



QXISDN4

QXISDN4+

The QXISDN4 Gateway includes four ISDN BRI ports to connect to an ISDN PBX. It can also connect to the ISDN lines from a central office or direct to an ISDN phone. It is designed to add inbound lines and balance outbound call volumes. It's a stand-alone SIP Gateway device that includes a VPN router, firewall, VPN capability and an Auto Attendant with standard and customizable scenarios. Integrating this product with any QX IP PBX allows the Gateway to then be managed through the IP PBX's GUI.

The QXISDN4+ activation license key is available to purchase for the QXISDN4. Once the QXISDN4+ activation license key has been installed and activated, the Gateway will function as an IP PBX and cannot be changed back. The QXISDN4+ can support 16 IP phones by default and all the applicable QX50 features that can be purchased and activated. The QXISDN4+ doesn't support Audio In, Audio Out and a SD card.

Capabilities	
ISDN BRI ports	4
Ethernet LAN port	1
Ethernet WAN port	1
Call Routing capable of modifying caller ID or time of day routing	
Firewall, VPN Router, Auto Attendant, Stacking Options, Failover	

FEATURES

Telephony

PBX Features

- Auto Attendant with standard and customizable scenarios
- Call blocking, unconditional call forwarding
- Call history
- G3 fax support: T.38 and clear channel fax
- Dial plans (call routing), time of day routing
- Caller ID detection

Additional PBX Features*

- Voicemail system, voicemail notification via SMS/email, caller ID-based voicemail profile
- Call park, call pickup, paging, intercom
- Distinctive ringing, Do Not Disturb
- Many extension ringing, call hunting
- Speed dial, global speed dial
- Receptionist
- Automated call back from Auto Attendant
- Hold music
- Find Me / Follow Me
- Unified Messaging
- Three-way conferencing
- Universal Extension Recordings
- Busy auto redial
- Directory assistance
- Phone Book
- Class of Service
- Call queue
- Calling Cost Control**
- Redundancy**
- Call Recording** (12 ports)
- Barge-In**
- Conference Server**
 - Audio (16 ports) / Video (8 ports)
- iQall Advanced Features**
- eQall Softphone**

PC-Based Applications*

- Desktop Communication Console (DCC)**
- QX-Quadro Configuration Console (QCC)
- Epygi Media Streamer (EMS)
- Epygi Hotel Console (EHC)**
- Auto Dialer**

Voice Features

- Voice Coding:
 - G.711, G.726 (16, 24, 32, 40 Kbps), G.729A, iLBC (13,33 kbit/s, 15,2 kbit/s); VAD, CNG, G.168 echo cancellation
- VoIP Encryption:
 - SRTP
- VoIP Signaling:
 - SIP v2, SIP/TLS
- DTMF:
 - In band & out of band signaling support

Additional Voice Features*

- Voice Coding:
 - G.722 and G.722.1 pass-through
 - point-to-point HD call
- Video Coding:
 - H.263, H.263+ and H.264 pass-through
 - point-to-point video call, OPUS

VoIP Data and Signaling Protocols

- ITU-T G.711, G.726, G.729 Annex A;
- IETF RFC 3951- iLBC;
- SIP, SIP/TLS (RFCs: 2246, 3261, 3263, 3265, 3311, 3323, 3428, 3515, 3578, 3581, 3842, 3856, 3863, 3891, 3892, 4028, 4235)
- SDP (RFC: 2327, 4568)
- RTP/SRTP (RFCs: 1889, 1890, 3389, 3550, 3551, 3555, 3711, 4733, 3952)

Fax over IP (ITU-T: T4, T30, T38, V17, V21, V27 ter, V29)

ISDN BRI Signaling

ITU-T: Q.921, Q.931 (DSS1), Q.951;
ETSI ETS300 102 (NET5); NTT INS1500 for Japan

ISDN Features

Supported modes: NT/TE BRI expansion for QX IP PBXs

Connectivity

Physical Interfaces

Premise connections:

1 Ethernet 10/100BASE TX port to connect a PC for configuration purposes (RJ45)

Uplink connections:

1 Ethernet 10/100BASE TX (RJ45)

ISDN Connection

4 ISDN BRI ports to the central office or local PBX (RJ45), NT and TE modes supported

Phones*

IP phones:

16 SIP phones by default
32 additional SIP phones may be added with feature keys
All SIP phones can be connected both from LAN or WAN side
Plug-and-Play (PnP) with selected IP Phone manufacturers

Auto Attendants and virtual extensions

Auto Attendants:

Up to 200 Auto Attendants can be registered

Virtual extensions:

Up to 200 virtual extensions can be registered***

System Capacity*

Up to 16 simultaneous VoIP calls with external parties
Unlimited station-to-station calling for IP phones

Network

STUN/Network Address Translation (NAT) traversal (RFC 3489)
IPSec VPN with 3DES and AES encryption in tunnel mode (RFCs: 2402, 2406, 2409)
Automatic Internet Key Exchange (IKE) keying support
PPTP VPN, L2TP VPN
Firewall security via:

- Intrusion Detection System (IDS)
- Network Address Translation (NAT)
- Policy and service-based filtering
- Stateful inspection firewall

SIP Intrusion Detection System (SIP IDS)
DHCP server on the LAN side
DHCP client on the WAN side
DNS server with forwarding functionality
Simple Network Time Protocol (SNTP) server/client for computer clock synchronization
PPPoE connection to the ISP with PAP/MS-CHAP authentication
IP DIFFSERV for QoS
SIP tunneling
Virtual LAN (VLAN/IEEE 802.1Q)

DNS support with third party
NAT with port forwarding and translation
Mail client to send voice and fax messages as email attachments (.wav and .tif/.pdf respectively) and system notifications*

System

Management

Operation modes: Master/Slave
Easy interconnection with QX IP PBXs
Web interface accessible from LAN and WAN (HTTP/HTTPS), the WAN management access can be switched off
Password control
User rights management
Remote diagnostics and software upgrade
Download/restore configuration
Reset button with factory reset option
Custom language pack
System event notification via SMS/email
Emergency recovery

Additional Management features*

Third Party Call Control (3PCC) XML RPC**
Extension status watching (with DCC)
Auto configuration of IP phones via TFTP and HTTP

Diagnostics/Testing

System Status LED
Remote testing
ISDN and network diagnostics
Security diagnostics
System logs, SIP IDS logs
Call capture

Billing and Statistics

Radius Client (RFCs: 2865, 2866), Call Detail Records (CDR)

Environmental

Physical Dimensions

Rack-mountable devices:

Measurements:

8.0" x 4.0" x 1.6" (20.5 x 10.5 x 4.0 cm)

Weight:

1.28 lbs. (580g)

Conditions

Operating temperature:

41°F - 104°F (5°C - 40°C)

Storage temperature:

41°F - 140°F (5°C - 60°C)

Non-condensing humidity:

5% - 90%

Powering Options

Input: 85-264VAC, 47-63Hz, AC
Auxiliary output power: 12.0VDC, 0.6A (max)

Power Consumption

2.25W (idle), 4.6W (max)

* Available with QXISDN4+ key

** Requires a software license key

*** The total number of extensions used for IP phones, Auto Attendants and virtual extensions can't exceed 200.