

## HBR-2502 STUDIO VIDEO MODULES HBR-SV



The HBR Studio Video analog-to-digital (A/D) encoder and digital-to-analog (D/A) decoder personality modules are used with IPITEK® HBR-series digital transmission systems to digitally transport baseband video, audio and data signals over fiber. These modules provide precision 10-bit, uncompressed linear Pulse Code Modulation (PCM) conversion of composite NTSC or PAL video signals to data streams suitable for digital fiber-optic transmission. Additionally a composite NTSC, and PAL B-G-H, I video signal with a 4.5 MHz (5.5 MHz PAL) audio subcarrier can be converted and transported.

The modules can transport four high quality audio channels with each video channel. Video SNR's of >70 dB is achieved with in-system calibration. All baseband analog audio channels are digitized by linear PCM methods, without use of compression or companding. The digitized audio and video signals are then multiplexed without any interaction or degradation of the signal quality. The modules also include a data channel for transport of a RS-232 data bit up to speeds of 19.2 Kb/s.

The video and audio channels each have adjustable gain and mute functions. The video signal has a 127

- ### FEATURES & BENEFITS
- Uncompressed Digital Video Transport
  - Broadcast Quality Signal Performance (EIA/TIA-250-C Short Haul)
  - 70 dB Video Signal-to-Noise Ratio
  - One Video Circuit, Four Baseband Audio Channels
  - Additional RS-232 Transmit/Receive Data Channel
  - Video and Audio Monitoring Capabilities
  - Selectable Gain, Mute, Cable Equalization, Coupling, Clamp, Offset
  - Composite NTSC, PAL B-G-H, I

step cable equalization filter which can be adjusted for cable lengths up to 500 ft. Additionally, the video channel's coupling can be selected as AC or DC, the video clamp can be enabled or disabled and the DC offset can be set in 256 steps.

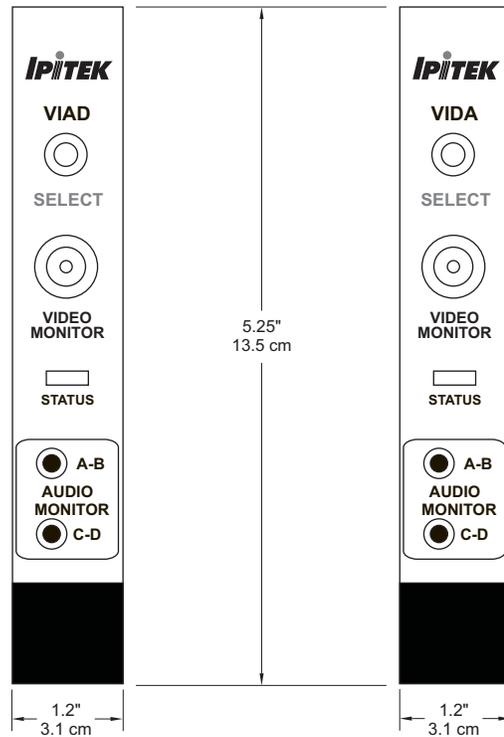
Front panel connectors provide convenient local monitoring of the applied video and audio signals. The video monitor is 75-ohm impedance and can be used with video measuring equipment. The audio jacks are convenient for headphone monitoring.

Alarm and status monitoring are included with the modules. Front panel LEDs indicate signal state and module health, while detailed status and configuration controls are accessed via the HBR terminal's Node Management System.

The module is equipped with non-volatile memory containing module identification and tracking information. The module also stores total power-on time.

Modules can be ordered with optional digital serial ports to facilitate single channel spur distribution and multiple chassis signal cross-connect using external digital switching equipment.

## MECHANICAL



## SPECIFICATIONS

### Baseband Video

Signal-to-Noise Ratio:	70 dB, quiet line
Frequency Response:	
4.2 MHz:	±0.1 dB
6.0 MHz:	+0.1/-0.75 dB
Chroma-Lum Gain:	±2 IRE
Chroma-Lum Delay:	8 ns
Chroma Non-Linear Gain:	±1 IRE
Chroma Non-Linear Phase:	0.5°
Chrom-Lum Intermodulation:	0.2 IRE
Differential Gain:	1%
Differential Phase:	0.5°

### Baseband Audio

Signal-to-Noise Ratio:	76 dB
Total Harmonic Distortion:	0.15%
Input Level:	+12 dBm = 100% DBFS
Frequency Response:	±0.5 dB, 20 Hz to 20 KHz
Transmission Time Differential:	0.25 ms

### Data

RS-232:	19.2 Kb/s
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### Environmental

Operating Temperature:	0°C - 50°C
Storage Temperature:	-55°C - 75°C, 24 hrs
Operating Humidity:	to 90%, non-condensing
Dimensions:	5.25"H x 1.2" W x 8.58"D

## ORDERING INFORMATION

<b>HBR</b>	-	<b>SV</b>	-	<b>104X</b>
<i>HBR-250X System Compatible</i>		Type SV = Studio Video Module		Option 1041 = A/D encoder with RS-232 output 1042 = D/A decoder with RS-232 output



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