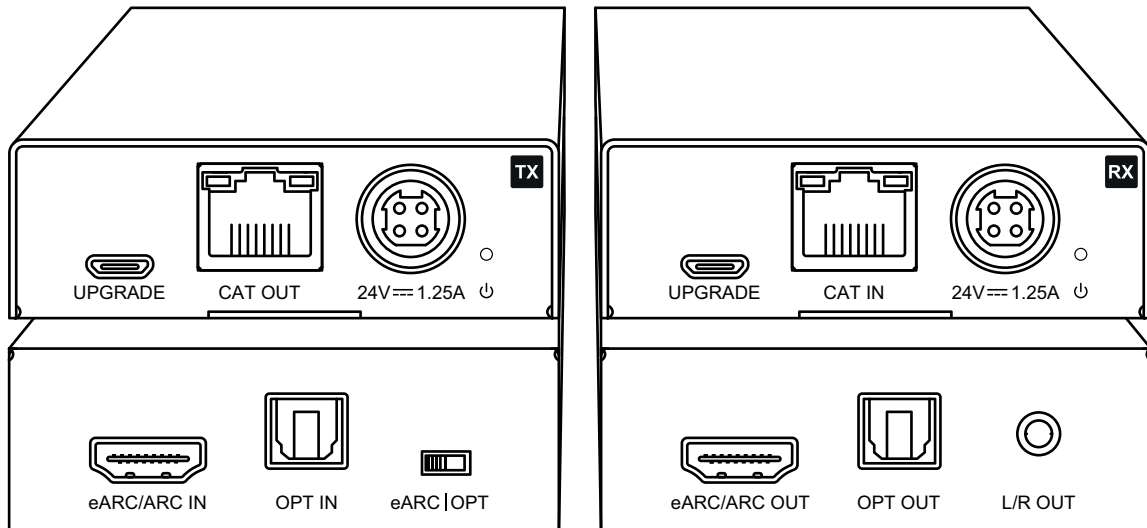


# CAT100EARC

## Quick Reference Guide



## Introduction

Our CAT100EARC Audio over CAT cable extender transmits HDMI eARC / ARC and optical digital audio signals up to distance of 200m (eARC/ARC signals up to 100m). This plug and play device supports CEC pass-through when HDMI eARC/ARC audio is selected and features a built in DAC to convert either of the inputs (2ch) to a stereo left / right audio output.

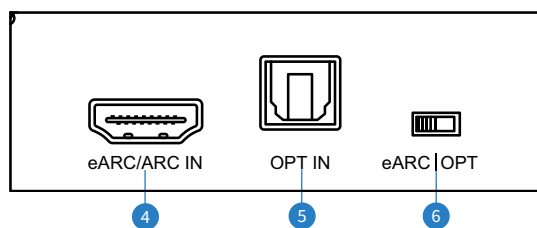
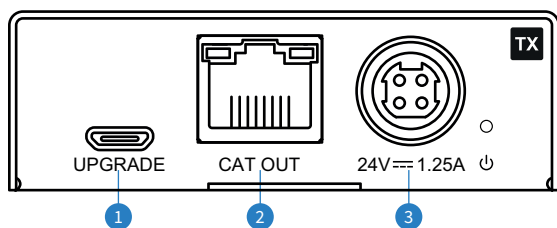
### FEATURES:

- Extend either eARC/ARC or optical digital audio signals over a single CAT cable\*
- CAT100EARC supports eARC/ARC distribution distances up to 100m
- CAT100EARC supports optical audio distribution distances up to 200m
- Built in DAC (Digital to Analogue audio Converter) converts either HDMI eARC/ARC or optical digital to analogue stereo left/right audio output (2ch PCM only)\*\*
- Supports CEC pass-through when HDMI eARC/ARC mode selected
- Supports the following audio formats:
  - » eARC: PCM 2.0/5.1/7.1ch, Dolby Digital Plus, DTS, Dolby TrueHD, DTS-HD MA, Dolby Atmos
  - » ARC: PCM 2.0ch, Dolby 5.1ch, DTS 5.1ch
  - » Optical: PCM 2.0ch, Dolby 5.1ch, DTS 5.1ch
- Bi-directional PoC (Power over Cable) to power extenders from either the transmitter or receiver end

\* Selection between HDMI eARC/ARC or Optical digital audio via dipswitch on the TX

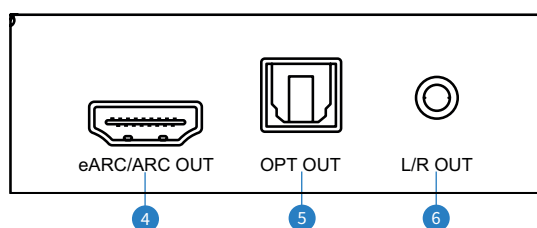
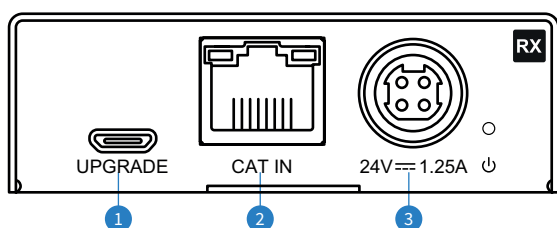
\*\* Source audio must be 2ch stereo for DAC to convert to analogue audio

## TX Panel Descriptions



- 1 USB Upgrade Port
- 2 Cat5e/6 RJ45 Output Port
- 3 24V/1.25A DC Power Input 4-Pin DIN connector
- 4 eARC/ARC HDMI Input - Connect to eARC/ARC port on local HDMI display
- 5 Optical (S/PDIF) Input - Connect to display for optical audio return
- 6 eARC/OPT Selection Switch - Select between eARC/ARC input port between HDMI or Optical input

## RX Panel Descriptions



- 1 USB Upgrade Port
- 2 Cat5e/6 RJ45 Input Port
- 3 24V/1.25A DC Power Input 4-Pin DIN connector
- 4 eARC/ARC HDMI Output - Connect to AVR or processor audio return channel input
- 5 Optical (S/PDIF) Output - Connect to AVR or processor for optical audio return
- 6 L/R Output -3.5mm stereo jack, analogue audio breakout from ARC signal (supports 2ch PCM signals only)

## ARC, eARC, and Optical Audio Return

The CAT100EARC allows for a variety of ways to transfer Audio Return from a display back to an AVR/processor.

By definition, ARC (Audio Return Channel) and Optical Audio Return, will support up to a maximum of 5.1ch HD audio pass-through. For ARC via HDMI, CEC will need to be enabled on both the display and the AVR/processor for the required communication to instigate the ARC channel to be opened. The CAT100EARC is transparent to this communication.

eARC (Enhanced Audio Return Channel), allows for high resolution audio codecs (including Dolby Atmos and DTS:X) to travel back from an eARC display to an eARC AVR/processor. Both pieces of equipment connected to either side of the CAT100EARC must be eARC capable for this function to work, and have CEC enabled.

The CAT100EARC will also allow for Optical Audio Return to be sent across the CAT link. Please ensure the correct audio selection switch is set on the Transmitter unit for the required audio transmission method.

The CAT100EARC-TX features an analogue 2ch L/R audio breakout for a 2ch audio return feed from the display connected at the Receiver. **Please note:** this output port only supports 2ch PCM audio signals and does not downmix multi-channel audio codecs to 2ch.

# Understanding the Signal Status Lights

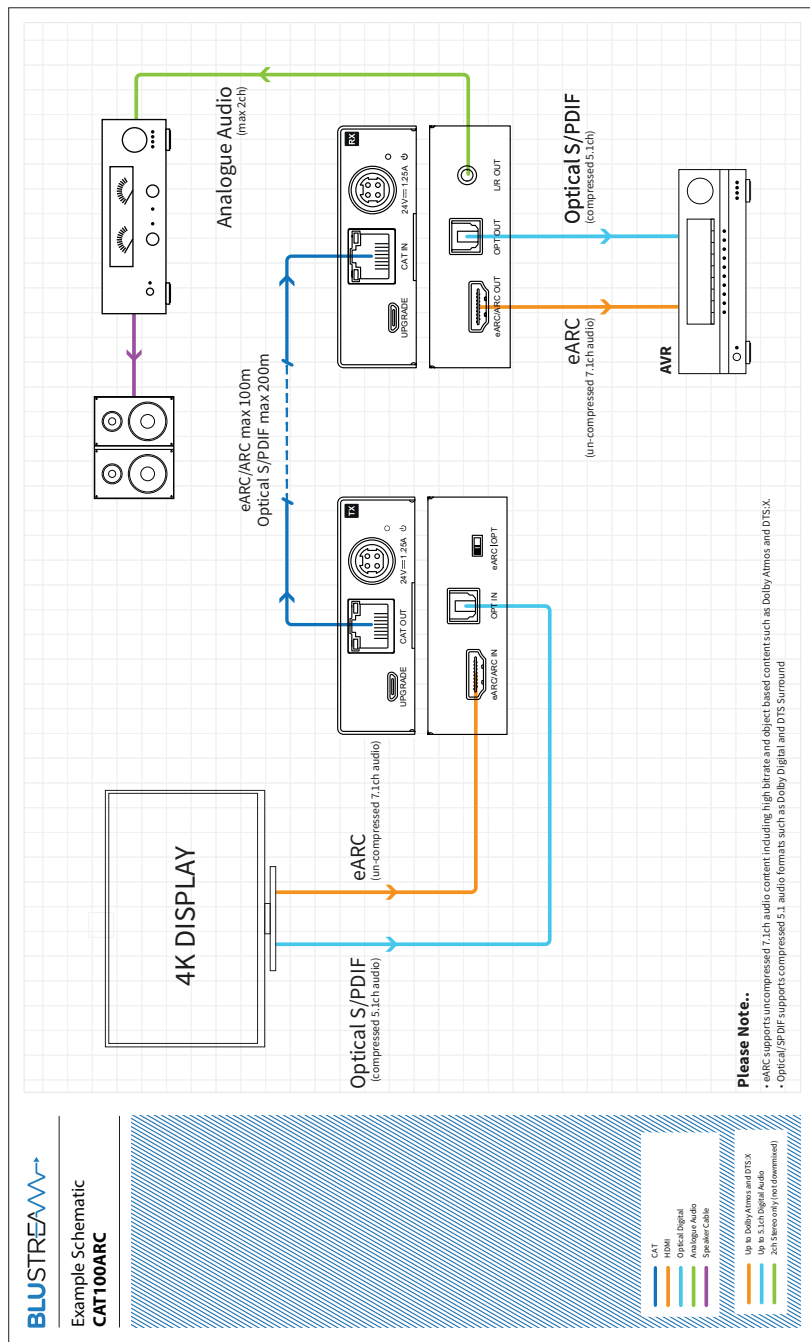
Blustream extender solutions include status LED indicators on both the Transmitter and Receiver products to show all connections are active, and to help diagnose possible problems with the CAT link.

## Understanding the Status Lights:

### Transmitter / Receiver:

- The yellow RJ45 link light will be off when Power over Cable (PoC) is not being transmitted across the CAT cable
- The yellow RJ45 link light will be on when Power over Cable (PoC) is being transmitted/received via the CAT cable
- The green RJ45 link light will be off when there is no link connection between Transmitter and Receiver
- The green RJ45 link light will flash when there is a successful link connection between Transmitter and Receiver

## Schematic



## Specifications

### CAT100EARC-TX

- **Audio Input Connectors:** 1x Optical (SPDIF), & 1x HDMI Type A
- **Output Connectors:** 1x RJ45 connector
- **Control:** 2 position switch
- **Firmware Upgrade Port:** 1x Micro USB-Type B
- **Power Supply:** 24V/1.25A DC, 4-pin DIN connector

### CAT100EARC-RX

- **Input Connectors:** 1x RJ45 connector,
- **Audio Output Connectors:** 1x Optical (SPDIF), 1x HDMI Type A, & 1x Analogue audio L/R (3.5mm stereo Jack)
- **Firmware Upgrade Port:** 1x Micro USB-Type B
- **Power Supply:** 24V/1.25A DC, 4-pin DIN connector

### CAT100EARC

- **Casing Dimensions (W x D x H):** 74mm x 80mm x 24mm (TX / RX)
- **Box Dimensions (W x D x H):** 220mm x 150mm x 60mm
- **Shipping Weight:** 0.7kg
- **Operating Temperature:** 32°F to 104°F (-5°C to +55°C)
- **Storage Temperature:** -4°F to 140°F (-25°C to +70°C)

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

## Package Contents

### CAT100EARC

- 1 x CAT100EARC-TX Transmitter
- 1 x CAT100EARC-RX Receiver
- 1 x 24V/1.25A DC Power Supply
- 1 x Mounting Kit
- 1 x Quick Reference Guide

## Certifications

**FCC Notice** - This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**CAUTION** - changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**CANADA, INDUSTRY CANADA (IC) NOTICES** - This Class B digital apparatus complies with Canadian ICES-003. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

**CANADA, AVIS D'INDUSTRY CANADA (IC)** - Cet appareil numérique de classe B est conforme aux normes canadiennes ICES-003. Son fonctionnement est soumis aux deux conditions suivantes : (1) cet appareil ne doit pas causer d'interférence et (2) cet appareil doit accepter toute interférence, notamment les interférences qui peuvent affecter son fonctionnement.

**CORRECT DISPOSAL OF THIS PRODUCT** - This marking indicates that this product should not be disposed with other household wastes. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmentally safe recycling.

