

MANUAL PART NUMBER: 400-0198-002

## DA1930CT

# VGA + AUDIO TO CAT-5 TRANSMITTER USER'S GUIDE

## TABLE OF CONTENTS

	Page
PRECAUTIONS / SAFETY WARNINGS .....	2
GENERAL.....	2
INSTALLATION .....	2
CLEANING.....	2
FCC / CE NOTICE.....	2
ABOUT YOUR DA1930CT .....	3
TECHNICAL SPECIFICATIONS.....	3
PRODUCT DESCRIPTION .....	4
APPLICATION DIAGRAM .....	5
DIAGRAM 1: TYPICAL CONFIGURATION .....	5
DIAGRAM 2 RJ-45 PINOUT .....	6
DIAGRAM 3 INTERNAL VIEW .....	7
INSTALLING YOUR DA1930CT.....	8
OPERATION .....	8
VIDEO EQUALIZATION.....	8
AUDIO GAIN.....	8
TROUBLESHOOTING GUIDE .....	9
LED IS NOT RED .....	9
LED IS NOT GREEN .....	9
NO SOUND.....	9
NO REMOTE IMAGE .....	9
REMOTE IMAGE QUALITY IS POOR .....	10
ALTINEX POLICY .....	10
LIMITED WARRANTY/RETURN POLICY .....	10
CONTACT INFORMATION .....	10

## PRECAUTIONS / SAFETY WARNINGS 1

Please read this manual carefully before using your **DA1930CT**. Keep this manual handy for future reference. These safety instructions are to ensure the long life of your **DA1930CT** and to prevent fire and shock hazard. 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 rain or moisture. Do not place the **DA1930CT** 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 **DA1930CT** carefully. Dropping or jarring can damage the unit.
- Do not pull the cables that are attached to the **DA1930CT**.

### 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 / CE 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 DA1930CT

2

### DA1930CT VGA + AUDIO TO CAT-5 TRANSMITTER

The **DA1930CT** provides a means of transmitting computer video and audio signals over twisted pair (CAT-5) type cable when used together with an ALTINEX Twisted Pair Video Receiver, such as the **DA1931CT**.

The **DA1930CT** is compact and easy to use. The **DA1930CT** is able to transmit any one of the video sources, such as VGA, Component Video, S-video or C-Video and Stereo Audio over the CAT-5/6 cable to the DA1931CT or equivalent receiver.

The **DA1930CT** provides Audio Loop output and buffered VGA Output for a Local Monitor connection. The **DA1930CT** offers a female 15-pin HD input with the native Plug & Play compatibility, 4 pin Mini-Din connector for S-Video and RCA connector for Composite Video Input. The 3.5mm Stereo Audio Jack with Loop Through is used for Audio Input. The 15-pin HD Female connector is used for local monitor output. The three female RJ-45 main outputs are providing distributed drive to three Twisted Pair cables. Unit also offers hardware audio volume control and Video Equalization for up to 400 feet. There is also a signal detect feature which shows when a signal is present.

## TECHNICAL SPECIFICATIONS

3

FEATURES/ DESCRIPTION	DA1930CT
<b>GENERAL</b>	
<b>Inputs Video</b>	
YPbPr (RGBHV)	15 PIN HD
S Video	4 PIN MINI DIN
Composite	RCA Jack
<b>Input Stereo Audio</b>	3.5mm Stereo Jack
<b>Outputs</b>	
Local Monitor	15 PIN HD
Local Audio	3.5mm Stereo Jack
Main Output	RJ-45 Female (3)
<b>Compatibility</b>	VGA thru UXGA, Stereo Audio

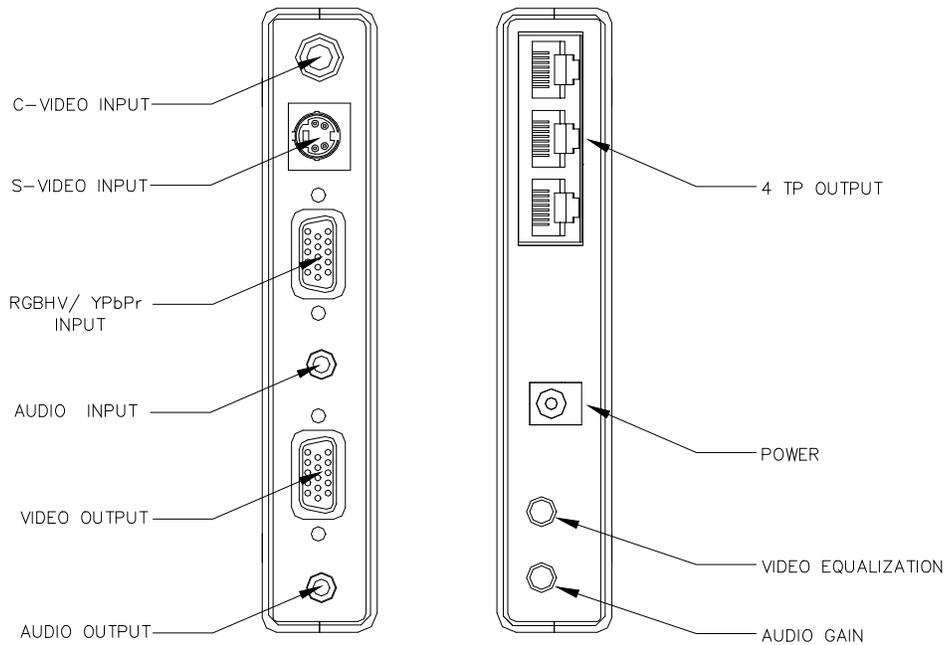
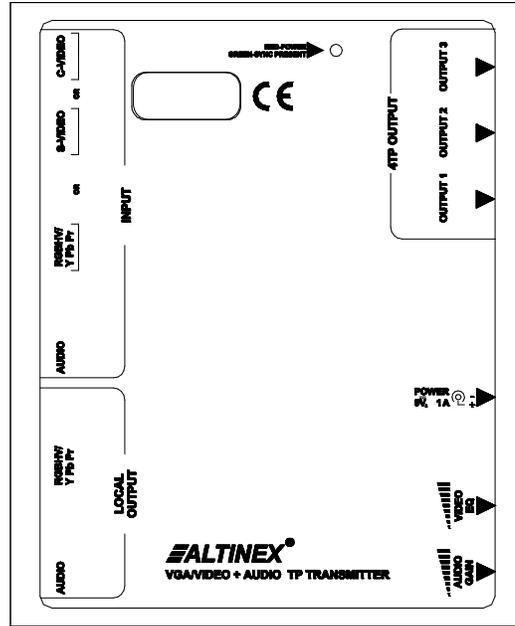
Table 1. **DA1930CT** General

MECHANICAL	DA1930CT
Material	0.1" Al
Finish	ALTINEX Grey
Top Panel	Lexan Overlay
Height (inches)	5.28in (134mm)
Width (inches)	4.29in (109mm)
Depth (inches)	0.98in (25mm)
Weight (pounds)	1.40lb (0.63kg)
Ship Weight (pounds)	2.1lbs (0.95kg)
T° Operating	10°C-35°C
T° Maximum	50°C
Humidity	90% non-condensing
MTBF (calculations)	40,000 hrs

Table 2. **DA1930CT** Mechanical

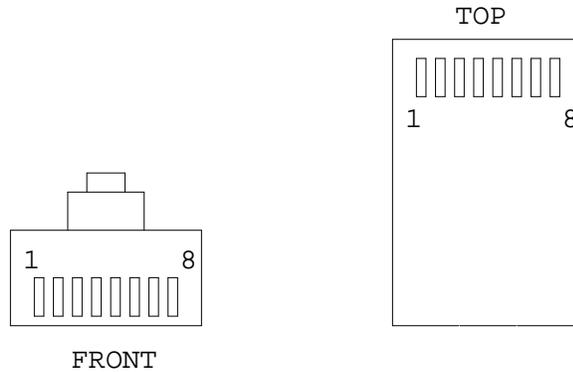
ELECTRICAL	DA1930CT
<b>Input Video Signal</b>	
Analog Signal Level	1.2 Vp-p max
Impedance	75 Ohms
<b>Input Sync Signal</b>	
HSYNC/VSYNC	TTL
Impedance	10 kOhms
<b>Input Audio Signal</b>	
Impedance	10 kOhms
Max Level	1 Vp-p
<b>Output Signals</b>	
Local Monitor RGBHV Impd.	75 Ohms
Local Audio	Direct Thru from Input
<b>Power</b>	
External Adapter (included)	9V DC, 1A

Table 3. **DA1930CT** Electrical





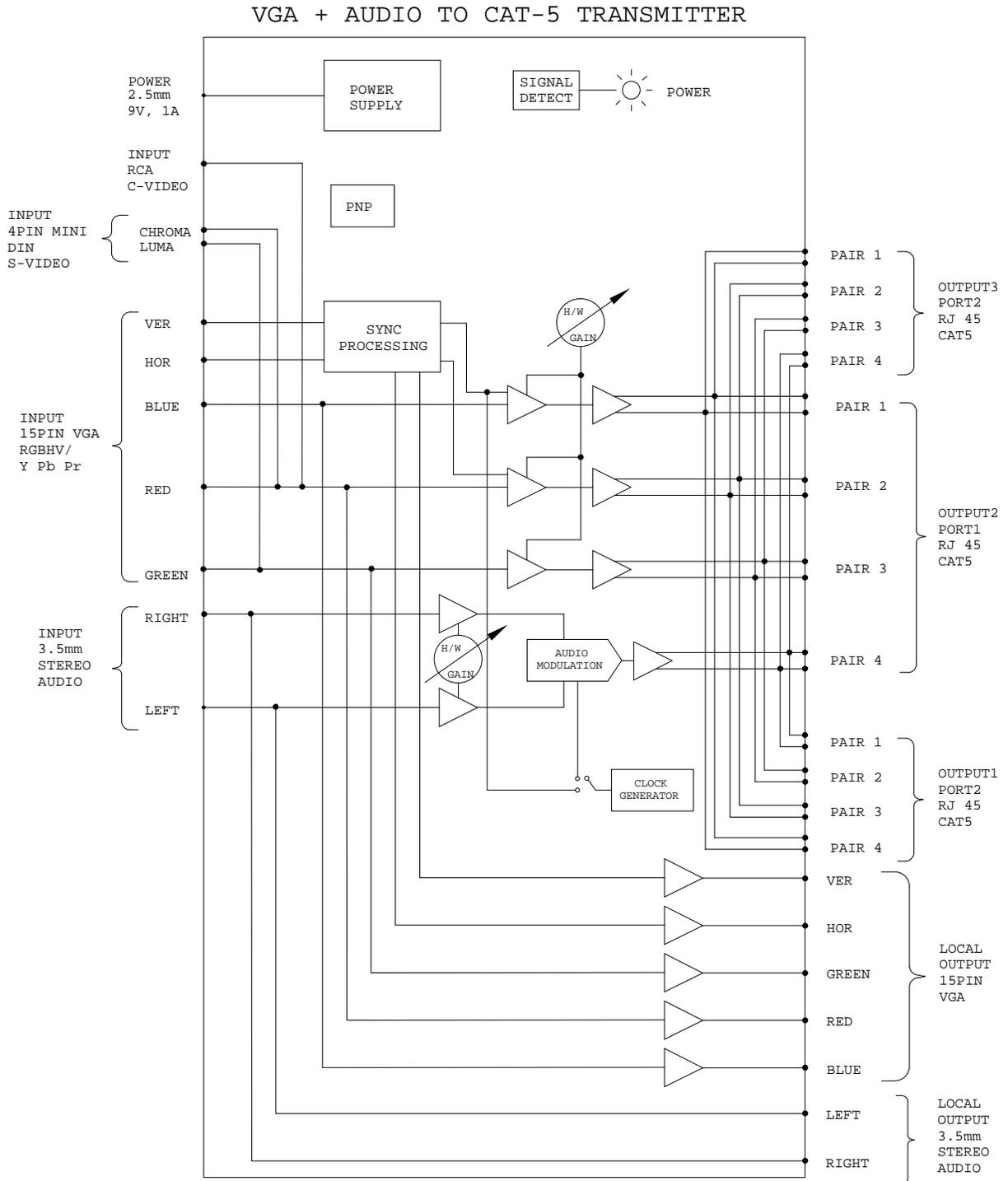
## DIAGRAM 2 RJ-45 PINOUT



Pin Number	RJ-45 Output Signals
1	Orange/White
2	Orange
3	Green/White
4	Blue
5	Blue/White
6	Green
7	Brown/White
8	Brown

Table 1  
Standard 568B Wiring Color Code

DIAGRAM 3 INTERNAL VIEW



## INSTALLING YOUR DA1930CT 6

- Step 1.** Plug the 9V power adapter into an AC outlet and then connect the other end to the POWER input jack on the **DA1930CT**.
- Step 2.** Verify the LED near the top of the unit is illuminated RED indicating power is applied.
- Step 3.** Connect the video output from the local computer to one of the video inputs, either RGBHV/YPbPr or S-Video or Composite Video.
- Step 4.** Verify the power LED at the top of the unit changes to GREEN, indicating a SYNC signal has been detected.
- Step 5.** Connect the stereo audio output from the local computer to the AUDIO input on the **DA1930CT**.
- Step 6.** Connect the local monitor to the LOCAL OUTPUT video connector labeled RGBHV/YPbPr on the **DA1930CT**.
- Step 7.** If using external speakers on the local device, connect the local audio speaker inputs to the LOCAL OUTPUT labeled AUDIO on the **DA1930CT**.
- Step 8.** Connect a CAT-5 cable to one of the 4TP OUTPUT connectors on the **DA1930CT**. The other end of the cable should be connected to a **DA1931CT** Receiver, and the receiver should be connected to a monitor device and audio device.
- Step 9.** Verify the picture quality on the receiving monitor is equivalent to the quality as displayed on the local monitor. If the quality of the image is poor or non-existent, it may be necessary to adjust the Video Equalization on the **DA1930CT** and/or **DA1931CT**. See the OPERATION section that follows for details.

## OPERATION 7

The **DA1930CT** requires only two adjustments to be made for optimal performance. The first is Video Equalization for long cable lengths. The second is Audio Gain for volume control of the main (CAT-5) output,

### 7.1 VIDEO EQUALIZATION

Video Equalization is provided to fine tune the displayed image on the remote display. Typically, for short cable runs the equalization will be set to near minimum. Cable lengths up to 400 feet will require near maximum equalization.

The equalization adjustments on the **DA1930CT** and **DA1931CT** work together to provide equalization for maximum cable lengths. For example, for cable runs less than 50 feet, both equalization settings may be set to approximately minimum, since on the short distances no equalization is required. Where as cable runs of 400 feet will see equalization settings at about the three-quarter position.

### 7.2 AUDIO GAIN

Normally, the AUDIO GAIN control on the **DA1930CT** will be set to maximum. When set to maximum, the transmitted volume will be equivalent to the volume from the audio source. If necessary, the transmitted volume may be reduced as required by the user.

We have carefully tested and have found no problems in the supplied **DA1930CT**. However, we would like to offer suggestions for the following:

### 8.1 LED IS NOT RED

The LED should be ON and RED when power is applied and there is no video signal present. If the LED is ON and GREEN, the unit is receiving power and a SYNC signal.

**Cause 1: No AC power.**

*Solution:* Verify the adapter is plugged into a working AC outlet and that the outlet has power.

**Cause 2: Adapter is not plugged into DA1930CT.**

*Solution:* Verify the DC power plug coming from the AC adapter is plugged all the way into the **DA1930CT**.

**Cause 3: The DA1930 has a problem.**

*Solution:* If there is AC power to the adapter and the LED still does not turn on, the **DA1930CT** or the power adapter may require service. Call ALTINEX at (714) 990-2300.

### 8.2 LED IS NOT GREEN

**Cause 1: There is no power.**

*Solution:* Disconnect the video input from the **DA1930CT** and verify the LED is ON and RED indicating power is present. Reconnect the computer's video output. If the LED is still not GREEN see Cause 2.

**Cause 2: There is no Sync signal.**

*Solution:* Verify the computer output is operating correctly by connecting it directly to the local monitor. If the display is good, call ALTINEX at (714) 990-2300.

### 8.3 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 AUDIO GAIN 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 has power and is turned ON. If there is still no sound, please call Altinex at (714) 990-2300.

### 8.4 NO REMOTE IMAGE

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

*Solution:* Check the image on the local monitor and verify the quality is good. If the local image is good, see Cause 2.

**Cause 2: Video equalization required.**

*Solution:* Adjust the VIDEO EQUALIZATION on the **DA1930CT**. Long cable runs may require adjustment on both the **DA1930CT** and the **DA1931CT**.

In general, cable runs less than 50 feet require little or no video equalization and should be set to minimum. Cable runs up to 400 feet will require maximum equalization on both the transmitter and receiver.

## 8.5 REMOTE IMAGE QUALITY IS POOR

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

*Solution:* Check the image on the local monitor and verify the quality is good. If the local image is good, see Cause 2.

**Cause 2: Video equalization required.**

*Solution:* Adjust the VIDEO EQUALIZATION on the **DA1930CT**. Long cable runs may require adjustment on both the **DA1930CT** and the **DA1931CT**. If the image is still not correct, call ALTINEX at (714) 990-2300.

## ALTINEX POLICY

9

### 9.1 LIMITED WARRANTY/RETURN POLICY

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

### 9.2 CONTACT INFORMATION

**ALTINEX, INC**

592 Apollo street

Brea, CA 92821 USA

**TEL:** 714 990-2300

**TOLL FREE:** 1-800-ALTINEX

**WEB:** [www.altinex.com](http://www.altinex.com)

**E-MAIL:** [solutions@altinex.com](mailto:solutions@altinex.com)