



QXISDN4

The QXISDN4 Gateway includes four ISDN BRI connections for phones and analog devices to connect to a company's central office or local PBX. 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.



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

Telephony

PBX Features

- Multi-level Auto Attendant with Interactive Voice Response (IVR) and VoiceXMLv2 support
- Call Blocking, unconditional call forwarding
- Call Detail Records
- G3 fax support: T.38 and clear channel fax
- Dial plans (call routing), time of day routing

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

DTME:

In band & out of band signaling support

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

System Capacity

- 8 simultaneous IP PSTN calls

Network

STUN/Network Address Translation (NAT) traversal (RFC 3489)

IPSec VPN with DES, 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

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

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), CDRs

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. (580 g)

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
- 0.4A/115VAC, 0.2A/230VAC;
- Output: 12.0VDC; 1.25A