



# 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