

BDM-1000 Professional Broadcast De-Modulator



The **EMCEE BDM-1000** provides a *complete solution* for Broadcast De-Modulation requirements.

The BDM-1000 is a single rack, Professional DTV Receiver/Decoder with the capability of handling SD & HD MPEG-2 4:2:0 DTV signals. Its modular design minimizes cost to the end user and allows it to be used in a wide variety of DTV applications. Seven module slots are available for end users to customize and choose the inputs and outputs that they desire, thus eliminating the extra cost & space of unwanted or unused inputs & outputs. The basic DVM-150E consists of a 1RU chassis equipped with a fan, power supply, motherboard and RS232.

RF Inputs

There are two types of receivers to choose from. The two available tuner modules are:

- 8-VSB - tunes to any VHF/UHF channel, CH2 –69
QAM - tunes to any CATV channel, CATV1-125
- QPSK – tunes to L-band frequencies
Two LED's, located on the front panel of the unit, provide the Lock Status and ATSC-PSIP detection of the RF input signal. SNR measurement is displayed on the front panel VFD as well.

Transport Stream I/O

DVB-ASI and SMPTE-310M inputs and outputs are available for those users requiring MPEG-2 transport stream I/O. The LED's, located on the front panel of the unit, also provide the Lock Status and ATSC-PSIP detection of the TS Inputs.

Video Decoding

The unit is capable of decoding MPEG-2 (4:2:0) Main Profile @ High Level, Main Profile @ Main Level, Main Profile @ Low Level and Simple Profile @ Main Level. It supports all 18 ATSC formats including 1080i, 720p, 480i & 480p video formats. Analog video options include: NTSC, S-Video, RGBHV / Y Pb Pr. Digital video options include: SDI/HDSDI. The unit also supports DTVCC & NTSC Closed Caption overlay and can decode both EIA-608B and 708B standards.

Audio Decoding

Digital and analog audio outputs are available on a variety of connector types. The unit decodes both AC-3 and MPEG-1 audio to Analog Left & Right. An additional module can be internally installed, to provide Secondary Audio Programming on any of the three types of connectors.

User Interface

All settings and controls can be viewed and set using the front panel's VFD screen and directional arrow keys. An RS-232 option is available to save time and improve ease of use.

Available Modules

8-VSB/QAM Input
QPSK Input
DVB-ASI & SMPTE-310M I/O
GigE I/O
NTSC & S-Video
RGBHV/ Y Pb Pr
SDI
HD-SDI
XLR Audio
BNC Audio
Terminal Strip Audio
RS232 Remote Control
Secondary Audio Program

Applications

- * **8-VSB to NTSC/Analog L&R**
(Converting off-air local digital Broadcast to analog to feed an existing analog modulator)
(Benefit: higher quality analog signal is delivered to viewers)
- * **8-VSB to DVB-ASI** (receiving off-air local digital broadcast and inserting them into ATSC modulator)
- * **QPSK to DVB-ASI** (receiving satellite digital broadcast and inserting them in ATSC modulator)
- * **Digital Video Decoding and Monitoring**

BDM-1000 BROADCAST DE-MODULATOR—Specifications*

General Specifications

AC Power

| | |
|-----------|-------------|
| Frequency | 47-63 Hz |
| Voltage | 90-264 VAC |
| Current | 1.2 A (max) |
| Fuse | 1.5A, 250V |

Weight

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|-------|--------|
| Net | 12 lbs |
| Gross | 15 lbs |

Operating Conditions

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|-------------|--------------------|
| Temperature | 0° - 50°C |
| Altitude | 12,000 ft. |
| Humidity | 95% non-condensing |
| Cooling | blower |

Front Panel

| | |
|---------|-------------------------------------------------------------|
| Keypad | 4 Directional Arrow Keys |
| Display | 2 lines x 20 characters VFD (Vacuum Fluorescent Display) |

User Interface

| | |
|--------|-------------------|
| Local | Front Panel |
| Remote | RS-232 (Optional) |


Dimensions

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|--------|-------|
| Height | 1.75" |
| Width | 19" |
| Depth | 18" |


Rack Space 1U

*Specifications Subject To Change Without Notice

RF Specifications

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|  <p>8-VSB/QAM Tuner Module</p> | <p>8-VSB Mode</p> <p>Tuning Range VHF/UHF CH 2 -69</p> <p>Connector 75Ω "F" type, female</p> <p>Input Sensitivity -28 dBmV to +33 dBmV</p> <p>Input Data Rate 19.392 Mbps</p> <p>Modulation Mode 8-VSB – ATSC Compliant</p> <p>FP LED Status (1) Input Lock, (1) ATSC-PSIP Detected</p> <p>QAM Mode</p> <p>Tuning Range CATV 1-125</p> <p>Connector 75Ω "F" type, female</p> <p>Input Sensitivity -28 dBmV to +33 dBmV</p> <p>Input Data Rate QAM64 - TBD QAM256 - TBD</p> <p>Modulation Mode QAM64 – Annex A QAM64 – Annex B QAM256 – Annex A QAM256 – Annex B</p> <p>FP LED Status (1) Input Lock, (1) ATSC-PSIP Detected</p> |
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Transport Stream Specifications

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|  <p>SMPTE-310M/DVB-ASI Module</p> | <p>SMPTE-310M</p> <p>Connectors 75Ω BNC, (1) Input, (1) Output</p> <p>Data Rate 19.392 Mbps</p> <p>DVB-ASI</p> <p>Connectors 75Ω BNC, (1) Input, (2) Outputs</p> <p>Input Data Rate Up to 50 Mbps</p> <p>Output Data Rates</p> <p>Input Mode – Data Rate</p> <p>Pass-thru – up to 50 Mbps</p> <p>8VSB – 19.392 Mbps</p> <p>QAM64 – TBD</p> <p>QAM256 – TBD</p> <p>SMPTE310M – 19.392 Mbps</p> |
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Specifications for other modules on request.