



## DATA SHEET

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# Polycom® OBi504vs

## 4 port VoIP Adapter connects small business analog phones to the digital voice communications world

Polycom OBi504vs expands your service portfolio by enhancing the communication possibilities of small businesses with flexibility in voice, fax, modem and SIP trunking applications as they transition to the digital communications world. Small businesses can maximize their current investment in analog phone and fax machines plus experience the benefits of up to nine VoIP services and one POTS (Plain Old Telephone Service) subscription\*. Users can make and receive phone calls and faxes with built-in full-matrix switching amongst available services and ports that bridges mobile, fixed line and internet telephone services. OBi504vs supports the T.38 fax standard for reliable fax over IP.

### Provide your customers new capabilities

With OBi504vs, the communication possibilities go beyond simply connecting up to eight analog phone, fax machines or modems to VoIP services. Equipped with one Gig-E port and three fast ethernet ports, OBi504vs can be configured for use as a router or switch, or to be used as a backup WAN port as an internet access failover. Use the audio line-in to add hold music to calls or the audio line-out for paging system capabilities. OBi504vs also features USB ports to extend its capabilities for telco and Bluetooth applications.

### Simplify deployment and on-going support with Polycom OBiTALK

Polycom's OBiTALK device management platform will help you save time and hassle by being able to access the device without the need to get behind the customer's on-site network. With support for the OBi504vs, OBiTALK lets you provision the device to meet your customer specifications or update them from anyplace with a connection to the Internet. Provide best in class support to your customers by quickly identifying issues and remotely troubleshooting devices.

The Polycom OBiTALK is a reliable, secure, cloud-based, out-of-band management interface designed for massive scale zero-touch device bootstrapping, configuration customization, and provisioning. Polycom OBiTALK also provides for in-service device management and troubleshooting, with functionality including device logging, packet capture, and call QoS and status reporting.



### Key benefits

- Expand your service portfolio by offering flexible voice and fax applications to small businesses
- Easily configure and roll-out services and provide on-going fast support with the OBiTALK cloud-based management platform
- Connect up to 8 analog phones, fax machines, or modems and stack up to 4 OBi508vs devices to cater to higher density analog voice adapter applications
- Features three USB ports to extend capabilities for telco and Bluetooth applications
- Audio line-in lets you add hold music and audio line-out adds paging system capabilities

\*Requires Polycom OBiLINE USB FXO adapter

## Product specifications

### Product requirements

- Active Internet Connection
- Analog Touch Tone Phone
- Access to Internet Via a Switched Ethernet Port on Home or Office Router
- (Optional) Active Internet Phone Service Subscription with All Required SIP Credentials to Make and Receive Calls

### General

- CPU: 1.6GHz 32-bit ARM
- Memory: 256 MB
- Flash Storage: 32 MB

### Interface features

- Ethernet: 1 x Gigabit Ethernet Port (802.3), 3 x 10/100BaseT Ethernet Port (802.3)
- Phone: 8 x RJ-11 FXS Analog Phone Port
- USB: 3 x 2.0
- Audio: 1 x 3.5mm Line-in, 1 x 3.5mm Line-out
- Reset Button: Located on Rear of Case
- LEDs: Power/Status, Ethernet Activity 1-4, Phone Port 1-8
- LED Indications: Power On, Ethernet Activity RX/TX, Status, Upgrade-in-Progress Status, Phone Port 1-8 Status

### Telephony features

- Call Routing Rules
- Automated Attendant with Configurable Answer Delay
- PIN Access Control to AA (Up to 4 PINs)
- Recursive Digit Map for Call Routing (AA, Phone, Voice Gateways, Trunk Groups)
- AA Configurable Outbound Call Routing Rules
- SIP Service Configurable Inbound Call Routing Rules
- Fax Pass Through (G.711)
- T.38 Fax Relay for Fax over IP
- Modem Pass Through (G.711)
- In-Band DTMF (G.711)
- Out of Voice Band DTMF (RFC 2833)
- Out of Voice Band DTMF (SIP INFO Method)
- Call Progress Tone Generation
- Tone Profile per SIP SP and OBiTALK Service
- Ring Profile per SIP SP and OBiTALK Service
- Star Code Profile per SIP SP and OBiTALK Service
- Full Duplex Audio
- G.165, 168 Echo Cancellation

- VAD—Voice Activity Detection
- Silence Suppression
- Comfort Noise Generation
- Three Way Conference Calling with Local Mixing
- Hook Flash Event Signaling
- Flash Hook Timer
- Caller ID—Name and Number per Bellcore, ETSI, DTMF, and NTT
- MWI—Message Waiting Indicator
- Visual Message Waiting Indication (VMWI)
- Daylight Savings Time Support—Worldwide
- Caller ID Enable /Disable
- Caller ID Number
- Caller ID Name (Alphanumeric)
- Caller ID Spoofing
- Call Waiting
- Maximum Session Control
- Call Forward—Unconditional
- Call Forward on Busy
- Call Forward on No Answer (Ring Count Configurable)
- Call Transfer Enable/Disable
- Anonymous Call Block
- Anonymous Call
- Do Not Disturb
- Call Return
- Repeat Dialing
- Customizable Music On Hold

### Data networking

- MAC Address (IEEE 802.3)
- UDP (RFC 768) in SSL/TLS
- TCP (RFC 793) in SSL/TLS
- IP version 4, IPv4 (RFC 791)—Static IP and DHCP Support
- ICMP (RFC 792)
- ARP—Address Resolution Protocol,
- Domain Name System (DNS) A Records (RFC 1706) and SRV Records (RFC 2782) RTP (RFC 1889, 1890), RFC 5966
- RTP/RTCP (RFC 1889), DHCP Client (RFC 2131)
- DiffServ (RFC 2475)—Independently Configured: Service, SIP and Media,
- ToS (RFC 791, 1349)—Independently Configured: Service, SIP and Media,
- VLAN Tagging (802.1p)—Independently Configured: Service, SIP and Media,
- SNTP (RFC 2030)—Primary and Secondary NTP Servers
- LLDP-MED

### Security

- Local Access Interface: IVR Password
- Remote Access Interface: User Name and Password Access via HTTP, TFTP—HTTPS
- Device Web Page Standard: HTTP v1.1, XML v1.0
- Secure Remote Provisioning: HTTP, HTTPS

### VoIP features

- Nine (9) Service Provider Configuration Profile Assignments (SP 1–9)
- Ten (10) Service/Trunk Subscription Profile Assignments (SP 1–9)
- Four (4) Hunt Groups
- SIPv2 (RFC 3261, 3262, 3263, 3264)
- SIP over UDP
- SIP over TCP
- SIP over TLS
- 32 SIP Service Provider Service Sessions—Concurrent Operation
- 1 OBiTALK Service Session
- SIP Proxy Redundancy—Local or DNS Based SVR, Primary and Secondary Fallback List Restrict Source IP Address
- Maximum Number of Sessions—Independent per Service
- Voice Gateway—Direct Dialing
- G.711 A-Law (64 kbps)
- G.711  $\mu$ -Law (64 kbps)
- G.726 (32 kbps) G.729a (8 kbps) iLBC (13.3, 15.2 kbps) Codec Pre-selection Code
- Voice Processing per SIP Service—TX/RX Audio Gain, Echo Cancellation
- Adjustable Audio Frames per Packet
- Codec Name Assignment
- Codec Profile per SIP SP and OBiTALK Service
- Dynamic Audio Payload
- Packet Loss Concealment
- Jitter Buffer (Adaptive)
- STUN
- ICE
- SUBSCRIBE/NOTIFY Framework (RFC 3265)
- NOTIFY Dialog, Line Status
- SUBSCRIBE Message Summary
- VoIP NAT Interworking
- DATE Header Support
- Remote-Party-ID (RPID)
- P-Asserted-Identity (PAID)
- RTP Statistics in BYE Message and SIP PUBLISH with MOS Score

**Power**

- Universal Switching with Plug Pigtail (Region Dependent)
- AC Input: 100 to 240 Volts 0.3A 50–60Hz (26-34 VA)
- DC Input: +12V 5.0 Amp Max

**Management—Configuration**

- Local Access Interface: IVR, Web Page—Password Protected (Admin and User Level Log-in)
- Remote Access Interface: Syslog (Multi-Level Granularity), Invokable via SIP Notify, Web, Provisioning
- Device Web Page Standard: HTTP v1.1, XML v1.0
- Remote Provisioning: XML via TFTP or HTTP, (TR069/TR104 Parameter Naming Syntax)
- Secure Remote Provisioning: HTTPS, Encrypted XML via HTTP or TFTP—Dedicated User Name and Password
- Secure Remote Firmware Update: Encrypted Binary File via TFTP or HTTP + Dedicated User Name and Password
- Customization: OBiTALK Zero-Touch Customization and Configuration
- Call History (CDRs): Call Detail Records on OBi Web Page, Export to XML
- LED Indications: Power, Device Status, Upgrade Progress Status, Ethernet Activity, PHONE Status
- Session Information: SIP Session Status, OBiTALK Status, Phone Port Status
- Primary SIP Service Set-Up Wizard: Dedicated Device Web Page for Quick ITSP Account Set-Up
- System Settings Back-Up/Restore: Save and Restore Configuration via XML file to/from a Local Folder

**RTP Statistics**

- RTP Transport Type
- Audio Codec Type (Tx/Rx)
- RTP Packetization—in multiples of 10ms (Tx/Rx)
- RTP Packet Count (Tx/Rx)
- RTP Byte Count (Tx/Rx)
- Packets Out-Of-Order
- Packets Interpolated
- Packets Late (Dropped)
- Packets Lost
- Packet Loss Rate %

- Packet Drop Rate %
- Jitter Buffer Length—ms
- Received Interarrival Jitter—ms
- Jitter Buffer Underruns
- Jitter Buffer Overruns

**Call Progress**

- Configurable Call Progress Tone
- Call Progress Tone Profiles (2)
- Dial Tone
- Busy Tone
- Ringback Tone
- Reorder Tone
- Confirmation Tone
- Holding Tone
- Second Dial Tone
- Stutter Tone
- Howling Tone
- Prompt Tone
- Call Forwarded Tone
- Conference Tone
- SIT Tones (1–4)
- Ringing and Call Waiting Tone Configuration
- Ring Patterns (10)—Configurable
- Call Waiting Tone Patterns (10)—Configurable
- Call Waiting Tone Pattern Profiles (2)
- Star Code Configuration
- Configurable Star Codes
- Star Code Profiles (2)
- Redial
- Call Return
- Activate Block Caller ID
- Deactivate Block Caller ID
- Block Caller ID Once
- Unblock Caller ID Once
- Activate Call Forwarding (All Calls)
- Deactivate Call Forwarding (All Calls)
- Activate Call Forward on Busy
- Deactivate Call Forward on Busy
- Activate Call Forward on No Answer
- Deactivate Call Forward on No Answer
- Activate Block Anonymous Calls
- Deactivate Block Anonymous Calls
- Activate Call Waiting
- Deactivate Call Waiting
- Activate Do Not Disturb
- Deactivate Do Not Disturb
- Activate Repeat Dial
- Deactivate Repeat Dial

**FXS SLIC (Subscriber Line Integrated Circuit): Phone Port**

- Ringer Specifications: Ring Frequency: 14Hz–68Hz, Ring Waveform: Trapezoidal, Sinusoidal, Ring Voltage: 55v–85v
- Maximum Ring Load: 5 REN (Ringer Equivalence Number) per Phone Port

**FXS (PHONE Port) Configuration Settings**

- Recursive Digit Map and Associated Outbound Call Routing
- On-Hook Tip Ring Voltage: 30v–52v
- Off-Hook Current Max: 15mA–45mA
- Impedance: 12 Independent Settings
- DTMF Playback Level: –90 dBm–3dBm
- Caller ID Method: Bellcore, ETSI (FSK or DTMF)
- Caller ID Trigger (Before/After First Ring, Polarity Reversal)
- Channel Tx Gain: –12dB to 6 dB at 1 dB Resolution
- Channel Rx Gain: 12dB to 6 dB at 1 dB Resolution
- Silence Detect Sensitivity
- Hook Flash Time Max
- Hook Flash Time Min
- CPC Delay Time
- CPC Duration
- Idle Polarity
- Connect Polarity

**Polycom OBi504vs ships with:**

- OBi504vs Universal Voice Adapter
- Power Adapter
- 1 x RJ-45 Ethernet Cable (80 inches/203 centimeters)
- 19" Rack, Wall and Desktop Rack Mounts
- Quick Start/Installation Guide

**Warranty**

- 1 year Hardware (Limited)

**Product dimensions (L x W x H)**

- 27 cm x 16.5 cm x 4.5 cm (10.6 in x 6.5 in x 1.8 in)

**Weight**

- Unit weight: 1.25 kg/2.76 lbs
- Shipping weight: 1.59 kg/3.5 lbs (Including Power Supply, Ethernet Cable, Rack Mounts, and Packaging)

### Learn more

Visit [www.polycom.com/voip](http://www.polycom.com/voip) to learn more about our VoIP products.

### About Polycom

Polycom helps organizations unleash the power of human collaboration. More than 400,000 companies and institutions worldwide defy distance with video, voice and content solutions from Polycom. Polycom and its global partner ecosystem provide flexible collaboration solutions for any environment that deliver the best user experience and unmatched investment protection.

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