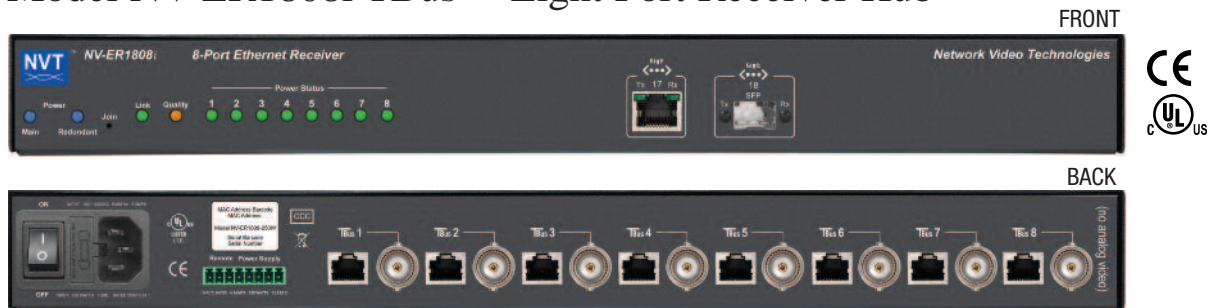




## Model NV-ER1808i TBus™ Eight Port Receiver Hub



### Features:

- Transmit 10/100 BaseT Full Duplex Ethernet up to 8,000ft over RG-59/U, 2,000ft over 2-wire/UTP or 1,300ft over Shielded Twisted Pair\*
- The TBus architecture allows multipoint operation in any star or daisy-chained topology, with any combination of wire types, and up to 64 remote transmitters/IP cameras
- Transparently supports all networking protocols (UDP, TCP/IP, HTTP, Multicast etc.) using advanced 128-bit AES encryption
- Dual 10/100/1000 uplink ethernet connectivity
- Easy configuration, no PC required
- 56 VDC is distributed over the TBus to all connected equipment. PoE, PoE+, or High Power PoE cameras (or other PoE devices), up to 50 watts\* are supported.

The NVT Model NV-ER1808i TBus Ethernet over Coax/UTP Receiver Hub is a 1U 19” rack mountable bus-architected media switch that has 8 TBus ports, capable of supporting up to 64 TBus transmitters and their subsequent 10/100 BaseT Ethernet and PoE+ powered devices\*.

The TBus transmission medium can be coax, 2-wire/UTP, or Shielded Twisted-Pair. Data rates up to 200 Mbps are achievable, making this device the ideal choice in new or legacy installations where existing cable is re-deployed as part of an upgrade to IP cameras. An internal 250 watt 56 VDC power supply can be optionally augmented by an external 250 watt auxiliary power supply, supporting redundancy and/or higher power applications.

The NV-ER1808i is backed by NVT’s award winning customer support, limited lifetime warranty, and advance replacement.

No IP or MAC addressing configuration is required, yet is available for browser-based monitoring and control. This provides exceptional yet simple configuration and diagnostics for the installer or remote monitoring facility.

Status LEDs indicate power, auxiliary power, and link connectivity/activity.

\*Distance and number of devices supported may lower due to limited power supply capacity and wire voltage-drop, or data-rate limiting due to the selected wire’s high-frequency signal attenuation. See manual or IP Distance Calculator at [nvt.com](http://nvt.com).

### Network Video Technologies

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(+1) 650.462.8100 • FAX (+1) 650.326.1940  
[nvt.com](http://nvt.com) • [www.nvt.com/email](mailto:www.nvt.com/email)



# Model NV-ER1808i TBus™ Eight Port Receiver Hub

## Technical Specifications

### TBUS BUILDING WIRING INTERFACE

Number of Ports: Eight TBus Interfaces  
 Supports multiple \* remote TBus Transmitters including the NV-ET1801 and the NV-ET1804  
 Data Rate: Up to 200Mbps combined network speed  
 Impedance: 25 to 100 Ω  
 Distance: See pages 4 and 5  
 Transmission technology: IEEE 1901, 128-bit AES encryption

### UPLINK INTERFACES

Connectivity: RJ45 10/100/1000 BaseT, Auto-crossover SFP Slot for optional second gigabit port

### \*IMPORTANT NOTE:

Data rate, distance and number of devices supported may lower due to power supply capacity, wire voltage-drop or signal attenuation. See Wire Distance Charts on pages 4 and 5. For fault/safety, never use more than two power supplies within one TBus network.

### LED STATUS INDICATORS

Power: Blue "Power On"  
 Flashes when joining  
 BNC/ 2-Wire Interface: Green "Link"  
 Green/Amber "Quality"  
 RJ45 Interface: Green "Link"  
 Blinks with Data

### MECHANICAL

Dimensions exclude brackets and connectors  
 Dimensions: 17 in wide x 1.7 in high x 10.5 in deep  
 43 cm wide x 4.5 cm high x 26.7 cm deep  
 Weight: 7.78 lbs (3,52 Kg)

### ENVIRONMENTAL

Operating temperature: -22°F to 122°F (-30°C to +50°C)  
 20 to 85% RH non-condensing  
 Storage temperature: -40°F to 185°F (-40°C to +85°C)  
 0 to 95% RH non-condensing  
 Transient Immunity: 5x20µS 3000A, 6000V  
 ESD 20KV, 200pF

### POWER SUPPLY

Power is provided from an internal 250 Watt power supply, which can be optionally augmented by an external 250 watt auxiliary power supply. This architecture supports redundancy and/or higher power applications.  
 IEC 380 power inlet: 115/230VAC 50/60 Hz 1 amp  
 250 watts 425 BTU / hour

Protection: 5x20mm type T fuse 2 amps 250V  
 Total system consumption: + total consumption of PDs (IP cameras)  
 = total consumption of remote transceivers  
 + total power dissipated in the wire  
 + consumption of the NV-ER-1808i=13W.

### ACCESSORIES (included)

Mounting: Rackmount "L" brackets for front, rear, or wall installations  
 Power cord: Molded IEC power inlet cord 7 ft (200 cm)

### REGULATORY



UL Listed to IEC/UL 60950-1 Complies with FCC part 15B limits

Specifications subject to change without notice.

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## Model NV-ER1808i TBus™ Eight Port Receiver Hub

### Browser-Based Monitor and Control Tools

The NV-ER1808i contains an http server allowing secure communication with a web browser.

This allows for:

- Control & monitoring functions
- Joining function
- Password write access (in conjunction with the Joining pushbutton)
- Reading of per-channel and overall current draw
- Power-cycle reset of any channel
- Download of firmware upgrades
- Remote diagnostics

### Accessories

NV-BNCT:	BNC "T" adaptor	
NV-EC4BNC:	1:4 BNC splitter adaptor	
NV-RJ45A:	Male RJ45 to-screw-terminals	
NV-PC4PR:	RJ45 Patch Cord, 4-pair 3' (1m)	
NV-PS56-250W:	Auxiliary Power Supply	

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# Model NV-ER1808i TBus™ Eight Port Receiver Hub

## Wire Type and Power Distance Capacity

The distance capability of wire is dependant on its ability to deliver DC power, and separately, to deliver high-frequency data signals.

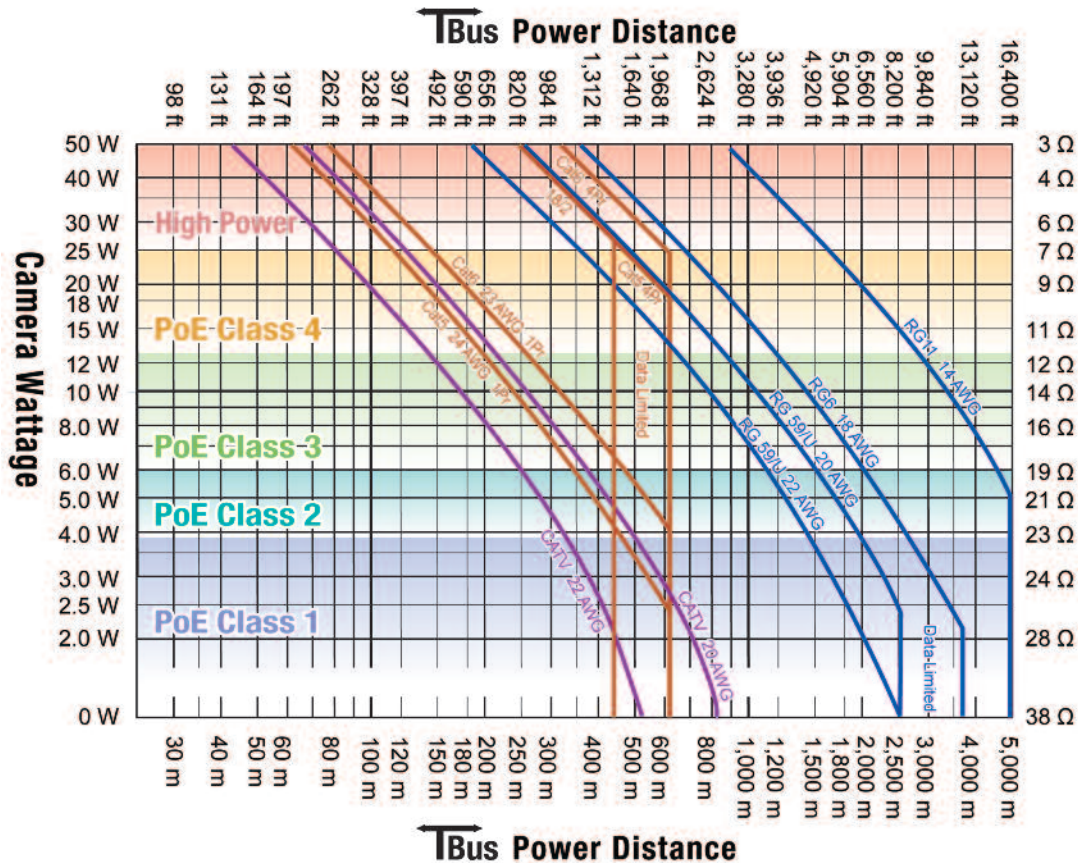
The graph below shows maximum power delivery when using a 56V power supply. If you are locally powering your camera (or other remote device), then this graph does not apply. The graph on the next page shows the maximum data delivery rate.

A Distance Calculator can be found at [www.nvt.com](http://www.nvt.com).

PoE devices require a minimum of 43V to operate. With a 56V supply, we have 13V of allowable voltage drop on the wire.

The voltage will dip in proportion to the remote (camera) load. The graph below shows what PoE power distances are supported for various loads and wire types.

- Start with the camera wattage at the left. Sometimes IP cameras are listed as to their PoE Class rather than wattage. If this is the case, use the colored classes instead.
- Now read over to the right until you find your kind of wire. Then look up (feet) or down (meters) to find your maximum wire distance.
- If your wire is not among the examples, simply measure its total resistance and find that value on the right side of the graph. The maximum supported wattage is on the left.



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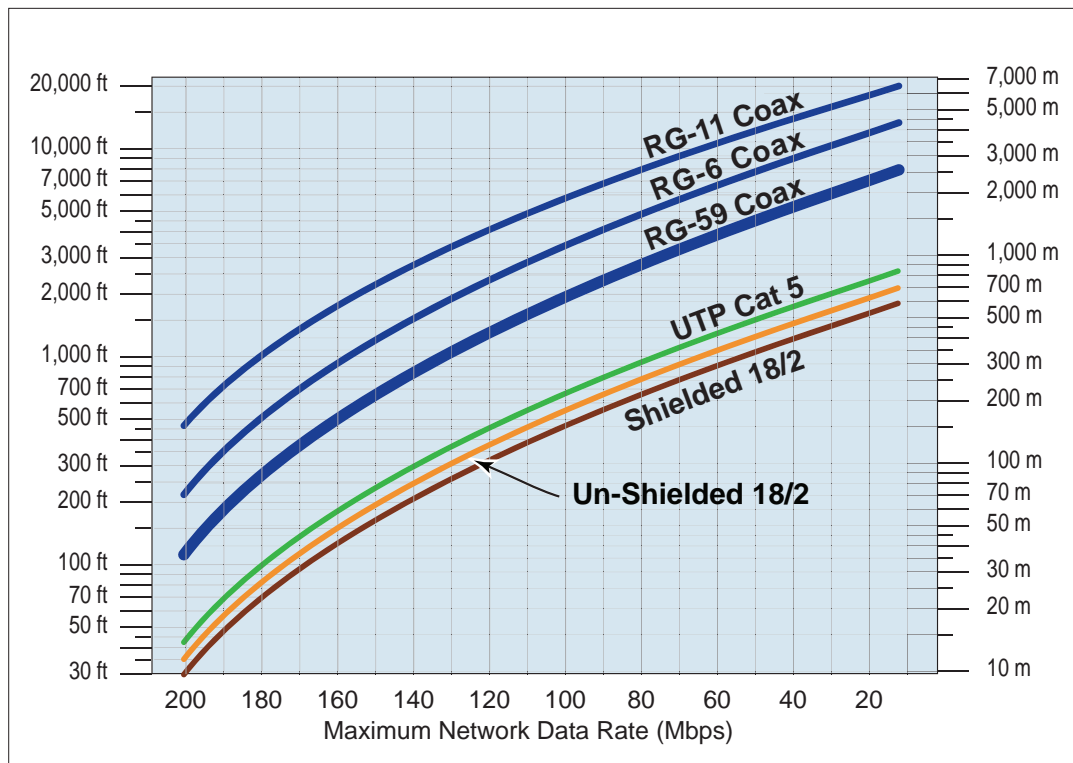


## Model NV-ER1808i TBus™ Eight Port Receiver Hub

### Wire Type and Data Distance Capacity

In addition to the power distance limitation, maximum data throughput is limited by wire quality. The graph below will help you determine your data throughput.

A Distance Calculator can be found at [www.nvt.com](http://www.nvt.com).



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