



## ➔ **TOPEX Qutex** GSM Gateway

Advanced Media Gateway with large capabilities for interconnection of a wide range of mobile networks

VoIP PRI GSM gateway

Friendly user administration interface

### ➔ **Benefits**

- Conversion of PSTN and IP calls into mobile calls
- Least Cost Routing
- Multiple voice codecs

### ➔ **Main Features**

- Depending on your communication needs this equipment can be :
  - IP GSM gateway
  - E1 to mobile networks gateway
  - IP PBX when upgraded to softswitch (with a possibility to manage 300 subscribers)
  - SMS gateway
- Capacity:
  - 1 VoIP Card; H323 and SIP - supported; 8-16-30-60 voice channels
  - 2 PRI trunks
  - up to 20 GSM/UMTS/CDMA channels
  - ISDN, SS7, R2, R1.5, - signaling protocols supported



Qutex is a VoIP GSM Gateway that enables direct routing between IP, digital, analog and GSM networks. Companies can significantly reduce their communication expenses especially the money they spend on calls from IP to GSM.

Based on its advanced Least Cost Routing functions, the gateway can choose from a range of up to 10 different routes, selecting the most appropriate depending on multiple algorithms.

## Features

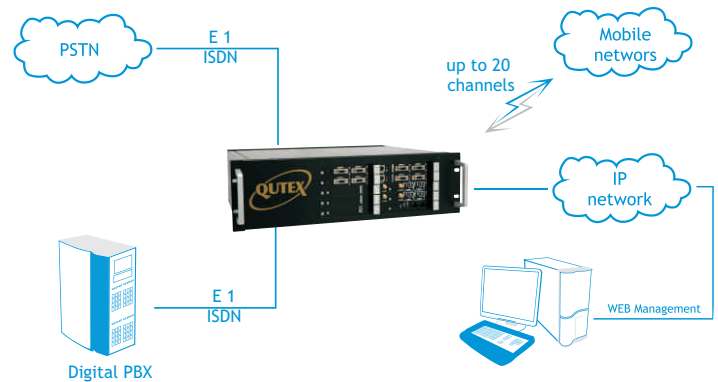
- Number portability integrated database
- SMS to E-mail and SMS from WEB
- Call-back capabilities
- Least Cost Routing by: prefix, time and date; card/port usage (load balancing); number portability information
- Working 24 hours per day 7 days per week with HOTSWAP system allowing for hardware swapping and software updates while running
- Billing: persistent, easy to access
- Alarms by e-mail, SMS or phone call, configurable for low ASR and or hardware failures
- Detailed billing information - CDR (Call Detail Records)
- Advanced O.A.M. system, accessible from any modern browser over IP or from proprietary O.A.M. program via IP, dialup or serial port
- Full control (root access): troubleshoot, update software, and customize/extend system
- Live traffic monitoring: ASR, ACD
- You may connect to the embedded Linux via SSH
- Support for PRI, IP & GSM at the same time

## Technical Specifications

Product name:	TOPEX Qutex
Mechanical construction:	19", 3U Cabinet
E1 trunk card:	Available with one or two E1 trunks on board 30 PCM channels, Traffic 2 Mbps Standard G.703, G.704 ITU-T
Line code:	HDB3 with or without CRC
Connector:	RJ-45
Impedance:	120 Ohm standard impedance
Audio compression:	A and $\mu$ - Law
Processor card:	One Ethernet 10/100-Base T port Two COM (RS232) ports; one may be configured as dial-in PPP server
Mobile networks card:	Version 1: 2 x cellular modules with 4 SIM cards per module Version 2: 4 x cellular modules with 4 SIM cards per module
Mobile frequencies:	Quad Band GSM: 850/900/1800/1900 MHz TriBand UMTS: 850/1900/2100 MHz TriBand CDMA: 450/800/1900 MHz

## Applications

- Fixed mobile convergence
- Gateway between legacy PSTN infrastructure and VoIP
- Gateway between Mobile Networks and VoIP
- Small capacity softswitch
- Emergency communication center solution
- Enterprise hybrid telephony solution
- IP telephony for Triple Play Solutions



VoIP card:	4 RJ45 Ethernet connectors 10/100 Base-T 8,16,30 or 60 concurrent voice calls
Supported voice codecs and modulation:	G.711 A and $\mu$ , G.723.1, G.729a, G.729b, G.729ab
Signalling protocols supported:	PSTN: R2 or DTMF; Q.421/422; Q.411/412; SS7 associated/non-associated mode; ISDN with QSIG, DSS1, Q.931 R1.5 signalling for CIS countries  VoIP: H323, SIP, RTP, RTCP, SIGTRAN, SRTP, TLS
Power supply:	Input: 100-120Vca/6.0A or 200-240Vca/3.5A/50-60 Hz
Antennas for GSM:	Different individual antennas or collective splitter antenna
Dimensions (L x W x H):	477 x 131 x 300 mm
Operating temperature range:	5° to 50° C
Humidity:	10 to 80 %, non-condensing