Model VH451

4 Port Active Video Mini-Hub

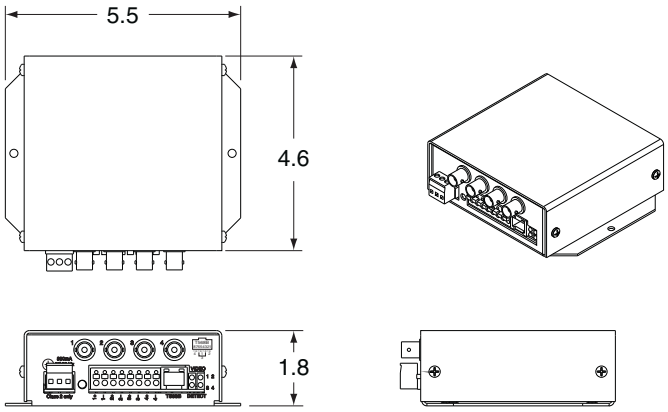
Installation and Operation Manual

Note: This installation should be made by a qualified service person and conform with local codes.

Reduce risk of fire or electrical shock. Do not expose this product to rain or moisture.

Specifications

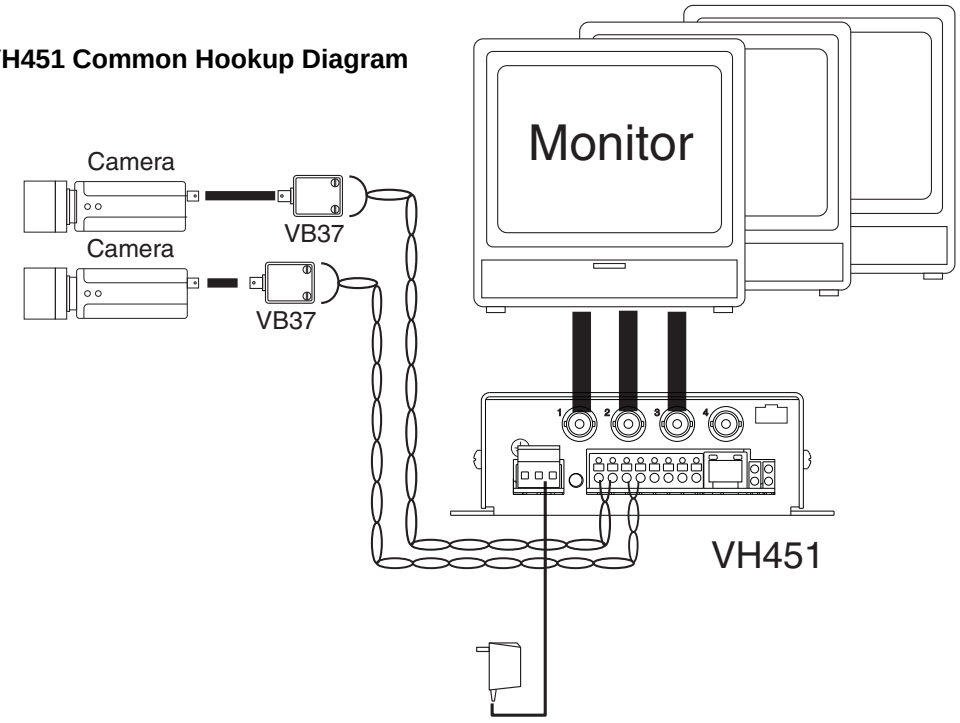
Size	1.8”H x 5.5”W x 4.6”D
Power Requirements	12/24 VAC/DC @ 300mA
Input	UTP Video
Output-Video	1vpp composite video Monochrome or Color



Introduction

This manual is designed to cover the VH451 receiver hub. The VH451 receiver can be hooked up to several different Nitek UTP passive transmitter units. The passive transmitter requires no power and can provide video up to 1,500 feet. For longer distances consult Nitek for other available systems.

VH451 Common Hookup Diagram



NITEK®

USA Office:
5410 Newport Drive, Rolling Meadows, IL 60008
Phone: (800) 528-4343
Fax: (847) 259-1300
E-mail: info@nitek.net
WWW.NITEK.NET

Europe Office:
De Schans 19-21 2a, 8231 KA Lelystad
The Netherlands
Tel: +31(0)320-230005
Fax: +31(0)320-282186
E-mail: info@nitek.nl
WWW.NITEK.NL

680240108

Rev 021411

Determining Cable Length

Check the twisted pair for continuity. Do this by shorting the pair of wires at one end and use an ohm meter to check the resistance at the other end. Use the chart to determine the length of your wires for a measured resistance. Also, use a multimeter to test the line and make sure there is no voltage on it. Testing each line and recording the length for each camera run can greatly reduce installation time. For distances greater than 3,000 feet an amplified transmit source may be needed.

Wire Gage	Distance in Feet (Meters)						
	500 (150)	1000 (300)	2000 (600)	3000 (900)	4000 (1200)	5000 (1500)	6000 (1800)
22	16	32	64	97	129	161	194
24	26	51	103	154	205	257	308
26	41	82	163	245	326	408	490

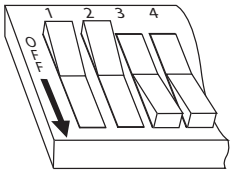
Installation

VH451 w/Passive (Balun) Transmitter

1) Connect Balun to Camera - Using the installation manual provided with the balun connect it to the video source, usually a video camera. If you have a UTP ready camera connect the twisted pair directly to the camera video out.
2) Connect Twisted Pair to VH451 - The twisted pair can be connected to either the push-in terminal blocks or the RJ45 jack.
3) Connect Video Out to your System - Using standard coax cable connect from the video out BNC to your system as needed for viewing.
4) Set DIP Switches for Distance - Using the chart below set the 8 position DIP switches on the VH451 for the distance of your tested pair line plus any coax on each end. The modules are numbered to match the connections. Knowing the distance and setting the switch will save you time and provide you with the best possible picture. Settings listed are for standard communication cable. Should you be using wire gages less than 22 awg or shielded wire with less than 10 pair your settings may vary. Call Nitek Tech Support for help.
5) Connect the Power Supply - Connect a 12/24 VAC/VDC power supply to the power input terminals.

Unmarked Positions are Off					Video Level Gain		Video Peaking	
Distance	**Switch Position**							
	1	2	3	4	5	6	7	8
100-400ft (30-120m)								
400-700ft (120-200m)					ON			
700-900ft (200-275m)			ON	ON	ON			
900-1100ft (275-330m)			ON	ON		ON		
1100-1300ft (330-400m)			ON	ON		ON	ON	
>1300ft (>400m)	ON	ON	ON	ON		ON		

SAMPLE



Switches 1 and 2 are in the ‘OFF’ position
Switches 3 and 4 are in the ‘ON’ position