

PROTON Range

HVIT Digital Video Isolator







Overview:

- Eliminate Hum and Noise from Digital Video Signals
- Protect Equipment from Ground Voltage
- 1kV and 4kV Breakdown Voltages
- Supports all ASI, SD-SDI, HD-SDI and 3G-SDI Formats
- High Performance and Wide Bandwidth Design
- Passive device
- Compact Standalone or Rack Mountable Unit

Application:

- Noise reduction
- Equipment protection
- OB Truck ground protection

DSMB Technology

www.dsmbtech.com sales@dsmbtech.com.com

Tel (UK): +44 207 183 0697 Tel (US): +1 305 468 4616



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HVIT Digital Video Isolator

Description:

The HVIT Digital Video Isolation Transformer provides a solution to the reduction and elimination of hum and noise that can interfere with serial digital video transmission caused by differences in ground potential, especially those above 20 volts, or induced currents in long cable runs.

This common mode noise results in the degradation of the absolute bit timing of high speed digital signals leading to bit errors. These bit errors will at first reduce the quality of the video and data content within the transmission signal but since digital signals do not degrade gracefully but suffer from a cliff effect, the digital signal can be lost altogether. However, the singular most common symptoms of hum in digital signals is intermittent horizontal black streaks. These streaks are often one line in thickness.

Also, these isolators provide crucial protection to video circuits where ground potential differences exist between equipment. Versions with breakdown voltages of 1kV and 4kV are available.

The HVIT Isolation Transformer supports all 3G, HD, SD and ASI transmission rates. Provision must be made for DC signals such as camera controls which isolation transformers will block. The unit may be used standalone, or incorporated in to a 19" rack using the RPIT16 Universal Rack Mounting Unit.

Ordering Information:

HVIT010B 1-Channel Digital Video Isolator, 1kV Isolation, Standalone
 HVIT010R 1-Channel Digital Video Isolator, 1kV Isolation, Rack Mountable
 HVIT040B 1-Channel Digital Video Isolator, 4kV Isolation, Standalone
 HVIT040R 1-Channel Digital Video Isolator, 4kV Isolation, Rack Mountable
 RPIT16 1RU Universal Rack Mounting Unit, 16-Channels for HVIT0x0R

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Specification:

Model:	HVIT010B	HVIT040B	HVIT010R	HVIT040R
Channels:	1			
Impedance:	75Ω ±2%, unbalanced			
Bandwidth:	100Mb/s to 3Gb/s			
Noise Rejection:	Better than 60dB Common Mode			
Return Loss:	>15dB 270MHz to 1.5GHz; >10dB at 3GHz			
Insertion Loss:	Equivalent to 5 metres of Belden 1694A at 270Mb/s			
Isolation Voltage:	1kV	4kV	1kV	4kV
Size:	20mm [0.85"] diameter x 55mm [2.2"] including connectors 20mm [0.85"] diameter x 55mm [2.2"] including connectors Fitted with XLR mounting plate			onnectors
Weight:	30g [1.1oz]			
Environmental:	-25 to +55°C [-13 to 131°F] 5% - 95% non-condensing EN55103-1, EN55103, FCC part 15 EN60950			

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