



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 for two-stage dialing. 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.



ISDN BRI ports	4
Ethernet LAN ports	1
Ethernet WAN ports	1
VPN router	
Firewall	
HTTP server	

FEATURES

Telephony

PBX Features

- Multi-level Auto Attendant with Interactive Voice Response (IVR) and VoiceXML v2 support
- 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
- Hotline Service
- Universal Extension Recordings
- Busy auto redial
- Directory assistance
- Class of Service
- Call queue
- Redundancy**
- Automatic Call Distribution (ACD)**
- Call Recording** (12 ports)
- Barge-In*
- Audio (16 ports) / Video (8 ports)
- Conference Server**
- Mobile Toggling**

Licensable PC-Based Applications*

- Desktop Communication Console (DCC)**
- 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, 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

VoIP Data and Signaling Protocols

- ITU-T G.711, G.726, G.729 Annex A; IETF RFC 3951- iLBC;
- SIP, SIPs/TLS (RFCs: 2246, 3261, 3263, 3265, 3311, 3323, 3324, 3325, 3428, 3515, 3578, 3581, 3725, 3842, 3856, 3863, 3891, 3892, 4028, 4235)
- SDP (RFC: 2327, 4568)
- RTP/SRTP (RFCs: 1889, 1890, 2833, 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 select IP Phone manufacturers

Auto Attendants and virtual extensions

Auto Attendants:

- Up to 200 standard and custom Auto Attendants can be registered

Virtual extensions:

- Up to 200 virtual extensions can be registered***

System Capacity

- 8 simultaneous IP PSTN calls

System Capacity*

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

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%

Power Supply

- Input: 85-264VAC, 47-63Hz, AC

- Auxiliary output power: 12.0VDC,

- 0.6A (max)

Power Consumption

- 2.25W (idle), 4.6 (max)

* Available with QXISDN4+ key

** Requires a software license key

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