

Quadro[®]M32x



QuadroM32x: The Enterprise IP PBX Solution

The QuadroM32x is designed to deliver greater IP Line capacity, reaching 192 registered extensions and 60 concurrent calls. Epygi's largest IP PBX continues to deliver all the features currently found on our existing Quadro line with the addition of some vital enterprise grade tools.

Conferencing and Automatic Call Distribution are a few of the unique features to this product. Third party integration with Unified Multimedia Communications platforms is another key solution for large businesses.

Expanding the digital and analog trunking capacity of the QuadroM32x is simple using Epygi Quadro Gateways. Epygi's FXO, ISDN, and E1/T1 Gateways with the Quadro and QuadroM IP PBX line. This flexibility will allow our customers to satisfy any configuration need.

Integrated Conference Server

Conferencing is a common feature used by today's large organizations. The QuadroM32x features an optional 64 person conference bridge with the same features found on our standalone Quadro Conference Server. The presenter can mute participants, assign speakers and track overall activity. Regular participants can also view the active meeting and can indicate a request to speak during a muted session. This productivity enhancing tool is easily enabled using a software license key.

Redundancy Options

The QuadroM32x also offers a built-in E1/T1 digital trunk interface. This link can be used as the primary interface or as a redundant link while utilizing an ITSP as the primary service. Redundant Ethernet links are also included for secondary failover networks or a voice DMZ.

What are your VoIP BENEFITS?

- Large capacity
- Increased reliability & redundancy
- True Enterprise grade solution

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: 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; ETSI 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 kbp

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
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 Signaling

SIP (RFCs: 3261, 3263, 3265, 3311,
3323, 3324, 3325, 3428, 3515, 3578,
3581, 3725, 3842, 3856, 3863, 3891,
3892, 4028, 4235)
SDP (RFC 2327)
RTP (RFCs: 1889, 1890, 2833, 3389,
3550, 3551, 3555, draft-ietf-avt-rf-
c2833bis-05, draft-ietf-avt-rtp-ilbc-05),
Fax over IP (ITU-T: T.4, T.30, T.38, V.17,
V.21, V.27 ter, V.29).

POTS Signaling

Loop start

CCS Signaling

ITU-T: Q.921, Q.931 (DSS1), Q.951;
ETSI ETS300 102 (NET5); ECMA-143-
(QSIG); SR-NWT-002120 (NI2)
NTT INS1500 for Japan
PRI switch types: DSS1, NET5, QSIGg,
5ESS,
NTT ins1500 DMS 100

CAS Signaling

CAS (MELCAS, ITU, ITU-T2, ITU-T: Q.400,
Q.411, Q.421, Q.422, Q.440-Q.442,
Q.450-Q.452, Q.454, Q.455, Q.457,
Q.458, Q.460-Q.468, Q.470-Q.476
Types: Loop Start, Ground Start;
E&M Delay Dial, E&M Wink Start,
E&M Immediate Start, E&M FGD
R2 DTMF, R2 compelled, R2 non-
compelled, R2 compelled with ANI, R2
non-compelled with ANI; R2 Parameters
for Brazil and Mexico etc.)
ANSI T1.403.02-199, T1.403.02a-2001

DTMF

In band & out of band signaling support.

Connectivity

Extensions

Up to 400 extensions including FXS
phones LAN IP Phones remote and
virtual extensions
All extensions can be registered on dif-
ferent SIP servers

LAN IP Phones

32 SIP phones by default;
160 additional SIP phones may be
added with feature keys
Remote IP extensions may be enabled
for each SIP phone
Plug-and-Play with select IP Phone
manufactures

System Capacity

Maximum 64 concurrent VoIP calls with
external parties
Unlimited station to station calling for IP
phones

Premise Connections

2 short-loop FXS ports (RJ11)
2 Ethernet 10/100 BASE T port (RJ45)

Uplink Connection

1 Ethernet 10/100 BASE T (RJ45)

External Storage

Compact Flash

Billing

Radius Client (RFCs: 2865, 2866)

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 synchro-
nization 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.

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

Diagnostics/Testing

LEDs: Busy, Info, Fault, LAN, WAN, Line
E1/T1 diagnostics, Loop settings
Remote testing

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

EMC: CFR 47, PART 15,
SUBPART B CLASS A
Telecom: TBR12/TBR13; AS/ACIF



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