



## TVP-224HR 4-Port VoIP Gateway Router

The TRENDware TVP-224HR is an integrated voice / data networking device combining a Voice over IP (VoIP) gateway with a NAT router providing for Toll Class voice quality, IP Sharing and manageability from a single, intuitive yet powerful user interface. The TVP-224HR VoIP Gateway Router is an H.323 Standards Compliant Gateway with 4 analog telephony ports (2 FXS and 2 FXO) allowing for up to 4 concurrent voice connections. This combination of analog telephony ports gives users the flexibility of making direct VoIP calls via analog phone/fax device or through PBX/CO lines respectively.

### FEATURES

- Supports up to 4 channels of real-time concurrent voice and / or fax communications.
- Built-in 4 x 10/100Mbps Auto-MDIX RJ-45 LAN Port; 1 x 10/100Mbps Auto-MDIX RJ-45 WAN Port
- Dynamic IP/ PPPoE client support ; DHCP Server and client support
- Support dynamic bandwidth management and QoS
- Support packet filter and basic firewall functions
- Dynamic DNS, Virtual Server, Port Forwarding and DMZ support
- Modular design to accommodate various types of telephony interfaces.
- Field programmable CP tone detection and generation to support PBX and CO line interconnections.
- Supports programmable line interfaces with country specific telephone settings.
- Supports ITU standard voice codecs and voice processing algorithms including G.711, G.723.1, and G.729 A/B, and G.168 Echo Cancellation as well as Fax T.30 and T.38
- Intuitive management interfaces (Web, Telnet and Console) ensures rapid deployment / reduces demands on MIS resources.
- Network administrators can remotely monitor and perform routine maintenance / trouble-shooting via Internet browser or telnet session.
- H.323 standard v.3 compliant (including H.323 fast-start mode) ensure interoperability with 3rd Party H.323 Standards Compliant Devices.
- Built-in TFTP and Flash memory for firmware download and upgrade via network
- Supports Dynamic DNS for deployed in a dynamic IP environment
- Bulk Call successful rate over 99.98%
- 5-Year Warranty

### BENEFITS

#### Easy Implementation:

Intuitive, user-friendly, yet powerful management interface (Web / Telnet / console), that can dramatically reduce IT personnel resource requirements, and complete VoIP deployment in a short time.

#### Cost Reducing

Eliminate cost of long distance calls and pay for local calls only.

#### Traffic Control:

Integrate Voice and Data and Controls network traffic with QoS, DMZ, and Virtual Server.



**MEDIA**net

# TVP-224HR

## 4-Port VoIP Gateway Router

### TECHNICAL SPECIFICATIONS

#### Telephone Interface

<b>Physical interface</b>	• Desktop with 4 Analog Ports - Loop start 2 x FXO (RJ-11)    - Loop start 2 x FXS (RJ-11)
<b>Programmable line interfaces</b>	• Complex line impedance
<b>Protocols</b>	• H.323v3 (Normal/fast-start mode)    • Supports gateway-gateway direct routing and gateway-gatekeeper assisted routing mode
<b>Voice coders support</b>	• ITU-T G.711 u-law, G.723.1, and G.729A/B, auto-switching (Frame-rate/packet: 1 - 8)
<b>Fax</b>	• Supports T.30 G3 fax on PSTN Interface; ITU-T T.30 fax spoofing; ITU-T T.38
<b>Simultaneous connections</b>	• 4 channels voice/fax
<b>Media processing</b>	• Gain control; G.168 echo cancellation (16 ms); Voice activity detection (VAD); Comfort noise generation (CNG); Call progress detection; DTMF detection/filtering/regeneration (H.323v3/IMTCv1)

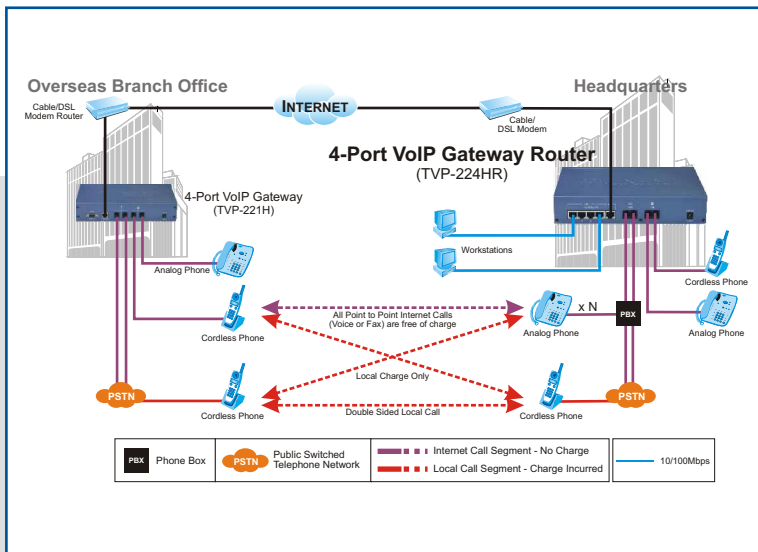
#### Data Network Interface

<b>Physical interface</b>	• WAN: 1 (10Base-T/100Base-TX, Auto-Negotiation)    • LAN: 4 (10Base-T/100Base-TX, Auto-Negotiation)
<b>Protocols</b>	• TCP/IP, DHCP, HTTP, DNS
<b>Advanced Function</b>	• QoS, Virtual Server, Port Forwarding Special application, DMZ, DDNS

#### System

<b>Call Control</b>	• Built-in three-tier dialing plan and destination hunting    • Supports gatekeeper authorization and accounting • Supports gatekeeper call routing control and gateway mapping    • Call accounting information on gateway (via RS-232) or gatekeeper
<b>Management</b>	• RS-232 (DCE mode)    • Built-in HTTP Web-based remote management    • Telnet remote management
<b>System upgrade</b>	• Flash memory and built-in TFTP allowing firmware and feature upgrade via network
<b>Chassis</b>	• Metallic 9.5" Desktop
<b>Dimensions (L X W X H)</b>	• 241 x 135 x 45 mm (9.5 x 4.3 x 1.8 inches)
<b>Weight</b>	• 1.9 kg (4.2 lb)
<b>LED Indicators</b>	• System: 2 PWR, CPU    • WAN: 1, LNK/ACT    • LAN: 4, LNK/ACT    • Voice: 4 In-Use/Ringing
<b>Interoperability</b>	• Microsoft NetMeeting*; Cisco AS5300, 3600; RADVISION gatekeeper; Cisco gatekeeper
<b>Input Voltage, AC</b>	• 90-260 VAC, auto ranging, 50-60 Hz
<b>Power Requirement</b>	• 12V DC, 2A
<b>Operating environment</b>	• Operating temperature: 0° ~ 50° C (32° ~ 122° F)    • Humidity: 90% (non-condensing)
<b>Certifications</b>	• CE; FCC, UL

### NETWORKING SOLUTIONS



### ORDERING INFORMATION

**TRENDware International, Inc.**  
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 Email: [sales@trendware.com](mailto:sales@trendware.com)

To Order Please Call:  
**1-888-326-6061**

# TVP-224HR

## 4-Port VoIP Gateway Router

### TELEPHONE LINE MODULE SPECIFICATIONS

#### FXO Ports

Signaling	• Loop start/DTMF
Number of channels	• 2
Interface connectors	• 2 RJ-11 2-pin modular jacks
Line impedance	• 600 $\Omega$ ;900 $\Omega$ ;Complex line impedance
Insertion loss	• 2 dB nominal
Frequency response	• 300 Hz ~ 3400 Hz +/- 2 dB w.r.t. 1004 Hz
Return loss	• $\geq$ 18 dB
Input level adjustment	• -6 dB to +6 dB
Output attenuation	• 0 dB to 13 dB
Longitudinal balance	• $\geq$ 45 dB
Disconnect detection	• Loop current; Customizable tone detection

#### FXS Ports

Signaling	• Loop start/DTMF
Number of channels	• 2
Interface connectors	• 2 RJ-11 2-pin modular jacks
Line impedance	• 600 $\Omega$ ;900 $\Omega$ ;Complex line impedance
Insertion loss	• 2 dB nominal
Frequency response	• 300 Hz ~ 3400 Hz +/- 2 dB w.r.t. 1004 Hz
Return loss	• $\geq$ 18 dB
Input level adjustment	• -6 dB to +6 dB
Output attenuation	• 0 dB to 13 dB
Longitudinal balance	• $\geq$ 45 dB
Loop current	• 25 mA nominal
Ring voltage	• 40 Vrms nominal
Ringing tone	• 16.67 Hz, 20 Hz (default), 25 Hz or 50 Hz
Disconnect detection	• Loop current

### PACKAGE CONTENTS

• TVP-224HR	• Quick Installation Guide
• Cat 5 Cable (1.8m/6ft.)	• RS-232 Cable
• CD-ROM (User's Guide)	• Power Adapter (12V DC, 2A)

### RELATED PRODUCTS

<b>TVP-221H</b>	• 4-Port VoIP Gateway
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