

# OPERATION MANUAL



UST102PV-M



UST102PV-F

Single Channel Passive CAT5 Video POE Transceiver  
Common-Mode Chokes for Both Video POE Channels  
Hum-Bars Rejective Video BALUN w/ PWR Connector

## Video Transceiver Introduction

The Elinx UST102PV CAT5 Video Transceiver with Power is a passive (non-amplified) device that allows the transmission of real-time monochrome or color video over Unshielded Twisted-Pair (UTP) telephone wire. Baseband (composite) signals of any type are supported.

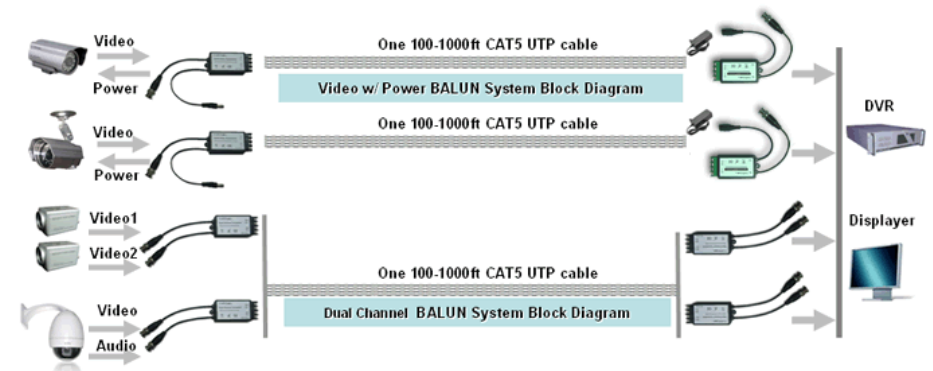
The UST102PV video transceiver allows transmission of CCTV video and low voltage power over UTP cable. The UST102PV incorporates the transceiver engine of Elinx's popular UST102BP or UST102VP video transceiver with the added value of camera power connections. Power and Video are routed via UTP and RJ45 connections. Used at the camera, the passive UST102PV has a compact body, a male BNC with 120mm coax cable connection to the camera or DVR, and is compatible with other BALUN product line. Connect the RJ45 to 4-pair cable to be routed to cable integrator and on to an active or passive receiver hub in the MDF/Control Room.

The unparalleled interference rejection and low emissions of the UST102PV allows video signals to co-exist in the same wire bundle as telephone, datacom, or low-voltage power circuits. This allows the use of a shared or existing cable plant.

## Equipment Specifications

Cable Distance: Up to 1500ft Transmitter-Receive UTP Cat 5 or better.  
Point to Point transmission of real-time PAL, NTSC or SECAM CVBS video signal.  
Transient protection, ESD protection, damaging voltage spike problems is eliminated for both video and POE channel.

## CAT5 Video Transceiver System Configuration Diagram



## Technical Specifications

- Video Frequency Response: DC to 6 MHz
- Common-mode/Differential-mode Rejection:  
Video: 15KHz to 5 MHz, 60 dB typical. Power: 10KHz to 100KHz, 58dB
- Loop Return Loss Rejection: over 18dB
- Line Impedance: Male BNC 75 ohms, CAT5 line, Terminal Block 100 ohms.
- Wire Type: One Unshielded Twisted Pair 24-16 AWG (0.5-1.31mm).  
Category Type Cat 5 or better. Impedance 100±20 ohms.
- DC Loop Resistance 52ohms per 1,000 ft (18 ohms per 100m).
- Differential Capacitance 19pF/ft max (62pF/m max).
- Power Supply: 12V to 48V DC/AC power supply from UST102PV-M, Output from UST102PV-F

## Environmental

Temperature -20°C to +65°C.  
Humidity (non-condensing) 0 to 95%.

## Transient Immunity per ANSI/IEEE 587 C62.41

## Mechanical

Dimensions: 85\*38\*22mm with 120mm coax and power female or male cable  
Material: Black ABS housing case