with maximum reach up to 400m (two ATT 734A 75Ohm coaxial cables).

“Bridge connection” mode converter is transparent for Ethernet frames with VLAN tag and for VPN packets. It has one Ethernet 10/100Base-TX port with Auto-Negotiation and Auto-MDIX capability and one G.703 8448 Kbps (qBRIDGE-102) or one G.703 34368 Kbps (qBRIDGE-103) port. User can easily configure qBRIDGE-102/103 with no additional equipment (terminal emulation program and so on). DIP-switches are used to control all qBRIDGE-102/103 functions. The device has selectable frame buffer configuration, configurable LAN Filtering mode, IEEE 802.3x flow control. Additional feature of qBRIDGE-102/103 is Link-Loss forwarding i.e. capability to switch off Ethernet port in case of E2/E3 interface failure. This feature is user to report WAN failure to equipment connected to qBRIDGE from Ethernet side. For G.703 E2/E3 interface it is also possible to setup transmit clock source (internal or recovered). For diagnostic purposes and troubleshooting qBRIDGE-102/103 provides remote loopback mode, LED indicators and some additional features.

The product is available with external AC or DC power adapter as a standalone unit in compact small-size plastic case.



Technical Specifications

Ethernet: "Bridge connection" mode

- IEEE 802.1d transparent learning bridge
- MAC Table: 256 MAC address
- IEEE 802.1q VLAN pass-through
- Filtering and Forwarding: 90000 pps
- Frame Buffer: 340 frames

G.703 Interface (E2/E3 Unframed)

- Interface: ITU-T G.703; One G.703 port
- Data rate qBRIDGE-102: 8448 Kbps
- Data rate qBRIDGE-103: 34368 Kbps
- HDB3 coding; Impedance: 75 Ω
- Jitter requirements: ITU-T G.823, JT-G.703
- Maximum cable attenuation
qBRIDGE-103 - 14dB (17184 kHz)
qBRIDGE-102 - 6.8dB (4224 kHz)
- Clock modes: Internal or Recovered
- Link-Loss Forwarding, Remote loopback
- Connectors: 2xBNC

Ethernet Interface

- One Ethernet port 10/100Base-TX
- IEEE 802.3/ 3u/ 3x flow control
- Auto-Negotiation 10/100M
- Auto-MDIX
- Half/Full duplex (10/100-20/200Mbps)
- Ethernet to HDLC encapsulation
- Frame length up to 1536 bytes
- Connector: Shielded RJ-45

General

- Configuration: DIP-switches
- Various Diagnostic LED Indicators
- Power supply: 100~240VAC/36~72VDC
- Power consumption: 1.5 W
- Size: 80 x 135 x 27 mm
- Temperature: 0 ÷ 45 °C
- Humidity: 0 ÷ 95% without condensation
- Weight: 0,3 Kg