

Quadro[®]4L



Quadro4L: Small Office IP PBX with Four FXO and Two FXS Ports

Any business with communication needs requires a phone system with the same reliability and clarity of a large enterprise product. The Quadro4L was designed with those requirements as primary attributes and is the main focus of all Epygi solutions. No matter the size of the customer, a company needs a telephony product that will provide a premium level of service every day on every call. In addition to superb quality, the Quadro4L offers a wide range of features including unified messaging, auto attendant, call relay, call queuing, fax to email, life line port and key system emulation.

The Quadro4L is equipped with four (4) FXO ports to connect to the PSTN and two (2) FXS ports for analog phones or fax machines. Additionally included is SIP trunking, so the Quadro4L can connect directly to an Internet Telephony Service Provider (ITSP) at no additional cost. IP phones can also be registered directly with the IP PBX supporting up to 24 IP phones. These phones can either be manually connected or automatically configured by the Quadro4L. In key system mode, up to 12 IP phones can be used.

Legacy Phone System Replacement

Epygi designed the Quadro4L for deployment right out of the box as a turn-key solution. Using advanced plug-and-play for IP phones, multiple FXO ports for PSTN access and two FXS ports, this IP PBX functions as a traditional PBX or key system. As a bonus, Epygi delivers features not found on traditional key systems. Business enhancements include after-hours auto attendant and unified messaging, among many others.

Effortless Administration

Sophisticated auto-recognition and auto-configuration capabilities between the Quadro4L and certified IP phones simplify installation and operation. The administrator can modify automatic assignments through the Graphical User Interface. Also integrated into the Quadro4L is a router, DHCP server and a firewall with intrusion detection, enabling the Quadro4L to manage a basic, small business network.

What are Your VoIP BENEFITS?

- Key System Simplicity
- True IP Solution
- Turn-key Installation
- No Expensive Licenses

Telephony

PBX Features

- Call blocking*, Forwarding, Hold, Transfer*
- Call relay*, Call waiting*
- Caller ID Detection, Voice mail*
- Call park*, Pickup*, Paging*, Intercom*
- Multi-level auto attendant with Interactive Voice Response (IVR) and VoiceXMLv2 support*
- Voice mail with SMS notification*
- Distinctive ringing*
- Speed dialing*
- Many extension ringing*
- Receptionist
- Call hunting*, Hiding Caller ID*
- Automated Call back from Auto Attendant*
- Hold music
- Call statistics
- Do Not Disturb service*
- Unified messaging*
- 3-way conferencing*
- T.38 fax, fax relay and clear channel fax*
- Unified Fax Messaging*
- Busy auto-redial*
- Directory assistance*
- Dial plans (call routing)*
- IP Routing*
- Call Queue*
- Key System Emulation

* Features not available in Key System Emulation Mode

Voice and Video 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
- G.722 pass-through point-to-point HD call

Video Coding:

- H.263 and H.264 pass-through point-to-point video call

VoIP Encryption:

SRTP

VoIP Signaling

- SIP SIP/TLS
- DTMF

In band & out of band signaling support

VoIP Data and Signaling Protocols

- ITU-T G711, G.726, G729 Annex A; IETF RFC 3951- iLBC; ITU-T Q.23, Q.24; Bellcore GR.506, GR.181; ITU-T G.168-2000, 2002; ETS_300659_1,2,3; 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)

POTS Signaling

- Loop start
- FSK and DTMF Caller ID support

Connectivity

Physical interfaces

Premise connections:

- 2 FXS short-loop FXS ports (RJ-11)
- 1 LAN Ethernet 10/100 BASE-T port (RJ-45)

Uplink connections:

- 4 FXO ports to the Central Office (RJ11)
- 1 WAN Ethernet 10/100 BASE-T (RJ45)

Phones

IP phones:

- 16 SIP phones by default in PBX mode
- 8 additional SIP phones may be added with feature keys in PBX mode
- 12 SIP phones can be used in KSE mode
- All SIP phones can be connected both from LAN or WAN side
- Plug-and-Play with select IP Phone manufactures

Analog phones:

- 2 Analog phones (or other analog devices) to connect via FXS ports

Auto Attendants and Virtual Extensions

Auto Attendants:

- Up to 100 standard and custom AA can be registered

Virtual Extensions:

- Up to 100 Virtual Extensions can be registered**

**The total number of extensions used for IP phones, Analog phones, AA and virtual extensions can not exceed 100 extensions.

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
- 4 analog PSTN calls with external parties

System

Management

- Multilingual WEB interface accessible from LAN and WAN (HTTP/HTTPS)
- Password control
- Remote diagnostics and software upgrade
- Auto-provisioning
- VoIP Carrier Wizard
- Download/restore configuration
- Legible and editable configuration files
- Auto-configuration of IP phones via TFTP and HTTP
- SNMP Monitoring and Configuration
- Third Party Call Control XML RPC

- Reset button with factory reset option
- Custom Language Pack

Billing

- Radius Client (RFCS: 2865, 2866)

Diagnostics/Testing

- LEDs: Busy, Info, Fault, LAN, WAN,
- Loop settings
- Remote testing

Internet

- STUN/NAT traversal (RFC 3489)
- IPSec VPN with DES, 3DES amnd AES encryption in tunnel mode (RFCs: 2402, 2406, 2409). Automatic IKE key support
- PPTP VPN
- L2TP VPN
- Firewall security via:
 - Intrusion Detection System
 - NAT (Network Address Translation)
 - Policy and service-based filtering
 - Stateful inspection firewall
- DHCP server on the LAN side
- DHCP client on the WAN side
- DNS server with forwarding functionality
- SNTP (Simple Network Time Protocol) server/client for computer clock synchronization
- PPPoE connection to the ISP with PAP/(MS)CHAP authentication
- IP DIFFSERV for QoS
- Virtual LAN (VLAN/IEEE 802.1Q)
- Mail client to send voice and fax messages as e-mail attachments (.wav and .tif) and system notifications
- DNS (DYNDNS) support with third party NAT/Router with port forwarding and port translation.

Environmental

Physical Dimensions

- Desktop devices, wall-mountable:
- Measurements: 7.41" x 6.24" x 1.77" (19 x 16 x 4.5 cm)
- Weight: 13 ounces (360 g)

Conditions

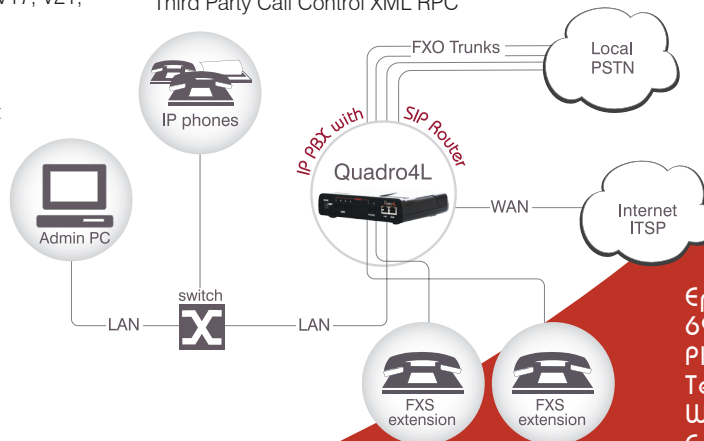
- 41°F - 104°F (5°C - 40°C) operating temperature
- 41°F - 140°F (5°C - 60°C) storage temperature
- 5% - 90% non-condensing humidity

Power Supply

- Input 100 - 240 VAC; 50/60 Hz; 0.5 A
- Output 12.0 VDC; 1.5 A

Regulatory Compliance

- Telecom: CTR21/TBR21, AS/ACIF



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