

Quadro[®]M8L



QuadroM8L: Small Business IP PBX Solution

Small business customers demand feature-rich and price-competitive IP PBX solutions. The QuadroM8L answers that demand with increased IP ports and enhanced features for medium-sized offices. Now offering eight (8) FXO lines and up to 96 IP phone users, the QuadroM8L allows for large growth for maturing companies. Also added to the QuadroM8L are audio input and output ports for music on hold and paging speaker connections. Additional storage options include a compact flash slot or an external FTP server for recorded calls or system backups.

The QuadroM8L can support up to 45 concurrent calls for 98 users and further enhancing the quality of experience with advanced features. These features include Automatic Call Distribution (ACD) for call centers, audio conferencing, call recording and barge-in features. Advanced features are purchasable items, so customers can choose what they pay for instead of being locked into a one-size-fits-all solution. Even though the QuadroM8L is designed for medium-size offices, the new owner can be comfortable knowing they are using an enterprise-grade solution backed by Epygi's support and guaranteed reliability.

Enterprise Features for Small Office

This solution is intended for small to medium offices that demand features and reliability that is normally reserved for very large enterprise customers. The QuadroM8L can cost effectively provide that enterprise-grade product at a small business price.

Future Proof Solution

The QuadroM8L currently supports a number of the latest features on the market today. But as feature demands change, so can this solution with free upgrades. If customers invest in an Epygi solution, they invest in their company's future as well.

What are Your VoIP BENEFITS?

- Low Initial Investment
- Future Proof
- Enterprise Grade
- Hybrid Support

Telephony

Voice Features

Voice Coding G.711, G.726 (16, 24, 32, 40 Kbps), G.729A, iLBC (13,33 kbit/s, 15,2 kbit/s);
 (ITU-T: G711, G.726, G729 Annex A, RFC 3951 :iLBC; IETF;ITU-T Q.23, Q.24, Bell-core 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
 G.722 Pass-through
 Point-to-point HD call

Video Features:

H.263 and H.264 Pass-through
 Point-to-point video call

Bandwidth Requirements

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

G.711	20 msec	84 kbps
G.726-16	20 msec	37 kbps
G.726-24	20 msec	45 kbps
G.726-32	20 msec	52 kbps
G.726-40	20 msec	60 kbps
G.729a	20 msec	29 kbps
iLBC	30 msec	27 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
 Global speed dial
 Find me/Follow me
 Unified messaging
 3-way conferencing
 Hotline service
 T.38 fax, fax relay and clear channel fax
 Unified Fax Messaging
 Busy auto-redial
 Directory assistance
 Dial plans (call routing)
 Time of day routing
 Call Queue
 Voice Mail profile
 Automatic Call Distribution
 Conference Server
 Call Recording
 Barge-in

VoIP Data and Signaling Protocols

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 (RFCs: 1889, 1890, 2833, 3389, 3550, 3551, 3555, 3711, draft-ietf-avt-rfc2833bis-05, draft-ietf-avt-rtp-ilbc-05),
 Fax over IP (ITU-T: T4, T30, T38, V17, V21, V27 ter, V29)

POTS Signaling

Loop start
 FSK and DTMF Caller ID support

DTMF

In band & out of band signaling 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:

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

Audio port connections:

Line-in/Line-out

Phones

IP phones:
 32 SIP phones by default
 64 additional SIP phones may be added with feature keys
 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 200 standard and custom AA can be registered

Virtual Extensions:

Up to 200 Virtual Extensions can be registered*

System Capacity

Up to 45 simultaneous VoIP calls with external parties
 Unlimited station to station calling for IP phones
 Unlimited station to station calling for analog phones
 8 analog PSTN calls with external parties

*The total number of extensions used for IP phones, Analog phones, AA and virtual extensions can not exceed 200 extensions.

External Storage

Compact Flash

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 and AES encryption in tunnel mode (RFCs: 2402, 2406, 2409). Manual and 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

Rack-mountable devices:
 Measurements: 19" x 7.56" x 1.77"
 (48.0 x 19.2 x 4.5 cm)
 Weight: 2.47 lbs. (1090 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

Regulatory Compliance

Telecom: TBR12/TBR13; AS/ACIF

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