

NV-EC1701U

ETHERNET over 2-Wire TRANSCEIVER, SINGLE CHANNEL (BNC INPUT) – Page 1

TECHNICAL SPECIFICATIONS

SECURITY SYSTEM

DIVISION 16 – ELECTRICAL

SECTION 16770 – CLOSED CIRCUIT TELEVISION (CCTV) SYSTEM

PART 2 – PRODUCTS

2.1 GENERAL

- A. All equipment and materials used shall be standard components that are regularly manufactured and utilized in the manufacturer's system.
- B. All systems and components shall have been thoroughly tested and proven in actual use.
- C. All systems and components shall be provided with technical support numbers from the manufacturer. The numbers shall provide technical assistance for either the dealer/installer or the end user at no charge for as long as the product is installed.

2.2 Ethernet over 2-wire Transceiver, Single Channel

- A. The Ethernet over 2-wire Transceiver shall be capable of transferring 10/100 Base T Full Duplex Ethernet up to 1,000ft (305m) over 18/2 or similar.
- B. The Ethernet over 2-wire transceiver shall be able to power PoE IP cameras or other PoE PD devices, up to 50 watts.
- C. Up to four transceivers can be rack mounted on an an NV-RMEC16U-90 Ethernet over 2-wire Rack Mount Tray Kit, connecting up to 16 cameras.
- D. One Ethernet over 2-wire transceiver at the network end can support up to four remote Ethernet over 2-wire transceivers.
- E. No PC required for configuration
- F. Shall feature 128-bit AES encrypted transmission
- G. The Ethernet over 2-wire transceiver shall have built-in transient protection.
- H. The Ethernet over 2-wire transceiver shall be powered by an external desk style power supply with automatic reset. The power supply shall have an IEC380-C14 power inlet and 6ft (1.8m) line-cord. Input Voltage shall be 100 ~ 240VAC 50-60 Hz. A molded P1J 5.5 barrel connector shall provide a Class 2 (SELV) 56VDC output. The Power Supply shall be with Efficiency VI.
- I. The Ethernet over 2-wire transceiver shall have a power consumption of 3 W @ 55VDC.

- J. The Ethernet over 2-wire transceiver shall have the following environmental specifications:
 - Operating Temperature: -40°F to +104°F (-40°C to +40°C)
 - Storage Temperature: -40°F to +185°F (-40°C to +85°C)
 - Humidity: 20 to 85% non-condensing
- K. The Ethernet over 2-wire transceiver shall have a Blue “Power-On” LED.
- L. The Ethernet over 2-wire transceiver shall have a Green “BNC Link” LED.
- M. The Ethernet over 2-wire transceiver shall have a Green “RJ45 Link” LED.
- N. The Ethernet over 2-wire transceiver shall meet or exceed the following design and performance specifications:

RJ45 ETHERNET INTERFACE

Connectivity shall be RJ45, auto-crossover; wire type shall be 4-pair Cat5 or better; distance shall be up to 328ft (100m); speed shall be 10/100 Base T, half/full duplex, auto-negotiation, auto MD/MDIX cross-over.

Latency shall be 3mS

Data throughput shall be 93Mbps +/- useable bandwidth per network

Power output; This Power Sourcing Equipment (PSE) and shall support Powered Devices (PDs) that are compatible with IEEE 802.3at or 802.af, or PDs that draw up to 50 watts.* Switched 55VDC outputs appear on pins 4&5, 7&8, and are current-protected and transient-protected. The interface performs PoE auto-discovery.

2-WIRE BUILDING WIRING INTERFACE

Connectivity shall be terminal strip to BNC filling an 18/2 or similar. One control room Ethernet over 2-wire transceiver plus up to four remote camera end transceivers shall be supported; impedance shall be 50 to 100Ω; distance shall be up to 1,000ft (305m), transmission technology shall be IEEE 1901, 128-bit AES encryption.

*Important Note: Distance may often be shorter due to power delivery voltage-drop on the wire. Maximum distances are end-to-end, including any UTP. System architecture shall support the simultaneous use of power supplies at more than one Ethernet over 2-wire Transceiver.

- O. The Ethernet over 2-wire transceiver shall have a weight of 5.1 oz (145g), a power supply weight of 10.6 oz, (300g), a power cord weight of 5.5 oz (160g), total weight of 20.3 oz (575g).
- P. The Ethernet over 2-wire transceiver shall have dimensions of Length: 5.1 in (131mm) x Height 1.3 in (33mm) x Width 1.5 in (38mm).

ETHERNET over 2-Wire TRANSCEIVER, SINGLE CHANNEL (BNC INPUT) – Page 3

- Q. The Ethernet over 2-wire transceiver shall be UL and cUL listed.
- R. The Ethernet over 2-wire transceiver shall be CE compliant.
- S. The Ethernet over 2-wire transceiver shall be FCC compliant.
- T. The Ethernet over Coax Ethernet over 2-wire Transceiver, Single camera device shall be the NVT Phybridge:
NV-EC1701U ~ Single Ethernet over 2-wire Transceiver (no power supply)

The accompanying power supply shall be the NVT:
NV-PS55-60W ~ 55VDC, 60 watt power supply

Accessories available:

NV-PS55-60W, 55VDC, 60 watt power supply
NV-RMEC16U-90, Ethernet over 2-wire Rack Mounting Tray Kit, holds up to (4) **NV-EC1701U** Transceivers and **NV-PS55-60W** or **NV-PS55-110W** power supplies

Alternately, Ethernet over 2-wire Transceiver Systems shall be available in Kit form:

Single camera kit shall be the NVT:
NV-EC1701U-KIT1, or equivalent and shall include (2) **NV-EC1701U**,
(1) **NV-PS55-60W**

Two camera kit shall be the NVT:
NV-EC1701U-KIT2, or equivalent and shall include (3) **NV-EC1701U**,
(1) **NV-PS55-60W**

Three camera kit shall be the NVT:
NV-EC1701U-KIT3, or equivalent and shall include (4) **NV-EC1701U**,
(1) **NV-PS55-60W**

Four camera kit shall be the NVT:
NV-EC1701U-KIT4, or equivalent and shall include (5) **NV-EC1701U**,
(1) **NV-PS55-60W**

EoC Transceiver Systems also available in 110 Watt Kit Form, please contact NVT Phybridge for details.