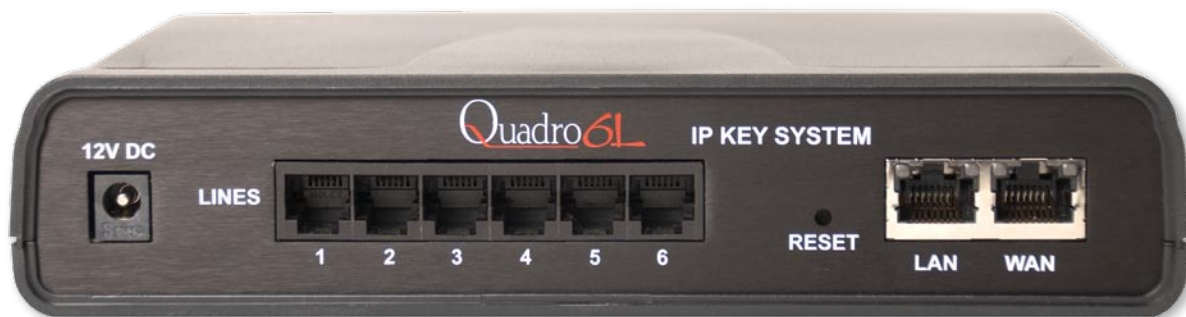


# Quadro<sup>®</sup>6L



## Quadro6L: The IP PBX with 6 FXO Ports

Epygi designed the Quadro 6L for environments that require multiple ringing phones and shared trunk appearance visibility. It economically delivers a wealth of PBX features like voice mail, auto attendant, on-hold music or messaging, caller ID with distinctive ringing, call pickup, paging and intercom while providing key-system features in the default setup.

The Quadro 6L provides for as many as ten local IP extensions via the LAN connection. Users choose from a variety of Aastra and snom IP telephone sets\* with buttons that can be programmed for incoming phone lines and additional features. The Quadro 6L includes six separate FXO ports for PSTN lines, plus a WAN port for optional Internet calls.

\*Aastra 55i, 57i, 9133, and 480i models and snom's 320, 360, and 370 models

### Legacy Phone System Replacement

Epygi designed the Quadro 6L for deployment right out of the box as a turnkey solution. Using advanced plug-and-play IP phones and multiple FXO ports for PSTN access, this IP PBX functions as a key-system by default. 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 Quadro 6L and Aastra phones simplify installation and operation. The administrator can modify automatic assignments through the graphical user interface.

## What are Your VoIP BENEFITS?

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

## Telephony

### Voice Features

Voice Coding G.711, G.726 (16, 24, 32, 40 Kbps), G.729, iLBC (13,33 kbit/s, 15,2 kbit/s);  
 (ITU-T: G.711, G.726, G.729 Annex A; RFC 3951 :iLBC; IETF:ITU-T Q.23, Q.24, Bellcore GR.506, GR.181; ITU-T G.168-2000, 2002; ETS\_300659\_1,2,3)  
 NAT traversal (both manually and STUN)  
 VAD, CNG, G.168 echo cancellation

### Bandwidth Requirements

Per call WAN bandwidth requirements for the following codecs (non-encrypted/VPN encrypted):

G.711	20 msec	84 kbps/105 kbps
G.726-16	20 msec	37 kbps/59 kbps
G.726-24	20 msec	45 kbps/65 kbps
G.726-32	20 msec	52 kbps/74 kbps
G.726-40	20 msec	60 kbps/80 kbps
G.729a	20 msec	29 kbps/49 kbps
iLBC	30 msec	27 kbps/41 kbps

### PBX Features

Call blocking\*, Forwarding, Hold, Transfer\*  
 Call relay\*, Call waiting\*  
 Caller ID Detection, Voice mail\*  
 Call park\*, Pickup\*, Paging\*, Intercom\*  
 Multilevel 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

### Call Signaling

SIP on the WAN and LAN side (RFCs: 3261, 3263, 3265, 3311, 3323, 3324, 3325, 3428, 3515, 3578, 3581, 3725, 3891, 3892, 3842, 3856, 3863, 4028, 4235)  
 SDP (RFC 2327)  
 RTP (RFCs: 1889, 1890, 2833, 3389, 3550, 3551, 3555, draft-ietf-avt-rfc2833bis-05, draft-ietf-avt-rtp-ilbc-05), in band and out of band signaling support  
 RTP Proxy  
 Fax over IP (ITU T: T4, T30, T38, V17, V21, V27 ter, V29).

### POTS Signaling

Loop start  
 FSK and DTMF caller ID support

## Connectivity

### LAN IP Phones

10 SIP phones  
 8 additional SIP phones may be added with a feature key  
 Remote IP extensions may be enabled for all IP phones.

### System Capacity

10 simultaneous VoIP calls with external parties  
 Remote IP extensions may be enabled for all IP phones.

### Premise Connection

IP Phones  
 1 Ethernet 100BASE T (RJ45).

### Uplink Connection

6 FXO ports to the Central Office (RJ11)  
 1 Ethernet 10BASE T (RJ45)

### Billing

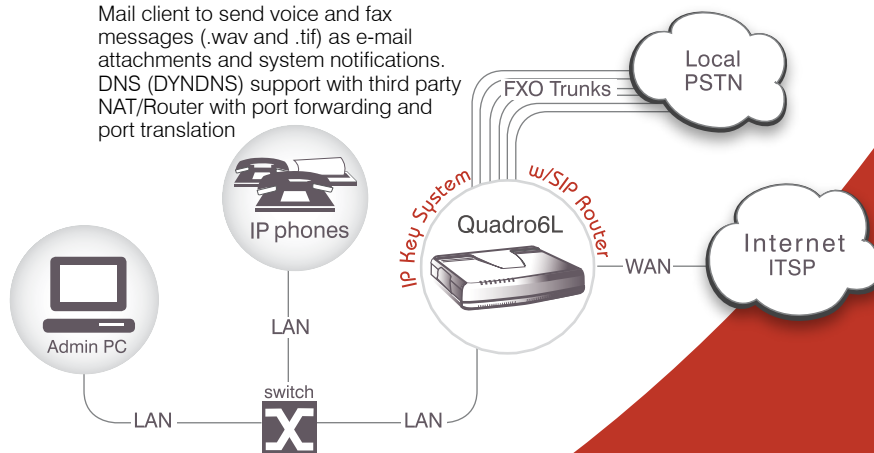
Radius Client (RFCs: 2865, 2866)

### Extensions

Up to 100 extensions including virtual, remote and local.  
 Extensions can be registered on different SIP servers.

## Internet

STUN/NAT traversal (RFC 3489)  
 IPSec VPN with DES, 3DES and AES encryption in tunnel mode (RFCs: 2402, 2406, 2409). Manual and automatic IKE key support  
 PPTP VPN  
 L2TP VPN  
 Firewall security via:  
 NAT (Network Address Translation)  
 IDS  
 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  
 Mail client to send voice and fax messages (.wav and .tif) as e-mail attachments and system notifications.  
 DNS (DYNDNS) support with third party NAT/Router with port forwarding and port translation



## 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 is available to order  
 Reset button with factory reset option  
 Custom Language Pack  
 Outlook Feature  
 Hot Call

### Diagnostics/Testing

LEDs: Busy, Info/Fault, FXO1, FXO2, FXO3, FXO4, FXO5, FXO6.  
 Remote testing and VoIP diagnostics  
 Power-up diagnostics

## 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

Safety: UL 60950; CSA 22;  
 EMC: FCC Part 15 Class B;  
 EN55022 Class B, EN55024;  
 Telecom: CTR21/TBR21, AS/ACIF



\* Features not available in Key System Emulation Mode

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