

9. Specifications

Frequency Bandwidth	2.25Gbps (single link)
Input Ports	1 X HDMI female Input
Output Ports	7 X CAT6 Video Output + 7 X CAT6 DDC Output 1 X HDMI female Output
EDID	STD/TV
HDMI Audio Output	PCM2, 5.1, 7.1, Dolby 5.1, DTS 5.1, Dolby Digital Plus, Dolby-TrueHD & DTS-HD
HDMI Cable Input	1080p 8-bit (15M), 12-bit (10M)
HDMI Cable Output	1080p 8-bit (15M), 12-bit (10M)
CAT6 Cable Output	1080p 8-bit (45M), 12-bit (15M) Substitute CAT5E for DDC output with same specification Substitute CAT5E for Video output: maximum resolution will be limited to 1080p 8-bit HDMI v1.2
HDMI Resolutions	480i – 1080p 50/60Hz, 1080p 24Hz, VGA – SXGA
IR Frequency	20KHz - 60KHz
Power Supply	5VDC/6A (US/EU standards, CE/FCC/UL certified)
Dimensions	17 " W X 6¼" D X 1 " H
Weight	4.7 lbs
Power Consumption	20W
Operating Temperature	0°C - 60°C / -4°F - 140°F
Relative Humidity	20-90% (non-condensing)



HDMI™

HIGH-DEFINITION MULTIMEDIA INTERFACE

DISTRIBUTION AMPLIFIER



HDA180IR

Distribution Amplifier over
dual CAT6 with IR Control

©2010 Gordon J. Gow Technologies, Inc. All rights reserved.

TRIBUTARIES® is a registered trademark of Gordon J. Gow Technologies, Inc. All other trademarks are the property of their respective owners. As we continually strive to improve our products, TRIBUTARIES® reserves the right to change product specifications without notice. The technical and other information contained herein is not intended to set forth all technical and other specifications of TRIBUTARIES® products. Additional information can be obtained on-line at www.tributariescable.com

Gordon J. Gow Technologies, Inc.
Orlando, FL 32809
www.tributariescable.com

www.tributariescable.com

HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE
**DISTRIBUTION
AMPLIFIER**



HDA180IR

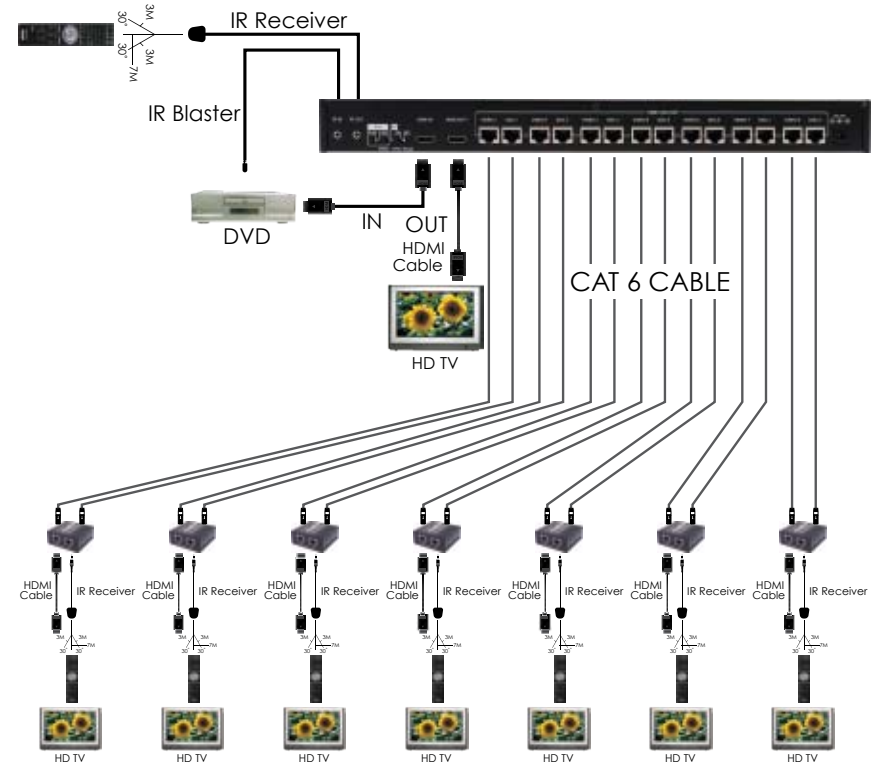
Table of Contents

- 1. Introduction 1
- 2. Features 2
- 3. Package Contents..... 2
- 4. Operation Controls and Functions..... 3
 - 4.1 Front Panel 3
 - 4.2 Back Panel 3
- 5. IR Cables Pin Assignments 4
- 6. RJ45 Pin Assignments..... 5
- 7. Wiring diagram for CAT5E/CAT6..... 5
- 8. Connection & Installation..... 6
- 9. Specifications..... Back

1. Introduction

Tributaries HDA180IR is a high performance system that splits an HDMI signal to 1 HDMI output and 7 dual CAT6 outputs for simultaneous distribution to 8 displays. This unit also allows the source's IR signal to pass along with the HDMI over the dual CAT6 cabling. The IR function provides for the control of remote source equipment at the display. The HDA180IR is compatible with HDMI v1.3 specifications, a cutting edge technology which defines support for Deep Color (12 bits/color) video and new lossless compressed (Dolby TrueHD, Dolby Digital® Plus and DTS®-HD Master Audio) digital audio. The HDMI signal, as it progresses through the system, is re-timed and level-compensated. The use of CAT6 provides an uncompressed HDMI signal with a maximum distance of 148ft (45m) at 1080p/8-bit color. The Tributaries HXC6R passive CAT6 repeater can be used to double the maximum distance. The HDA180IR can also be cascaded with an additional HDA180IR to double the display locations.


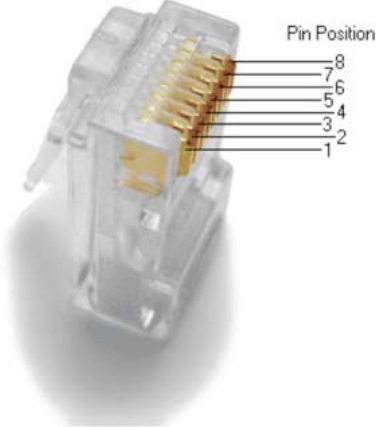







8. Connection and Installation



6. RJ45 Pin Assignments

Pin	Video	DDC
1	TX2+	DDC Bus Clock
2	TX2-	NC
3	TX1+	DDC Bus Data
4	TX0+	Power 5V
5	TX0-	GND
6	TX1-	IR IN
7	TXC+	HPD
8	TXC-	CEC

7. CAT5E/CAT6 Wiring Diagram

Pin	T568B Pair	Wire	T568B Color	Pins on Plug Face (socket is reversed)
1	2	tip	 white/orange stripe	
2	2	ring	 orange solid	
3	3	tip	 white/green stripe	
4	1	ring	 blue solid	
5	1	tip	 white/blue stripe	
6	3	ring	 green solid	
7	4	tip	 white/brown stripe	
8	4	ring	 brown solid	

2. Features

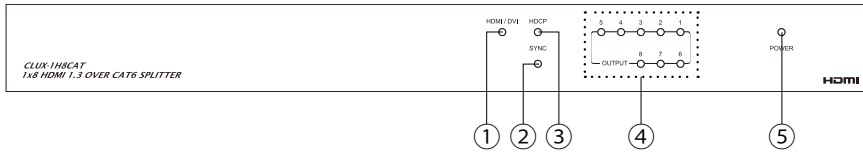
- Splits an HDMI source up to eight outputs without signal loss
- Extends 12 bit/color 1080p up to 49 feet (15 meters) over dual CAT6
- Extends 8 bit/color 1080p up to 148 feet (45 meters) over dual CAT6
- Supports IR signal transmission of a remote source to a display over same dual CAT6
- Supports new lossless compressed Digital Audio such as LPCM 7.1CH, Dolby® Digital Plus and DTS® HD Master Audio
- HDMI input compensation, clock/phase adjustments and the elimination of Jitter
- HDMI1.3, HDCP 1.1 AND DVI 1.0 compliant
- Supports a wide range of PC and HDTV resolutions from VGA to SXGA (1280 X1024) and 480i to 1080p.
- CEC Bypass
- Select EDID from display in TV mode or select STD mode to select Splitter's built in EDID
- Deep color setting of 8 bit or 12 bit
- System reset function

3. Package Contents

- HDA180IR HDMI v1.3 1X8 Distribution Amp / Splitter
- One IR Blaster cable
- Universal Power Supply 5VDC/6A
- One HXC6IR-RX (additional Receivers sold separately)
- One IR Receiver cable
- Receiver Universal Power Supply 5VDC/1A
- 1 Set of rack ears
- Operation manual

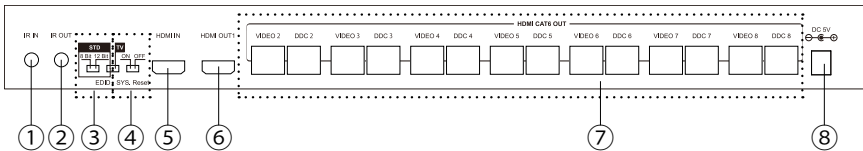
4. Operation and Controls

4.1 Front Panel



- ① HDMI/DVI indicator light: LED will illuminate to indicate the input source has HDMI content, when the input source is DVI the indicator light will not illuminate.
- ② Sync Indicator light: LED will illuminate when the device detects the source's signal
- ③ HDCP Indicator light: LED will illuminate when source's HDCP protection is detected
- ④ Output LEDs 1-8: The LED will illuminate when the HDA180IR detects the connected display is turned on
- ⑤ Power LED: The LED illuminates when the power is on.

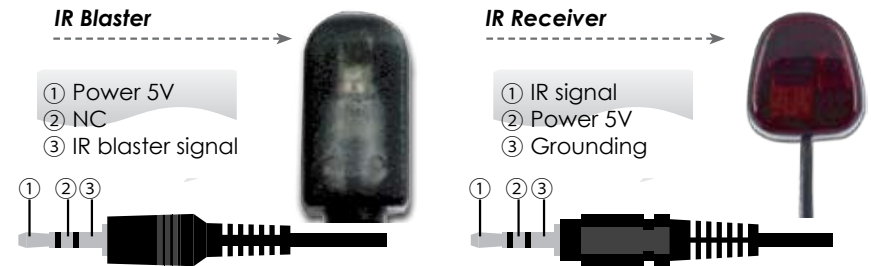
4.2 Back Panel



- ① IR IN: Connect the IR receiver cable (included). Allows signaling of source equipment from the local HDMI display through existing remote controls.
- ② IR OUT: Connect the IR blaster cable (included). Allows for IR signal to be sent to the source equipment
- ③ EDID Control Switch: Default setting is "TV", switch to "STD" to use the HDA180's built in EDID.
 - When EDID is switched to "TV", the unit will detect the first HDMI output source's EDID and record it in the unit. The detection priority is HDMI v1.3 > HDMI v1.2 > DVI.
 - When EDID is switched to STD, the unit will use its built-in EDID that supports: Video: 1080p 8-bit or 12-bit (max) Audio: PCM 2CH
 - If the EDID selection is changed while the HDA180 is powered on, the change will not occur until the unit unplugged from the main power, re-plugged and powered on.

- ④ System Reset Switch: The default setting is "OFF". Switch to the "ON" position and the HDA180IR will send an internal CEC command to the displays within 8-10 minutes to force the displays to switch to HDMI #1 input port while simultaneously the CEC function of the source will cease to function. If the HDA180IR is being used to send HDMI signals to multiple TVs in a retail location, this feature can be very helpful. If customers change the inputs of TVs, and the Reset switch is "ON", after 8-10 minutes the displays will automatically switch to HDMI #1.
- ⑤ HDMI IN: Connect the HDMI cable from your source.
- ⑥ HDMI OUT 1: Connect the HDMI cable to your local HDMI display
- ⑦ VIDEO /DDC 2-8 CAT6 Outputs: Connect to the individual HDMI display using dual CAT6 and HXC6IR-RX Receiver.
 - Connect the Video output of the HDA180IR to the Video input of the HXC6IR using CAT6/23AWG/solid cable.
 - Connect the DDC output of the HDA180IR to the DDC input of the HXC6IR using CAT6/23AWG cable. CAT5 cable can be used for DDC with the same result.
 - Distance figures provided in this manual are for reference only; actual length obtained depends on the source and display electronics. Tributaries recommends testing compatibility of all equipment before installation
- ⑧ DC 5V Power: Connect the 5 volt power supply (included)

5. IR Cable Pin Assignments



Note: The frequency on both IR Receiver & Blaster can support 20~60KHz.