



PU-22HC

v1.3 HDMI/CAT6 to HDMI/
CAT6 Cascader

OPERATION MANUAL





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1. Introduction

All the PUMA, HDMI over CAT5e/6 transmitters and receivers are the perfect solution to extend HDMI signals via CAT cabling up to 40m. The PU-22HC cascader with its dual input and outputs allows for great flexibility within any HDMI over CAT6 system.

2. Features

- v1.3 HDMI, HDCP 1.1 and DVI 1.1 compliant.
- HDMI/CAT6 to HDMI/CAT6 Cascader.
- Resolutions supported: PC - VGA to WUXGA; HDTV - 480i to 1080p plus 1080p24fps..
- High Definition Audio supported: Dolby TrueHD, Dolby Digital Plus and DTS-HD Master Audio plus LPCM.
- Supports CEC functions.
- CAT I/O can run up to 40m @ 1080p8bit video. HDMI Output can run up to 15m.
- CAT I/O can run up to 40m @ 1080p8bit video and can be extended with the PU-108 CAT repeater.
- Supports 'Deep Colour' (10 & 12 bit).
- Equalises and recovers incoming TMDS data before re-transmitting to ensure optimum signal quality.
- CAT output is ideal for cascading to other HDMI products within the PUMA range.
- System reset function switch generate a command every 10 minutes to the connected display which resets them to the correct HDMI input.

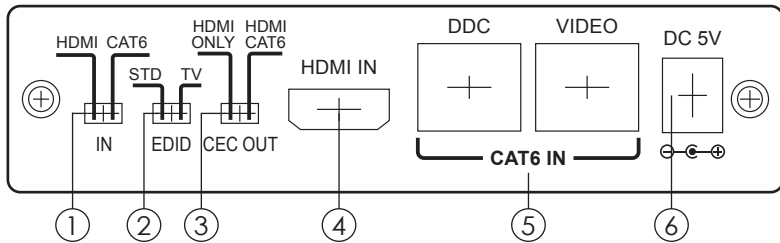


3. Package Contents

- 1 x HDMI/CAT6 to HDMI/CAT6 Splitter Switcher
- 5V DC power supply adaptor
- Operation Manual

4. Operation Controls and Functions

4.1 Front Panel



1. HDMI/CAT6 input selection: Switch to select input sources either from HDMI or CAT6.
2. EDID Control Switcher: Default factory setting is TV, leave as if the display is properly. Switch to STD to use built-in EDID.

Note:

1. When EDID switch to TV, the unit will detect the first HDMI's output EDID and record in the unit. If the first detected HDMI output is DVI it will pass to next output until the first HDMI output detected. The detection priority is HDMI v1.3 > HDMI v1.2 > DVI.



2. When EDID switch to STD the unit will use built-in EDID which supports: Video 1080p 8-bit (max), Audio PCM 2CH
3. When EDID is switch to STD with input selection on HDMI or CAT6 IN the display TV or monitor will switch to HDMI input 1, automatically. When EDID is switch to TV regardless of the input selection the display TV or monitor will switch to HDMI input 1 mode. Therefore, it is not suggested to switch the EDID to STD.
4. The EDID selection will only activate when the unit is re-plug and power on.
Power: This slot is where you plug the 5V DC power supply into the unit and connect the adaptor to an AC wall outlet.
3. CEC output: When switch to HDMI ONLY, the HDMI output port's CEC will bypass the CEC commend directly to the HDMI and CAT6 input ports. When switch to HDMI and CAT6, the HDMI and CAT6 output port's CEC will bypass the CEC commend cross to the HDMI .
4. HDMI Input: Connect input port to the HDMI or DVI output port of your source equipment such as DVD player or set-top-box.
5. CAT6 IN: These slots are for connecting the Video/DDC input to the Video/DDC output of the transmitter unit with CAT6 cables.

Note:

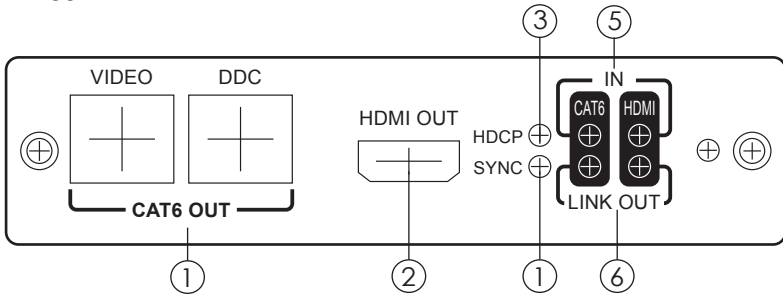
1. Cable tested with CAT-6E / 23AWG / Solid and therefore, cable with different specifi cation may result in different distance.
2. Cable distance tested with equipment PS3 40G and 37" SamSung 12 bits LCD



2. Figures provided in this manual are reference figures only, actual figures may depend on source and display use with cable specification.

6. DC 5V: This is the slot where you insert the 5V DC power supply for electrical power before plugging the adaptor to an AC wall outlet.

4.2 Rear



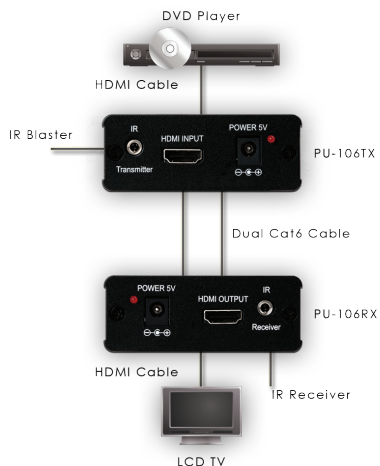
1. CAT6 OUT: Connect the Video/DDC output to the Video/DDC input of the receiver unit using CAT6 cables.
2. HDMI OUT: Connect HDMI output port to the HDMI display.
3. HDCP indicators: When the input source is with the HDCP protection the HDCP LED will illuminate.
4. SYNC Indicator: The LED will illuminate when the HDMI or DVI source had been connected.
5. HDMI/CAT6 input indicator: The LED will illuminate when the HDMI or CAT6 source is selected.
6. Link OUT: The LED will illuminate when the display had been connected.



5. Pin

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

6. Connection Diagram





7. Specifications

Input Port	Transmitter: 1x HDMI female port, 1x IR jack, Receiver: 2 x CAT5e/6, 1 x IR Jack
Output Port	Transmitter: 2 x CAT5e/6, 1 x IR Jack Receiver: 1x HDMI female port, 1x IR jack
EDID	STD / TV
HDMI Audio Output	PCM2, 5.1, 7.1, Dolby 5.1, DTS 5.1, DD+, D-TrueHD, DTS-HD
HDMI Cable In	1080p 8-bit (15M), 12-bit (15M)
HDMI Cable Out	1080p 8-bit (15M), 12-bit (10M)
CAT6 Cable In	1080p 8-bit (45M), 12-bit (20M)
CAT6 Cable Out	1080p 8-bit (45M), 12-bit (20M)
HDMI Resolution	480i, ~ 1080p 50/60, 1080p 24, VGA ~ SXGA
IR Frequency	20 ~ 60KHz
ESD Protection	Human body model: ± 8 kV (air-gap discharge) ± 4 kV (contact discharge)
Analogue Output port	4 x 3.5mm Stereo mini jack
Multi channel output ports	1 x Optical
Multi channel output audio formats	Dolby 5.1/2 and LPCM 2 channels
Power Supply	2 x 5V/2.6A DC (US/EU standards, CE/FCC/UL certified)
Dimensions (mm)	80(W) x 72(D) x 30(H)
Weight (g)	760
Chassis Material	Aluminium
Silk Skin Colour	Black
Operating Temperature	Operating from 0°C ~ 40°C



Notes:



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