

## Technical Specifications

### IR-100 SPECIFICATIONS

<b>Range</b>	
AV+IR over CAT5 UTP	300m (1000 ft)
Remote Control Range	6 m (18 ft) 60 deg
<b>IR Input</b>	
Signal Type	30-500 kHz modulated IR
Connector	3.5 mm mini jack, Female
<b>Power</b>	12VDC
<b>Dimensions</b>	2.5" x 2.5" x 1.0" (85 x 84 x 35 mm)
<b>Weight</b>	.1 lb (0.3 Kg)

### ORDER INFORMATION

<b>Model</b>	<b>Description</b>
IR100	Extends InfraRed up to 1000ft using cat5

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# Smart-AVI

Smart Audio Video Integration

## User Manual

### IR100



Extend InfraRed control signals  
1000ft using a single CAT 5

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## Introduction

The IR100 allows the extension of InfraRed control signals via a single Category 5 twisted pair cable up to 1000ft using a unique method of transparent data transfer.

## Features

- Uses easy to install, inexpensive CAT5.
- Output reaches up to 1000 feet.
- Sends Infrared Remote and Power signals over single CAT5.
- High ground loop immunity.
- Built-in lightning, power surge and transient protection.
- Remote Units come with Buffered Outputs.
- Compact Enclosure.
- Optional power supply for remote unit.
- Fully compliant with standard modulated IR and the latest IRDA.
- Fully transparent path for all protocols and data transfers.

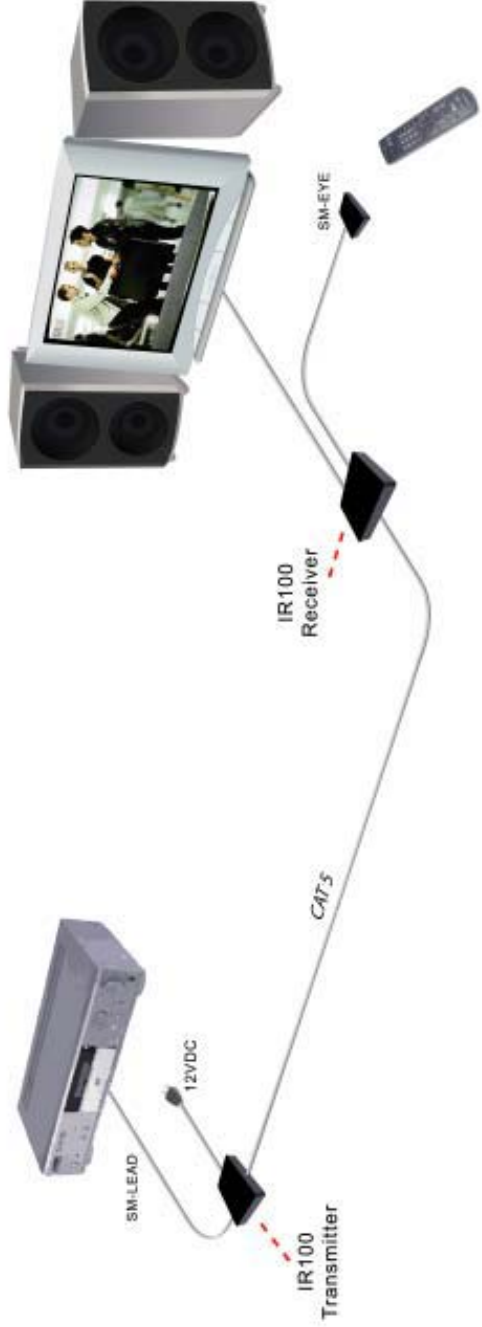
## Why IR Extenders are necessary?

The IR signal is a line of sight type of signal. If you require control of a device located a long distance away, extension of the IR receiver of the device may be a good option. In some applications the VCR or DVD or Satellite set-top box may be located in a different room, but control must be available for necessary selection.

## What's in the box?

IR 100 Package Contents		
Qty	Description	Part Number
1	IR 100 Transmitter	IR-TX100
1	IR 100 Receiver	IR-RX100
1	IR Emitter	SM-LED
1	IR Eye	SM-EYE
1	12VDC Power Supply	PS12VD1AU

## Installation Diagram



## Connecting The Transmitter

1. Connect IR LED to the IR window on the source device.
2. Connect power supply to the unit. Observe LED lighting up indicating power present

## Connecting The Receiver

1. Connect IR LED to the IR window on the source device.
2. Connect the IR EYE to the Receiver
3. Observe LED lighting up indicating power present

**Preparing & Connecting System CAT5 Cable**  
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