# Model TR560x8

Active Video Receiver Card

# 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**

Power Requirements: Power is supplied by the VH3200

UTP Wire Length: Up to 3,000 feet with passive transmitter Up to 6,000 feet with active transmitter

#### Installation

To install the TR560x8, remove the front panel of the VH3200 modular hub by pulling on the two front panel knobs. Insert the card into any open slot. Replace the front cover and press the knobs in to lock them in place.



Remove Front Panel



**Install Cards** 

## **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 below to determine the length of your wires for a measured resistance. Also, use a multi-meter to test the line ad 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 1,000 feet, different receiver units are recommended. Contact Nitek for specific model numbers.

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	



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## TR560x8 Card w/Passive (Balun) Transmitter

- 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 VH3200 The twisted pair connects to the terminal blocks on the rear of the VH3200.
- 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 switch for distance Using the chart below set the 8 position DIP switch on the TR515x8 for the distance of your twisted pair line plus any coax on each end. The modules are numbered to match the connections. Do not just try settings to see what works. Knowing the distance and setting the switch will save you time and provide you with the best possible picture. Note that the 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.

Distance in	Switch Positions								
Distance in feet (meters)	1-2 and 3-4 must be set in pairs				Video Level		Video Peaking		
ieet (illeters)	1	2	3	4	5	6	7	8	
<500 (150)									
>500 (150)					ON				
>1000 (300)					ON		ON		
>1500 (450)			ON	ON	ON				
>2000 (600)			ON	ON		ON	ON		
>2500 (750)	ON	ON	ON	ON		ON	ON		
>3000 (900)	ON	ON	ON	ON	ON	ON	ON		

#### TR560x8 Card and TT560 Transmitter

- 1. **Connect transmitter to camera -** Refer to the TT560 manual for the installation of the TT560 transmitter and its DIP switch settings.
- 2. Connect twisted pair to VH3200 The twisted pair connects to the terminal blocks on the rear of the VH3200.
- 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 switch for distance Using the chart below set the 8 position DIP switch on the TR560x8 for the distance of your twisted pair line plus any coax on each end. The modules are numbered to match the connections. Do not just try settings to see what works. Knowing the distance and setting the switch will save you time and provide you with the best possible picture. Note that the 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.

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<1000 (300)									
>1000 (300)					ON				
>1500 (450)			ON	ON		ON			
>2000 (600)					ON		ON		
>2500 (750)			ON	ON	ON		ON		
>3000 (900)			ON	ON		ON	ON		
>3500 (1050)	ON	ON	ON	ON		ON	ON		
>4000 (1200)	ON	ON	ON	ON	ON	ON	ON		
>4500 (1350)			ON	ON	ON		ON		
>5000 (1500)			ON	ON		ON	ON		
>5500 (1650)	ON	ON	ON	ON		ON	ON		
>6000 (1800)	ON	ON	ON	ON	ON	ON	ON		

SAMPLE

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