



ZeeVee encoder/modulators convert video sources such as satellite receivers and media players into digital cable channels that can be broadcast over existing coaxial cabling to an unlimited number of HDTVs. By utilizing the HDTV's built in tuner, ZeeVee modulators completely replace the need for matrix switches, home run wiring and any devices at individual TVs.

## ZvBox® 180



Combo HD MPEG2 Encoder / QAM Modulator  
1080p / 1080i / 720p / 480p / 480i

### VIDEO INPUT

|                             |                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Component Video (Y, Pr, Pb) | RCA connectors, 75 Ohm 0 to 0.7v<br>Resolutions Supported:<br>1080p, 1080i, 720p, 480p, 480i   59.94 frames/fields per second                                                                                                                                                                                                                                                                  |
| Computer VGA (Analog)       | HD-15 connector, 75 Ohm RGB 0 to 0.7V, Separate H and V sync<br>VGA Resolutions Supported:<br>640x480, 720x480, 800x600, 1024x768, 1152x864, 1176x664, 1280x720, 1280x768, 1280x800, 1280x960, 1280x1024, 1360x768, 1440x900 at 60 70, 72, 75, 85 Hz.<br>1680x1050 and 1920x1080 at 60 Hz<br>VGA resolutions are broadcast centered in the best vertical fit into 1920x1080p30 or 1280x720p60. |

### AUDIO INPUT

|                     |                                                                                                                                      |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| SPDIF Digital Audio | Physical Connections: TOSLINK optical / RCA 75 ohm / USB as PCM audio device<br>Formats: 48k, 44.1k, 32k bit PCM / AC-3 Pass-through |
| 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 in QAM 256, 26.97 Mbps in QAM 64                  |
| Video Encoding Data Rates  | Variable, 7 Mbs – 38 Mbs                                     |
| Average Encoding Data Rate | 35 Mbps                                                      |
| Encoding Latency           | Programmable 100 msec to 400 msec                            |
| Color Profile              | 4:02:00                                                      |
| GOP Size                   | 24                                                           |
| Intra DC Precision         | 8 to 11 bit, programmable                                    |
| Video, Audio PID           | Programmable                                                 |
| Program Information        | Programmable                                                 |
| Content Watermarking       | Digital and Visual                                           |

### AUDIO ENCODER

|                       |                                         |
|-----------------------|-----------------------------------------|
| Encoder Audio Profile | ATSC A/52                               |
| Digital Pass-through  | Dolby Digital© (AC-3) 1 to 5.1 channels |

**RF SPECTRUM ANALYSIS**

Built-in spectrum scanning and reporting across all channels

Reports Analog, Digital or Open channels  
STD/HRC/IRC cable plan detection**MODULATOR/UPCONVERTER**

|                         |                                                                                                  |
|-------------------------|--------------------------------------------------------------------------------------------------|
| Modulation Types        | QAM 256, QAM 64 (ITU-T J83 Annex B) Interleaving modes: (64,2) only                              |
| Cable Standard          | HRC, IRC or STD                                                                                  |
| Frequency Range         | 50 – 850 MHz (channels 2-135)<br>2 kHz resolution<br>+/- 30 ppm accuracy<br>+/- 35 ppm stability |
| Output Power            | +25 dBmV typical                                                                                 |
| Output Level Adjust     | 5 – 25 dBmV in 1dBmV steps                                                                       |
| MER                     | 36 dB typical                                                                                    |
| I/Q Amplitude Imbalance | < 1% typical                                                                                     |
| Amplitude Flatness      | +/- 1dB over 6 MHz typical                                                                       |

**CONFIGURATION AND CONTROL**

|                           |                                |
|---------------------------|--------------------------------|
| Front Panel Configuration | Parameters saved in NV storage |
| PC software               | USB                            |
| GUI or Command Line       | Parameters saved in NV storage |
| Input Switching           | Front Panel, IR, or USB        |

**GENERAL**

|                                |                                                                            |
|--------------------------------|----------------------------------------------------------------------------|
| Power                          | 100VAC to 240VAC, 50/60 Hz, 25 Watts                                       |
| Cooling                        | Internal fan, side/back flow                                               |
| Mounting                       | Optional rack-mounting ears (included)<br>Rubber feet for counter or shelf |
| Enclosure Type                 | Metal                                                                      |
| Enclosure Dimensions           | 1.7" H x 14.8" W x 4.9" D<br>4.32 cm H x 37.6 cm W x 12.45 cm D            |
| Carton Dimensions (individual) | 5.125" H x 18"W x 9.75" D<br>13.0 cm H x 45.7 cm W x 24.77cm D             |
| Shipping Weight                | 5.07 lbs (2.3 kg)                                                          |
| Temperature/Humidity           | Operating +32F to +113F (0C to +45C) / 10% to 80%, non-condensing          |
| Vibration                      | NSTA 1A in carton                                                          |
| MTBF                           | 30,000 hours                                                               |
| Compliance                     | Safety UL60065<br>FCC Class B                                              |
| Part number                    | ZP180-NA                                                                   |
| Model name                     | ZvBox 180                                                                  |
| Warranty                       | 1 year                                                                     |

ZvSpecs\_Rev111313

For more details and sales information, visit [www.zeevee.com](http://www.zeevee.com) or call +(1) 347-851-7364