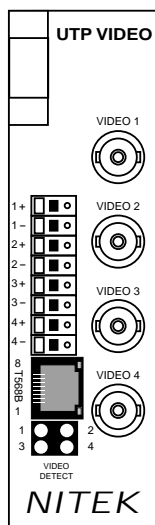


# PRODUCT SPECIFICATION

DOCUMENT NUMBER VB41x4	MODEL <b>VB41x4</b> Video Balun Transceiver Card for Twisted Pair up to 1,000 feet (305 meters)
REVISION NUMBER 080205	<b>Unit for Modular Twisted Pair Video System</b>



## Description

The VB41x4 Modular Card is designed for use with the Modular Rack System. Each card has 4 Video Balun units, built-in surge protection and video loss detection.

The NITEK Video Baluns are transmission devices that provide a low cost means of sending live video over unshielded twisted pair, point-to-point wiring for distances of up to 1,000 feet (750 feet when used with DVR equipment). The NITEK Video Baluns are also compatible with all of the "up-the-coax" control systems. A basic system would require one unit at each end of a twisted pair of wires. The NITEK Video Baluns are 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. NITEK Video Baluns are designed to provide immunity from noise and interference, even when running next to line power!

The VB41x4 plugs into the RK400 Card Cage, which holds up to ten (10) Modular cards. The RK400 Card Cage is a powered card cage that accepts the full line of NITEK receiver units. This modular "plug-in" feature allows the system to be custom configured for each application and provides easy expandability.

## Features

- Quality video over ordinary twisted pair cable
- Built-in surge protection
- Immunity to noise and interference
- Built-in video loss detection
- Video & PTZ over a single pair (with "up-the-coax" systems)
- RJ45 or push terminals for easy connection

## Applications

- Structured cabling (Cat5) environments
- Multi-camera applications through conduit (more cameras through a smaller diameter)

VB41x4

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# TECHNICAL SPECIFICATION

## VB41x4 Modular Rack Card

Size	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
Wire Spec	26 to 12 AWG Unshielded Twisted Pair (UTP)
DC Loop Resistance	51 Ohms/1,000 ft (max)
Nominal Capacitance	17pF/ft.
Impedance	100 Ohms +/- 20%
UTP Category	2 or better
Transient Immunity	6,000 V 1.2uS x 50 uS per ANSI / IEEE 587 C62.41 B3 3,000 A 8uS x 20 uS when ground is connected to earth-ground

## Ordering Information

PART	DESCRIPTION
<b>VB41x4</b>	Applications up to 1,000 feet; 4 videos per card
<b>RK400</b>	Modular Rack Cabinet with power supply

## Stand alone systems are also available

## Wire and Cable Recommendations

The NITEK Video Balun is recommended for use with **unshielded twisted pair** (UTP) wiring. The systems will operate over wire gauges from 26AWG through 12AWG. Category 2, 3, 4 or 5 cable may be used. Individually shielded pairs should be avoided, as they drastically reduce the operating range of the systems. Multi-pair cable with an overall shield is acceptable. Video can be operated in the same communication cable coexistent with telephone, computer, control signals, power voltages and other video signals. While video may be routed through telephone punch down block terminals, any bridge-taps, also called T-taps and any resistive, capacitive or inductive devices **MUST BE** removed from the pair. For more specific information regarding wire types, gauges and proper installation techniques, please call 800-528-4343 for technical assistance. More information is also available on the CCTV System Design Guide Sheet.

