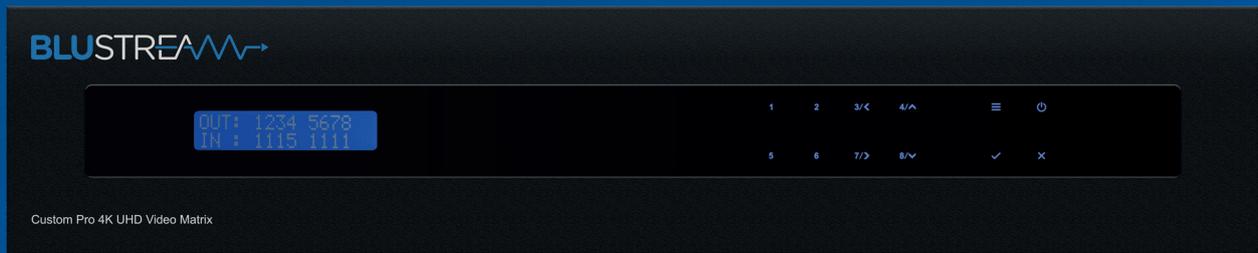
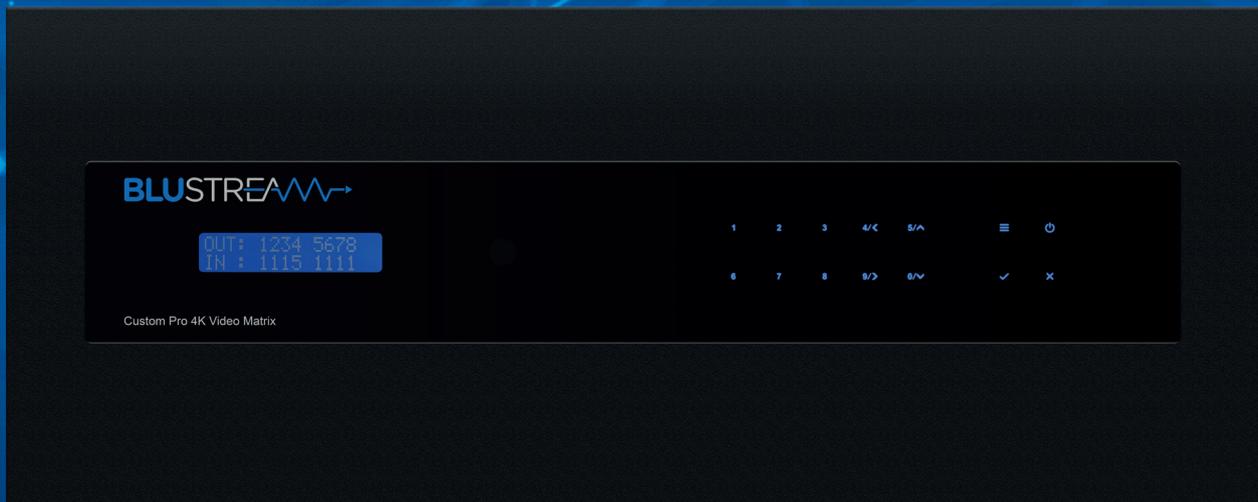




# Custom Pro Matrix Series **SPECIFICATION GUIDE**



8x8 Custom Pro Matrix Hub



16x16 Custom Pro Matrix Hub





## Legend:



Matrix Chassis Control (supplied with chassis)



Input Card Slots



Optional Control Card Slots



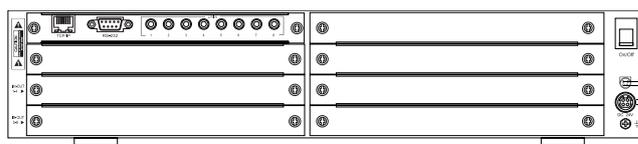
Output Card Slots

Blanking plates supplied with chassis where: control, input or output cards are not required

## STEP 1. Select chassis

Pick between 8x8 or 16x16 variants

<b>CUSTOMPRO-HUB 8x8</b>	Custom Pro Chassis for a matrix with a maximum of 8 x inputs or 8 x outputs
<b>CUSTOMPRO-HUB 16x16</b>	Custom Pro Chassis for a matrix with a maximum of 16 x inputs or 16 x outputs

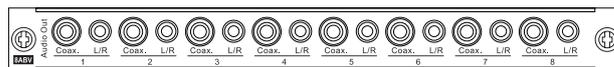


8x8 CUSTOMPRO-HUB

Choose control elements required by going to STEP 2

## STEP 2. Choose control elements

Only specify the control cards required for the project:



**PRO-8AB-V2**

<b>PRO-8RS232</b>	RS-232 pass-through card - for sending RS-232 to the associated HDBaseT™ receivers <i>Please note: you must specify a HDBaseT™ receiver that will allow for RS-232 pass-through</i>
<b>PRO-8IR-V2</b>	IR pass-through card - for 2-way IR control, or IR control of matrix (8x8 chassis only)*
<b>PRO-8AB-V2</b>	Coax digital, or stereo audio breakout card <i>Please note: the Custom Pro matrix does not support Dolby / DTS downmixing</i>

\* Please note: The Custom Pro Hub 16 has IR Control cards included as standard.

*Once control cards have been selected, move to Step 3.*

## STEP 3. Select maximum resolution capabilities of the matrix

<b>4K 60Hz 4:4:4 8-Bit Colour</b>	Continue to STEP 4 (up to HDMI2.0 specification - 18Gbps)
<b>4K 60Hz 4:2:0 8-Bit Colour</b>	Skip forward to STEP 7 (up to HDMI1.4 specification - 10.2Gbps)



OR



## STEP 4. Choose input cards - (HDMI2.0 / 18Gbps input)

The Custom Pro input cards allow for an 18Gbps matrix to be specified with either 2 or 4 inputs per card slot. The 8x8 matrix chassis can take up to 2 x input cards, the 16x16 will accept up to 4 x cards.

<b>PRO-IN2HAB</b>	2 x HDMI2.0 Input with Audio Breakout
<b>PRO-IN4HAB</b>	4 x HDMI2.0 Input with Audio Breakout
<b>PRO-IN2H2TCS*</b>	2 x HDBaseT™ and 2 x HDMI2.0 Input (40m at 4K, 70m at 1080p)

*Choose compatible Custom Pro Output Cards by going to STEP 5*

\* Compatible HDBaseT™ Transmitter for PRO-IN2H2TCS input card:  
- Use with the HEX70CS-TX per port if an 18Gbps source device is going to be connected  
- Use with the HEX70B-TX per port if a 10.2Gbps source device is going to be connected



**PRO-IN4HAB**



## STEP 5. Choose your output cards - (HDMI2.0 / 18Gbps)

The Custom Pro output cards allow an 18Gbps matrix to be specified with either 2 or 4 outputs per card slot. The 8x8 matrix chassis can take up to 2 x output cards, the 16x16 will accept up to 4 x cards.

<b>PRO-OUT2H-V2</b>	2 x HDMI2.0 Output
<b>PRO-OUT4H-V2</b>	4 x HDMI2.0 Output
<b>PRO-OUT2TL-V2</b>	2 x HDBaseT™ CSC Output (40m at 4K, 70m at 1080p)
<b>PRO-OUT4TL-V2</b>	4 x HDBaseT™ CSC Output (40m at 4K, 70m at 1080p)
<b>PRO-OUT4TLS-V2</b>	4 x Simultaneous HDMI / HDBaseT™ CSC Output (40m at 4K, 70m at 1080p)
<b>PRO-OUT2TCS</b>	2 x HDBaseT™ CSC output (70m at 4K, 100m at 1080p)
<b>PRO-OUT4TCS</b>	4 x HDBaseT™ CSC output (70m at 4K, 100m at 1080p)
<b>PRO-OUT4HTCS</b>	4 x simultaneous HDMI / HDBaseT™ CSC output (70m at 4K, 100m at 1080p)



*Choose compatible HDBaseT™ CSC receivers by going to STEP 6*

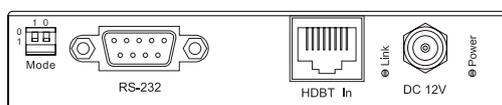
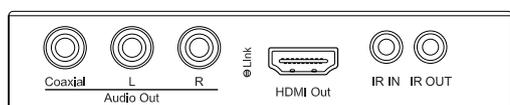
## STEP 6. Choose compatible HDBaseT™ CSC receivers - (HDMI2.0 / 18Gbps)

<b>HEX70CS-RX</b>	HDBaseT™ receiver with 2-way IR and RS-232 pass-through (40m at 4K, 70m at 1080p)
<b>HEX100CS-RX</b>	HDBaseT™ receiver with 2-way IR and RS-232 pass-through (70m at 4K, 100m at 1080p)

All HDBaseT™ receivers within the Blustream range of products are compatible with all Custom Pro output cards. Technical specifications vary per output card, and per receiver. The above receivers are those Blustream recommend for use with the specific output cards as outlined in STEP 5.

Selecting HDBaseT™ receivers within the Blustream range that are not CSC will limit the maximum overall output of a system to 4K 60Hz 4:2:0 8-bit colour.

*Move to Step 10 to check system interoperability.*



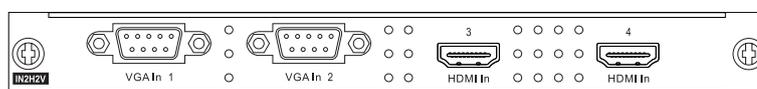
HEX100CS-RX



## STEP 7. Choose input cards - (HDMI1.4 / 10.2Gbps max)

The Custom Pro input cards allow a matrix to be specified with either 2 or 4 inputs per card slot. The 8x8 matrix chassis can take up to 2 x input cards, the 16x16 will accept up to 4 x cards.

<b>PRO-IN2H</b>	2 x HDMI1.4 input
<b>PRO-IN4H</b>	4 x HDMI1.4 input
<b>PRO-IN2H2V</b>	2 x HDMI1.4 and 2 x VGA input



PRO-IN2H2V

*Move to Step 8 to select output cards.*



## STEP 8. Choose output cards - (HDMI1.4 / 10.2Gbps max)

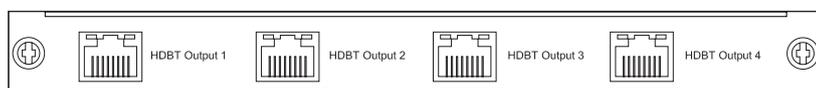
The Custom Pro output cards allow a matrix to be specified with either 2 or 4 outputs per card slot. The 8x8 matrix chassis can take up to 2 x output cards, the 16x16 will accept up to 4 x output cards.

<b>PRO-OUT2H</b>	2 x HDMI1.4 output
<b>PRO-OUT4H</b>	4 x HDMI1.4 output
<b>PRO-OUT2TL</b>	2 x HDBaseT™ output (40m at 4K, 70m at 1080p*)
<b>PRO-OUT4TL</b>	4 x HDBaseT™ output (40m at 4K, 70m at 1080p*)
<b>PRO-OUT4TLS</b>	4 x simultaneous HDMI / HDBaseT™ output (40m at 4K, 70m at 1080p*)

The adjacent cards are all fully interoperable with each other when mixed into a Custom Pro chassis and with all input cards in STEP 7.

*Choose compatible HDBaseT™ receivers by going to STEP 9*

*\* For distances exceeding 40m at 4K or 70m at 1080p, please see the 18Gbps range of output cards in STEP 4.*



PRO-OUT4TL

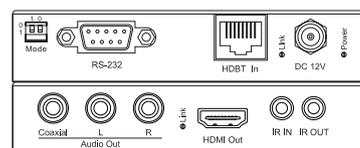


## STEP 9. Choose compatible HDBaseT™ receivers - (HDMI1.4 / 10.2Gbps only)

<b>HEX70B-RX</b>	HDBaseT™ receiver with 2-way IR pass-through (40m at 4K, 70m at 1080p)
<b>HEX70CS-RX</b>	HDBaseT™ receiver with 2-way IR and RS-232 pass-through (40m at 4K, 70m at 1080p)



All HDBaseT™ receivers within the Blustream range of products are fully compatible with all Custom Pro output cards. Technical specifications vary per output card, and per receiver. The above receivers are those Blustream recommend for use with the specific Custom Pro output cards as outlined in STEP 8.



HEX70CS-RX

*Move to Step 10 to check system interoperability.*

## STEP 10. Check system interoperability

### Input cards:

- All input cards from STEPS 4 and 7 are interoperable in a Custom Pro matrix system. Ensure that the input card selected is suitable for the source devices to be connected.
- Where a single source device is required to output a resolution that exceeds 4K 60Hz 4:2:0 8-bit colour (10.2Gbps max), where all outputs can select the source, all output cards must be selected from STEP 5. Failure to do so will limit the maximum EDID response from screens connected to output cards from STEP 8 to 4K 60Hz 4:2:0.
- You cannot select multiple input cards that contain only 2 x connections. You must specify a 4 x input card.

### Output cards:

- All 18Gbps output cards are interoperable with each other, and any input card in STEP 4.
- Where differing distance CSC HDBaseT™ output cards are being used. The HEX70CS-RX can be used on the outputs of the 70m @ 4K, 100m @1080p cards, with the maximum distance being that of the HDBaseT™ receiver in use.
- Input cards selected in STEP 7 when used with output cards used in STEP 5 will have a maximum resolution capability of 4K 60Hz 4:2:0 8-bit colour.
- You cannot select multiple output cards that contain only 2 x connections. You must specify a 4 x output card.

### HDBaseT™ receivers:

- Interoperability is based on the technical specifications of both Output card and HDBaseT™ receiver. Using a receiver with an output card that does not technically match, the highest 'common' denominator of: resolution supported, and distance capabilities will be achieved, not the maximum capable of one side of the link.

**BLUSTREAM**   
**CUSTOMPRO**

**HDMI**®

**CHDBT**®  
ASE

**DOLBY**®

 **dts**

**BLUSTREAM** 

[www.blustream.co.uk](http://www.blustream.co.uk)  
[www.blustream.com.au](http://www.blustream.com.au)