# Quadro M12Li



## QuadroM12Li: SIP solution for ISDN BRI users

Many countries still primarily use ISDN BRI for their outside lines. However, the users of this type of service demand the new features and flexibility available on SIP-based IP PBX products. The Epygi QuadroM12Li allows the user to connect a traditional outside trunk while also utilizing SIP as an alternative route or main route. In addition, IP phones are supported for all users up to 96 IP users. Forty-five simultaneous calls can be supported via a SIP trunk provider and the six (6) ISDN BRI connects. The ISDN BRI ports support NT and TE selectable mode options and is intended for non-USA markets with ISDN BRI network providers. The QuadroM12Li is also equipped with two (2) FXS ports for analog devices and audio input/output jacks for music on hold and paging.

The QuadroM12Li includes many of the advanced features found in our enterprise-level products. These features include call recording, audio conferencing, Automatic Call Distribution (ACD) for call centers and the barge-in feature pack. Advanced features are purchasable items, so customers can choose what they pay for instead of being locked into a one-size-fits-all solution. An additional value included with the QuadroM12Li is support for HD audio, point-to-point video and other desktop productivity tools. To further simplify a customer's needs, this product includes an integrated firewall, DHCP server and router for LAN management.

## SIP Flexibility, Traditional Stability

True SIP solution with ISDN BRI trunk ports for peace of mind. This product has a high density IP phone capacity utilizing traditional ISDN BRI or SIP trunks from an ITSP or remote location. Purpose built appliance with solid state components for added stability.

## **Enterprise Features for Smaller Offices**

This solution is intended for small to medium offices that demand features and reliability that is normally reserved for very large enterprise customers. The QuadroM12Li can cost effectively provide that enterprise-grade product at a small business price.

## What are Your VolP BENEFITS?

- True SIP solution
- Enterprise-level features
- IP phone flexibility
- Video and HD audio



## 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);

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

**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

Barge-in

Voice Mail profile Automatic Call Distribution

Conference Server
Call Recording

Supported 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-rfc-2833bis-05, draft-ietf-avt-rtp-ilbc-o5), Fax over IP (ITU-T: T4, T30, T38, V17, V21, V27 ter, V29)

V2/1 ter, V29)
Voice Coding (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)
ISDN (ITU-T: Q.921, Q.931 (DSS1),
Q.951;ETSI ETS300 102 (NET5); NTT

INS1500 for Japan)

POTS

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:

1 WAN Ethernet 10/100 BASE-T (RJ45)

Uplink connections:

6 ISDN BRI ports to the Central Office or local PBX (RJ45), NT and TE modes supported

Audio port connections:

Line-in/Line-out (Line-in Signal Level-0,5 V RMS, Line-out Load Resistance -600 Ohm to 10K Ohm)

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

12 ISDN 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

VolP 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 3DES and AES encryption in tunnel mode. 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

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

Environmental

port translation.

**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: TBR3 (ISDN)



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