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Smart-AVI

Smart Audio Video Intergration

User Manual

USB-200

Use CAT5 to extend USB, Audio and XVGA up to 275ft.

Notice

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SmartAVI will not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance or use of this material.

Limited Warranty Statement

A. Extent of limited warranty

1. SmartAVI Technologies, Inc. warrants to the end-user customers that the SmartAVI product specified above will be free from defects in materials and workmanship for the duration of 1 year, which duration begins on the date of purchase by the customer. Customer is responsible for maintaining proof of date of purchase.
2. SmartAVI limited warranty covers only those defects which arise as a result of normal use of the product, and do not apply to any:

   a. Improper or inadequate maintenance or modifications

   b. Operations outside product specifications

   c. Mechanical abuse and exposure to severe conditions
3. If SmartAVI receives, during applicable warranty period, a notice of defect, SmartAVI Technologies will, at its discretion, replace or repair defective product . If SmartAVI is unable to replace or repair defective product covered by the SmartAVI warranty within reasonable period of time, SmartAVI shall refund the cost of the product.
4. SmartAVI shall have no obligation to repair, replace or refund unit until customer returns defective product to SmartAVI.
5. Any replacement product could be new or like new, provided that it has functionality at least equal to that of the product being replaced.
6. SmartAVI limited warranty is valid in any country where the covered product is distributed by SmartAVI.

Specifications

USB100 Specifications	
Electrical	
Range over CAT5 UTP	85m (275ft)
USB Data	
USB max data rate	12Mbps
USB Version compatibility	1.0 and 1.1
USB connector type	Type A (Transmitter) Type B (Receiver)
Video	
Signal	Analog signal: Red, Green, Blue 0.7 V p-p 75 Ohms
Resolution/Distance	640 x 480 1000ft; 800 x 600 850ft; 1024 x 768 700ft; 1200 x 1024 600ft; 1600 x 1200 560ft.
Sync	Horizontal and Vertical TTL compatible
Bandwidth	300MHz
Power	5VDC-1A

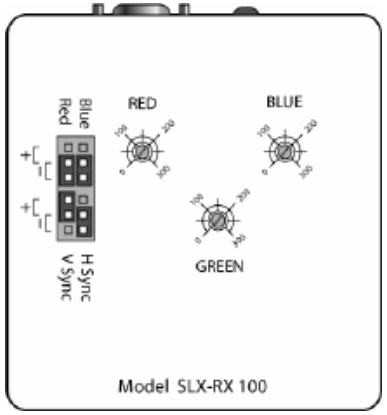
Troubleshooting

Problem	Solution
Power LED not lit	Connect optional power supply. Check wiring of CAT5 UTP cable to insure proper and good quality connections. If LED still not lit call the factory.
TR/RX Link LED not functional	Verify that the CPU is operational. If required reset it.
Peripheral Device is not working	Check if device works directly with the computer without the USB Extender.

Adjusting and Tuning the Signal

On the Bottom of the Receiver you will notice three small dials .

In order to fine tune the signal, adjust the individual dials one at a time starting with RED, then BLUE, and lastly GREEN. As you turn the dials you will notice the colors slightly change as you increase or decrease the strength. All dials should be approximately at the same distance.



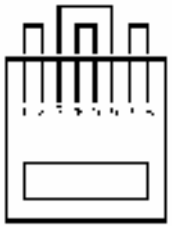
Preparing System CAT5 Cable

The SX-200 utilizes category 5 (CAT5), unshielded twisted pair (UTP) cable to transport signal between transmitter and receiver.

This cable is used for LAN applications and is found in abundance, already installed, in many buildings. The category 5 is a standard which establishes minimum requirements for telecommunications cabling within a commercial building. The standard covers various aspects of wiring including telecommunications outlets.

Following is the wiring standard for terminating CAT 5 cable using RJ 45 connector:

Pair 1 Pins 1 & 2
Pair 2 Pins 3 & 6
Pair 3 Pins 4 & 5
Pair 4 Pins 7 & 8



Connectors: RJ-45
Capacitance: 14 pf/ft (46.2 pf/m)
Conductor Gauge: 24 AWG
Impedance: 100 +/- 15 ohms
4 - Pair, (stranded) Foil Shielded

Limited warranty statement **2**

Installation and Operation **4**

Connecting Transmitter 4
Connecting Receiver 4
Operating instructions 5
Application diagrams 5
Adjusting and Tuning Signal 6
Preparing system CAT5 cable 6

Appendix **7**

Specifications 7
Troubleshooting 7

Connecting the transmitter

1. Connect the transmitter to the host using the A-B USB cable (included with the unit).
2. Connect the transmitter to the host VGA using SVGA cable (included with the unit).
3. The A side of the connector would go to the computer host and the B side would be connected to the transmitter. Check that power LED is lit. The TX/RX LED should not be flashing at this time.

A

B

Connecting the Receiver

1. Connect the receiver to the peripheral device using A-B USB cable (not included with the unit). In this case the A side of the connector will go to the receiver unit and the B side of the connector will go the peripheral. Use a USB Hub if needed (included with the unit)
2. Connect the receiver to the monitor
3. Join the USB-200 units using standard CAT5 UTP cable. (See page 6 for CAT5 specifications) Once connected check that the Power LED on both receiver and transmitter is on and TX/RX LED is flashing indicating that communication exists between the two units. If receiver LED is not on, connect power supply to the receiver.

Note: *the receiver provides remote power up to 500 mA to the connected peripheral. This power comes from the host computer and is passed by the transmitter to the receiver. In some applications, an external power supply is required.. SmartAVI can provide a power supply for such cases with the receiver and transmitter units.*

Operating Instructions

Once installation is completed verify that the power is present at all devices in the system. If computer was on during the set up it might be necessary to reboot the computer. The peripheral devices should be ready for use.

Application Diagrams

There are a number of basic ways in which USB Extenders fit into a system. In its basic application the extender is used to extend the computer's USB port to the remote location.