

## Product Overview

VISION Digital Media Center is an advanced customer premises equipment (CPE) device for delivering streaming audio, video, and data directly to consumers' TV sets and/or Home Entertainment systems. VISION STB supports advanced MPEG4 video and MP3 audio compression algorithms and can deliver content streams with optimal quality over networks with limited bandwidth. Besides audio and video, VISION's STB also offers advanced Voice-over-IP capabilities, which enable consumers to make inexpensive phone calls over the Internet. Additional services supported by VISION STB include video conferencing, chat, email, news, local weather information, program scheduling, video recording, voicemail and many more.

use third party servers such as Registrars, Proxies, or Gateways.

## IPTV and Video-on-Demand Support

VISION STB Digital Media Center can deliver high quality video streams including online TV (IPTV) and Video-on-Demand directly on consumers' TV screens. The device supports the most recent MPEG4 compression technology which enables it to deliver optimal video quality even in networks with limited bandwidth.

## Digital Music and Internet Radio Delivery

In addition to video capabilities, VISION STB Digital Media Center can also receive streaming audio content, enabling users to enjoy digital music and internet radio channels. The device supports high compression MP3 algorithm for maximum quality of the delivered audio streams.

## VoIP SIP Phone with Peer Auto Discovery

VISION STB Digital Media Center features advanced VoIP phone which allows users to make cheap calls over the Internet. The device is able to automatically detect peer VISION STB devices located within the same local network which enables users to dial directly their friends/colleagues and talk for free.

## Video Conference H.263 Support

VISION STB Digital Media Center features advanced Video Conferencing capabilities which enable subscribers to conduct high-quality video conversations with friends and family. To initiate a video conversation, subscribers simply dial the phone number of another VISION STB subscriber and enter a video conferencing mode which utilizes the H.263 standard.

## Media Extension Center Functionality

With VISION STB consumers can access content from their PC directly on their TV screens. The device can scan the home computers for different media files, like movies, videos, sound tracks, pictures etc. and provide consumers access to them directly on their TV screens.

## Enhanced Voicemail System with Unified Messaging

VISION STB Digital Media Center features an enhanced voicemail system capable of storing up to 80 messages which can be retrieved via phone or web. The device also supports unified messaging and can forward received voicemails to an email address for added user convenience.

## Online Chat and Email Clients

VISION STB enables consumers to communicate with friends and families while watching their favorite TV shows. The device offers a universal chat client that can communicate directly with the popular ICQ, AOL, and MSN clients. VISION STB also has embedded email server which allows users to check and send email directly from their TV screens.

## News and Weather Reports Delivery

In addition to audio and video capabilities, VISION STB can deliver news and weather reports directly to consumers' TV screens. Such functionality is highly valued by users who do not have computers at their homes but want to stay abreast of recent news and weather conditions.

## Optional PVR and Program Scheduling

With optional hard disk connected via USB port, VISION STB offers to consumers the capability to record their favorite TV shows and/or movies. The program scheduling functionality enables users to program the device to record content at specific times of day, week or month so that they never miss their favorite TV shows.



*The Ultimate Viewing Experience*

# Set-Top-Box



## Key Features

- IPTV and Video-on-Demand Support
- Digital Music and Internet Radio Delivery
- VoIP SIP Phone with Peer Auto Discovery
- Video Conference H.263 Support
- Media Extension Center Functionality
- Enhanced Voicemail System with Unified Messaging
- Online Chat and Email Clients
- News and Weather Reports Delivery
- Optional PVR and Program Scheduling

## Features

### Audio and Video Features

- IPTV Streaming
- Content Distribution via HTTP/TCP Unicast
- Content Distribution via UDP Unicast and/or Multicast
- Video on Demand (VOD) Support
- Pay-per-View (PPV) Support
- Trick Play Support (Pause, Replay, Rewind, etc.)
- Digital Audio Streaming (Online Radio)
- Picture Slide Show
- Show Scheduling and Optional Recording
- Parental Control
- Content Library Support for Remote PC
- Low Bit Rates Support
- Optional Personal Video Recorder (PVR)
- Optional Time Scheduling of the PRV

### Value-Added Features

- Chat Client Compatible with ICQ, AOL, and MSN
- Email Reader
- News Reader
- Weather Interface
- Calculator
- Currency Converter

### VoIP Telephony Features

- Four VoIP Phone Lines
- SIP Protocol with NAT Traversal
- Peer Auto Discovery
- Standalone IP Centrex/PBX Functionality
- Call Waiting, Call Forward, Call Hunting
- Automated Call Forwarding to Multiple Numbers
- Advanced IVR Support and Management
- Auto Attendant Support
- Voice Encryption
- Wake-Up Phone Service

### Voicemail (IVR) Features

- Calling Card IVR Support
- Up to 80 Messages Stored Locally
- IVR System Management
- Voicemail Auto Attendant
- Voicemail to Email Support
- Voicemail HTTP Download
- Unified Messaging
- Voicemail Notification
- Remote HTTP Web Management

### Provisioning, Administration, and Maintenance

- Web Browser Administration and Configuration (via integrated web server)
- Telephone Keypad Configuration with Interactive LCD Text Prompts
- Automated Secure Provisioning and Upgrades via HTTP
- Asynchronous Notification of Upgrade Availability
- Automated Firmware Upgrade
- Automated Clock Synchronization
- Non-Intrusive, In-Service Upgrades
- Report Generation and Event Logging
- Per Line and Purpose Configurable System Log and Debug Options
- HTTPS with Factory Installed Client Certificate
- HTTP Digest Encrypted Authentication via MD5 (RFC 1321)
- Password Protected Admin and User Access
- Up to 256 bit RCS or RC4 Encryption
- Device Locking

### IP Centrex/PBX Features

- Inbound Call Filtering
- Direct Inward Dial (DID)
- Speed 2-digit Dialing
- Anonymous Call Rejection
- Call Forward All Calls
- Call Forward Busy
- Call Forward No Answer
- Managed Call Forward
- Blind Call Forward
- Call Return
- Caller ID
- Caller ID Block
- Caller Name
- Call Waiting
- Caller ID for Call Waiting
- Last Call Redial
- Last Inbound Call Return
- Distinctive Ring
- Do Not Disturb (DND)
- Forward to Voicemail
- Hold Call
- 3-way Conference
- Permanent Caller Block
- Priority Call
- Call Screening
- Urgent Call
- Virtual Ring
- Music-on-Hold
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### Technical Specifications

#### Connectors

- One FXO (RJ-11)
- One FXS (RJ-11)
- One Ethernet (RJ-45)
- One USB 1.1 (Type A)
- One SD (Secure Digital) Card Interface
- One Video RCA Analog Port
- One Stereo Audio RCA Analog Port
- Infra Red (IR) Remote Control Interface
- Optional WiFi/Wireless 2.4 802.11b Interface
- Optional USB Drive Interface
- Optional Three FXO (RJ-11)

#### Codecs

- G.711 (A-Law and Mu-law)
- G.726 (16/24/32/40 kbps)
- G.729
- MPEG4/SP
- MP3
- AAC

#### Data Networking

- MAC address (IEEE 802.3)
- IPx4 - Internet Protocol Version 4 (RFC 791) upgradeable to v6 (RFC 1883)
- ARP - Address Resolution Protocol (RFC 826)
- DNS - A Record (RFC1706), SRV Record (RFC 2782)
- DHCP - Dynamic Host Configuration Protocol (RFC 2131)
- ICMP - Internet Control Message Protocol (RFC 792)
- TCP - Transmission Control Protocol (RFC 793)
- UDP - User Datagram Protocol (RFC 798)
- RTP - Real Time Protocol (RFC 1889)

# VISION Specifications

#### Voice Gateway

- SIP v2 - Session Initiation Protocol Version 2 (RFC 3261, 3262, 3263, 3264)
- SIP Proxy Redundancy - Dynamic via DNS SRV, A Records
- Re-registration with Primary SIP Proxy Server
- Secure (Encrypted) Calling via Pre-Standard Implementation of Secure RTP
- Codec Name Assignment
- Dynamic Payload
- Adjustable Audio Frames per Packet
- DTMF: In-band and Out-band (RFC 2833)
- Flexible Dial Plan Support with Interdigit Timers and IP Dialing
- Call Progress Tone Generation
- Adaptive Jitter Buffer
- Frame Loss Concealment
- Full Duplex Audio
- Echo Cancellation - (G. 165/G.168) up to 128ms
- VAD - Voice Activity Detection w/ Silence Suppression
- Attenuation / Gain Adjustments
- Flash Hook Timer
- MWI - Message Waiting Indicator Tones
- VMWI - Via FSK
- Polarity Control
- Hook Flash Event Signaling
- Caller ID Generation (Name and Number) - Bellcore, DTMF, ETSI
- Music on Hold Client (Downloadable MOH Content)

#### Power

- 5V, 2A - External

#### Dimensions

- 6" (W) x 1.5" (H) x 3" (D)

#### CONTACT INFO

VISION Telecommunications

Email: [sales@visiontelecom.net](mailto:sales@visiontelecom.net)

Ph: 1300 663 779

Fx: 1300 305 869

Web: <http://www.visiontelecom.net>