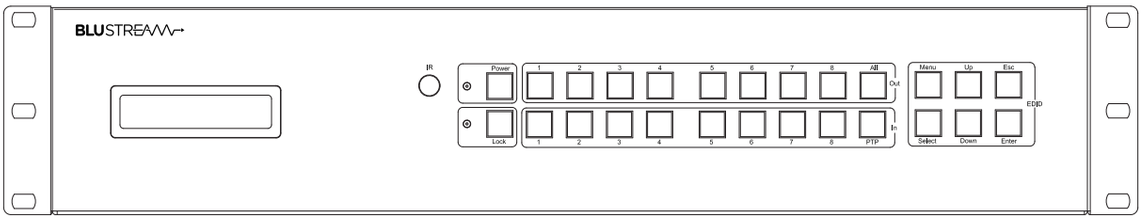
PLATINUM MATRIX SOLUTIONS



- PLA88ARC
- PLA88L
- PLA66ARC
- PLA66L

User Manual

BLUSTREAM

Thank you for purchasing this product.

For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.



Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

Safety And Performance Notice

The transmission distances of HDMI over UTP cables are measured using TE CONNECTIVITY 1427071-6

EIA/TIA-568-B termination (T568B) of cables is recommended for optimal performance.

To minimise interference of the unshielded twisted pairs in the CAT cable do not run the HDBaseT / Cat cabling with or in close parallel proximity to mains power cables.

Do not substitute or use any other power supply other than the enclosed unit, or a Blustream approved replacement.

Do not disassemble either the Transmitter or Receiver units for any reason. Doing so will void the manufacturer's warranty.

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Introduction

Our Platinum Range of HDBaseT matrix products offer the very best performance and flexibility for the custom installer. Built on our advanced modular chassis, the Platinum matrix is available in 4 configurations to suit the AV distribution needs of the project. Blustream Platinum matrix include both HDBaseT/HDMI inputs and outputs allowing extension of HDMI signal of up to 100m*. The built-in audio matrix with HDMI/analogue/digital embedding and de-embedding further adds audio distribution capabilities to a feature rich HDMI matrix.

PLATINUM FEATURES:

- 8x HDMI inputs which can be independently routed to 8x HDBaseT/HDMI video outputs (quantity dependent on model)
- 4K video support
- Supports distances of up to 100m* on a single CAT cable (*PLA88ARC & PLA66ARC are HDBaseT Class A products and support distances of up to 100m. PLA88L & PLA66L are HDBaseT Class B products and support distances of up to 70m)
- HDBaseT inputs (quantity dependent on model) allowing sources to be located remotely using Blustream HDBaseT transmitters
- Supports POH (Power Over HDBaseT) to power Blustream transmitters and receivers - no local power supplies required
- LAN serving (Ethernet Switch) with compatible Blustream HDBaseT receivers
- Integrated audio matrix (Inputs include analogue audio, HDMI audio de-embedding and ARC where applicable)
- Audio Return Channel (ARC) with compatible Blustream HDBaseT receivers (Feature only available on PLA88ARC & PLA66ARC models)
- Analogue audio L/R embedding onto HDMI outputs
- HDMI Audio de-embedding to analogue audio L/R + digital coaxial outputs
- Lip-sync delay on analogue audio L/R + digital coaxial outputs
- Bi-directional RS-232 and IR from all input and output locations (with compatible Blustream transmitters and receivers)
- Control of Matrix via front panel, IR, RS-232 & TCP/IP
- Advanced EDID management

You can purchase any one of four pre-configured Blustream Platinum Matrix to suit project requirements:-

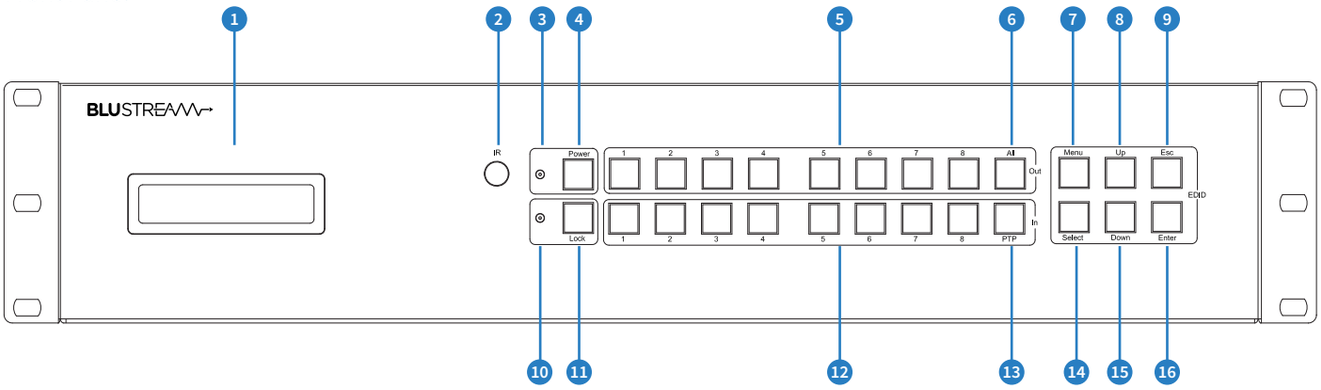
PLA88ARC/PLA66ARC

The PLA88ARC/PLA66ARC are an industry leading 4K 8x8 HDBaseT /HDMI matrix, delivering HDMI, network, Bi-directional IR & RS-232 and PoH (PoE) up to lengths of 100m over a single CAT cable. The PLA88ARC/PLA66ARC feature an embedded audio matrix, simultaneous HDBaseT/HDMI outputs, HDMI audio de-embedding/analogue audio embedding, ARC, RS-232, TCP/IP & IR control and the option of adding Blustream HDBaseT transmitters to integrate remote sources.

PLA88L/PLA66L

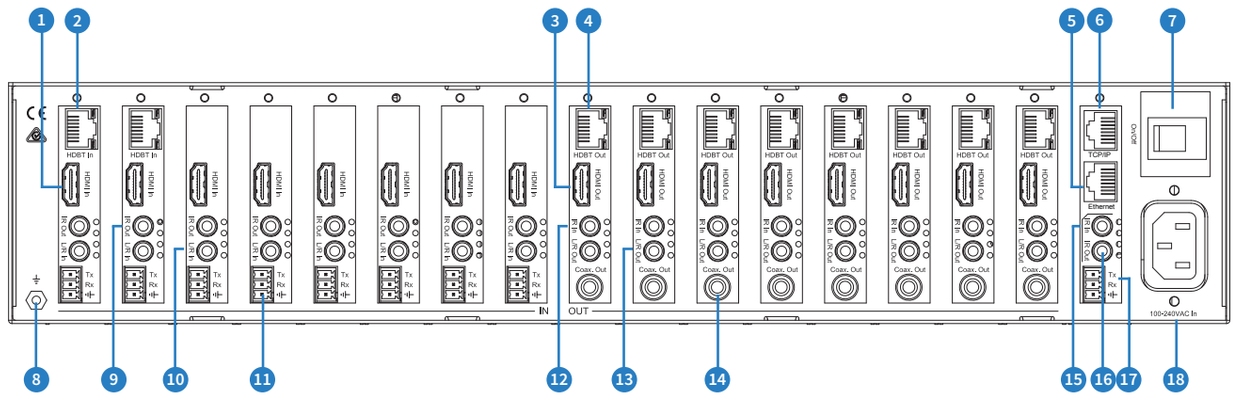
Our Platinum Range of HDBaseT matrix products offer the very best in performance and flexibility. The PLA88L/PLA66L are a feature rich 4K 8x8 HDBaseT/HDMI matrix, delivering HDMI, Bi-directional IR and PoH (PoE) up to lengths of 70m over a single CAT cable. The PLA88L/PLA66L also feature an embedded audio matrix, simultaneous HDBaseT/HDMI outputs, HDMI audio de-embedding/analogue audio embedding, RS-232 / IP & IR control and the option of adding Blustream HDBaseT transmitters to integrate remote sources.

Front Panel



1. LCD display – Show the status of input & output selection and EDID info.
2. IR receiver window – Receives IR from a hand held remote control or processor.
3. Power LED indicator - Indicates the power status of the matrix.
4. Power button – Press to toggle power of the matrix on/off
5. HDMI output selection buttons 1 to 8 – Press to select the output from 1 to 8.
6. All button for HDMI outputs – Press to select all of the outputs from 1 to 8.
7. Menu button – Press to enter EDID setup
8. Up – Press to change up through the adjustable values.
9. ESC - Press to quit EDID set up menu.
10. Lock LED indicator - Indicate the status of the key lock
11. Lock button – Press to lock the buttons on the front panel (Press and hold for 2 seconds)
12. HDMI input selection buttons 1 to 8 – Press to select the input from 1 to 8.
13. PTP button-Press to mirror all inputs and outputs (e.g. output 1 to input1, output 2 to input 2 and so on).
14. Select – Press to select an EDID parameter to change. Selected segment will blink.
15. Down – Press to change down through the adjustable values
16. Enter – Press to set EDID to specified INPUT or copy EDID from specified OUTPUT to specified INPUT.

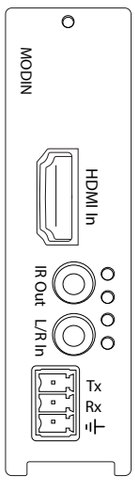
Rear Panel



1. HDMI inputs 1 to 8 - Connect HDMI sources (6x inputs on PLA66L/ARC models).
2. HDBT inputs 1 & 2 – Connect remote HDBT transmitter (PLA88L/ARC supplied with 2x HDBaseT inputs, PLA66L/ARC supplied with single HDBaseT input).
3. HDMI outputs 1 to 8 - Output for displays (6x outputs on PLA66L/ARC models).
4. HDBT outputs 1 to 8 – Output for displays (6x outputs on PLA66L/ARC models).
5. Embedded 1x16 Ethernet switch for LAN serving to all compatible connected 55DBT transmitters and receivers.
6. RJ45 - TCP/IP control.
7. Power switch.
8. GND – Ground connection.
9. IR outputs 1 to 8 – 3.5mm mono jack for routed IR emitter outputs for discrete source control.
10. L/R analogue audio inputs 1 to 8 - 3.5mm stereo jack .
11. RS-232 Ports 1 to 8 - 3-pin phoenix terminals for routed RS-232.
12. IR Inputs 1 to 8 - 3.5mm stereo jack for IR distribution to Blustream HDBaseT receivers.
13. L/R analogue audio outputs 1 to 8 - 3.5mm stereo jack.
14. Coaxial Digital outputs 1 to 8 - RCA
15. Global IR Input - 3.5mm stereo jack.
17. Global IR Output - 3.5mm mono jack.
18. RS-232 Port - 1x 3-pin phoenix terminal for control of Blustream Matrix
19. AC power input – 100V-240V input.

Matrix Input Cards

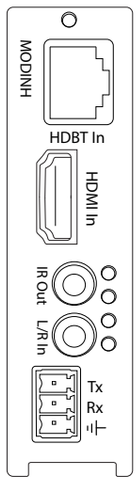
There are two types of input boards that are available to be used with the Platinum Matrix chassis:-



MODIN

Entry level input board with HDMI connection and Analogue audio input

- HDMI Input
- Analogue Audio L/R 3.5mm Stereo Input
- RS-232 (Phoenix Connector)
- IR Output 3.5mm Mono Jack



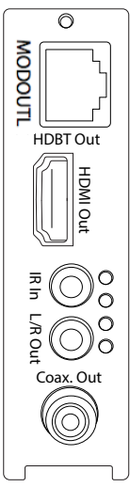
MODINH

Premium input board with HDMI and Analogue audio input + additional HDBaseT connection to allow source equipment to be located up to 100m* from the Matrix.

- HDBaseT and HDMI inputs are auto signal sensing or can be selected manually.
- HDMI Input
- HDBaseT Input (RJ45)
- Analogue Audio L/R 3.5mm Stereo Input
- RS-232 (Phoenix Connector)
- IR Output 3.5mm Mono Jack

Matrix Output Cards

There are two types of Output boards that are available to be used with the Platinum Matrix chassis:-



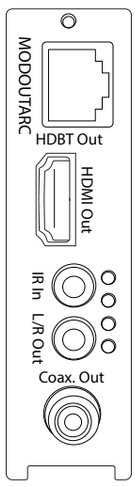
MODOUTL

Feature rich Video and Audio Output card allowing both HDMI & HDBaseT video playback concurrently.

Analogue and digital audio can be routed independently of HDMI/HDBaseT outputs.

The MODOUTL is a HDBaseT Class B product and supports display distances of up to 70m.

- HDMI Output
- HDBaseT Output (RJ45)
- Analogue Audio L/R 3.5mm Stereo Output
- Coaxial Digital Output (RCA)
- Lip-sync Audio Adjustment for Analogue and Digital Audio Outputs
- IR Input 3.5mm Mono Jack



MODOUTARC

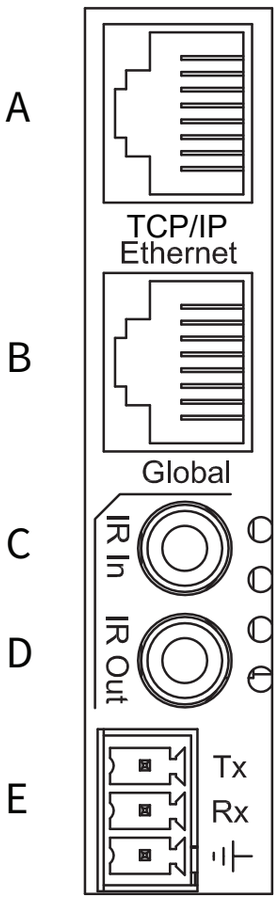
Premium Output card including the same features of the MODOUTL but with the additional features of supporting HDMI ARC (Audio Return Channel) and ethernet distribution.

The MODOUTARC Is a HDBaseT Class A product and supports display distances up to 100m.

- HDMI Output
- HDBaseT Output (RJ45)
- Analogue Audio L/R 3.5mm Stereo Output
- Coaxial Digital Output (RCA)
- Support of ARC (Audio Return Channel) from compatible Blustream Receiver
- Support of ethernet distribution when used with compatible Blustream Receiver
- IR Input 3.5mm Mono Jack

Matrix Main Com Board

The Matrix main communication board is located on the rear panel and has the following connections:-



Connections:

A. TCP/IP – For control of Matrix (RJ45 Connector)

B. Ethernet – Matrix includes 1x16 10/100 Ethernet switch (RJ45 Connector). Only applicable to PLA88ARC and PLA66ARC models that feature Class A HDBaseT.

C. Global IR Input 3.5mm stereo jack

D. Global IR Output 3.5mm mono jack

E. RS-232 2-way (Phoenix Connector)

TCP/IP

The Blustream Matrix can be controlled via TCP/IP.

For full list of protocols please see 'Matrix Control Protocols' located at the rear of this manual.

A 'Straight-through' RJ45 patch lead should be used

RS-232 2-Way

The Blustream matrix can be controlled via supplied 3-pin Phoenix to 9-pin serial cable.

For full list of protocols please see 'Matrix Control Protocols' located at the rear of this manual.

Details of RS232 pin assignment and communication are below:

BLUSTREAM RS-232		REMOTE CONTROL CONSOLE	
PIN	Assignment	PIN	Assignment
1	NC	1	NC
2	Tx	2	Rx
3	Rx	3	Tx
4	NC	4	NC
5	GND	5	GND
6	NC	6	NC
7	NC	7	NC
8	NC	8	NC
9	NC	9	NC

Baud Rate: 57600 bps

Data Bit: 8-bit

Parity: None

Stop Bit: 1-bit

Flow Control: None

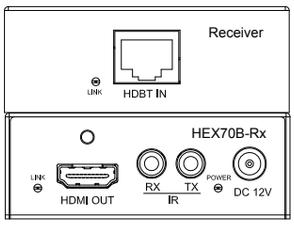
Matrix HDBaseT Receiver Options

There are four HDBaseT receiver options that are compatible with the Output cards supplied with the Blustream Platinum Matrix:-

HEX70B-RX

Basic HDBaset Receiver with 2-way IR pass-through. Supports display distances up to 70m.

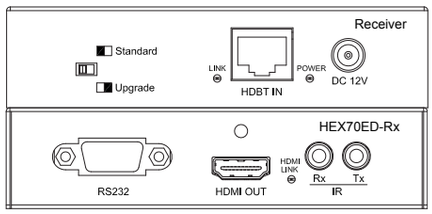
Compatible with all Platinum Blustream Matrix products.



- HDBaseT input/HDMI output
- IR Output 3.5mm Mono jack
- IR Input 3.5mm Stereo jack

HEX70ED-RX

Mid-Level HDBaseT receiver which has the same features as the HEX70B receiver but with added 2-way RS-232 control and display EDID management.

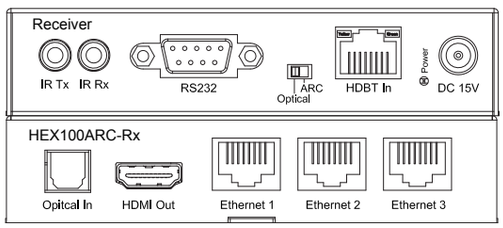


- HDBaseT input/HDMI output
- 2-way RS-232 (9-pin serial)
- IR Output 3.5mm Mono jack
- IR Input 3.5mm Stereo jack

HEX100ARC-RX

Premium HDBaseT receiver which features 2-way IR & RS-232, HDMI ARC and Ethernet distribution (when used with associated MODOUTARC Matrix output card). Supports display distances up to 100m.

Only compatible with PLA88ARC and PLA66ARC Blustream Matrix products.

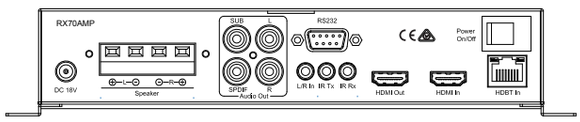


- HDBaseT input/HDMI Output
- Optical Audio input (Toslink)
- 2-way RS-232 (9-pin serial)
- IR Output 3.5mm Mono Jack
- IR Input 3.5mm Mono Jack
- 3x 10/100 Ethernet connections (RJ45)

RX70AMP

The RX70AMP is a combination of HDBaseT receiver and Class D digital audio amplifier (30W per channel). The unit has local HDMI and Analogue audio inputs as well as supporting HDMI ARC (Audio Return Channel) with compatible products. Should you wish to use alternate power amplification the unit has variable analogue outputs. Control of the unit is possible via front panel or by bi-directional RS-232 or IR control. Supports display distances up to 70m.

Compatible with all Platinum Blustream Matrix products.



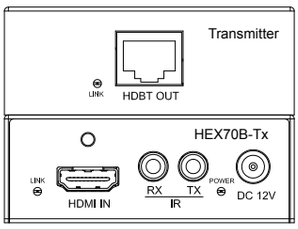
- HDBaseT input/HDMI output
- HDMI Local input for connection of local source
- 2.1 Stereo audio output @ 30W per channel (capable of drive 4, 6 & 8 Ohm speakers) & analogue Subwoofer output (RCA)
- Variable analogue line level outputs (RCA)
- Digital Coaxial S/PDIF output
- Local analogue L/R audio input 3.5mm Stereo Jack
- 2-way RS-232 (9-pin serial)
- IR Output 3.5mm Mono Jack
- IR Input 3.5mm Stereo Jack
- Built-in IR receiver on front panel of unit

Matrix HDBaseT Transmitter Options

When it is a requirement that source equipment is to be located away from the central Blustream Matrix there are four Blustream HDBaseT Transmitters that that can be partnered with the MODINH Input board and allow source equipment to be located at distances of up to 100m*:-

HEX70B-TX

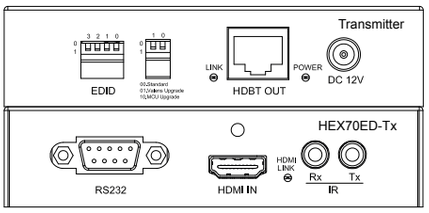
Basic HDBaset Transmitter with 2-way IR pass-through. Supports display distances up to 70m.



- HDMI input/HDBaseT output
- IR output 3.5mm Mono jack
- IR input 3.5mm Stereo jack

HEX70ED - TX

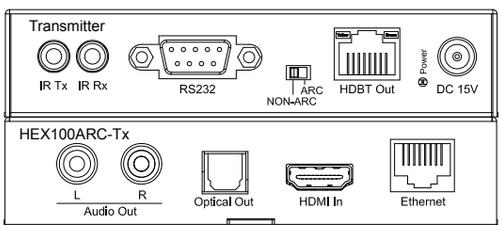
HDBaseT Transmitter which features 2-way IR & RS-232 and display distances up to 70m.



- HDBaseT input/HDMI output
- 2-way RS-232 (9-pin serial)
- IR output 3.5mm Mono jack
- IR input 3.5mm Stereo jack

HEX100ARC - TX

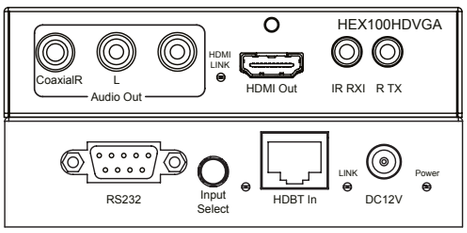
Premium HDBaseT Transmitter which features 2-way IR & RS-232 and distances up to 100m.



- HDMI input/HDBaseT output
- 2-way RS-232 (9-pin serial)
- IR output 3.5mm Mono Jack
- IR input 3.5mm Stereo jack

HEX100HDVGA - TX

Premium HDBaseT Transmitter which features selectable HDMI or VGA+audio inputs and 2-way IR & RS-232. Supports distances up to 100m.



- HDMI & VGA+ audio input/ HDBaseT output
- 2-way RS-232 (9-pin serial)
- IR output 3.5mm Mono jack
- IR input 3.5mm Stereo jack
- Input select button (toggle between VGA+audio and HDMI inputs

* Maximum transmitter distance of 100m applicable to HEX100ARC-TX and HEX100HDVGA-TX models only.

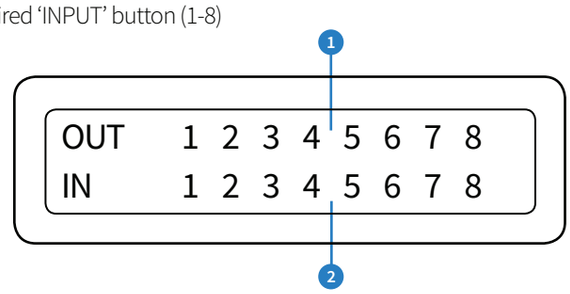
Matrix Input/Output Control

Front Panel Display - Input/Output selection

The following display shows current source input selection per zone output.

To change input selection first press 'OUTPUT' button (1-8)

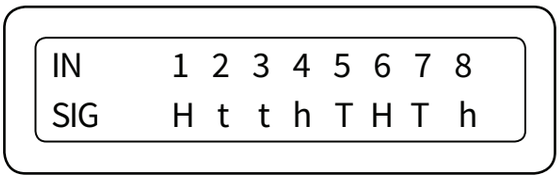
Press desired 'INPUT' button (1-8)



1. HDMI/HDBaseT Outputs 1 to 8
2. HDMI/HDBaseT Input selected (per zone output)

Front Panel Display - Input Source Type

The following characters show the current Input signal type that the Platinum Matrix product has been set to. The input types can be setup as follows:-



- H - Forced HDMI input
- h - HDMI priority input
- T - Forced HDBaseT input
- t - HDBaseT priority input

The input signal type can be changed by using the Blustream Matrix PC software or by using the front panel selection buttons.

To change the input signal type using the Matrix front panel buttons press the following:-

1. Select the input you wish to change using 'INPUT' buttons 1-2*
2. Press one of the following 'OUTPUT' buttons to alter the source input type:
   OUTPUT 1 - Forced HDMI Input
   OUTPUT 2 - Forced HDBaseT Input
   OUTPUT 3 - HDMI priority Input
   OUTPUT 4 - HDBaseT priority Input

***NOTE:**

The PLA88L/ARC Matrix are supplied with 2x HDMI/HDBaseT dual input modules (inputs 1 & 2).

The PLA66L/ARC Matrix are supplied with 1x HDMI/HDBaseT dual input module (input 1).

It is only possible to set the input type to forced or priority HDBaseT on input modules with this connection. Should input types be configured incorrectly no source input will be displayed.

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 then from this information the source will determine what the best audio and video resolutions need to be outputted.

While the objective of EDID is to make connecting a digital display to a source a simple plug and play procedure issues do arise when multiple displays or video matrix switching is introduced because of the increased number of variables.

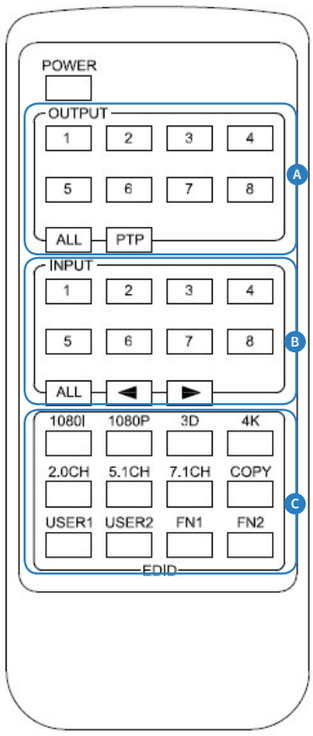
By pre-determining the video resolution and audio format of the source and display device you can reduce the time need for EDID hand shaking thus making switching quicker and more reliable.

Configuration of Matrix EDID settings can be acheived in one of three ways:-

1. Using Matrix PC Software (See 'Platinum Matrix Software Guide' for further details)

2. Using Matrix Front Panel Buttons
   a. Press ***MENU*** button
   b. Panel will display 'EDID settings'. Press ***SELECT*** button
   c. Select the input you wish to fix the EDID on or select 'All'. Use ***UP/DOWN*** buttons to toggle selection and ***SELECT*** button to confirm
   d. Select video resolution required (4K, 1080p, 3D etc). Use ***UP/DOWN*** buttons to toggle selection and ***SELECT*** button to confirm
   e. Select audio format required (2.0, 5.1, 7.1). Use ***UP/DOWN*** buttons to toggle selection and ***SELECT*** button to confirm

3. Using Supplied Blustream Matrix IR Remote Control
   a. Fixed EDID to INPUT / ALL INPUTS:
      To select video resolution - Press ***1080I/1080P/3D/4K***
      To select Audio resolution - Press ***2.0CH/5.1CH/7.1CH***
      To assign settings to individual input/all inputs – Press ***INPUT /ALL*** button in 'ZONE INPUT' area of remote control
   b. Copy EDID of any specific OUTPUT to any assigned INPUT or ALL INPUTS:
      Press ***COPY*** button
      Press ***OUTPUT*** zone button you wish to copy EDID from
      Press ***INPUT*** zone button /ALL button to copy EDID to
   c. User defined EDID to any INPUT or ALL INPUTS:
      Press ***USER1/USER2*** button
      Press selected ***INPUT*** or ***ALL*** button to assign EDID



Infrared (IR) Distribution

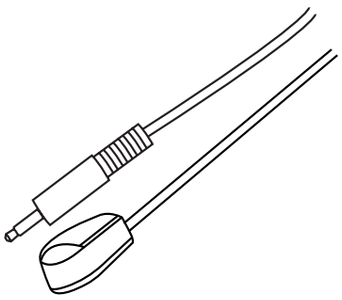
The Blustream Platinum range of matrix products include multiple options for control and routing of IR. Configuration of routed IR is via the Blustream Matrix PC software.

IMPORTANT: Blustream Infrared products are all 5v and NOT compatible with alternate manufacturers Infrared solutions. When using third party 12v IR control solutions please use supplied Blustream IRCAB cable for IR conversion.

Each Blustream Matrix and HDBaseT receiver is supplied with all necessary IR hardware required and includes:

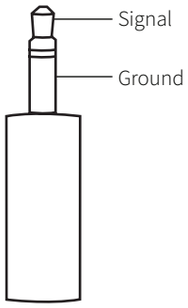
IR Emitter - IR1 & IR2

Blustream 5V IR Emitter designed for discrete IR control of hardware



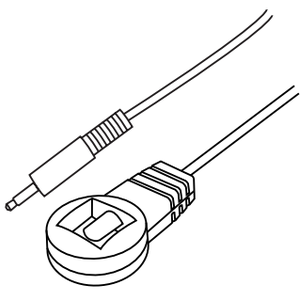
Infrared 3.5mm Pin-Out

IR Emitter - Mono 3.5mm

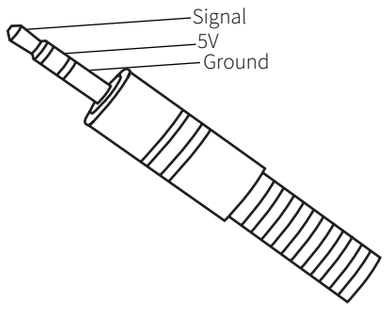


IR Receiver - IRR

Blustream 5V IR receiver to receive IR signal and distribute through Blustream products



IR Receiver - Stereo 3.5mm

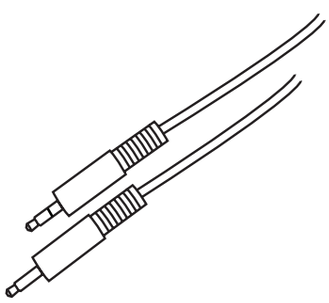


IR Control Cable - IRCAB

Blustream IR Control cable 3.5mm Mono to 3.5mm Stereo for linking third party control solutions to Blustream products.

Compatible with 12v IR third party products.

Note: Cable is directional as indicated

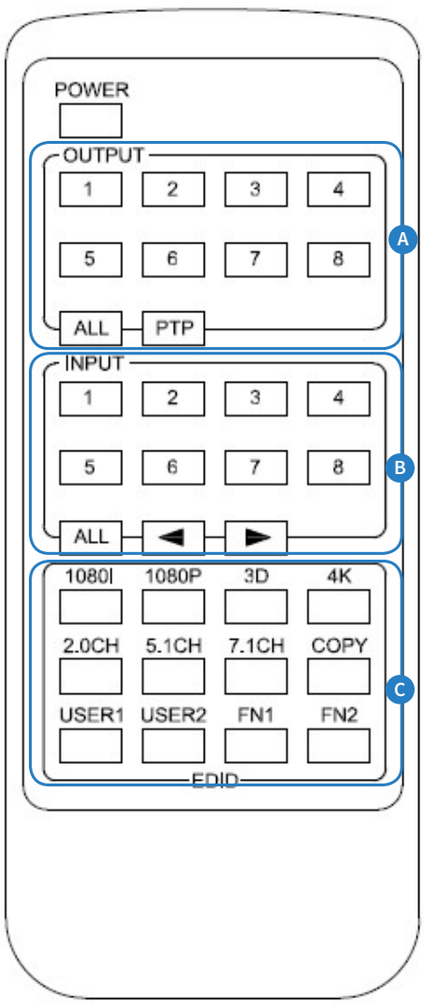


Infrared (IR) Control

The Blustream Platinum matrix units are supplied with an IR Remote Control for source selection and general setup.

As well as controlling matrix solutions using the original Blustream remote the Blustream products can be controlled using the original Infrared codes shown at the rear of this manual.

Remote Control Description



OUTPUT AND INPUT SELECTION

A Select the zone OUTPUT you wish to change the source on (Numbers 1-8 correspond to the zone outputs 1-8).

B Select the source INPUT you wish to change on the selected zone to (Numbers 1-8 corresponds to the source inputs 1-8)

C Press PTP button If you wish to instantly mirror all inputs and outputs (Example - Input 1 to output 1, input 2 to output 2 etc).

EDID Configuration

Fixed EDID to INPUT / ALL INPUTS:

To select video resolution - Press ***1080I/1080P/3D/4K***

To select Audio resolution - Press ***2.0CH/5.1CH/7.1CH***

To assign settings to individual input/all inputs – Press ***INPUT /ALL*** button in 'ZONE INPUT' area of remote control

Copy EDID of any specific OUTPUT to any assigned INPUT or ALL INPUTS:

Press ***COPY*** button

Press ***OUTPUT*** zone button you wish to copy EDID from

Press ***INPUT*** zone button /ALL button to copy EDID to

User defined EDID to any INPUT or ALL INPUTS:

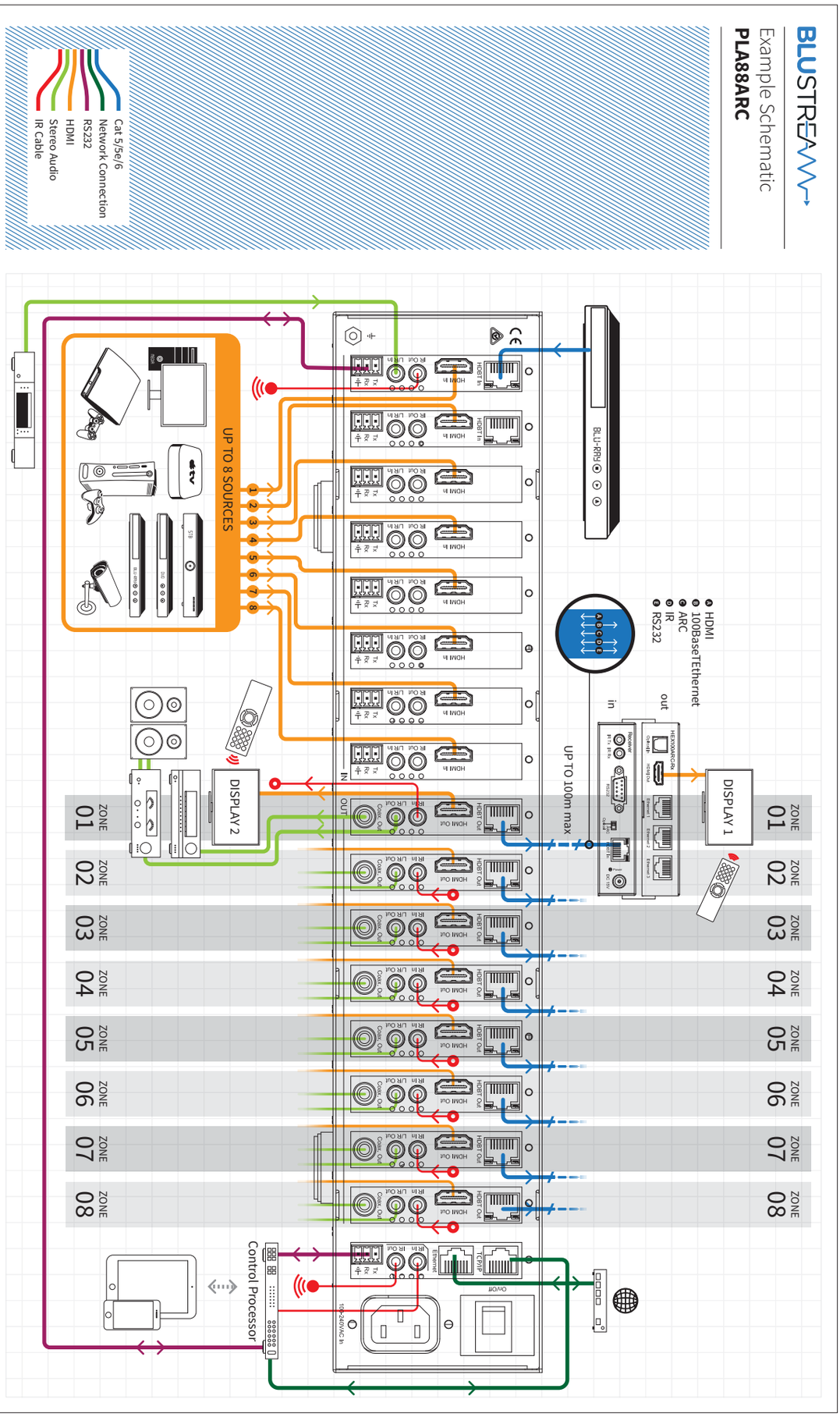
Press ***USER1/USER2*** button

Press selected ***INPUT*** or ***ALL*** button to assign EDID

BLUSTREAM

Example Schematic

PLA88ARC



Specifications

PLA88ARC/PLA88L

Video Input Connections:
8x HDMI Type A, 2x RJ-45 HDBaseT
Video Output Connections
8x HDMI Type A, 8x RJ-45 HDBaseT
Audio Input Connectors:
8x 3.5mm analogue stereo jack
Audio Output Connectors:
8x 3.5mm analogue stereo jack, 8x RCA (SPDIF) digital
Ethernet Input:
1x RJ-45
RS-232 serial port:
9x 3-pin phoenix terminal connector
TCP/IP Control:
1x RJ-45
IR Input ports:
9x 3.5mm stereo jack
IR Output ports:
9x 3.5mm mono jack

Rack-Mountable:
2 U rack height, rack ears included
Casing dimensions (W x H x D):
440mm x 87mm x 361mm , without feet
Dimensions inc. connections (W x H x D):
440mm x 87mm x 369mm , without feet
Shipping Weight:
8.8Kg
Operating Temperature:
32°F to 104°F (0°C to 40°C)
Storage Temperature :
-4°F to 140°F (-20°C to 60°C)
Power Supply:
100V-240V

PLA66ARC/PLA66L

Video Input Connections:
6x HDMI Type A, 1x RJ-45 HDBaseT
Video Output Connections
6x HDMI Type A, 6x RJ-45 HDBaseT
Audio Input Connectors:
6x 3.5mm analogue stereo jack
Audio Output Connectors:
6x 3.5mm analogue stereo jack, 6x RCA (SPDIF) digital
Ethernet Input:
1x RJ-45
RS-232 serial port:
7x 3-pin phoenix terminal connector
TCP/IP Control:
1x RJ-45
IR Input ports:
7x 3.5mm stereo jack
IR Output ports:
7x 3.5mm mono jack

Rack-Mountable:
2 U rack height, rack ears included
Casing dimensions (W x H x D):
440mm x 87mm x 361mm , without feet
Dimensions inc. connections (W x H x D):
440mm x 87mm x 369mm , without feet
Shipping Weight:
8.8Kg
Operating Temperature:
32°F to 104°F (0°C to 40°C)
Storage Temperature :
-4°F to 140°F (-20°C to 60°C)
Power Supply:
100V-240V

NOTE: *Specifications are subject to change without notice. Weight details are approximate and will alter per model.*

Package Contents:

PLA88L Matrix

- 1x PLA88L
- 1x Power cable
- 1x Remote control
- 9x IR emitter
- 9x IR receiver
- 9x IR 3.5-3.5mm interface cable
- 2x Serial cable – 9-pin DB9 to 3-pin phoenix connector
- 1x Rack mounting kit

PLA88ARC Matrix

- 1x PLA88ARC
- 1x Power cable
- 1x Remote control
- 9x IR emitter
- 9x IR receiver.
- 9x IR 3.5-3.5mm interface cable
- 2x Serial cable – 9-pin DB9 to 3-pin phoenix connector
- 1x Rack mounting kit

PLA66L Matrix

- 1x PLA88L
- 1x Power cable
- 1x Remote control
- 7x IR emitter
- 7x IR receiver
- 7x IR 3.5-3.5mm Interface cable
- 2x Serial cable – 9-pin DB9 to 3-pin phoenix connector
- 1x Rack mounting kit

PLA66ARC Matrix

- 1x PLA88ARC
- 1x Power cable
- 1x Remote control
- 7x IR transmitter,
- 7x IR receiver.
- 7x IR 3.5-3.5mm interface cable
- 2x Serial cable – 9-pin DB9 to 3-pin phoenix connector
- 1x Rack mounting kit

Maintenance

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

RS232 and Telnet Commands

NO.	COMAND	ACTION
1	?	Print Help Information
2	HELP	Print Help Information
3	STATUS	Print System Status And Port Status
4	PON	Power On, System Run On Normal State
5	POFF	Power Off, System Run On Power Save State
6	IR ON/OFF	Set System IR Control On Or Off
7	KEY ON/OFF	Set System KEY Control On Or Off
8	APM ON/OFF	Set Advanced Process Mode On Or Off
9	BEEP ON/OFF	Set Onboard Beep On Or Off
10	RESET	Reset System To Default Setting (Should Type “Yes” To Confirm, “No” To Discard)
11	MXIR xx FR yy Output Port IR:xx From Local IR:yy	xx=[00]: All Output IR, [01...08]: Output IR yy=[01...08] Local IR
12	MXIR GI (+-)xx Global IR_IN Signal To Input/ Output IR:xx	xx=[01...08]: Input IR, [09...16]: Local IR xx=[17...24]: Output IR +: Add xx To Current Setting -: Remove xx From Current Setting
13	MXIR GO (+-)xx Global IR_OUT Signal From Input/Output IR:xx	xx=[01...08]: Input IR, [09...16]: Local IR xx=[17...24]: Output IR, [25]: Global IR In +: Add xx To Current Setting -: Remove xx From Current Setting
14	MXUART xx TO yy Local UART:xx Con- nect To Input/ Output UART:yy	xx=[01...08]: Local UART, [09]: Global UART yy=[00]: Disconnect With Any Uart yy=[01...08]: Input UART, [09...16]: Output UART
15	MXSTA	Print Matrix IR And UART Connect State
16	AUD TX xx STE yy	Output Port:xx Audio From Input Port:yy Stereo
17	AUD TX xx EXT yy	Output Port:xx Audio From Input Port:yy Extract
18	AUD TX xx ARC tt	Output Port:xx Audio From Output Port:tt ARC
19	AUD TX xx FOSTE	Output Port:xx Audio From Select Video Input Stereo
20	AUD TX xx FOEXT	Output Port:xx Audio From Select Video Extract
21	AUD TX xx DL ss	Set AUDIO:xx Delay zz ms
22	AUD STA	Print Input/Output Port Audio Setting State xx=[00]: All Output Audio, [01...08]: Output Audio yy=[01...08]: Input Port Audio tt=[01...08]: Output ARC Audio zz=00 ~ 500ms Delay, 50ms per Step
23	AUD RX xx BPS	Input Port:xx Bypass Receive HDMI/DVI Signal
24	AUD RX xx STE	Input Port:xx Insert Stereo To HDMI/DVI Signal
25	AUD RX xx AUTO	Input Port:xx Insert Stereo To DVI Signal Only xx==[00]: All Input Port, [01...08]: Input Port
26	IN xx FO yy	INPUT:xx Force Select Source:yy, Stop Auto
27	IN xx AU yy	INPUT:xx Auto Detect Source, Source:yy High Priority xx=[00]: All INPUT Port, [01...08]: INPUT Port yy=[01]: HDMI, [02]: HDBT
28	OUT xx ON/OFF	Set OUTPUT:xx On Or Off
29	OUT xx FR yy	Set OUTPUT:xx From INPUT:yy
30	OUT xx EH/ET	Set OUTPUT:xx Use HDMI/HDBT EDID xx=[00]: All OUTPUT Port, [01...08]: OUT- PUT Port yy=[01...08]: INPUT Port

IR commands

Note:

NEC Customer Code = 1898

Advanced Matrix features are not available via IR commands

POWER

NEC: 0X14

HEX: 0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 003f 0015 0015 0015 003f 0015 003f 0015 003f 0015 05d3

OUTPUT 1

NEC: 0X09

HEX: 0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 003f 0015 003f 0015 003f 0015 003f 0015 05d3

OUTPUT 2

NEC: 0X1d

HEX: 0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 003f 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 003f 0015 05d3

OUTPUT 3

NEC: 0X1f

HEX: 0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 003f 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 003f 0015 05d3

OUTPUT 4

NEC: 0X0d

HEX: 0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 003f 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 003f 0015 05d3

OUTPUT 5

NEC: 0X19

HEX: 0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 003f 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 003f 0015 05d3

OUTPUT 6

NEC: 0X1b

HEX: 0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 003f 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 003f 0015 05d3

OUTPUT 7

NEC: 0X11

HEX: 0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 003f 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 003f 0015 05d3

OUTPUT 8

NEC: 0X15

HEX: 0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 003f 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 003f 0015 05d3

OUTPUT ALL

NEC: 0X17

HEX: 0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 003F 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 003F 0016 003F 0016 0689

OUTPUT PTP

NEC: 0X12

HEX: 0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 003F 0016 003F 0016 0689

INPUT 1

NEC: 0X50

HEX: 0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 003f 0015 003f 0015 003f 0015 003f 0015 0015 0015 003f 0015 0015 0015 003f 0015 05d3

INPUT 2

NEC: 0X55

HEX: 0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 003f 0015 05d3

INPUT 3

NEC: 0X48

HEX: 0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 003f 0015 003f 0015 003f 0015 0015 0015 003f 0015 003f 0015 0015 0015 003f 0015 05d3

INPUT 4

NEC: 0X4a

HEX: 0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 003f 0015 003f 0015 003f 0015 003f 0015 0015 0015 003f 0015 003f 0015 0015 0015 003f 0015 05d3

INPUT 5

NEC: 0X5e

HEX: 0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 003f 0015 003f 0015 003f 0015 003f 0015 0015 0015 003f 0015 003f 0015 0015 0015 003f 0015 05d3

INPUT 6

NEC: 0X06

HEX: 0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 003f 0015 003f 0015 003f 0015 003f 0015 0015 0015 003f 0015 003f 0015 0015 0015 003f 0015 05d3

INPUT 7

NEC: 0X05

HEX: 0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 003f 0015 003f 0015 003f 0015 003f 0015 0015 0015 003f 0015 003f 0015 0015 0015 003f 0015 05d3

INPUT 8

NEC: 0X03

HEX: 0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 003f 0015 003f 0015 003f 0015 003f 0015 0015 0015 003f 0015 003f 0015 0015 0015 003f 0015 05d3

INPUT ALL

NEC: 0X47

HEX: 0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 0016 0016 003F 0016 0689

INPUT DOWN

NEC: 0X07

HEX: 0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 003F 0016 0689

INPUT UP

NEC: 0X40

HEX: 0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 003F 0016 003F 0016 003F 0016 0016 0016 003F 0016 0689

1080i

NEC: 0X18

HEX: 0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 0689

1080p

NEC: 0X44

HEX: 0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 0016 0016 003F 0016 0689

3D

NEC: 0X0F

HEX: 0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 003F 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 0689

4K

NEC: 0X51

HEX: 0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 003F 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 0689

2.0ch Audio

NEC: 0X0A

HEX: 0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 0689

5.1ch Audio

NEC: 0X1E

HEX: 0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 003F 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 0689

7.1ch Audio

NEC: 0X0E

HEX: 0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 0689

Copy EDID

NEC: 0X1A

HEX: 0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 0689

User 1

NEC: 0X53

HEX: 0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0689

User 2

NEC: 0X52

HEX: 0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 0016 0016 003F 0016 0016 0016 003F 0016 003F 0016 0016 0016 003F 0016 0016 0016 003F 0016 0689

User 3

NEC: 0X01

HEX: 0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 003F 0016 003F 0016 003F 0016 003F 0016 0689

User 4

NEC: 0X45

HEX: 0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 0689

Blustream PC Configuration Software

The Blustream Platinum matrix units can be configured using the Blustream matrix PC configuration software.

Please download the specific software and PC software manual at the following link:
http://www.blustream.co.uk/pla88arc

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