



ZvPro™ 250 - HD Video Distribution Breakthrough Price and Simplicity

Create your own HDTV cable channel and broadcast
HD content using easy to deploy coax wiring

AN INDUSTRY FIRST

A single 1RU package that
delivers.....

A/V CAPTURE

- Two separate video input paths, VGA and Component
- Input selection via RS-232, IR, USB or front panel
- 1080, 720 and 480 on Component input
- Up to 1680x1050 on VGA
- Digital and Analog Audio
- All inputs buffered and looped through

HD MPEG2 ENCODING

- Full 19.4 Mbps sustained average encoding rate
- 1080i and 720p encoding
- Dolby Digital® encoding on PCM inputs, pass-through of encoded audio input
- User-settable program information

RF MODULATION / CHANNEL UPCONVERSION

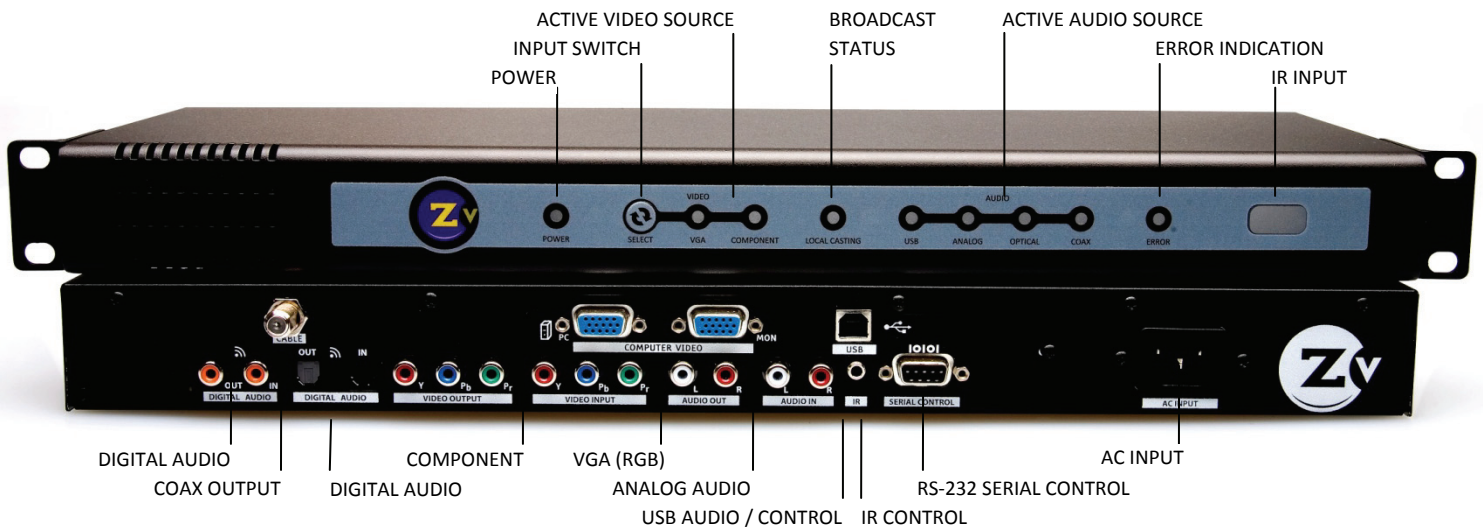
- Well-formed QAM 256 6Mhz channel, inserted onto any blank channel
- Frequency agile from 50 to 900Mhz (Channels 2-141)
- Built-in spectrum analyzer for scanning the entire cable spectrum for other channels
- Supports STD, HRC or IRC cable standards



ZvPro™ 250 front and rear view. Optional rack mounts shown

ZvPro 250 revolutionizes the way HD video is distributed on-premise. Based on the same technology used by TV stations and cable companies, ZvPro 250 makes it affordable to create an HDTV channel and distribute it over simple to use COAX wiring to every on-premise HDTV. Since the ZvPro 250 creates a standard QAM cable channel, it can be received by practically any off-the-shelf HDTV without requiring an additional box at the TV.

- **Works with any HD video source** - simply connect any computer, DVD player, set top box or any other device with an HD video output to ZvPro 250 and your new HDTV channel pours out onto the COAX wiring.
- **Multiple channels** - ZvPro boxes can be combined to distribute many HD channels on-premise, on the same simple to deploy COAX cabling.
- **No matrix switchers or proprietary wiring required** - switching between sources is as easy as tuning to a different channel at the HDTV.
- **COAX wiring** - Easily integrate and balance into new or existing MATV/SMATV RF distribution systems to add an HD Tier of Video Feeds.
- **Practically unlimited expansion** - add new channels in the future.
- **Shared resource** - easy to merge new channels together with existing off-site cable feeds.
- **Built to last** - steel enclosure, rack mounting, integral power supply, internal fan and remote management deliver easy deployment and minimal downtime.



ZvPro 250 Specifications

Video Input

Computer VGA (Analog)

- HD-15 connector
- 75 Ohm RGB 0 to 0.7V, Separate H and V sync
- Buffered and looped
- Resolutions Supported:
 - 640x480, 720x480, 800x600, 1024x768,
 - 1152x864, 1176x664, 1280x720, 1280x768,
 - 1280x800, 1280x960, 1280x1024, 1360x768,
 - 1440x900 at 60,70,72,75, 85 Hz.
 - 1680x1050 at 60 Hz

Component Video (Y, Pr, Pb)

- RCA connectors, 75 Ohm 0 to 0.7v
- Buffered and looped
- Resolutions Supported:
 - 480p 30, 60 frames per second
 - 720p 30, 60 frames per second
 - 1080i 30, 60 fields per second

Audio Input

SPDIF Digital Audio

- Physical Connections
- TOSLINK optical, buffered and looped
 - RCA 75 ohm, buffered and looped
 - USB as SPDIF audio device

Formats

- 48K bit PCM
- AC-3 Pass-through

Analog

- R / L via RCA 75 Ohm, buffered and looped
- 12-bit 48K bit sampling

Assignment

- Audio inputs can be assigned to either video input

Video Encoder

Encoder Video Profile

- MPEG2 HD Profile 2: ISO13818-2 MP@HL (1920x1080 or 1280x720)

Traffic Shaping

- Variable Bit Rate

Video Transport Bit Rate 38.78 Mbps

Video Encoding Data Rates

- Variable, 7 Mbs – 30 Mbs

Average Encoding Data Rate 19.4 Mbps

Encoding Latency - Programmable

- 70 msec to 400 msec

Color Profile - 4:2:0

GOP Size - 15

Intra DC Precision – 11 bit

Video, Audio PID - Programmable

Program Information - Programmable

Audio Encoder

Encoder Audio Profile

- Dolby Digital® AC-3
- ATSC A/52

Digital Pass-through

- Dolby Digital® (AC-3) 1-5.1 channel,
- Dolby® E, Linear PCM and DTS

RF Spectrum Analysis

Automated spectrum scanning and reporting across all channels

- Analog / Digital or Empty channel
- Channel Power
- STD / HRC / IRC detection

Modulator / Upconverter

Modulation Types

- QAM 256 (ITU-T J83 Annex B) Interleaving
- modes: (64,2) only

Cable Standard

- HRC, IRC or STD

Frequency Range

- 50 – 900 MHz (channels 2-141)
- 2 kHz resolution
- +/- 30 ppm accuracy
- +/- 35 ppm stability

Output Power

- +25 dBmV typical

Output Level Adjust

- 0 – 20 dB of attenuation in 5dB steps

MER 34 dB typical

I/Q Phase Error

- < 1% typical

I/Q Amplitude Imbalance

- < 1% typical

Amplitude Flatness

- +/- 1dB over 6 MHz typical

Control / Setup

Powerful command line interface

- RS-232 or USB
- Parameters saved in NV storage

Input Switching

- IR, RS-232, USB or Front Panel

General

Power - 100VAC to 240VAC, 50/60 Hz, 25 Watts

Cooling – Internal fan, front / back flow

Mounting

- Detachable rack-mounting ears
- Rubber feet for counter or shelf

Enclosure type - Metal

Enclosure dimensions

- 1.72" H x 17.0" W x 5.75" D
- 4.37 cm H x 43.18 cm W x 14.61 cm D

Shipping weight

- 5.5 lbs (12.13 kg)

Temperature/Humidity

- Operating +32° to +122°F (0° to +50°C) /
- 10% to 80%, non-condensing

Vibration - NSTA 1A in carton

MTBF – 30,000 hours

Compliance

- Safety UL60065
- FCC Class B

Part number ZP250-NA

Model name ZvPro 250

Warranty 3 years

Authorized Manufacturers Rep.:

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