



Quadro[®]M-E1/T1



QuadroM E1/T1 Dual Port Gateway Expanding Call Capacities for an Expanding Business

The QuadroM E1/T1 Dual Port Gateway continues the Teleprime tradition of “smart,” affordable VoIP products geared to helping businesses bridge the gap between Internet Telephony and PSTN. Featuring double the call capacity of the QuadroM E1/T1, it allows businesses to expand their phone systems with improved sound quality and performance. Thirty channels of com-pressed codecs on the QuadroM E1/T1 Dual 30 and sixty channels on the QuadroM E1/T1 Dual 60 with a new architecture to support full compression and call-handling efficiency.

The QuadroM Dual Port Gateway includes call routing and auto attendant capabilities, as well as voice prioritization over data, sophisticated firewall and security elements. It is constructed with sturdy 19 inch rack-mountable housing that permits the inclusion of a built-in power source and cooling fan for heavy duty operation and extended life span. In all, it is a powerful choice for growing companies seeking to maximize the benefits of VoIP.

IP Enable your Legacy PBX

Teleprime offers cost-effective additions to an existing telephony network to bring the true benefits of VoIP to you. Integrating a QuadroM E1/T1 Gateway into an existing network will allow for inexpensive communication between multi-site locations.

Flexible Call Routing

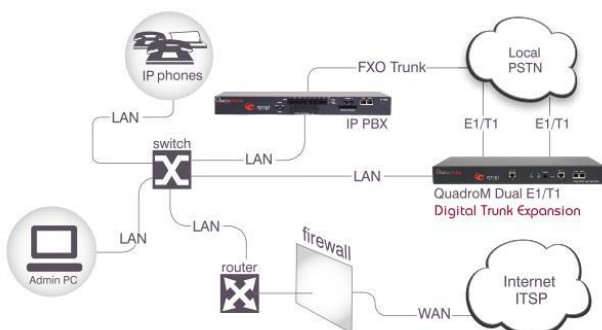
The QuadroM Gateway can make intelligent routing decisions depending on the type of call and destination digits. The gateway is able to make lowest cost routing decisions on the fly by allowing legacy or pure IP solution to take advantage of the VoIP savings and flexibility.

The Power of the QuadroM Dual Port Gateway

- Increased call capacity
- Improved sound quality
- Affordable system administration
- Longer life cycle

What are Your VoIP BENEFITS?

- Simple Installation
- Cost-effective VoIP Migration
- Reliable VoIP Technology
- Non-blocking Design



Telephony

Voice Features

Voice Coding G.711, G.726 (16, 24, 32, 40 Kbps), G.729, iLBC (13,33 kbit/s, 15.2 kbit/s);
 (RFC 3951, ITU-T: G711, G.726, G729 Annex A; IETF; ITU-T Q.23, Q.24, Bellcore GR.506, GR.181; ITU-T G.168-2000, 2002; ETS_300659_1,2,3; A-law, U-law coding)
 NAT traversal (both manually and STUN)
 VAD, CNG, G.168 echo cancellation
 Voice Transcoding

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 statistics
 Call routing
 Auto Attendant
 IVR system (custom AA, custom messages upload, create scenarios with **TeleprimeXML**)
 T.38 fax relay and clear channel fax

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), H.323 (ITU-T: H.225.0, H.235, H.245, H.323, H.450.x)
 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, QSIG, 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, Mexico etc.)
 ANSI T1.403.02-199, T1.403.02a-2001

DTMF

In band & out of band signaling supp

Connectivity

Premise Connections

1 short-loop FXS port (RJ11)
 1 Ethernet 10/100BASE TX port to connect a PC for configuration purposes (RJ45)

Uplink Connection

2 E1/T1 ports to the Central Office (RJ45)
 1 Ethernet 10/100BASE TX (RJ45)

Billing

Radius Client (RFCs: 2865, 2866)

Internet

STUN/NAT traversal (RFC 3489)

Firewall security via:

NAT (Network Address Translation)
 Policy and service-based filtering
 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
 DNS support
 Port forwarding
 Port translation
 VPN(IPSec/PPTP/L2TP) support

System

Management

WEB interface accessible from LAN and WAN (HTTP/HTTPS), the WAN management access can be switched off
 User rights management service
 Password control
 SNMP Support
 Remote diagnostics & software upgrade
 Download/restore configuration
 Reset button with factory reset option
 Custom Language Pack
 3PCC – API (ActiveX) for developing programs which will control and manage calls to/from Quadro (for hotels, medical/law offices, consulate etc.)

Diagnostics/Testing

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

Environmental

Physical Dimensions

Desktop devices, wall-mountable:
 Measurements: 10.04" x 8.27" x 1.77"
 (25.5 x 21.0 x 4.5 cm)
 Weight: 22.6 ounces (640 g)
 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
 Output 12.0 VDC; 1.5 A

Regulatory Compliance

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

