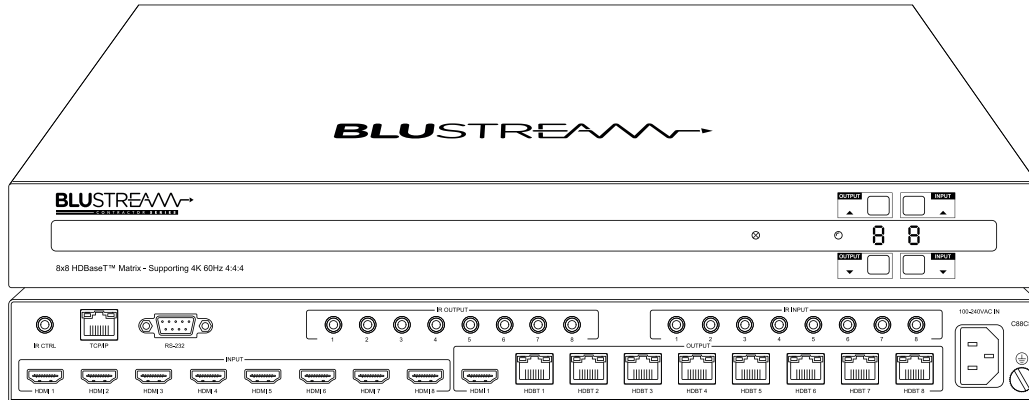


C88CS

Quick Reference Guide



Introduction

Our Contractor 8x8 HDBaseT™ matrix offers unprecedented performance and value for the custom installation market. The C88CS is a HDMI 2.0 4K 60Hz 4:4:4 HDCP 2.2 matrix utilising CSC technology to deliver HDMI, bi-directional IR and PoC up to lengths of 70m over a single CAT cable. The matrix also provides advanced features including simultaneous HDBaseT™ / HDMI on output 1, video down conversion on HDBaseT™ outputs and a web browser interface module for control and configuration of the matrix.

FEATURES:

- Advanced HDBaseT™ technology offering distribution of video and audio over a single CAT cable
- Advanced Colour Space Conversion (CSC) supports HDMI 2.0 18Gbps specification including HDR*
- Features 8 x HDMI inputs which can be independently routed to 8 x HDBaseT™ outputs
- Output 1 features simultaneous HDMI and HDBaseT™ output
- Video down-conversion on HDBaseT™ outputs allowing a display only capable of supporting lower video resolutions (4K 60Hz 4:2:0 or 1080p) to receive 4K 60Hz 4:4:4 video content while still showing maximum original 4K UHD resolution on remaining video outputs
- Supports 4K 60Hz 4:4:4 UHD video up to 40m
- Extends HDMI 1080p video up to 70m
- Supports all industry standard video resolutions including VGA-WUXGA and 480i-4K
- Supports all known HDMI audio formats including Dolby TrueHD, Dolby Atmos, Dolby Digital Plus and DTS-HD Master Audio transmission
- Web interface module for control and configuration of matrix
- Supports bi-directional IR on all HDBaseT™ outputs
- Control via front panel, IR, iOS / Android App, RS-232 and TCP/IP
- Supports PoC (Power over Cable) to power compatible HDBaseT™ receivers
- Supplied with Blustream IR receivers and emitters
- 3rd party drivers available for all major control brands
- 1U design for 19" rack mount integration - mounting kit included
- Advanced EDID management and HDCP 2.2 compliant

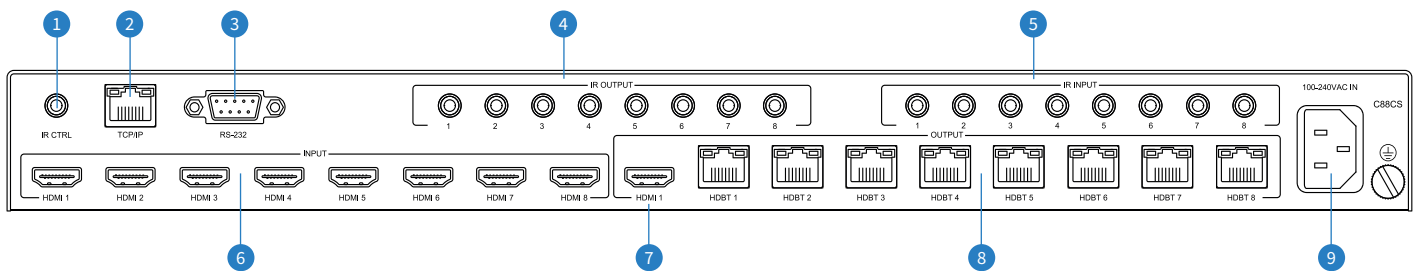
*CSC feature compatible with RX70CS only

Front Panel Description



- 1 IR Receiver - Built in IR sensor for IR pass through
- 2 Output LCD - Shows the currently selected output
- 3 Output Up / Down Button - Press to adjust the selected output up or down
- 4 Input Up / Down Button - Press to adjust the selected input up or down
- 5 Input LCD - Shows the currently selected input

Rear Panel Description



- 1 IR Control Input - 3.5mm stereo connector to connect to Blustream IR receiver for IR control of the matrix
- 2 TCP/IP - RJ45 connector for TCP/IP and Web GUI control of the matrix
- 3 RS-232 - DB9 connector for RS-232 control of the matrix
- 4 IR Receiver Output - 3.5mm mono connector to connect to Blustream IR emitter. Used for local Source control
- 5 IR Receiver Input - 3.5mm stereo connector to connect to Blustream IR receiver or Control Processor. Used to extend IR from Matrix to HDBaseT™ Outputs 1-8
- 6 HDMI Inputs - Connect to source devices
- 7 HDMI Output - Connect to display device
- 8 HDBaseT™ Outputs - RJ45 HDBaseT™ port to connect to the HDBaseT™ input port of the compatible Blustream HDBaseT™ receiver
- 9 IEC Power Socket - Use supplied IEC power cable

Web GUI Control

The C88CS features an in-built Web GUI which can be used for control and configuration of the matrix. By default the matrix is set to DHCP, however if a DHCP server (eg: network router) is not installed the matrix IP address will revert to below details:

Default **Username** is: [blustream](#)

Default **Password** is: [1234](#)

Default **IP Address** is: [192.168.0.200](#)

For further information please see the C88CS User Manual - available to download from the Blustream website.

RS-232 Configuration

The RS-232 port is used for configuration and control of the product, as well as pass through of RS-232 commands to a compatible Blustream HDBaseT™ receiver / matrix device.

The default RS-232 communication settings are:

Baud Rate: 57600

Data Bit: 8

Stop Bit: 1

Parity Bit: none

For a complete RS-232 command list please see the C88CS User Manual - available to download from the Blustream website.

EDID Control

EDID (Extended Display Identification Data) is a data structure that is used between a display and a source. This data is used by the source to find out what audio and video resolutions are supported by the display. By pre-determining the video resolution and audio format of the source and display device you can reduce the time needed for EDID hand shaking thus making switching quicker and more reliable.

Configuration of the EDID settings for each input can be achieved using the following RS-232 commands to specify the required EDID:

EDIDxxDFzz

Where xx = Input: 00 refers to ALL inputs; 01-08 = specific input
zz = EDID as shown below

- zz = 00: HDMI 1080p@60Hz, Audio 2ch PCM (Default)
- 01: HDMI 1080p@60Hz, Audio 5.1ch DTS/DOLBY
- 02: HDMI 1080p@60Hz, Audio 7.1ch DTS/DOLBY/HD
- 03: HDMI 1080i@60Hz, Audio 2ch PCM
- 04: HDMI 1080i@60Hz, Audio 5.1ch DTS/DOLBY
- 05: HDMI 1080i@60Hz, Audio 7.1ch DTS/DOLBY/HD
- 06: HDMI 1080p@60Hz/3D, Audio 2ch PCM
- 07: HDMI 1080p@60Hz/3D, Audio 5.1ch DTS/DOLBY
- 08: HDMI 1080p@60Hz/3D, Audio 7.1ch DTS/DOLBY/HD
- 09: HDMI 4K@30Hz 4:4:4, Audio 2ch PCM
- 10: HDMI 4K@30Hz 4:4:4, Audio 5.1ch DTS/DOLBY
- 11: HDMI 4K@30Hz 4:4:4, Audio 7.1ch DTS/DOLBY/HD
- 12: HDMI 4K@60Hz 4:2:0/4K@30Hz 4:4:4, Audio 2ch PCM
- 13: HDMI 4K@60Hz 4:2:0/4K@30Hz 4:4:4, Audio 5.1ch DTS/DOLBY
- 14: HDMI 4K@60Hz 4:2:0/4K@30Hz 4:4:4, Audio 7.1ch DTS/DOLBY/HD
- 15: HDMI 4K@60Hz 4:4:4, Audio 2ch PCM
- 16: HDMI 4K@60Hz 4:4:4, Audio 5.1ch DTS/DOLBY
- 17: HDMI 4K@60Hz 4:4:4, Audio 7.1ch DTS/DOLBY/HD
- 18: DVI 1280x1024@60Hz, Audio None
- 19: DVI 1920x1080@60Hz, Audio None
- 20: DVI 1920x1200@60Hz, Audio None
- 21: HDMI 1920x1200@60Hz, Audio 2ch PCM/6ch PCM
- 22: User EDID 1
- 23: User EDID 2

Specifications

C88CS

- **Video Input Connectors:** 8 x HDMI Type A, 19-pin, female
- **Video Output Connectors:** 1 x HDMI Type A, 19-pin, female, 8 x HDBaseT™ RJ45 connectors
- **RS-232 Serial Port:** 1 x 3-pin phoenix conenctor
- **IR Input Ports:** 9 x 3.5mm stereo jack
- **IR Output Ports:** 8 x 3.5mm mono jack
- **Rack Mountable:** 1U rack height, rack ears included
- **Casing Dimensions (W x H x D):** 437mm x 44mm x 377mm (without feet)
- **Dimensions (W x H x D):** 437mm x 53mm x 384mm
- **Shipping Weight:** 6.25kg
- **Operating Temperature:** 23°F to 122°F (-5°C to +50°C)
- **Storage Temperature:** -13°F to 158°F (-25°C to +70°C)
- **Power Supply:** Internal 100-240V AC
- **HDBT Power Output:** 12V DC 0.8A per port

Package Contents

C88CS

- 1 x C88CS
- 1 x Rack Mounting Kit
- 1 x Remote Control
- 8 x IR Emitters
- 9 x IR Receivers
- 1 x Serial Cable - DB9 to DB9
- 1 x IR Control Cable - 3.5mm-3.5mm Cable
- 1 x Quick Reference Guide
- IEC Power Cable(s)

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.

Information

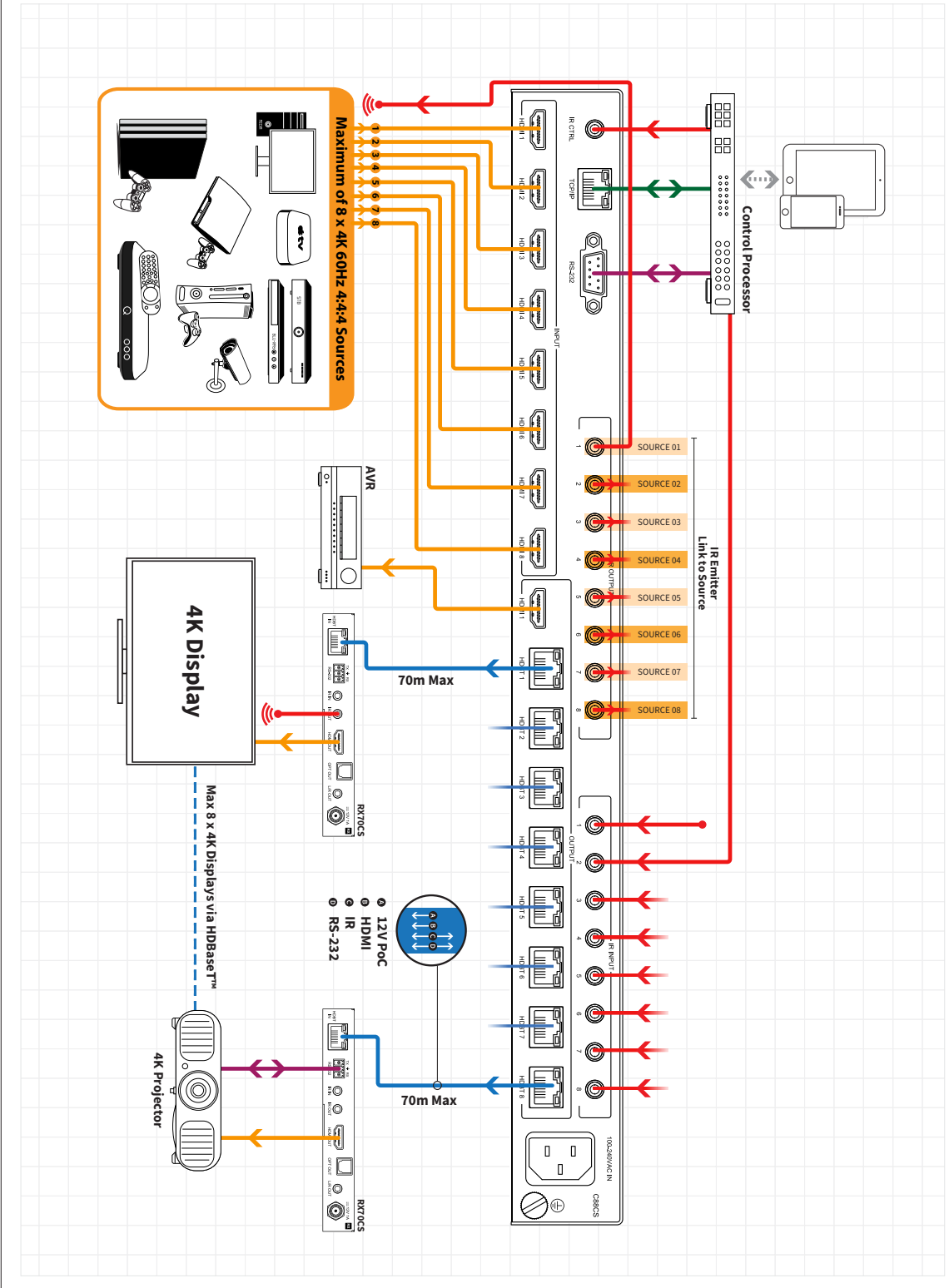
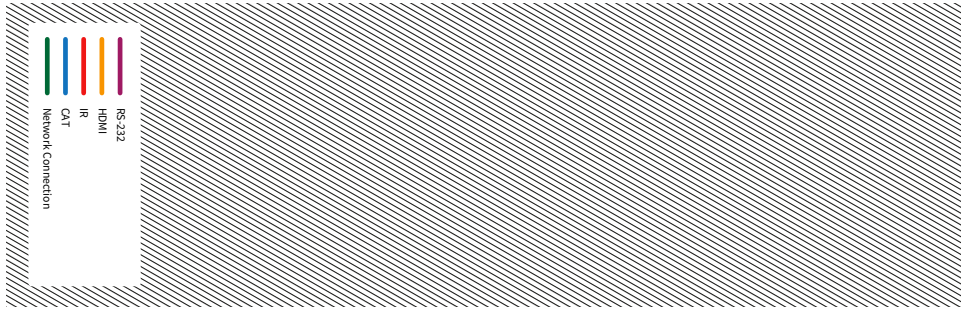


- A. Read these instructions – All the safety and operating instructions should be read before this product is operated.
- B. The apparatus should be connected to a mains socket outlet with a protective earthing connection.
- C. The socket-outlet shall be installed near the equipment and shall be easily accessible.
- D. Do not ingest battery, Chemical Burn Hazard
- E. This product contains a coin / button cell battery. If the coin / button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death.
- F. Keep new and used batteries away from children.
- G. If the battery compartment does not close securely, stop using the product and keep it away from children.
- H. If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.
- I. **WARNING:** Please refer the information on exterior bottom enclosure for electrical and safety information before installing or operating the apparatus.

- A. Lisez ces instructions - Toutes les instructions de sécurité et d'utilisation doivent être lues avant d'utiliser ce produit.
- B. L'appareil doit être raccordé à une prise de courant avec une mise à la terre de protection.
- C. La prise de courant doit être installée à proximité de l'appareil et doit être facilement accessible.
- D. Ne pas ingérer la batterie, risque de brûlure chimique
- E. Ce produit contient une pile bouton. Si la pile bouton est avalée, elle peut provoquer de graves brûlures internes en seulement 2 heures et peut entraîner la mort.
- F. Conservez les piles neuves et usagées hors de portée des enfants.
- G. Si le compartiment à piles ne ferme pas correctement, cessez d'utiliser le produit et tenez-le hors de portée des enfants.
- H. Si vous pensez que des piles ont pu être avalées ou placées à l'intérieur d'une partie du corps, consultez immédiatement un médecin.
- I. **AVERTISSEMENT :** Avant d'installer ou d'utiliser l'appareil, veuillez vous référer aux informations figurant sur le boîtier inférieur extérieur pour les informations relatives à l'électricité et à la sécurité.

BLUSTREAM
CONNECTION SERIES

Example Schematic
C88CS



Notes...



www.blustream.com.au
www.blustream-us.com
www.blustream.co.uk