

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: 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
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
Barge-in
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-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
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

Physical interfaces

Premise connections:
2 FXS short-loop FXS ports (RJ-11)
1 LAN Ethernet 10/100 BASE-T port (RJ-45)
Uplink connections:
1 E1/T1 port to the Central Office (RJ45)
1 WAN Ethernet 10/100 BASE-T (RJ45)

Phones

IP phones:
32 SIP phones by default
160 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 400 standard and custom AA can be registered
Virtual Extensions:
Up to 400 Virtual Extensions can be registered*
System Capacity
Up to 64 simultaneous VoIP calls with external parties
Unlimited station to station calling for IP phones
Unlimited station to station calling for analog phones
30 PSTN calls via E1/T1 with external parties

*The total number of extensions used for IP phones, Analog phones, AA and virtual extensions can not exceed 400 extensions.

External Storage
Compact Flash

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.

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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