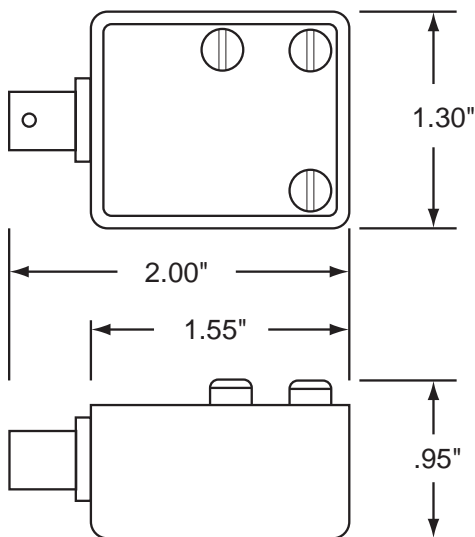




Design for use with  
**HD TVI / CVI / AHD**

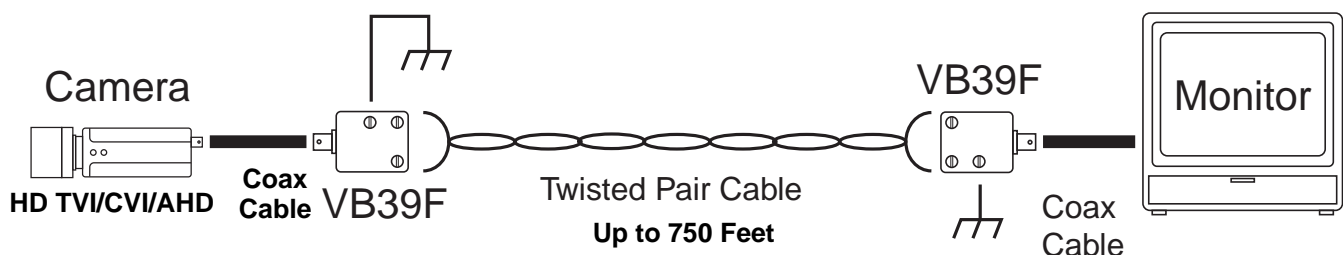


### Description

The **HD VB39F** video balun transceiver has been designed to meet the needs of the **HD TVI/CVI/AHD** cameras. The HD VB39F is a video transmission device that provides a low cost means of sending live video over unshielded twisted pair, point-to-point wiring for distances up to 225 meters or 750 feet. The HD VB39F is compatible with all of the “up-the-coax” control systems. A basic system uses (2) HD VB39 units, one at each end of a twisted pair of wires. These units are intended for use over existing in-house telephone wiring, Category wiring or other twisted pair cable runs to provide a convenient, cost-effective alternative to coax. The VB39F is designed to provide superior immunity from noise and interference even when running next to line power!

### Features

- Works with any HD/TVI/CVI/AHD or NTSC and PAL
  - Quality video over ordinary twisted pair cable
  - Immunity to noise and interference
  - Passive devices—do not require power
  - Video and P/T/Z over a single pair (with “up-the-coax” systems)
  - Weather resistant design
- Easier to install than coax



# NITEK®

USA

5410 Newport Drive, # 24  
Rolling Meadows, IL 60008  
Phone: (847) 259-8900  
Fax: (847) 259-1300  
E-mail: [info@nitek.net](mailto:info@nitek.net)  
[WWW.NITEK.NET](http://WWW.NITEK.NET)

EUROPE

De Aar 99  
8253 PN Dronten  
The Netherlands  
Tel: +31(0) 321 310 043  
E-mail: [info@nitekeurope.net](mailto:info@nitekeurope.net)  
[WWW.NITEK.NET](http://WWW.NITEK.NET)



# TECHNICAL SPECIFICATION

## Transceiver Unit

Size	1.3" H x 2.0" W x .95" D
Input	1 Vpp composite video Monochrome or Color
Output	Balanced low voltage current loop

## System (2 transceivers required)

Video Format	HD TVI/CVI/AHD PAL, SECAM, NTSC, RS170, CCIR (Color or B/W)
Video Input	1 Vpp composite video Monochrome or Color
Operating Frequency	DC to 40 MHz
Common Mode Rejection	>60 dB
Wire Size	26 to 18 AWG twisted pair
DC Loop Resistance	51 Ohms/1,000 ft (max)
Nominal Capacitance	17 pF/ft
Impedance	100 Ohms +/- 20%
Category Wire	2 or better
Temperature Range	-40°C to +85°C
Humidity Range	0 to 98%, non-condensing
Transient Immunity	400 A 1.2uS x 50 us Per ANSI / IEE 587 C62.41 B3 400 A 8us x 20 us when ground screw terminal is connected to earth-ground
Enclosure Material	Black, ABC flame retardant plastic
Twisted Pair Connection	Screw terminals

## Wire and Cable Recommendations

We recommend using unshielded twisted pair wiring. The systems will operate over wire 26 to 18 AWG but are optimized for 24 AWG. Category cables 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.