



# PU-Q1H8C

## v1.3 1 to 8 HDMI to CAT 6

### Distribution Amplifier

#### OPERATION MANUAL





## Table of Contents

1.	Introduction	1
2.	Package Contents	1
3.	System Requirements	1
4.	Features	2
5.	Operation Controls and Functions	3
5.1	Front Panel Diagram	3
5.2	Rear Panel Diagram	4
6.	Pin Definitions	6
6.1	IR Cable Pin Definition	6
6.2	RJ-45 Pin Definitions	6
7.	Connection Diagram 1	7
7.1	Connection Diagram 2	8
7.2	Connection Diagram 3	9
8	Specifications	10



## *1. Introduction*

When used with CAT6 to HDMI receivers, the 1 by 8 HDMI to CAT6 1.3 splitter allows the user to distribute an HDMI source through CAT6 cables over 40 meters. This solution provides a direct input of one HDMI to a looped output of HDMI and 7 CAT6 outputs – a smart way to link and display a single source to 8 different screens simultaneously. Alternatively, the HDMI output can also be treated as an extender to connect to another HDMI splitter or cascade with other units in multiple layers. This unit allows user to transmit HDMI signal over long distance via CAT6, without compression. The HDMI to CAT6 splitter also incorporates functions like EDID, System Reset, Deep color and IR systems.

## *2. Package Contents*

- 1 to 8 HDMI to CAT6 Splitter
- 1 x IR Receiver
- 1 x IR Blaster
- 5V DC Power Supply Adaptor
- Power Cord
- Operation Manual.

## *3. System Requirements*

- Input source equipment with HDMI cables.
- Output display device(s) with HDMI cables and/or CAT6 to HDMI Receiver with HDMI cable to display.



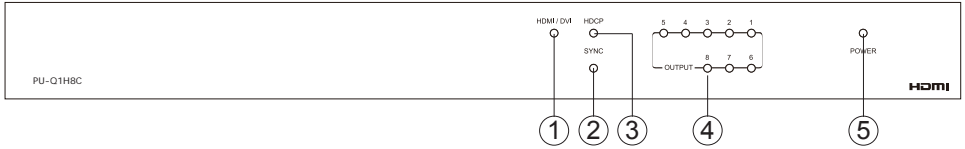
## 4. Features

- 3D Ready.
- HDMI 1.3, HDCP1.1 and DVI1.0 compliant Receiver.
- One HDMI source connection to one HDMI output and seven CAT6 to HDMI - allowing users to link up to eight displays simultaneously.
- PC and HDTV resolutions from VGA to SXGA (1280 x 1024) and 480i to 1080p.
- High definition supported LPCM 7.1CH, Dolby TrueHD, Dolby Digital Plus and DTS-HD Master Audio transmission (32-192kHz Fs sample rate).
- CAT I/O can run up to 40m @ 1080p - HDMI output up to 10m.
- System reset function switch generates a command every 10 minutes to the connected display which resets them to the correct HDMI input.
- Deep color video up to 12bit, 1080p@60Hz.
- Selectable EDID from TV mode (downstream) or STD mode (fixed).
- CEC Bypass.
- IR extender I/O.



## 5. Operation Controls and Functions

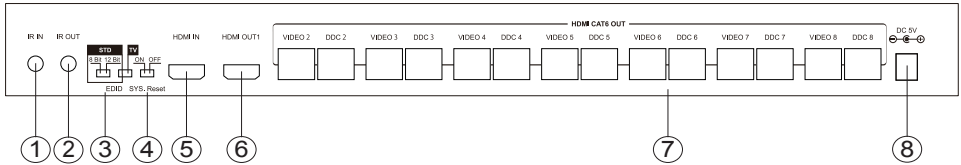
### 5.1 Front Panel



1. HDMI/DVI indicators: When the input source is HDMI this LED is illuminated, when the input source is DVI, this LED will not be illuminated.
2. HDCP indicators: When the input source has HDCP protection the HDCP LED will illuminate.
3. SYNC Indicator: The LED will illuminate when the device detects the source's signal.
4. Output LED1~8: The LED's will illuminate when output displays are connected & powered on.
5. Power LED: The LED will illuminate when power is on.



## 5.2 Rear Panel



1. IR IN: Connect the included IR receiver cable and use the source(s) existing remote control(s).
2. IR OUT: Connect the included IR blaster cable and place it in front of the sources for infrared signal sending.
3. EDID Control Switch: Default setting is TV (downstream). In this mode the PU-Q1H8C will search all output ports (starting at output 1) for the highest video/audio settings connected to each of the outputs. The detection priority of the matrix is v1.3 HDMI, v1.2 HDMI, DVI. Switch to STD (fixed EDID) if you have any issues with the default setting (TV). When switching to STD, please ensure that the unit is powered OFF, then ON again, for the setting to be made. By changing to STD, this will force the source to be configured as standard stereo (PCM) Audio and initiate a search for a common compatible video resolution.

Note: When in STD mode the deep color is suggest to switch to 8-bit for longer distant display.

2CH/Multi CH - Supports 2 channels or Multi audio channels audio function. This selection is only available when EDID is in STD mode.

Note: When Multi CH is selected TV/display must also supports Multi CH function otherwise, TV/display will have no audio output. Unless, HDMI output connect to Amp and then to TV/display.

8/12 bit - Supports 8 or 12 bit's deep color function. This selection is only available when EDID is in STD mode.

Note: When HDMI output has both 8-bit and 12-bit displays, to ensure all output will display, switch to 8-bit.

On the other hand, when all output are with the same bit's displayer of 12-bit or 8-bit then switch the function to 12-bit or 8-bit will be proper. The splitter will not function according to different bits' of display on HDMI outputs simultaneously.



## 5.2 Rear Panel cont'd

4. System reset function: It is suggested that this function is switched OFF, except when doing system reset. By switching this ON the system will reset TV to HDMI Input within 8~10 minutes. Switching to OFF means CEC bypass.

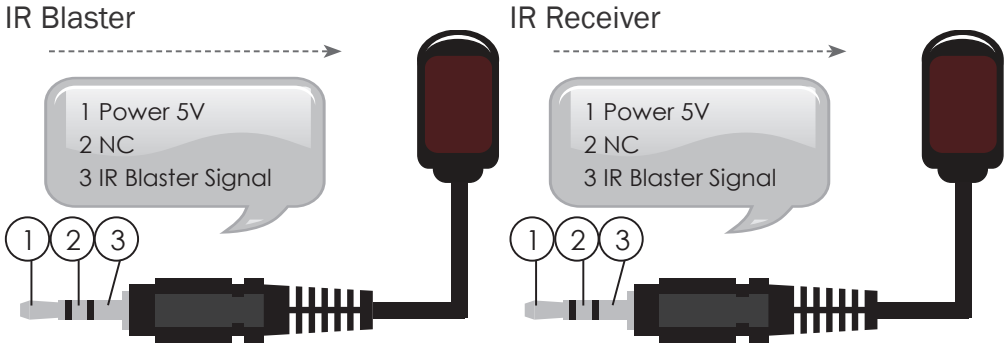
Note: The system reset function will only operate when the display has built-in CEC functionality.

5. HDMI input: This slot is for connecting the source equipment with HDMI cables.
6. HDMI output: This slots is for connecting the display with an HDMI cable.  
Note:
  - Cable tested with CAT-6E / 23AWG / Solid and therefore, cable with different specification may result in different distance.
  - Cable distance tested with equipment PS3 40G, and 37" SamSung 12 bit LCD TV.
  - Figures provided in this manual are reference figures only, actual figures may depend on source and display use with cable specification.
7. Video/DDC 2~8: These slots allow you connect to the HDMI displays to the CAT6 to HDMI receiver. When more than one output is connected, the HDMI outputs play an identical video signal simultaneously.
8. Power: This slot is to plug the 5VDC power supply included in the package into the unit and connect the adaptor to an AC wall outlet.



## 6. Pin Definitions

### 6.1 IR Cable Pin Definitions



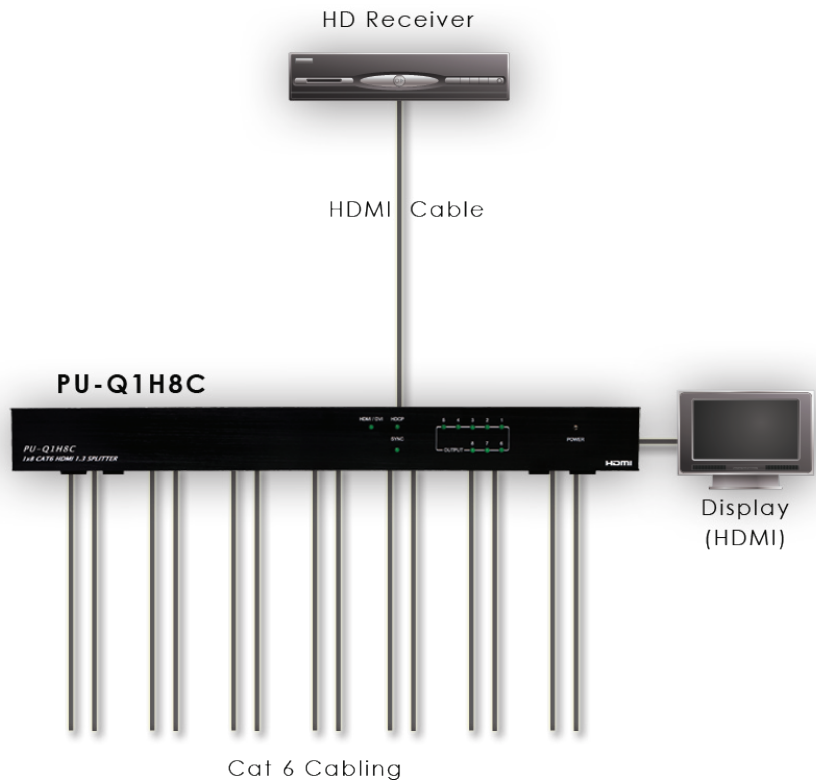
Note: The frequency on both IR Receiver & Blaster can support 20~60KHz.

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





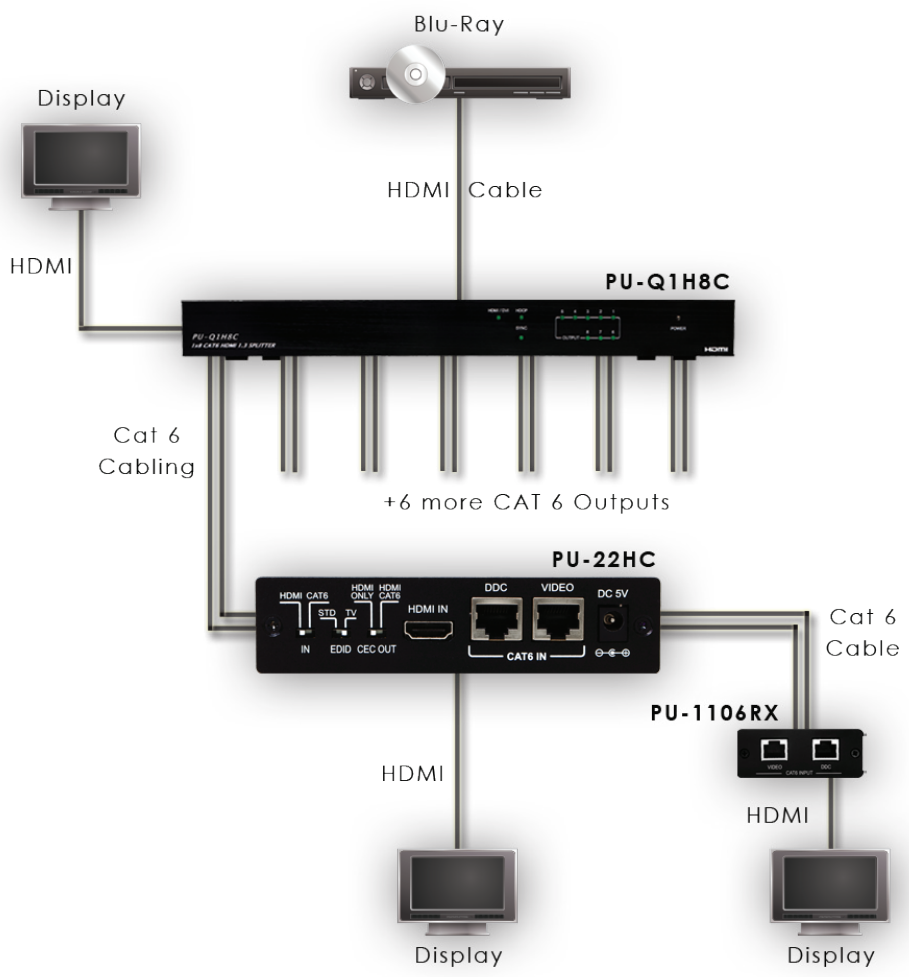
## 7. Connection Diagram



Cascade CAT6 outputs.  
Connect to any CAT6 Receiver based Puma product.

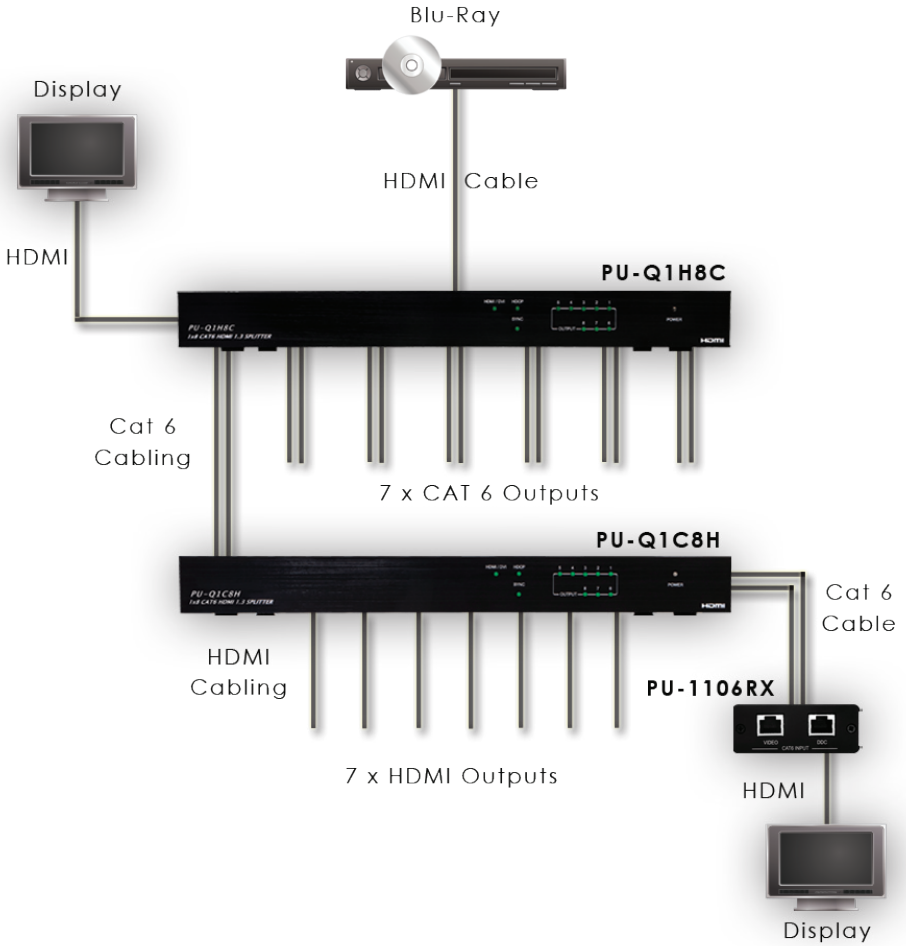


# 7.1 Connection Diagram





## 7.2 Connection Diagram





## 8. Specifications

Frequency Bandwidth	2.25Gbps (single link)
Input Port	1 x HDMI
Output Ports	7 x CAT6 + 7 x DDC, 1 x HDMI
Weight	1000g
Power Supply	5V DC/6A (US/EU standards, CE/FCC/UL Certified)
Dimensions	435(W) x 165(D) x 48(H)
Chassis Colour	Black
Chassis Material	Aluminium
Operating Temperature	Operating from 0°C ~ 40°C



## 9. Notes



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