

VB-1RR 75 Ω composite video isolator

- Eliminates hum bars caused by ground loops
- Exceptional performance, will not deteriorate picture quality
- Very high ground isolation: 120 dB CMMR typ at 60 Hz
- Precise impedance matching ensures minimal reflection



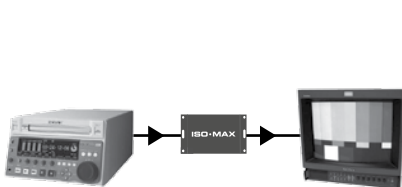
The Iso•Max VB-1RR is a single-channel 75 Ω video isolator for composite (baseband) video that is used to prevent 60 cycle 'hum bars' even where ground voltage differences are very large such as in surveillance video systems, night clubs, video walls, broadcast stations, and industrial plants.

Designed for use with standard RG59 type coaxial cable, the VB-1RR combines true 75 Ω RCA connectors with a custom wound transformer to minimize reflection. The unique design delivers an exceptionally linear bandwidth from 10 Hz to 10 MHz with virtually zero insertion loss. Plug and play easy to use, the VB-1RR features a flanged, electrically isolated housing that is easily mounted on standard 19" rack rails or inside a NEMA enclosure. One simply connects the passive device in series and problems such as ground loops are eliminated, reducing noise by as much as 120 dB.

The VB-1RR is a tremendous time saver as it eliminates excessive troubleshooting when hunting down sporadic problems. Once installed, it often eliminates future service calls that can be attributed to non-related voltage fluctuations caused by cycling refrigeration systems, power transformers or nearby industrial facilities that may be causing power disruptions.

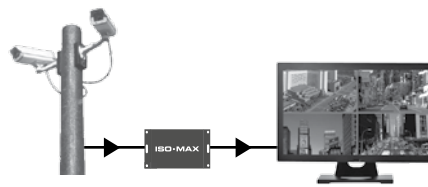
The Jensen Iso•Max VB-1RR delivers remarkable video quality without noise, contamination or artifact.

Applications



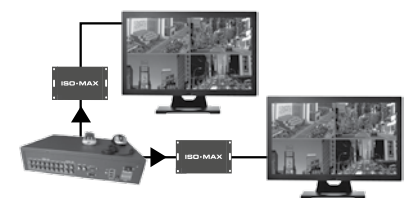
Using the VB-1RR to clean up the picture

The Iso•Max VB-1RR is the perfect 'trouble-solving partner' for baseband video transmission problems. It isolates the source and destination and rids the system of 60 cycle hum bars and other unsightly artifacts that can affect the video quality.



Solving hum bar problems with CCTV

When interfacing a distant camera to a video system, hum in the form of 60 cycle hum bars will often find their way into the picture. The Iso•Max VB-1RR provides a plug & play solution that eliminates the problem-causing ground currents without affecting the video quality.

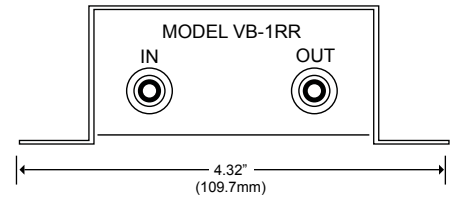


Distributing video in large facilities

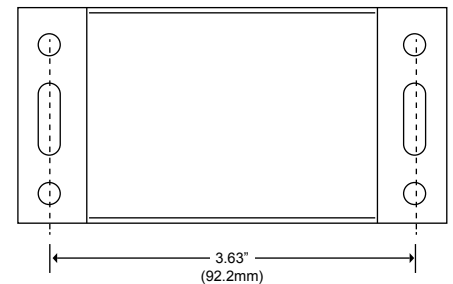
Distributing video around a large facility can often lead to quality picture problems caused by fluctuating voltage references at various power drops. The Iso•Max VB-1RR eliminates hours of trouble shooting by isolating the local monitor from disruptive ground currents.

Dimensions

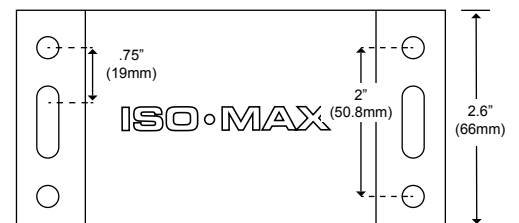
(FRONT)



(BOTTOM)

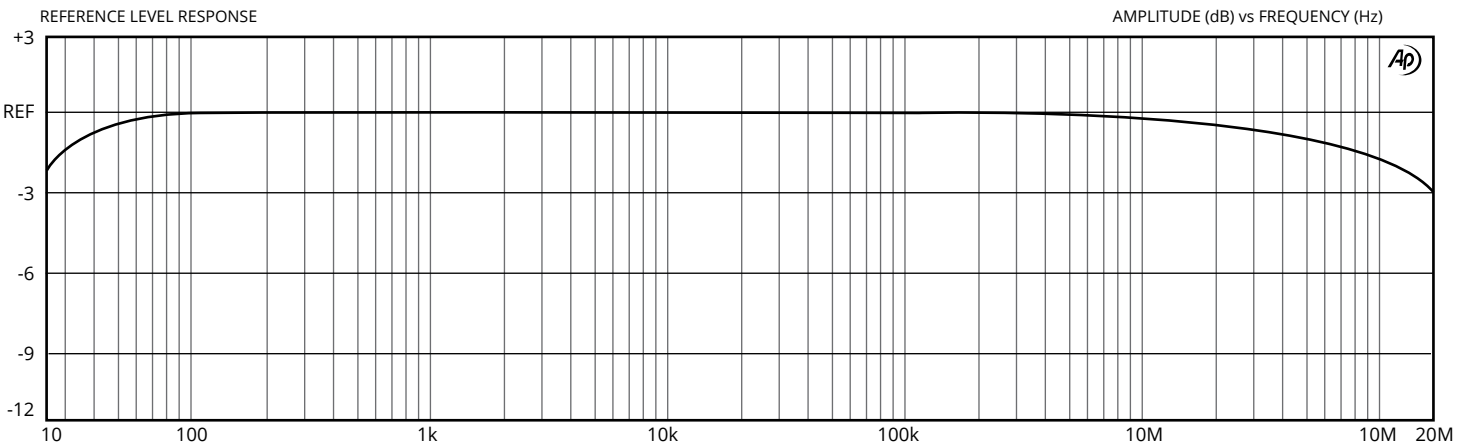
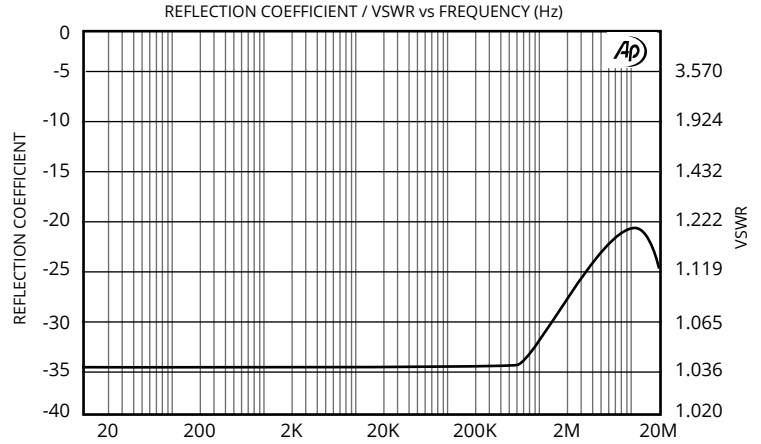
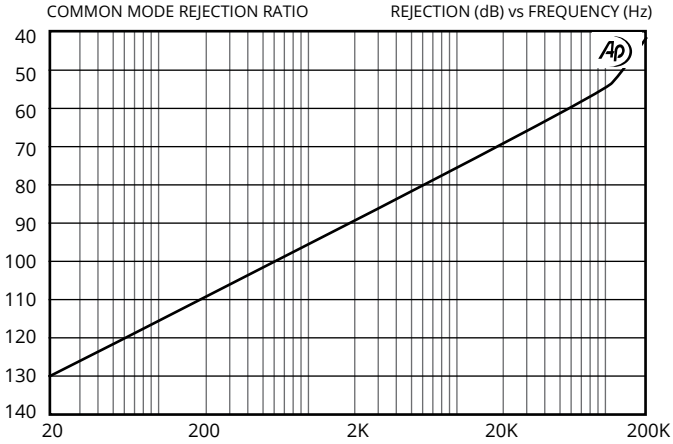


(TOP)



(REAR)

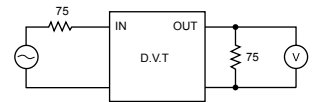




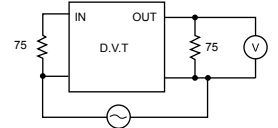
PARAMETER	CONDITIONS	MINIMUM	TYPICAL	MAXIMUM
Insertion loss	10 kHz, test circuit 1	-0.50 dB	-0.72 dB	-1.00 dB
Differential gain, 3.58 MHz	FCC/NTC-7 composite, Tektronix VM700A test set, pk-pk		< 0.02%	0.05%
Differential phase, 3.58 MHz	FCC/NTC-7 composite, Tektronix VM700A test set, pk-pk		< 0.02°	0.05°
Luminance non-linearity	FCC/NTC-7 composite, Tektronix VM700A test set, pk-pk		< 0.01%	0.02%
Bandwidth	LF -3 dB re 10 kHz, test circuit 1		10 Hz	12 Hz
	HF -3 dB re 10 kHz, test circuit 1	15 MHz	20 MHz	
Input VSWR	1 kHz to 8 MHz, HP 3577A Analyzer & 35676A R/T test kit		1.20	1.30
	3.58 MHz, HP 3577A Analyzer & 35676A R/T test kit		1.10	1.20
Common-mode rejection ratio (CMRR)	60 Hz, test circuit 2	100 dB	120 dB	
Alloable DC bias at input	(none allowed at output, which has 2.6 Ω DC resistance)	-1 V	±0	+16 V
Capacitances	input to output, 1 kHz		1.94 nF	
	input or output to case, 1 kHz		35 pF	
Temperature range	operation or storage	0°C		70°C
Input to output voltage difference	input to output shield or either shield to chassis, 60 Hz			24 V RMS 34 V peak

Source Z = load Z = 75 Ω, signal level = 1 V pk-pk unless noted

Test Circuit 1:



Test Circuit 2:



All minimum and maximum specifications are guaranteed. Unless noted otherwise, all specifications apply at 25°C. Specifications subject to change without notice. All information herein is believed to be accurate and reliable, however no responsibility is assumed for its use nor for any infringements of patents which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of Jensen Transformers, Inc.

*IMPORTANT NOTE: THIS PRODUCT IS NOT INTENDED FOR USE IN CIRCUMSTANCES WHERE THE DC OR PEAK AC VOLTAGE BETWEEN INPUT AND OUTPUT CONNECTIONS EXCEEDS 34 VOLTS OR WHERE ITS FAILURE COULD CAUSE INJURY OR DEATH.