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MANUAL PART NUMBER: 400-0431-005

**TP115-110**

**COMPUTER/COMPONENT VIDEO + AUDIO  
TWISTED PAIR TRANSMITTER  
USER'S GUIDE**

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**EALTINEX<sup>®</sup>**



# SPECIAL APPLICATION

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## PRECAUTIONS / SAFETY WARNINGS 1

Please read this manual carefully before using your **TP115-110**. Keep this manual handy for future reference. These safety instructions are to ensure the long life of your **TP115-110** and to prevent fire and shock hazards. Please read them carefully and heed all warnings.

### 1.1 GENERAL

- Qualified ALTINEX service personnel or their authorized representatives must perform all service.

### 1.2 INSTALLATION

- To prevent fire or shock, do not expose this unit to water or moisture. Do not place the **TP115-110** in direct sunlight, near heaters or heat-radiating appliances, or near any liquid. Exposure to direct sunlight, smoke, or steam can harm internal components.
- Handle the **TP115-110** carefully. Dropping or jarring can damage the unit.
- Do not pull any cables that are attached to the **TP115-110**.

### 1.3 CLEANING

- Clean only with a dry cloth. Never use strong detergents or solvents such as alcohol or thinner. Do not use a wet cloth or water to clean the unit. Do not open the unit to clean.

### 1.4 FCC NOTICE

- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
- Any changes or modifications to the unit not expressly approved by ALTINEX, Inc. could void the user's authority to operate the equipment.

## ABOUT YOUR TP115-110

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### TP115-110 COMPUTER/COMPONENT VIDEO + AUDIO TO TWISTED PAIR (TP) TRANSMITTER

The **TP115-110** provides transmission of computer video and audio signals over Twisted Pair-type (CAT-5) cable when used together with an ALTINEX Twisted Pair receiver, such as the TP115-111. Stereo audio input is received via the 3.5 mm jack and is converted to mono prior to transmission over the CAT-5 cable. The **TP115-110** is lightweight, streamlined, and easy to use.

This unit offers video equalization for up to 400 ft (122 m) and the signal detect feature shows when a signal is present.

The latest generation of Twisted Pair devices uses an innovative, patented technology\* developed by ALTINEX. The new signal processing technology allows transmitting and receiving fully equalized computer video signals, stereo, and audio signals over long distances. The maximum distance at full UXGA resolution is 400 ft (122 m) between devices and may reach up to 750 ft (230 m) at VGA resolution.

#### OPTIONS

A second RJ-45 connector may be added to drive two TP receivers, or the input connectors may be substituted for use with composite or S-Video signals.

\* US Patent 7,065,190

## TECHNICAL SPECIFICATIONS

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Specifications are subject to change.  
See [www.altinex.com](http://www.altinex.com) for up-to-date information.

FEATURES/ DESCRIPTION	TP115-110
<b>GENERAL</b>	
<b>Inputs</b>	
RGBHV/YPbPr	15-pin HD female
Stereo Audio	3.5mm female
<b>Output</b>	
Video + Audio	RJ-45 female
<b>Compatibility</b>	
Signal types	ALTINEX – Twisted Pair Standard for TP Series
Signal resolutions	VGA through UXGA or 480p, 567p, 720p, 1080i

Table 1. **TP115-110** General

MECHANICAL	TP115-110
Weight	1.0 lb (0.45 kg)
Enclosure	0.09" Aluminum, Black Semi Gloss
Length	4.58 in (116 mm)
Width	3.50 in (89 mm)
Height	0.96 in (24 mm)
T° Operating	10°C-50°C
T° Maximum	75°C
Humidity	90% non-condensing
MTBF (calc.)	38,000 hrs

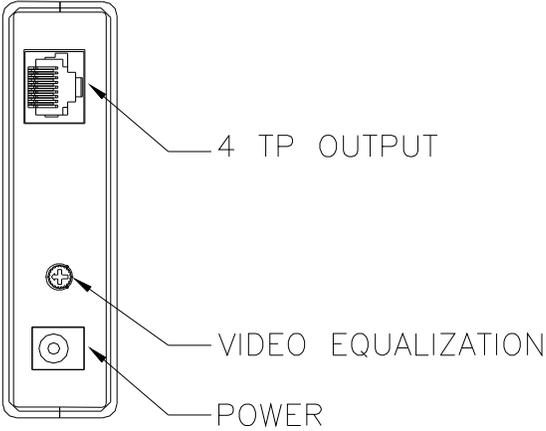
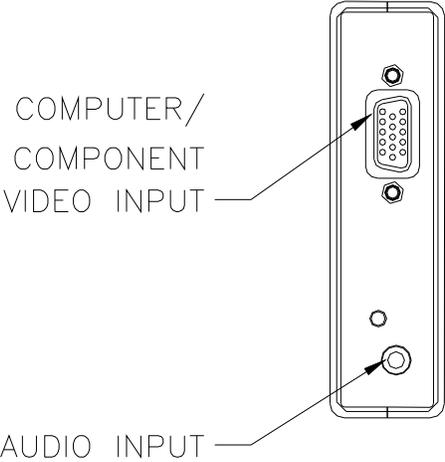
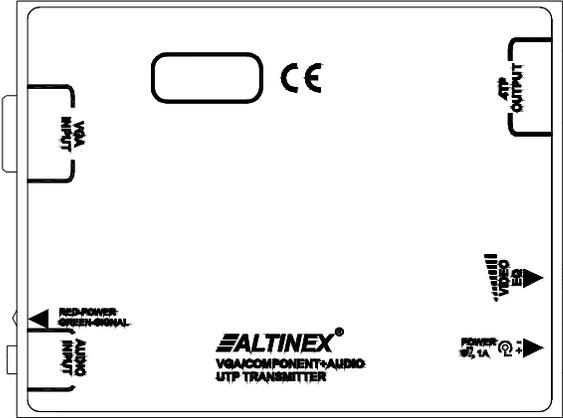
Table 2. **TP115-110** Mechanical

ELECTRICAL	TP115-110
<b>Input</b>	
Video Analog Signal	1.0 Vp-p max.
Video Sync Level	TTL
Audio Signal Level	0 dBu
<b>Output</b>	
Video + Mono Audio	ALTINEX – Twisted Pair Standard for TP Series
<b>Power</b>	
9 VDC Power	3.6 W max.

Table 3. **TP115-110** Electrical

# SPECIAL APPLICATION

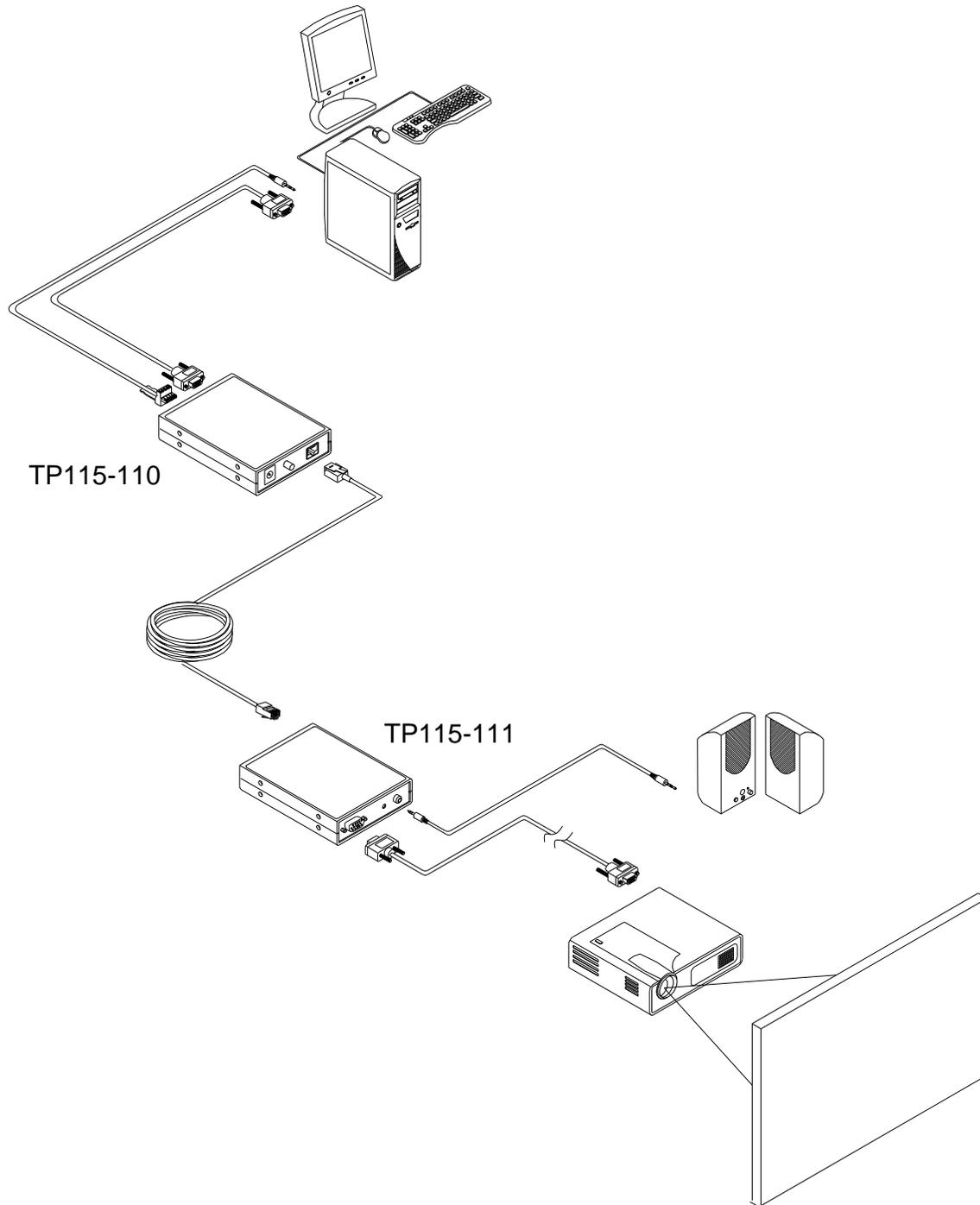
**PRODUCT DESCRIPTION**



## APPLICATION DIAGRAMS

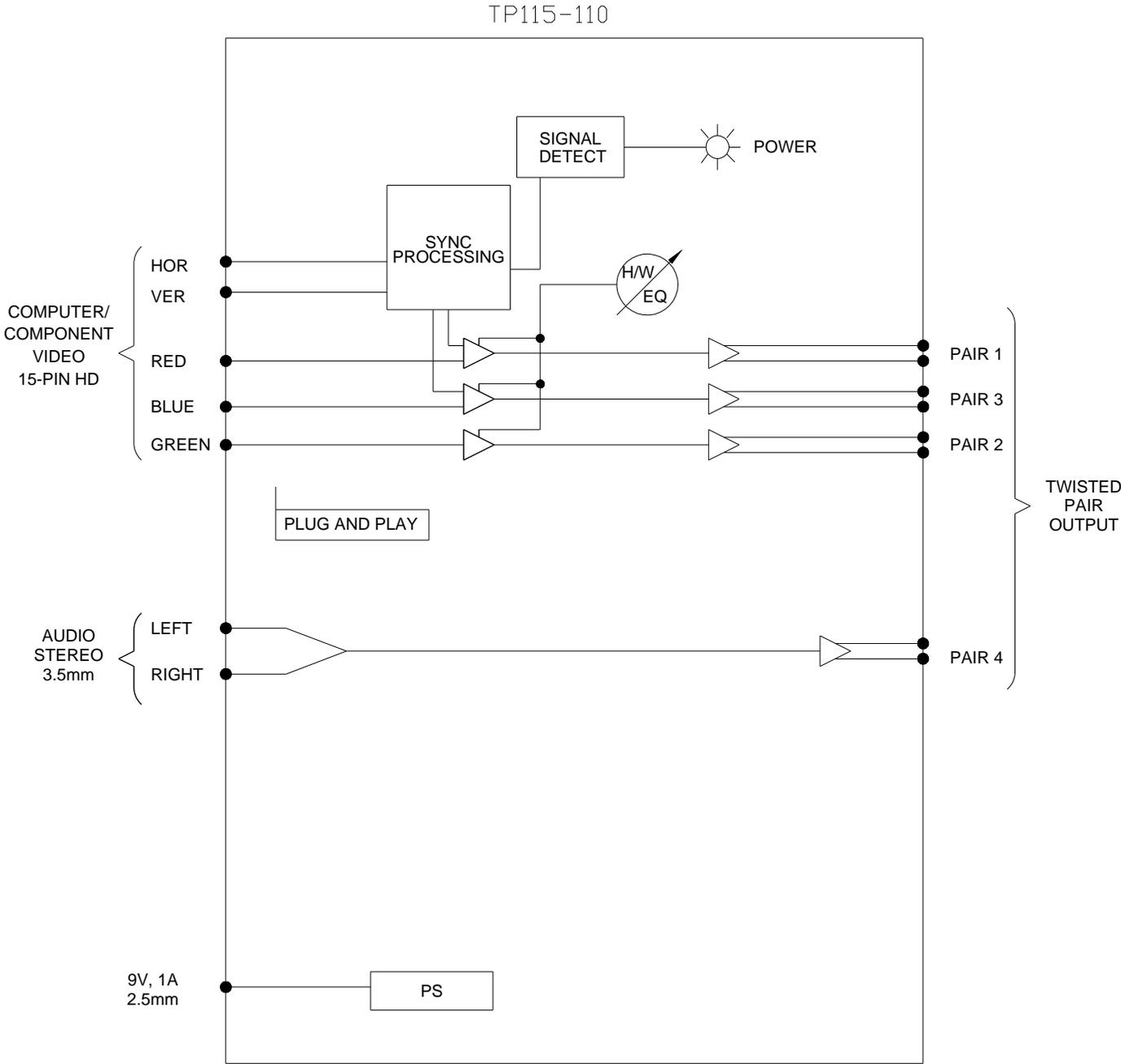
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### DIAGRAM 1: TYPICAL SETUP



# SPECIAL APPLICATION

**DIAGRAM 2: INTERNAL VIEW**



## INSTALLING YOUR TP115-110 6

- Step 1.** Determine the best location for the **TP115-110** and TP115-111. Where possible, locate the **TP115-110** as close to the video source as possible and the TP115-111 as close to the receiving component as feasible.
- Step 2.** Apply power to the **TP115-110** using the power adaptor provided. The Power LED should be on and red.
- Step 3.** Connect the video source to the input of the **TP115-110** using a high-quality video cable.
- Step 4.** The Power LED should change from red to green indicating a signal is present.
- Step 5.** Connect the audio input source to the audio jack on the **TP115-110**.
- Step 6.** Run a CAT-5 cable from the 4TP OUTPUT of the **TP115-110** to the 4TP INPUT on the TP115-111.
- NOTE:** Ensure good signal transmission by routing the cable avoiding any sharp angles, creases, or bends.
- Step 7.** Connect the TP115-111 video and audio outputs to their receiving devices.
- NOTE:** The L+, L- and GND outputs on the TP115-111 terminal block output contain the mono audio output signal. The R+ and R- pins are not used.
- Step 8.** Apply power to the TP115-111 using the power adaptor provided. The Power LED should be on and red; green if a signal is present.
- Step 9.** The units are now operational.

## OPERATION 7

The **TP115-110** requires only one adjustment be made for optimal performance. The adjustment is video equalization for long cable lengths.

### 7.1 VIDEO EQUALIZATION

Video equalization is provided to fine-tune the displayed image on the remote display. Typically, the equalization will be set to near minimum for short cable runs. Cable lengths up to 400 ft (122 m) will require near maximum equalization.

The equalization adjustment on the **TP115-110** works together with the TP115-111 to provide equalization for maximum cable lengths. For example, for cable runs less than 50 ft (15 m), both equalization settings may be set to near minimum. Cable runs of 400 ft (122 m) will see equalization settings at about the three-quarter position.

## TROUBLESHOOTING GUIDE 8

We have carefully tested and have found no problems in the supplied **TP115-110**. However, we would like to offer suggestions for the following:

### 8.1 NO DISPLAY

**Cause 1: The source has a problem.**

**Solution:** Check the source and make sure there is a signal present and all source connections are correct. If the source is working and there is still no display, see Cause 2.

**Cause 2: The path has a problem.**

**Solution:** Connect the transmitter directly to the receiver using a short CAT-5 patch cable. If the image is good, there is a problem with the cable. Otherwise, see Cause 3.

**Cause 3: Cable connections are incorrect.**

**Solution:** Make sure the cables are properly connected. Also, make sure that the continuity and wiring are good. If there is still no display present, see Cause 4.

**Cause 4: Video equalization required.**

*Solution:* Adjust the VIDEO EQUALIZATION on the **TP115-110**. Long cable runs may require adjustment on both the **TP115-110** and TP115-111.

In general, cable runs less than 50 ft (15 m) require little or no video equalization and should be set to minimum. Cable runs up to 400 ft (122 m) will require near maximum equalization on both the transmitter and receiver.

**Cause 5: The display has a problem.**

*Solution:* Make sure the display is powered and is turned on. If there is still no display, please call ALTINEX at (714) 990-2300.

## 8.2 NO SOUND

**Cause 1: The source has a problem.**

*Solution:* Check the source and make sure that there is a signal present and all source connections are correct. If the source is working and there is still no sound, see Cause 2.

**Cause 2: The volume is too low.**

*Solution:* Increase the gain at the source toward maximum. If there is still no sound present, see Cause 3.

**Cause 3: Cable connections are incorrect.**

*Solution:* Make sure that cables are properly connected. Also, make sure that the continuity and wiring are good. If there is still no sound, see Cause 4.

**Cause 4: The receiving device has a problem.**

*Solution:* Make sure the receiving device is powered and is turned on. If there is still no sound, please call ALTINEX at (714) 990-2300.

## ALTINEX POLICIES

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### 9.1 LIMITED WARRANTY/RETURN POLICIES

Please see the ALTINEX website at [www.altinex.com](http://www.altinex.com) for details on warranty and return policies.

### 9.2 CONTACT INFORMATION

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