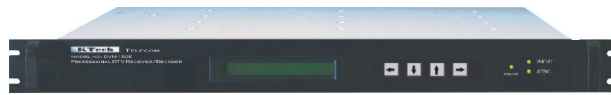


DVM-150E

Professional DTV Receiver/Decoder



Performance

The DVM-150E 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/HDSI. 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 RS232 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 carry on existing analog cable network)
(benefit: higher quality analog signal is delivered to viewers)

8-VSB to DVB-ASI (receiving off-air local digital broadcast and inserting them into digital cable system)

QPSK to DVB-ASI (receiving satellite digital broadcast and inserting them into digital cable system)

Digital Video Decoding and Monitoring

DTV Broadcast & CATV Products

21540 Prairie St., Unit B, Chatsworth, CA 91311


Phone: (818) 773-0333, Fax: (818) 773-8330, www.ktechtelecom.com



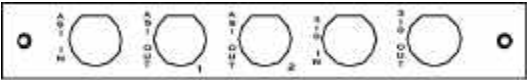
General Specifications (all specifications are preliminary and subject to change)

AC Power		Weight	
Frequency	47-63 Hz	Net	12 lbs
Voltage	90-264 VAC	Gross	15 lbs
Current	1.2 A (max)	Front Panel	
Fuse	1.5A, 250V	Keypad	4 Directional Arrow Keys
Operating Conditions		Display	2 lines x 20 characters VFD (Vacuum Fluorescent Display)
Temperature	0° - 50°C	User Interface	
Altitude	12,000 ft.	Local	Front Panel
Humidity	95% non-condensing	Remote	RS232
Cooling	blower	Rack Space	
Dimensions			1U
Height	1.75"		
Width	19"		
Depth	18"		

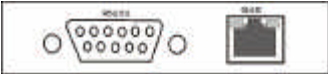
RF Specifications

<p>8-VSB/QAM Tuner Module</p> 	<p>8-VSB Mode</p> <p>Tuning Range VHF/UHF CH 2 -69</p> <p>Connector 75 ohms "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 75 ohms "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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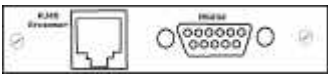
Transport Stream Specifications

<p>SMPTE-310M/DVB-ASI Module</p> 	<p>SMPTE-310M</p> <p>Connectors 75 ohms BNC, (1) Input, (1) Output</p> <p>Data Rate 19.392 Mbps</p> <p>DVB-ASI</p> <p>Connectors 75 ohms 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>Passthru – 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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GigE Transport Specifications

<p>GigE I/O Module</p> 	<p>Data Rate Up to 1 Gbps. Compliance IEEE 802.3z draft D5.0-1000BASE-SX SFP connector Supports SFPS fiber or copper. MPEG format MPEG-2 over IP, UDP based Program Capacity (max) Up to 240 programs with each TS limited to 100 Mbps. Configuration Parameters IP address, Subnet mask, and UDP port number Program Structure SPTS or MPTS</p>
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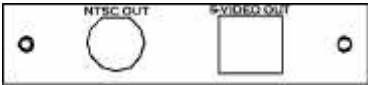

RS232/RJ45 Specifications

<p>RS232/RJ45 Module</p> 	<p>Baud Rate 19,200, 8 data bits, no parity, 1 stop bit Connector DSUB 9, female Download Capability Firmware Upgrades User Controls All Front Panel functions Stream Information Video Bitrate, Audio Bitrate, Aspect ratio, Native Format, SNR, BER Display Software Windows Hyperterminal RJ45</p>
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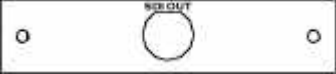

Video Decoder Specifications

Up/Down Conversion	1080i, 720p, 480i (NTSC), 480p	Closed Captioning Standard	EIA-608B, EIA-708B
Video Formats	18 ATSC Formats	Overlay	DTVCC or NTSC onto video
Decoder Bitrate	1.5 – 60 Mbps	DTVCC Overlay	Complies with FCC 00259 requirements
Video Outputs	User Selectable		
Video Input	User Selectable		
Compatibility	MPEG-2 (4:2:0) MP@HL, MP@ML, MP@LL & SP@ML		

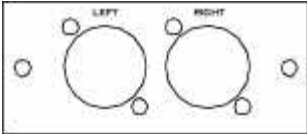
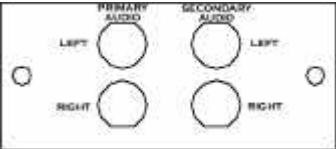
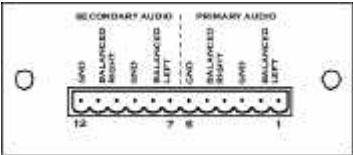
Analog Video Specifications

<p>NTSC & S-Video Module</p> 	<p>NTSC (composite video) Connector 75 ohms BNC, (1) Output Output Level 1 Vp-p Closed Captioning Line 21 Video Format 480i</p> <p>S-Video Connector 4 pin mini-din, female, (1) Output Output Level 0.7 Vp-p Video Format 480i</p>
<p>RGBHV/ Y Pb Pr Module</p> 	<p>RGBHV/ Y Pb Pr Connectors (5) 75 ohms BNC's Output Level 100 mV ± 10 mV Video Format 1080i, 720p, 480p</p>

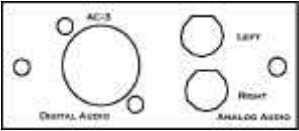
Digital Video Specifications

<p style="text-align: center;">SDI Module</p> 	<p>SDI</p> <p>Connector 75 ohms BNC, (1) Output</p> <p>Output Level 800 mVp-p ± 10%</p> <p>Video Format 480i</p> <p>Standard SMPTE-259M</p> <p>Data Rate 270 Mbps</p> <p>Embedded Audio SMPTE-272M</p>
<p style="text-align: center;">HDSDI Module</p> 	<p>HDSDI</p> <p>Connector 75 ohms BNC, (1) Output</p> <p>Output Level 800 mVp-p ± 10%</p> <p>Video Format 1080i, 720p, 480p</p> <p>Standard SMPTE-292M</p> <p>Data Rate 1.485 Gbps</p>

Analog Audio Specifications

<p style="text-align: center;">XLR Audio Module</p> 	<p>Outputs (1) Balanced Audio Left (1) Balanced Audio Right</p> <p>Connectors 600 ohms XLR male</p> <p>Audio Program Primary or Secondary</p>																										
<p style="text-align: center;">BNC Audio Module</p> 	<p>Outputs (1) Primary Audio Left (1) Primary Audio Right (1) Secondary Audio Left (1) Secondary Audio Right</p> <p>Connectors (4) BNC's</p> <p>Audio Program Primary and Secondary (with SAP option)</p>																										
<p style="text-align: center;">Terminal Strip Audio Module</p> 	<p>Outputs</p> <table border="0"> <thead> <tr> <th>PIN</th> <th>SIGNAL</th> </tr> </thead> <tbody> <tr><td>1</td><td>Primary Balanced Left</td></tr> <tr><td>2</td><td>Primary Balanced Left</td></tr> <tr><td>3</td><td>GND</td></tr> <tr><td>4</td><td>Primary Balanced Right</td></tr> <tr><td>5</td><td>Primary Balanced Right</td></tr> <tr><td>6</td><td>GND</td></tr> <tr><td>7</td><td>Secondary Balanced Left – w/SAP Option</td></tr> <tr><td>8</td><td>Secondary Balanced Left – w/SAP Option</td></tr> <tr><td>9</td><td>GND</td></tr> <tr><td>10</td><td>Secondary Balanced Right – w/SAP Option</td></tr> <tr><td>11</td><td>Secondary Balanced Right – w/SAP Option</td></tr> <tr><td>12</td><td>GND</td></tr> </tbody> </table> <p>Connector 12 pin Phoenix Terminal Strip</p>	PIN	SIGNAL	1	Primary Balanced Left	2	Primary Balanced Left	3	GND	4	Primary Balanced Right	5	Primary Balanced Right	6	GND	7	Secondary Balanced Left – w/SAP Option	8	Secondary Balanced Left – w/SAP Option	9	GND	10	Secondary Balanced Right – w/SAP Option	11	Secondary Balanced Right – w/SAP Option	12	GND
PIN	SIGNAL																										
1	Primary Balanced Left																										
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6	GND																										
7	Secondary Balanced Left – w/SAP Option																										
8	Secondary Balanced Left – w/SAP Option																										
9	GND																										
10	Secondary Balanced Right – w/SAP Option																										
11	Secondary Balanced Right – w/SAP Option																										
12	GND																										

Digital Audio Specifications

<p style="text-align: center;">AC-3 Audio Module</p>  <p>The diagram shows a rectangular panel with three main connection areas. On the left, there is a large circular area labeled 'DIGITAL AUDIO' with a smaller circle above it labeled 'AC-3'. On the right, there are two smaller circular areas labeled 'LEFT' and 'RIGHT', with 'ANALOG AUDIO' written below them.</p>	<p>Outputs (1) AC-3 Digital Audio Output</p> <p>Connectors 600 ohms XLR male</p> <p>Audio Program Primary</p> <p>Output Level 0.5 Vp-p ± 20%</p> <p>Connectors (2) BNC's Analog Audio (1) Primary Audio Left (1) Primary Audio Right</p>
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Ordering Information



Part Number	Description
DVM-150E	Professional DTV Receiver/Decoder

Please select an option for each card position and submit via email, phone or fax to the Director of Sales for pricing and delivery information. Email: rcastillo@ktechtelecom.com, Phone: (818) 773-0333, Fax: (818) 773-8330

POSITION & SIGNAL	OPTION & DESCRIPTION
#1 TUNER	<input type="radio"/> A (1) 8-VSB/QAM IN <input type="radio"/> B (1) QPSK IN <input type="radio"/> R RS232 Remote Control <input type="radio"/> N NONE
#2 MPEG2	<input type="radio"/> A (1) SMPTE IN, (1) SMPTE OUT, (1) DVB-ASI IN, (2) DVB-ASI OUT <input type="radio"/> B GigE Input/Output <input type="radio"/> N NONE
#3 VIDEO	<input type="radio"/> A (1) S-VIDEO OUT, (1) NTSC OUT <input type="radio"/> R RS232 Remote Control <input type="radio"/> N NONE
#4 AUDIO	<input type="radio"/> A (2) XLR (balanced) – Primary Audio <input type="radio"/> B (4) BNC (unbalanced) – without SAP <input type="radio"/> C (4) BNC (unbalanced) – with SAP <input type="radio"/> D Terminal Strip (balanced) – without SAP <input type="radio"/> E Terminal Strip (balanced) – with SAP <input type="radio"/> F Digital AC-3, (1) XLR <input type="radio"/> N NONE
#5 VIDEO	<input type="radio"/> A (1) SDI OUT – embedded audio without SAP <input type="radio"/> B (1) SDI OUT – embedded audio with SAP <input type="radio"/> R RS232 Remote Control <input type="radio"/> N NONE
#6 VIDEO	<input type="radio"/> A RGBHV/ Y Pb Pr (5 BNC's) <input type="radio"/> N NONE
#7 VIDEO	<input type="radio"/> A (1) HDSDI OUT – embedded audio <input type="radio"/> R RS232 Remote Control <input type="radio"/> N NONE