



TWR SERIES

RACK MOUNTED VIDEO TRANSCEIVERS FOR TWISTED PAIRS

- Range up to 2000 feet (600 meters) with CAT5e UTP and over 1000 feet (300 meters) with ordinary telephone cable
- Passive device. No power supply required
- High reliability and durability
- **TWR-9: 9 Inputs**
TWR-18: 18 Inputs
TWR-9S & TWR-18S: Surge Protected Models



The TWR series provides a convenient rack-mounted solution for multiple camera installations using baluns to transmit the video signal over twisted pair cable. The TWR-9 has 9 balun inputs, while the TWR-18 has 18.

A balun is a passive, non-amplified device which allows video signals to be transmitted over unshielded twisted pair (UTP) telephone cable. This means of video transmission provides significant savings when compared to traditional coaxial cable.

Each input consists of a special type of transformer which converts the video signal to a 75 Ohms unbalanced output which can be connected to a coaxial cable compatible with the input of any monitor, VCR or multiplexer.

Due to the excellent balance provided by the TWR series the video signal will not affect or be affected by other signals, even when they are transmitted in contiguous pairs. You can transmit data, telephone signals or low voltage power using neighboring pairs without affecting video signal quality. Most of the electrical noise and RF interference which affect coaxial cables are eliminated by the TWR series.

Using twisted pairs will bring cost savings in several ways. Twisted pairs are less expensive than coaxial cable. It may also be possible to use previously installed telephone cables with unused pairs. The UTP CAT5E

cable, widely used in computer local area networks (LANs), allows you to send signals from 4 cameras up to 2000 feet (600 meters). In addition to reduced cost, it is easier to achieve a neat and attractive installation compared to conventional CCTV installations with coaxial cable. Also, splicing is much cheaper and faster compared to a properly-installed coaxial joint.

When used with Stealth Laboratories rack-mounted CCTV power supplies, the TWR series provides an efficient and attractive integrated power and video solution for head end equipment.

TECHNICAL SPECIFICATIONS – TYPICAL VALUES

Frequency response: DC to 12 MHz

Insertion losses: max 0.5 dB at 5 MHz

Common mode rejection ratio: ≥ 60 dB from 15 KHz to 5 MHz.

Impedance, coaxial side: 75 Ohms

Impedance, balanced side: 100 Ohms $\pm 20\%$

Maximum signal voltage: 1 Vpp

Surge protection (S models only): 1.5V clamping voltage; 1.1 Amps surge current, < 1 nanosecond clamping time.

