

# QuadroM26x



## QuadroM26x: Small Business Hybrid PBX Solution

Many customers today require the latest VoIP technology but wish to retain their analog telephone investment. The QuadroM26x offers support for 26 analog devices and up to 80 IP phone extensions. In addition, this system supports SIP lines to connect to an internet service provider and eight FXO lines for a medium-size hybrid office environment. Any user on the system, whether they are on an IP or analog phone, will have access to the advanced VoIP features offered on the QuadroM26x. Even remote users will be able to take advantage of the cost-saving and performance-enhancing features.

The QuadroM26x is designed for offices up to 106 users but can offer performance and features usually only available on much larger enterprise products. 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 QuadroM26x 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.

### True VoIP Hybrid Solution

Customers with either IP phones or analog devices demand the latest in telecommunications when purchasing a new PBX. Epygi has always focused on providing the leading edge technology for pure IP or mixed offices from eight users to small enterprises. As with all of our IP PBX solutions, any user of that system has access to the VoIP features, regardless of the endpoint.

### Simple Migration Path

The QuadroM26x offers more FXS analog ports and with the addition of the Epygi QuadroFXS 16 gateway, the FXS port count can be even larger. As time continues, new users can be deployed as SIP extensions and eventually even the analog users could move to SIP.

## What are Your VoIP BENEFITS?

- Hybrid Flexibility
- Easy Migration
- Latest SIP Technology
- Purpose Built Appliance

## 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, 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):

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

### 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/ SRTP (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:  
 26 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:

16 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:

26 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 amnd 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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