PART 2 – PRODUCTS

2.01 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 the availability of a toll-free (U.S. and Canada) technical support number from the manufacturer. The number shall provide technical assistance for either the dealer/installer or the end user at no charge for as long as the product is installed.

2.02 UNSHIELDED TWISTED-PAIR POWER-VIDEO-DATA TRANSCEIVER, PASSIVE

A. The power-video-data (PVD) transceiver device shall be capable of transmitting and receiving baseband monochrome or color video signals over unshielded twisted-pair (UTP) telephone wire to a passive transceiver up to a distance of 750 feet (225 m).

B. Distances up to 3,000 feet (1,000 m) shall be supported when used in conjunction with a NVT DigitalEQ™ Hub or amplified (active receiver). Distances up to 1,500 feet (450m) shall be supported when used in conjunction with a StubEQ™ Hub.

C. The transmitting device shall accept a baseband video signal from a 75-ohm source.

D. The receiving device shall deliver a baseband video signal capable of driving a 75-ohm load.

E. “Up the Coax” Pan/Tilt/Zoom controls shall be supported up to 750 feet (225 m) when using this transceiver to transmit the signal to a passive receiver.

F. The transceiver shall have built-in video transient protection without the need for a ground connection.

G. The transceiver shall be equipped with an inline male BNC for 75-ohm camera connection. There shall be a 9in (228mm) mini-coax cable between the BNC and the transceiver body.

H. The transceiver shall route power, video, and data signals via UTP and RJ45 or screw-less terminal block for organized pass-through of power and data.

I. The transceiver is to be used with Power-Video-Data Cable Integrator for organized cable management between control equipment and the wiring closet or IDF or with another power-video-data transceiver device.

J. The transceiver shall meet or exceed the following design and performance specifications:
   a. Have typical common-mode rejection of 60 dB between the frequencies of 15 KHz to 5 MHz.
   b. The transceiver shall have a frequency response from DC to 10 MHz.
   c. The transceiver shall have a typical attenuation of 0.5 dB or better.
d. The transceiver shall provide transient immunity of per ANSI/IEEE 587C62.41.

e. The transceiver shall be for indoor use or for use in an environmental enclosure and allow a maximum operating temperature range of –20 to 75 degrees Celsius.

K. The transceiver shall be capable of utilizing 24-16 AWG (solid or stranded) UTP wire with the following pinouts:

- Pin 1: Video +
- Pin 2: Video –
- Pin 3: Data +
- Pin 4: Power –
- Pin 5: Power +
- Pin 6: Data –
- Pin 7: Power +
- Pin 8: Power –

L. The transceiver shall be capable of utilizing Category 2 or better UTP without compromising interference immunity or transmission distances.

M. The transceiver shall have a weight of 2.0oz (60g).

N. The transceiver shall have a body depth of 0.85in (22mm), body length of 1.50in (38mm) and a body height of 1.54in (39mm).

O. The transceiver shall be UL and cUL listed.

P. The transceiver shall be CE compliant.

Q. The transceiver shall be provided with a limited lifetime warranty.

R. The Unshielded Twisted-Pair Power-Video-Data Transceiver, Passive, shall be the NVT:

- a. NV-218A-PVD or
- b. Approved equal