HEX100ARC-RX

Opitcal In   HDMI Out   Ethernet 1   Ethernet 2   Ethernet 3

HEX100ARC-TX

L   R
Audio Out   Optical Out   HDMI In   Ethernet

▶ HEX100ARC
User Manual

BLUSTREAM

Thank you for purchasing this product.

For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

Safety And Performance Notice

The transmission distances of HDMI over UTP cables are measured using TE CONNECTIVITY 1427071-6

EIA/TIA-568-B termination (T568B) of cables is recommended for optimal performance.

To minimize interference of the unshielded twisted pairs in the CAT5e/6 cable do not run the HDBaseT / Cat5e/6/6a cabling with or in close parallel proximity to mains power cables.

Do not substitute or use any other power supply other than the enclosed unit, or a Blustream approved replacement.

Do not disassemble either the Transmitter or Receiver units for any reason. Doing so will void the manufacturer's warranty.

Contents

Introduction

Our Platinum Range of HDBaseT™ products offer the very best in performance and flexibility. The HEX100ARC extender set is an industry leading 4K UHD HDBaseT™ solution delivering HDMI, Bi-directional IR and PoH (PoE) up to lengths of 100m over a single CAT cable. The HEX100ARC also provides enhanced features including ARC and Audio breakout, RS-232 pass through, and an integrated 3-way Ethernet switch.

FEATURES:

- Extends HDMI up to a distance of 100m over single CAT cable

- Supports 4K UHD video up to 70m (3840 x 2160 @30Hz 4:4:4, 4096 x 2160 @24Hz 4:4:4, and 4K @60Hz 4:2:0)

- Supports all industry standard video resolutions including VGA-WUXGA and 480i-4K

- Supports 3D signal display

- Supports ARC (Audio Return Channel) from display via HDMI and Optical digital inputs

- Supports audio breakout via analogue L/R audio or optical digital outputs

- Supports all known HDMI audio formats including Dolby TrueHD, Dolby Atmos, Dolby Digital Plus and DTS-HD Master Audio transmission

- Integrated 3-port Ethernet switch (LAN Serving)

- Supports bi-directional RS-232 pass through

- Supports bi-directional IR from all input and output locations

- Supplied with Blustream IR receiver and emitters

- Supports bi-directional PoH (Power over HDBaseT™) to power extenders from either transmitter or receiver end

- HDCP compliant

Note: *The POH function is designed for powering compatible transmitter or receiver units of Blustream only. Do not connect any part of this equipment to Power over Ethernet devices. Damage may result.*
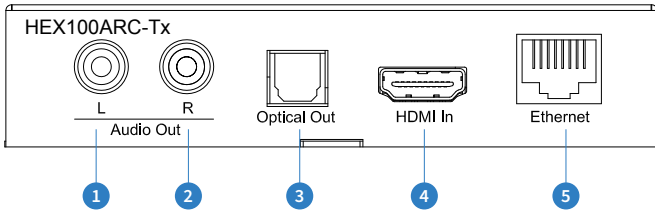
Panel Description HEXARC100-RX
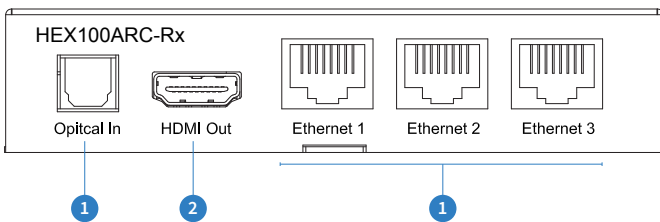
1. Optical audio in –TOSLINK audio in, connects to the optical out of the display device

2. HDMI Out –Connect to HDMI input on display device

3. 100BaseT Ethernet ports
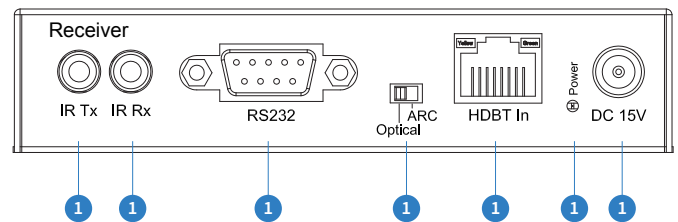
1. IR Tx port - connect to IR emitter. Used to control display device from control processor or IR sensor located at the source end.

2. IR Rx port - connect to IR sensor. Used to control IR controlled source devices at HEX100ARC-Tx end

3. RS232 port – Bi-directional RS232 with HEX100ARC-Tx RS232 port

4. Audio return position switcher - switch between ARC and TOSLINK (optical) modes

5. HDBT in - RJ45 connector, connect to HDbaseT port of HEX100ARC Tx

6. Power LED indicator

7. Power port – can be powered from transmitter by using the power over cable (POH) feature

Panel Description HEXARC100-TX

HEX100ARC-Tx

L | R | Optical Out | HDMI In | Ethernet
Audio Out
① ② ③ ④ ⑤

Transmitter

IR Tx | IR Rx | RS232 | ARC NON-ARC | HDBT Out | Power DC 15V
① ② ③ ④ ⑤ ⑥

① Left channel of L/R – RCA output, extracted from PCM only ARC stream

② Right channel of L/R – RCA output, extracted from PCM only ARC stream

③ Optical audio out (TOSLINK) – Bit stream audio out

④ HDMI In – Connect to HDMI source device.

⑤ Ethernet port – Connect to LAN (Network Switch).
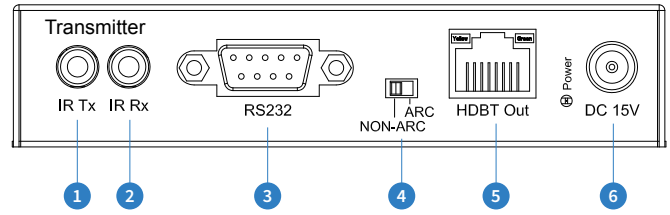
① IR Rx port – transmits IR to HEX100ARC Rx (Tx IR port). Connect IR sensor or control processor to send IR commands to a display

② RS232 port – Bi-directional RS232 to and from the HEX100ARC-Rx

③ HDBT out – RJ45 connector, connect to HDbaseT in on HEX100ARC-Rx

④ Power port – Use included 15V/2A DC adaptor to power the unit.

⑤ IR Tx port – connect an IR emitter. Used to control source devices from display end

⑥ Audio return position switcher – switch between ARC and NON-ARC modes.

⑦ Power LED indicator

CONNECTION DIAGRAM

TV AND AVR SUPPORT ARC
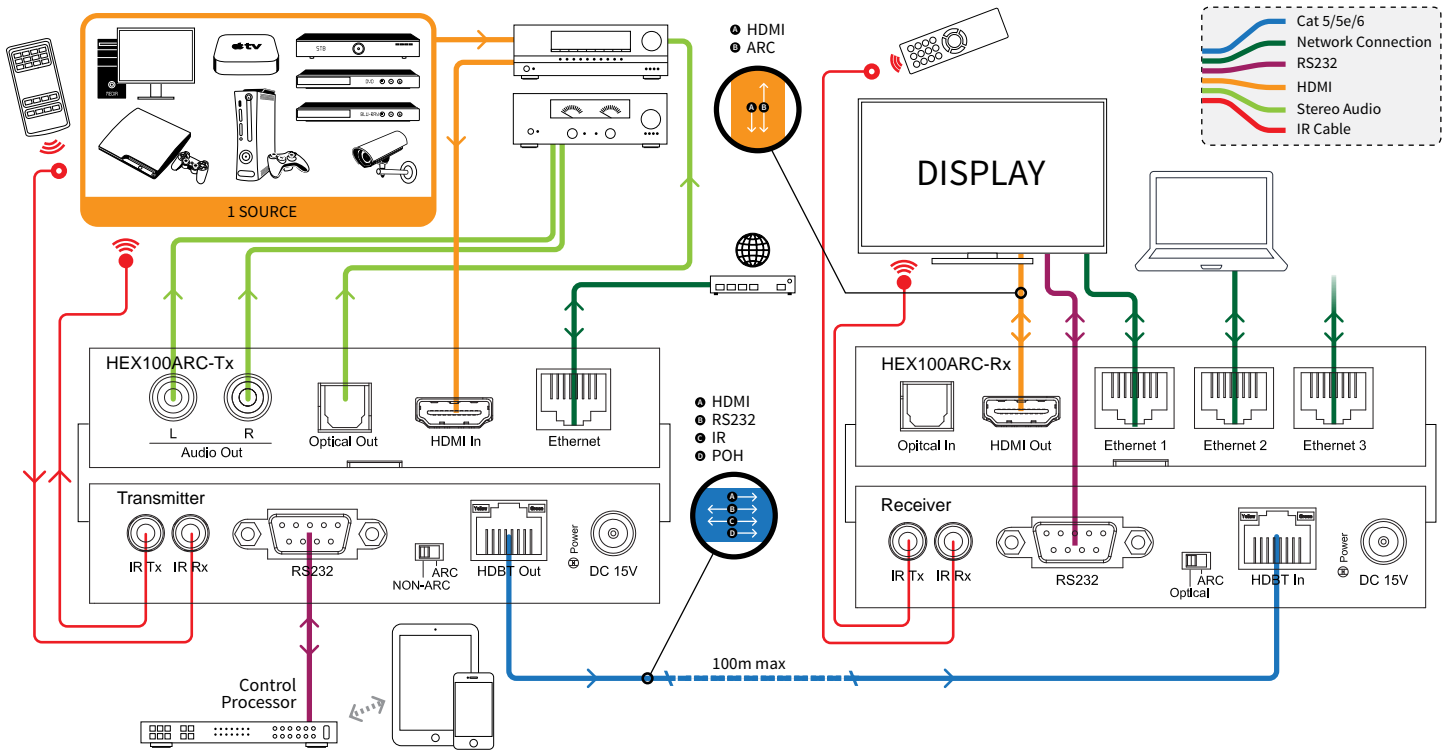
HEX100ARC	POSITION SWITCHER MODE SELECTION
Transmitter	ARC
Receiver	ARC
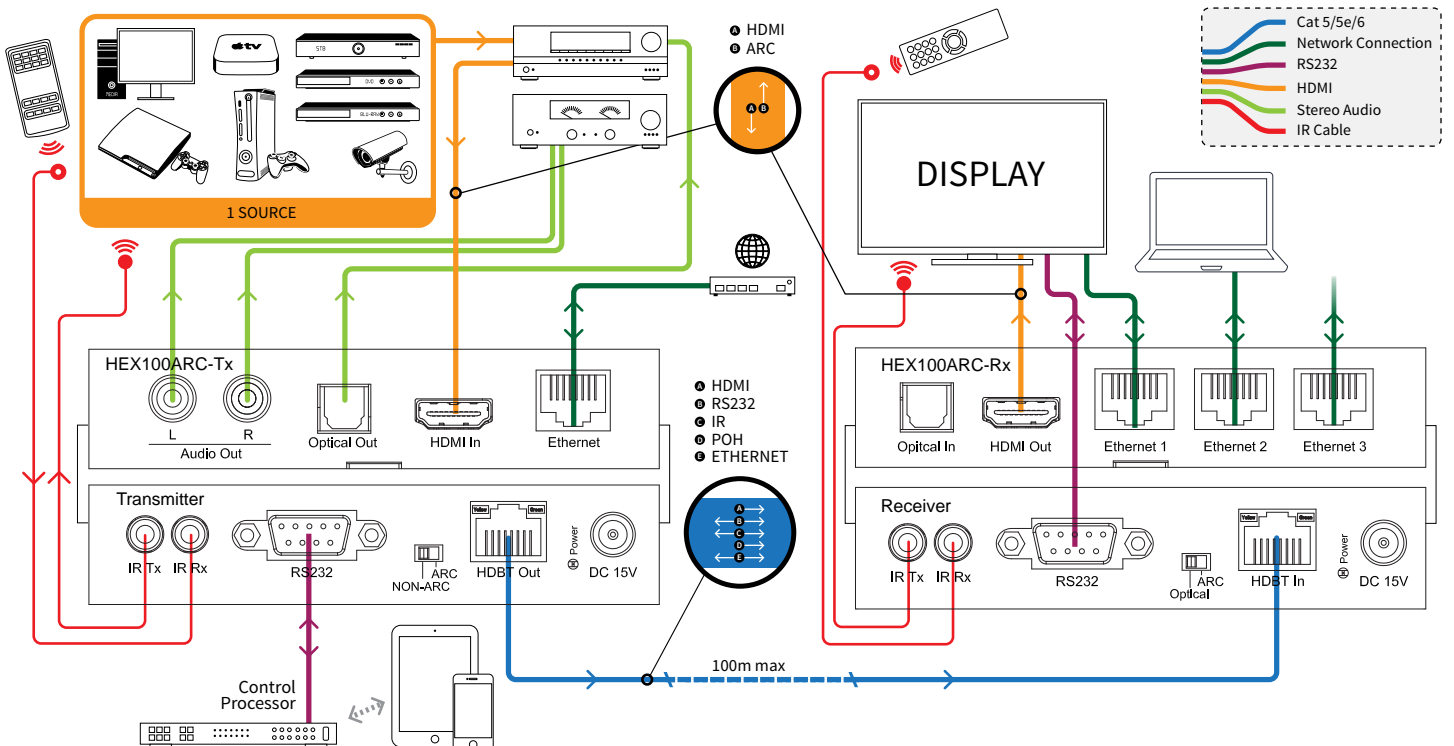
CONNECTION DIAGRAM

TV WITH ARC, AVR WITHOUT ARC

HEX100ARC	POSITION SWITCHER MODE SELECTION
Transmitter	NON-ARC
Receiver	ARC

DISPLAY

Ⓐ HDMI
Ⓑ ARC

Cat 5/5e/6
Network Connection
RS232
HDMI
Stereo Audio
IR Cable

1 SOURCE

HEX100ARC-Tx

L   R
Audio Out   Optical Out   HDMI In   Ethernet

Ⓐ HDMI
Ⓑ RS232
Ⓒ IR
Ⓓ POH

Transmitter

IR Tx   IR Rx   RS232   ARC NON-ARC   HDBT Out   Power   DC 15V

HEX100ARC-Rx

Opitcal In   HDMI Out   Ethernet 1   Ethernet 2   Ethernet 3

Receiver

IR Tx   IR Rx   RS232   ARC Optical   HDBT In   Power   DC 15V

Control Processor

100m max

CONNECTION DIAGRAM

TV WITHOUT ARC, AVR WITHOUT ARC

HEX100ARC	POSITION SWITCHER MODE SELECTION
Transmitter	NON-ARC
Receiver	Optical

DISPLAY

Cat 5/5e/6
Network Connection
RS232
HDMI
Stereo Audio
IR Cable

1 SOURCE

HEX100ARC-Tx

L   R
Audio Out   Optical Out   HDMI In   Ethernet

Ⓐ HDMI
Ⓑ RS232
Ⓒ IR

Transmitter

IR Tx   IR Rx   RS232   ARC NON-ARC   HDBT Out   Power   DC 15V

HEX100ARC-Rx

Opitcal In   HDMI Out   Ethernet 1   Ethernet 2   Ethernet 3

Receiver

IR Tx   IR Rx   RS232   ARC Optical   HDBT In   Power   DC 15V

Control Processor

100m max
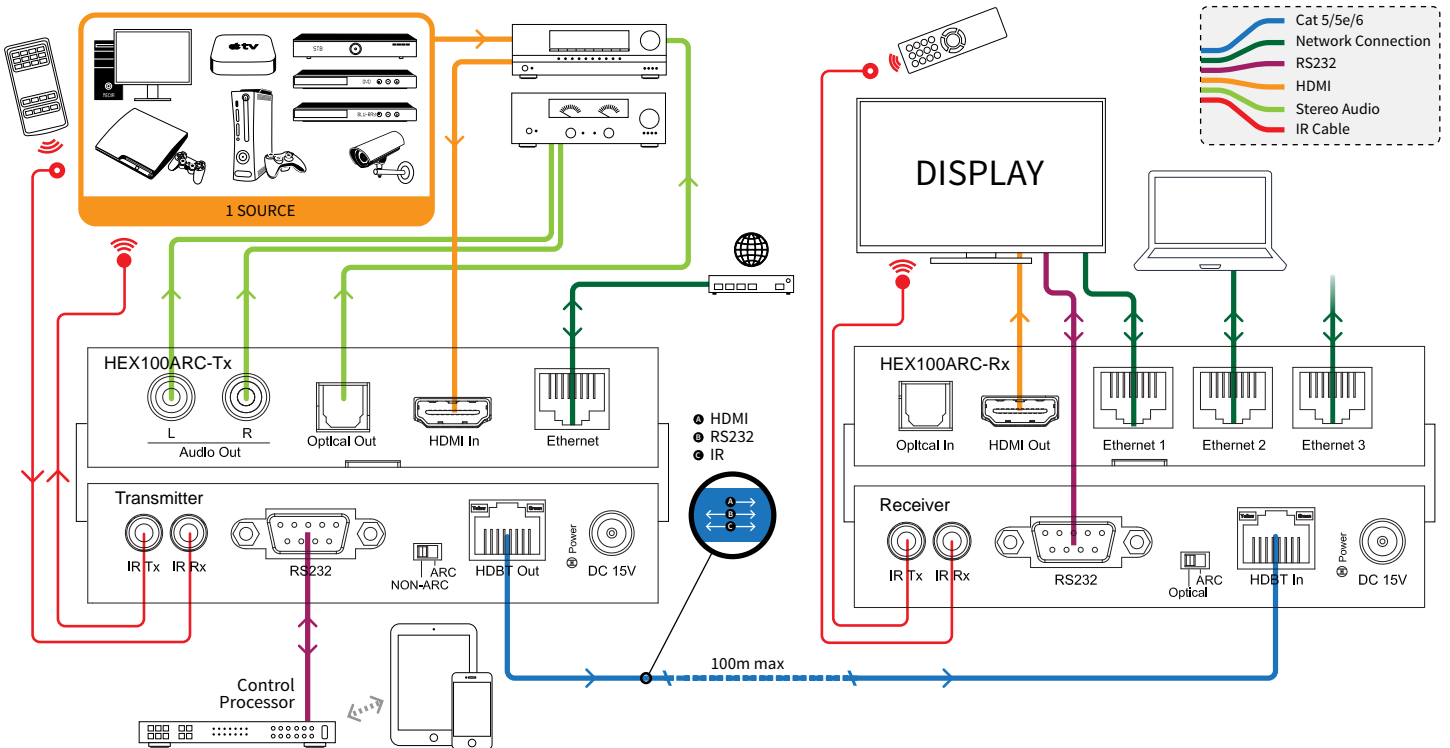
Specifications

HEX100ARC-TX

Video Input Connectors: 1x HDMI Type A, female

Video Output Connectors: 1x HDBaseT™ RJ45 connector

Audio Output Connectors: 2x RCA (L/R), 1x Optical (SPDIF)

Ethernet Port: 1x RJ45 connector

RS-232 Serial Port: 1x DB-9 female

IR Input Ports: 1x 3.5mm stereo jack

IR Output Ports: 1x 3.5mm mono jack

Mounting kit included

Dimensions (WxDxH): 114x135x24mm, without mounting brackets (TX & RX)

Shipping Weight (Kit): 0.8kg

Operating Temperature: 32°F to 104°F (0°C to 40°C)

Storage Temperature: -4°F to 140°F (-20°C to 60°C)

Power Supply: 1x 15V/2A DC, screw type connector

HEX100ARC-RX

Video Input Connectors: 1x HDBaseT™ RJ45 connector

Video Output Connectors: 1x HDMI Type A, female

Audio Input Connectors: 1x Optical (SPDIF)

Ethernet Port: 3x RJ-45 connector

RS-232 Serial Port: 1x DB-9 female

IR Input Ports: 1x 3.5mm stereo jack

IR Output Ports: 1x 3.5mm mono jack

Mounting kit included

Dimensions (WxDxH): 114x135x24mm, without mounting brackets (TX & RX)

Shipping Weight (Kit): 0.8kg

Operating Temperature: 32°F to 104°F (0°C to 40°C)

Storage Temperature: -4°F to 140°F (-20°C to 60°C)

Power Supply: 1x 15V/2A DC, screw type connector

NOTE: Specifications are subject to change without notice. Weight and dimensions are approximate.

Package Contents:

- 1 x HEX100ARC-kit
- 1 x 15V/2A DC power supply
- 1 x IR sensor
- 1 x IR emitter
- 1 x mounting kit
- 1 x manual

Maintenance

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner or benzene to clean this unit.