

Video Balun

VB41x4 Modular Card

The VB41x4 Modular Cards are designed for use with the Modular Rack System. The RK400 Card Cage is a powered card cage that accepts the VB41x4 cards as well as the rest of NITEK active receiver units. This modular "plug-in" feature allows the system to be custom configured for each application and provides easy expendability. This modular card configuration allows for high density application, with up to 40 videos in each modular rack.

The VB41x4 has four standard balun units on one card. The video balun is a passive device, requiring no power, for the transmission of standard baseband video signals over ordinary telephone lines. The VB41x4 is also compatible with all of the up the coax control systems. A basic system would use one video balun unit at each end of a twisted pair of wires. The VB41x4 is intended for use over existing in house telephone wiring, category 5 wiring or other twisted pair cable runs to provide a convenient, cost-effective alternative to coax. The VB41x4 is designed to provide immunity from noise and interference even when running next to line power!

Video Balun

VB41x4 Modular Rack Card

Size	(1) card slot
Power Requirements	(1) card slot
Twisted Pair Input	(4) Balanced low voltage current loop
Output	(4) 1 vpp composite video Monochrome or Color
Common Mode Rejection	60dB
Video Format	RS170, NTSC, PAL, SECAM, CCIR (Color or B/W)
Operating Frequency	DC to 10 MHz
UTP Category	Unshielded Category 2 or better
Wire Size	12 to 26 AWG Unshielded Twisted Pair

Limited Lifetime Warranty

Northern Information Technology, Inc. (NITEK) warrants that this product is to be free from defects in materials and workmanship, for the life of the product. The warranty given by NITEK is in lieu of any other warranties, express or implied. NITEK assumes no responsibility for damages or penalties incurred resulting from the use of this product. NITEK's liability under any warranties shall be discharged by replacing or repairing, at our option, the defective product. NITEK's liability for any product shall not exceed a refund of the purchase price. The warranty listed here is intended only as a summary of your full and complete warranty. For a full and complete warranty of this product contact NITEK.

NITEK[®]

5410 Newport Drive, Suite 24 • Rolling Meadows, IL 60008

(800) 528-4343 • (847) 259-8900 • FAX (847) 259-1300

Internet: www.nitek.net • E-mail: info@nitek.net

Video Balun

VB41x4 Modular Card

INSTALLATION

The VB41x4 is a Rack Card unit with 4 of the standard video baluns on it. It is designed to be mounted in a NITEK Modular Card Cage. The video balun converts video to a twisted pair signal or visa versa. As such, you need one on each end of the twisted pair.

The diagram below shows the common configuration for a system. Other possible combinations would include using a VB41x4 card on each end or using the VB41x4 with an active receiver product.

To hook up the VB41x4 card connect a video coax to the BNC connector and hook the twisted pair to the matching + & - terminals. At the other end of the twisted pair connect another video balun unit in the same way. The twisted pair is polarity sensitive. It will not hurt the equipment if the pair is reversed but the video will be unusable. Just reverse the wire pair at one end.

TROUBLESHOOTING

Many times it is not possible to know where the telephone cables are routed, so the actual distance of the cable may not be known. An easy way to determine the actual length of the cable is with an ohm meter. Short the wire together at one end and measure the resistance at the other end. 24 AWG wire has a loop resistance of 51 ohms per 1,000 feet, 26 AWG is 82 ohms and 22 AWG is 32 ohms. If you are exceeding the recommended distance for your unit contact NITEK or your local representative. NITEK manufactures a wide selection of systems for longer runs and we would be happy to provide you with the correct solution.

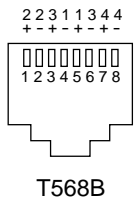
For NITEK Technical assistance call 800-528-4343.

Problem Video will not sync, wide white jagged area.
Fix/Cause Reverse wires on twisted pair connection.

Problem No video at receiver.
Fix/Cause Check camera video and coax connections.
 Check the twisted pair for opens and shorts.

Problem Ghosts image to the right, horizontal smearing.
Fix/Cause Check for bridge taps or "T" taps on the twisted pair and remove them.

Twisted Pair Wiring for T568B Jack



Pin#	Wire
1	Video 2 +
2	Video 2 -
3	Video 3 +
4	Video 1 -
5	Video 1 +
6	Video 3 -
7	Video 4 +
8	Video 4 -

