

qBRIDGE-406 is a series of new generation high speed and performance modem that supports IEEE 802.3ah “Ethernet in the First Mile” (EFM) standard. The line interface of qBRIDGE-406 allows using up to 4 different quality copper pairs in a single 2BASE-TL channel (EFM bonding) using TCPAM-32 line coding. Maximum data rate of qBRIDGE-406 2BASE-TL port is 22.8 Mbps when working over 4 copper pairs (i.e. 5.7 Mbps for each pair).

According to IEEE 802.3ah Ethernet frames are transmitted over copper line without any additional encapsulation and overhead. EFM bonding technology allows keeping line connection even if one or more copper pairs used for data transmission become broken or damaged. So copper pair break-down have only data rate reduction effect but not link loss.

All qBRIDGE-406 series members have embedded 4-port Ethernet switch with basic or enhanced VLAN and QoS functions. qBRIDGE-406 series include devices with 1, 2 and 4 copper pairs 2BASE-TL interface that allows to support links from 192 to 22784 Kbps.

qBRIDGE-406 series include devices with basic functionality that are suitable for connecting distinct LANs and for providing broadband Internet access.

qBRIDGE-406 with advanced functionality (VLAN, QoS, Ethernet Demarcation) are suitable for accessing NGN multiservice networks with different types of traffic. Symmetric bandwidth allows to use qBRIDGE-406 in enterprise networks with different types of services including VoIP, VoD, video conferencing. Modems provide enhanced QoS and VLAN features including 4 packet queues with different priority, port based VLAN, tag based VLAN, Q-in-Q VLAN, port/802.1p/DSCP packet prioritization.



Technical specifications:

WAN (2BASE-TL)

- 2BASE-TL 64/65o encoding
- EFM bonding up to 4 different quality copper pairs
- Tolerant to pair break down 2BASE-TL link
- No additional encapsulation and overhead
- EFM OAM
- Line rate 192-5696 Kbps/copper pair
- Automatic line rate adaptation
- Power back-off mode
- Connector: Shielded RJ-45

LAN

- 4 Ethernet 10/100Base-TX ports
- Embedded 4-port Ethernet switch
- IEEE 802.3/802.3u/802.3x flow control
- Auto-Negotiation 10/100M; Auto-MDIX]
- Connectors: Shielded 4xRJ-45

VLAN & QoS

- Up to 256 VLANs in normal mode
- Up to 4096 VLANs in trunk mode
- VLAN pass-through mode
- Q-in Q double tag VLAN
- Four priority queues
- IEEE 802.1p frames classification
- DSCP mapping
- MAC filtering

General

- Telnet, console, SNMP and HTTP management
- Remote device management
- Two different configuration files support
- Two different firmware version support
- Power : 100~240VAC to 5V/3A DC external adaptor
- Power consumption: 15 W
- Size: 196 x 156 x 30 mm, weight : 0,8 Kg

Model name	Ordering code	Description
qBRIDGE-406	36BLN406	EFM modem with basic functions,4-pair 2BASE-TL (22.8 Mbps)
qBRIDGE-406Q	36BQN406	EFM modem with advanced QoS support, 4-pair 2BASE-TL (22.8 Mbps)
qBRIDGE-206N	36BLN206	EFM modem with basic functions,2-pair 2BASE-TL (11.4 Mbps)
qBRIDGE-206Q	36BQN206	EFM modem with advanced QoS support, 2-pair 2BASE-TL (11.4 Mbps)