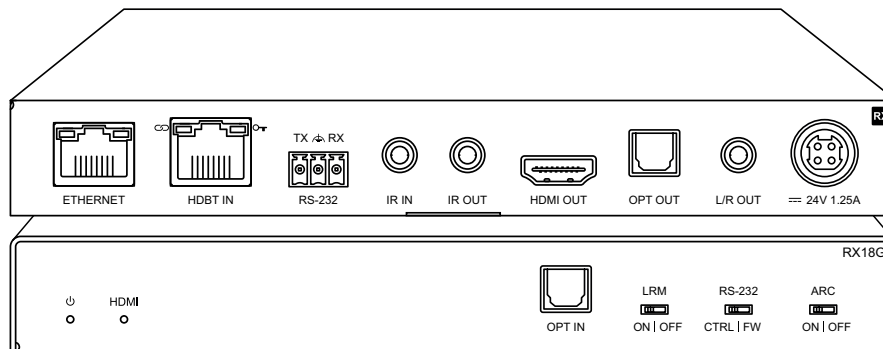


RX18G

Quick Reference Guide



Introduction

The RX18G receiver is an industry leading uncompressed, unconverted HDMI 2.0 4K 60Hz 4:4:4 HDCP 2.3/2.2 solution utilising the latest in HDBaseT™ technology.

The RX18G supports uncompressed distribution of the latest HDR resolutions including HDR10/10+ resulting in the ultimate in picture quality for your critical viewing areas.

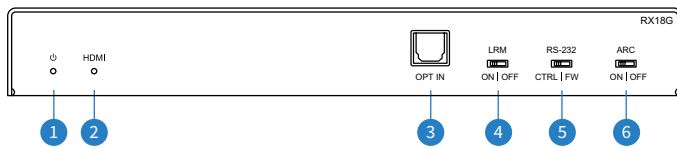
The RX18G supports bi-directional IR, RS-232 and PoC up to lengths of 100m over a single CAT6A cable while also providing enhanced features including ARC via HDMI or Optical (S/PDIF), and 1Gb Ethernet pass through.

FEATURES:

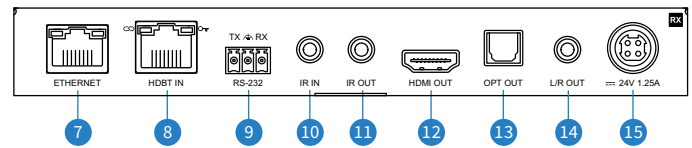
- Advanced HDBaseT™ spec 3.0 technology offering distribution of video and audio over a single CAT6A cable
- Supports uncompressed HDMI2.0 18Gbps 4K 60Hz 4:4:4 specification including HDR
- Extends HDMI 1080p video up to 150m (HDBaseT™ long-reach mode)
- Supports all industry standard video resolutions including VGA-WUXGA and 480i-4K
- Supports ARC (Audio Return Channel) from connected display via HDMI or Optical digital inputs (when used with compatible Blustream matrix)
- Bi-directional 1Gb Ethernet pass through when used with compatible Blustream matrix solution
- Supports bitstream passthrough of multichannel surround sound including object-based audio formats in line with HDMI specifications
- Bi-directional RS-232 pass-through
- Supports bi-directional IR pass-through from compatible Blustream matrix
- Supports PoC (Power over Cable) from compatible Blustream matrix
- HDCP 2.3 support
- Recommended receiver to be used with Blustream HMX88-18G and HMX44-18G matrix

Panel Descriptions

Front



Rear



- 1 Power Status Indicator
- 2 HDMI Signal Link Indicator
- 3 Optical Audio Input - Toslink audio input. Connects to the Optical output of the local display device for Audio Return Channel feature
- 4 Long Reach Mode Switch - Enable to support 1080p video up to 150m (Matrix/Transmitter must support this function)
- 5 RS-232 Port Mode Selection Switch. Firmware upgrade mode or normal operating mode.
- 6 Audio Return Channel Switch - Enables or disables ARC functionality
- 7 Ethernet Connection - Connect to network / device for 1Gb LAN pass-through to / from Receiver
- 8 HDBaseT™ Input - Connect to matrix or transmitter via CAT6A cable
- 9 RS-232 3-pin Phoenix Connector
- 10 IR In (to Blustream 5V 3.5mm IR receiver)
- 11 IR Out (to Blustream 5V 3.5mm IR emitter)
- 12 HDMI Output - connect to HDMI on display
- 13 Optical Toslink audio output. Connects to local AV amplifier and allows local HDMI audio breakout of source audio
- 14 Analogue Audio L/R Output - 3.5mm stereo jack de-embedded audio from HDMI source input (2ch PCM audio only)
- 15 24V/1.25A DC Power Input 4-Pin Connector

Advanced Functions

The RX18G has been designed to partner with all Blustream HDBaseT™ matrix products and will receive audio and video from these devices, as well as bi-directional IR and RS-232 control. Advanced functions such as ARC, Ethernet passthrough and uncompressed 18Gbps video will only function with a compatible matrix or transmitter product.

The below chart outlines the matrix products that support these advanced functions:

MATRIX / TRANSMITTER	UNCOMPRESSED 18G VIDEO	ARC	ETHERNET PASSTHROUGH
HMX88-18G	Yes	Yes	Yes
HMX44-18G	Yes	Yes	Yes
PLA88CS	No	No	No
HMXL88ARC	No	No	No
HMXL66ARC	No	No	No
HMXL44ARC	No	No	No
HMXL42ARC	No	No	No
AMF42AU	No	No	No
C88CS	No	No	No
C66CS	No	No	No
C44CS	No	No	No

CEC can also be disabled to help prevent some CEC issues that can arise.

Connect to the RS-232 port and set the RS-232 switch to FW. Open a serial connection and set the Baud rate to 115200. Finally, send the command **CECDISABLE** and verify CEC has been disabled by sending **STATUS**.

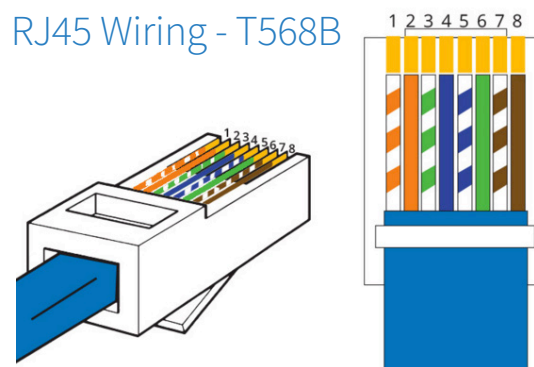
Terminating the Interconnecting HDBaseT™ CAT Cable

It is important that the interconnecting CAT cable between the Blustream HDBaseT™ products is terminated using the correct RJ45 pin configuration. The link CAT6A cable **MUST** be a 'straight' (pin-to-pin) cable and it is advised that this is wired to the T568B wiring standard as this format is less prone to EMI (Electro-Magnetic Interference).

When installing CAT cable for HDBaseT™ it is advised that the best possible CAT cable quality is used without **ANY** connections in the cable between the RJ45 plugs.

HDMI distribution over the new HDBaseT™ VS3000 chipset will **ONLY** work if used with CAT6A standard cable, or above, for extended distances due to the 16Gbps HDBaseT™ link required. The distance capabilities of this technology is significantly reduced over CAT5e or CAT6 cabling because of the increase in data being sent.

Blustream recommends using U/FTP cable for HDBaseT™ VS3000 installations, especially when running over longer distances, in areas of high EMI, or for 4K signal distribution.



Understanding the HDBaseT™ Signal Status Lights

The Blustream HDBaseT™ extender solutions include status LED indicators on both the Matrix/Transmitter and Receiver products to show all connections are active and to help diagnose possible problems.

Understanding the Status Lights

RX18G Receiver:

- The HDMI signal link light will be off when there is no connection with a display / sink
- The HDMI link light will be on when there is an active connection with a display
- The orange HDBaseT™ link light will be off when there is no CAT cable / active HDBaseT™ connection on the RJ45 HDBaseT™ output
- The orange HDBaseT™ link light will blink if there is an unstable connection between the Transmitter / Matrix and Receiver
- The orange HDBaseT™ link light will be lit when a CAT cable is connected to the HDBaseT™ RJ45 output on the Transmitter and an active connection is achieved with the Receiver / Matrix
- The green HDBaseT™ HDCP light will be off when no video signal is received
- The green HDBaseT™ HDCP light will flash when there is video signal without HDCP being received
- The green HDBaseT™ HDCP light will be on when there is video signal with HDCP being received
- The power link light will be off when no power is connected to the receiver, or to the connected Transmitter unit
- The power link light will be on when power is connected directly to the receiver or is being received from the Transmitter unit

Specifications

RX18G

- **Video Input Connectors:** 1 x HDBaseT™ RJ45 connector
- **Video Output Connectors:** 1 x HDMI Type A, female
- **RS232 Input Port:** 1 x 3-pin Phoenix connector
- **Audio Output Connectors:** 1 x Analogue audio L/R (3.5mm stereo jack), 1 x Optical (S/PDIF)
- **Audio Input Connectors:** 1 x Optical (S/PDIF)
- **Ethernet Port:** 1 x RJ45 connector
- **IR Input Port:** 1 x 3.5mm stereo jack
- **IR Output Port:** 1 x 3.5mm mono jack
- **Mounting Kit included**
- **Casing Dimensions (W x H x D):** 190 x 100 x 25mm
- **Dimensions Including Connections (W x H x D):** 190 x 108 x 25mm
- **Power Supply:** 24V/1.25A DC, 4-pin DIN
- **Shipping Weight:** 1.0Kg
- **Operating Temperature:** 32°F to 104°F (-5°C to +55°C)
- **Storage Temperature:** -4°F to 140°F (-25°C to +70°C)

Package Contents

RX18G

- 1 x RX18G
- 1 x Mounting Bracket Set
- 1 x Quick Reference Guide

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

Maintenance

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

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.

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.