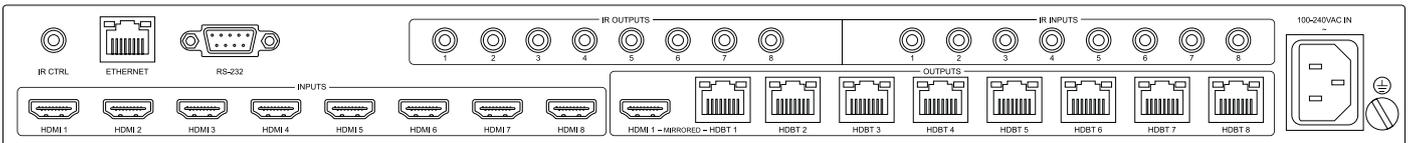# VX88-18G
Quick Reference Guide

Introduction

The 8x8 HDBaseT™ Matrix combines exceptional performance with outstanding value for custom integrators world-wide. The VX88-18G is a HDMI 2.0 4K 60Hz 4:4:4 HDCP 2.2 matrix using Color Space Conversion (CSC) technology to deliver HDMI, Bi-directional IR and PoC up to lengths of 70m over a single CAT cable. The Matrix delivers advanced features including simultaneous HDBaseT™/HDMI on output 1, video down-conversion on HDBaseT™ outputs and a web browser interface module for simple configuration of the Matrix.

Features

- Advanced HDBaseT™ technology enables distribution of video and audio over a single CAT cable
- Advanced Color Space Conversion (CSC) supports HDMI 2.0 18Gbps specification including HDR
- The eight (8) HDMI inputs can be independently routed to eight (8) HDBaseT™ outputs with output 1 featuring simultaneous HDMI and HDBaseT™ output
- Video down-conversion on HDBaseT™ outputs allows 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 and 1080p video up to 70m
- Supports all industry standard video resolutions including VGA-WUXGA and 480i-4K and all known HDMI audio formats including Dolby TrueHD®, Dolby Atmos®, Dolby Digital Plus® and DTS-HD Master Audio® transmission
- Control via front panel, IR, RS-232 and TCP/IP
- Supports PoC (Power over Cable) to power compatible HDBaseT™ receivers
- Advanced EDID management and HDCP 2.2 compliant

Panel Description
Front
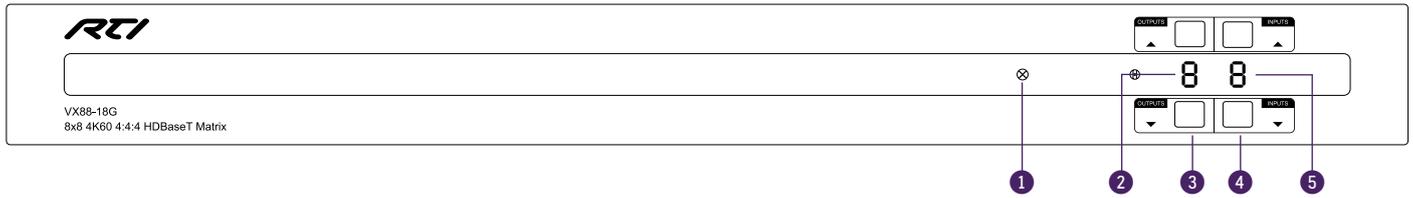
❶ IR Receiver - Built in IR sensor for IR control of the Matrix

❷ Output LCD - Shows the currently selected output

❸ Output Up/Down Button - Press to adjust the selected output up or down

❹ Input Up/Down Button - Press to adjust the selected input up or down

❺ Input LCD - Shows the currently selected input

Panel Description
Back
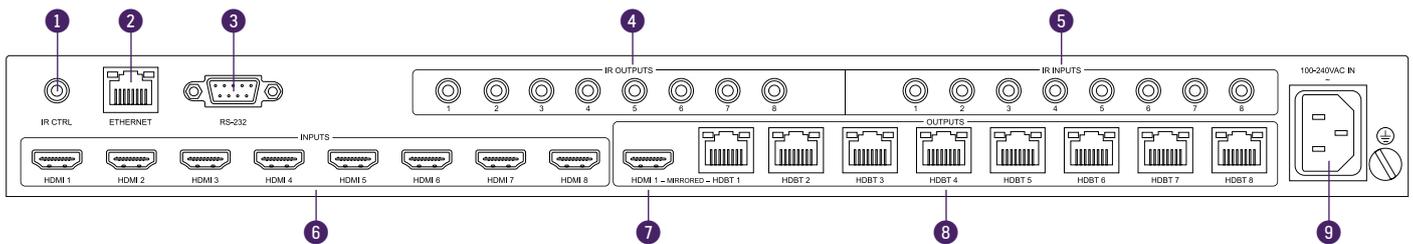
❶ IR Control Input - 3.5mm stereo connector to connect to RTI 12V IR Receiver for IR control of the Matrix

❷ TCP/IP - RJ45 connector for TCP/IP and Web GUI control of the Matrix

❸ RS-232 - DB9 connector for RS-232 control of the Matrix

❹ IR Receiver Outputs - 3.5mm mono connector to connect to RTI 12V IR Emitter. Used for local Source control

❺ IR Receiver Inputs - 3.5mm stereo connector to connect to RTI 12V IR Receiver. Used to extend IR from Matrix to HDBaseT™ Outputs 1-8

❻ HDMI Inputs - Connect to source devices

❼ HDMI Output - Connect to display device

❽ HDBaseT™ Outputs - RJ45 HDBaseT™ port to connect to the HDBaseT™ input port of the compatible RTI HDBaseT™ Receiver

❾ Power Socket - Use supplied power cable

Web GUI Control

The VX88-18G 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: RTI   Default **Password** is: RTI123   Default **IP Address** is: 192.168.0.200

For further information please see the VX88-18G User Manual - available to download from the RTI 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 RTI 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 VX88-18G User Manual - available to download from the RTI 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:

EDID*xx*DF*zz*

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 4:4:4/4K@60Hz 4:2:0, Audio 2ch PCM

10 : HDMI 4K@30Hz 4:4:4/4K@60Hz 4:2:0, Audio 5.1ch DTS/DOLBY

11 : HDMI 4K@30Hz 4:4:4/4K@60Hz 4:2:0, Audio 7.1ch DTS/DOLBY/HD

12 : HDMI 4K@60Hz 4:2:0, Audio 2ch PCM

13 : HDMI 4K@60Hz 4:2:0, Audio 5.1ch DTS/DOLBY

14 : HDMI 4K@60Hz 4:2:0, Audio 7.1ch DTS/DOLBY/HD

15 : DVI 1280x1024@60Hz, Audio None

16 : DVI 1920x1080@60Hz, Audio None

17 : DVI 1920x1200@60Hz, Audio None

18 : HDMI 1920x1200@60Hz, Audio 2ch PCM/6ch PCM

19 : User EDID 1

20 : User EDID 2

Specifications:

- **Video Input Connectors:** 8x HDMI Type A, 19-pin, female
- **Video Output Connectors:** 1x HDMI Type A, 19-pin, female, 8x HDBaseT™ RJ45 connector
- **RS-232 Serial Port:** 1x DB9 connector, female
- **TCP/IP Control:** 1x RJ45, female
- **IR Input Ports:** 9x 3.5mm stereo jack
- **IR Output Ports:** 8x 3.5mm mono jack
- **Rack Mountable:** 1U rack height, rack ears included
- **Case Dimensions (without feet) (W x D x H):** 17.2"" x 14.8"" x 1.7"" (437mm x 377mm x 44mm)
- **Dimensions (W x D x H):** 17.2"" x 15.1"" x 2.1"" (437mm x 384mm x 53mm)
- **Shipping Weight:** 11lbs. (5.0kg)
- **Operating Temperature:** 32°F to 104°F (-5°C to +55°C)
- **Storage Temperature:** -4°F to 140°F (-25°C to +70°C)
- **Power Supply:** 110-240VAC

Package Contents:

- 1 x VX88-18G
- 1 x Rack Mounting Kit
- 1 x Remote Control
- 8 x IR Emitters
- 9 x IR Receivers
- 1 x RS-232 Control Cable
- 1 x IR Control Cable - 3.5mm-3.5mm Cable
- 1 x Power Cable
- 1 x Quick Reference Guide (QRG)

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.