



**TRIBUTARIES®**

Bringing it all **together**

# HDMI™

HIGH-DEFINITION MULTIMEDIA INTERFACE

# EXTENDER

over CAT6 with IR Control



**HXC6IR**

**Extends HDMI 140 feet**

[www.tributariescable.com](http://www.tributariescable.com)

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## 1. Introduction

Tributaries HXC6IR HDMI & IR transmitter & receiver over CAT6 is a fully digital product. Many similar type units are actually analog; they convert the digital HDMI signal to analog in the transmitter unit, send it to the receiver unit via CAT5E cable where it is converted back to a digital signal. Not only is this an expensive design but it also sacrifices performance by the repeated digital to analog and analog to digital conversions.

Consisting of 2 units, a transmitter and a receiver, the Tributaries HXC6IR can extend an HDMI signal and the source's IR signal over dual CAT6 cables for a distance up to 145 feet (45 meters). The installation of the Tributaries HXC6IR is quick and easy. Simply place the transmitter next to your HDTV source, such as a DVD player, and then place the receiver close to your display. Complete the installation using Tributaries HDMI cables, the IR blaster & receiver (included) with the HXC6IR and 2 runs of CAT6.

To double your maximum distance, add the Tributaries HXC6R Repeater (optional). This passive device can be inserted at the end of the appropriate length of CAT6 cable run from the Tributaries HXC6IR transmitter unit. A similar length of CAT6 can be run to the Tributaries HXC6IR Receiver unit. The HXC6R supports all the features of the HXC6IR.

It is possible to substitute CAT5E cable for the CAT6. However, the maximum resolution capability will be limited to 1080p/8 bit color, HDMI v1.2.

All units are HDMI v1.3 certified supporting 12 bit Deep Color and new lossless compressed Digital Audio: Dolby TrueHD®, Dolby Digital Plus and DTS®-HD Master Audio with a bandwidth up to 2.25 GHz.

## 2. Features

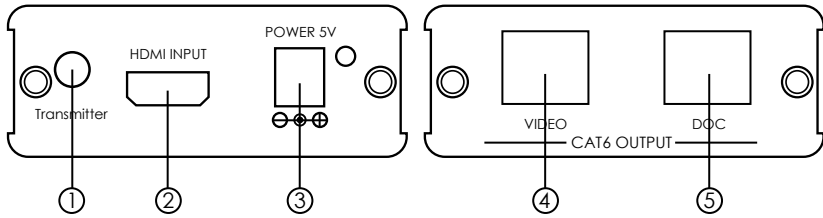
- Extends 12 bit color 1080p resolution up to 20 meters over dual CAT6.
- Extends 8 bit color 1080p resolution up to 45 meters over dual CAT6.
- Supports IR signal transmission from remote source to display over same dual CAT6.
- Supports the full range of IR frequencies from 20-60KHz.
- Supports new lossless compressed Digital Audio like Dolby TrueHD, Dolby Digital Plus and DTS-HD Master Audio.
- Equalization and timing of incoming TMDS data signal prior to re-transmission.
- Supports HDMI input and output cables up to 15 meters.
- CAT6 can be cascaded using Tributaries HXC6IR repeater for greater distance.
- Compliant with HDMI 1.3 HDCP 1.1 and DVI 1.1 standards.
- Supports CEC bypass.
- Supports xvYCC.

## 3. Package Contents

- HXC6IR-TX Transmitter
- HXC6IR-RX Receiver
- IR receiver cable
- IR blaster cable
- Two 5V/1A universal power supplies
- Operation manual

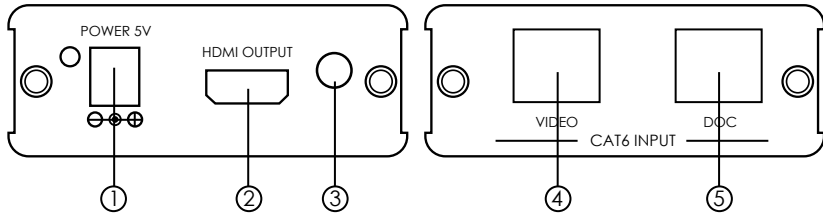
## 4. Operation Controls and Functions

### 4.1 Transmitter



- 1 IR Transmitter: Connect IR blaster cable included in box to this input. Place the eye of the blaster in front of the source equipment. The IR blaster accepts a frequency range from 20 KHz to 60 KHz.
- 2 HDMI Input: Connect the HDMI cable from your source's HDMI output
- 3 Power 5V: Connect the 5 volt power supply included in box
- 4 DDC CAT6 Output: Connect the DDC output of the Transmitter to the DDC input of the Receiver using CAT6 cable. CAT5E cable can be used if available with the same result.
- 5 VIDEO CAT6 Output: Connect the Video Output of the Transmitter to the Video input of the Receiver using CAT6E / 23AWG / solid cable. Note: using a Cable with different specification may result in different distance capabilities.

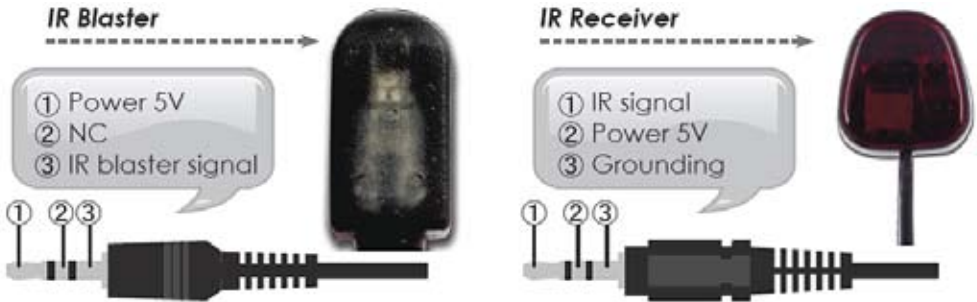
## 4.2 Receiver



- 1 Power 5V: Connect the 5 volt power supply included in box
- 2 HDMI Output: Connect an HDMI cable from your Display
- 3 IR Receiver: Connect the IR receiver cable (included) to this input. Place the eye in front of the display, then use the existing remote to control the source equipment. The IR receiver accepts a frequency range from 20 KHz to 60 KHz.
- 4 VIDEO CAT6 Input: Connect the Video output of the Transmitter to the video input of the Receiver using CAT6E / 23AWG / solid cable.
- 5 DDC CAT6 Input: Connect the DDC output of the Transmitter to the DDC input of the Receiver using CAT6 cable. CAT5 cable can be used if available with the same result.

## 5. Pin Assignments

### 5.1 IR Pin Assignments



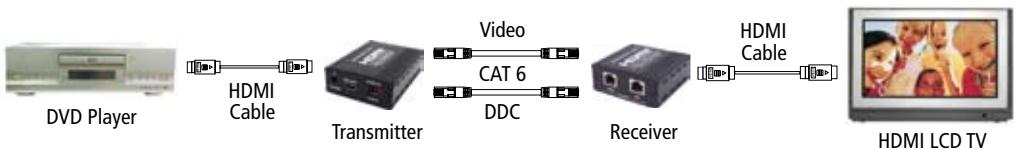
### 5.2 RJ45 Pin Assignments

Pin	VIDEO	DDC
1	TMDS2+	SCL
2	TMDS2-	N/A
3	TMDS1+	SDA
4	TMDS1-	POWER 5V
5	TMDS0+	GROUND
6	TMDS0-	IR
7	TMDS0+	HPD
8	TMDS0-	CEC

## 6. Specifications

Transmitter	1 X HDMI 1 X IR Blaster 1 X CAT6 Output VIDEO 1 X CAT6 Output DDC
Receiver	1X HDMI 1 X IR Receiver 1 X CAT6 Input VIDEO 1 X CAT6 Input DDC
HDMI Input/Output Cable	1080p 8-bit (15M), 12-bit (15M)
CAT6 Cable	1080p 8-bit (45M), 12-bit (20M)
Power Supply	5V/1A, universal CE/FCC/UL Certified
Dimensions	Transmitter: 3"(W) x 4.5"(D) x 1.2"(H) Receiver: 3"(W) x 2.8"(D) x 1.2"(H)
Weight	Transmitter: 7 oz. Receiver: 3 oz.
Operating Temperature	32F - 104F
Storage Temperature	-4F - 140F

## 7. Connection and Installation





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