

▶ HEX100HDVGA – RX/TX User Manual

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.

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Introduction

The HEX100HDVGA is a HDMI and VGA/Audio switcher extender solution with HDMI audio de-embedder. Utilizing a single Cat5e/6 cable the HEX100HDVGA can distribute HDMI, VGA/ Audio, bi-directional IR &RS232 control. The HEX100HDVGA has auto video signal-sensing switching which activates the last video signal connected to the units or optionally both the transmitter (TX) and receiver (RX) units offer manual and RS232 switching.

The HEX100HDVGA is designed as a simple low-cost solution in school and business applications.

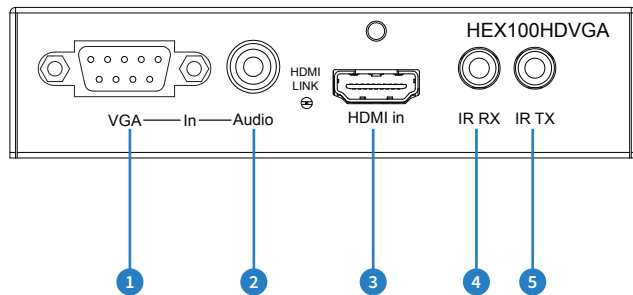
FEATURES:

- Auto signal sensing switches between HDMI and VGA+ Audio (Analogue 3.5mm stereo audio) to HDMI output with Analogue Left/Right audio and Coaxial digital outputs. Units will switch when new signal detected.
- Manual switching of HDMI and VGA/Audio input signal on both Transmitter and Receiver units using manual or RS232 control.
- HDMI input audio de-embedded onto Analogue Left/Right audio and Coaxial digital outputs (Supports PCM audio only).
- HDMI v1.4 and HDCP compliant, support 1080p@60Hz, 3D and 4K.
- Support 1080P@60Hz or VESA:1920x1200 @60Hz up to 100m, 4K up to 60m
- Dolby TrueHD and DTS-HD master audio pass through HDMI output
- Support for all popular VGA resolutions: 640x480@60/75Hz, 720x400@70Hz, 800x600@60/75Hz, 1024x768@60/75Hz, 1152x864@75Hz, 1280x720@60Hz, 1280x768@60/75Hz, 1280x800@60/75Hz, 1280x960@60Hz, 1280x1024@60/75Hz, 1360x768@60Hz, 1366x768@60Hz, 1400x1050@60Hz, 1440x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz, 1920x1080@60Hz, 1920x1200@60Hz
- Bi-directional IR and RS232
- RS232 supports bypass via HDBaseT link (default), input switching control or firmware update.
- POH (Power over HDBT) supported, only one power supply needed at either transmitter or receiver side.

NOTE: The POH function is designed for powering compatible transmitter or receiver units of Blustream only.
Do not connect any part of this equipment to power over Ethernet devices. Damage may result.

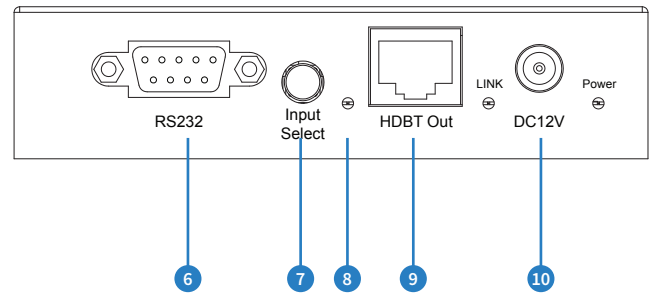
HEX100HDVGA - Transmitter

Front Panel

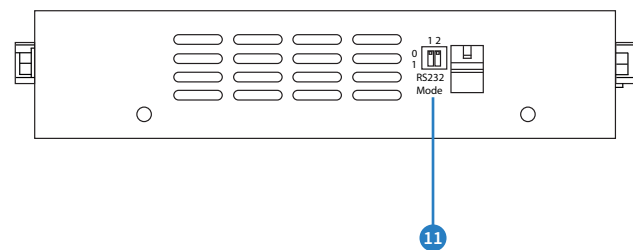


- 1 VGA input
- 2 Analogue Left/Right audio input - 3.5mm Stereo Jack
- 3 HDMI input – Connect to HDMI source device
- 4 IR Rx port – Transmits IR to HEX100HDVGA-Rx (Tx IR port). Connect Blustream IR sensor or control processor to send IR commands to a display
- 5 IR Tx port – Connect a 5V Blustream IR emitter. Used to control source devices from display end.

Back Panel



- 6 RS232 port – Bi-directional RS232 to and from the HEX100HDVGA-RX
- 7 Input select button – switch between HDMI and VGA/ Audio input.
- 8 Input status indicator – Red=VGA/Audio, Blue=HDMI
- 9 HDBaseT out – RJ45 connector, connect to HDBaseT input on HEX100HDVGA-RX
- 10 Power port – Use supplied 12v / 2amp DC adaptor (HEX100HDVGA kit can be powered at either transmitter or receiver units)



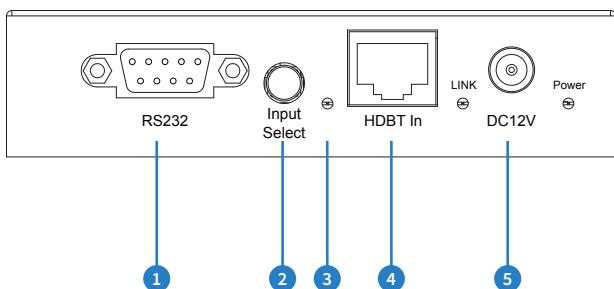
- 11 RS232 management DIP switches – See table on right for settings

RS232 Mode DIP Switch Settings

DIP Position 1	DIP Position 2	Mode
0	0	RS232 Pass Through HDBaseT (default)
0	1	HDBaseT Firmware Update
1	0	Master Firmware Update
1	1	Switch between inputs via RS232 & RS232 pass through HDBaseT

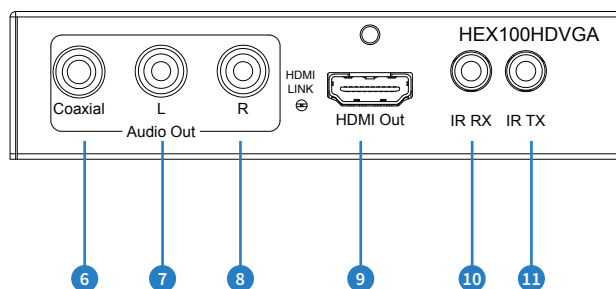
HEX100HDVGA - Receiver

Front Panel

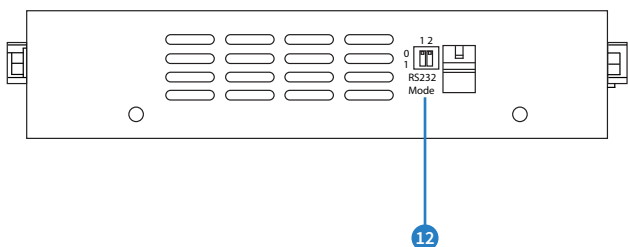


- 1 RS232 port – Bi-directional RS232 to and from the HEX100HDVGA-TX
- 2 Input select button – switch between HDMI and VGA/ Audio input.
- 3 Input status light – Red=VGA/Audio, Blue=HDMI
- 4 HDBaseT in – RJ45 connector, connect to HDBaseT output on HEX100HDVGA-TX
- 5 Power port – Use supplied 12v / 2amp DC adaptor (HEX100HDVGA kit can be powered at either transmitter or receiver units)

Back Panel



- 6 Coaxial digital output
- 7 Analogue Left audio RCA output
- 8 Analogue Right audio RCA output
- 9 HDMI output – Connect to HDMI display device
- 10 IR Rx port – Connect to Blustream 5v IR sensor. Used to control IR controlled source devices at HEX100HDVGA-Tx end
- 11 IR Tx port – Connect to Blustream 5v IR emitter. Used to control display device from control processor or IR sensor located at the source end



- 12 RS232 management DIP switches – See table on right for settings

RS232 Mode DIP Switch Settings

DIP Position 1	DIP Position 2	Mode
0	0	RS232 Pass Through HDBaseT (default)
0	1	HDBaseT Firmware Update
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1	1	Switch between inputs via RS232 & RS232 pass through HDBaseT

RS232 Control

RS232 switching codes for VGA and HDMI inputs

No.	Codes	Description
1	vgaselect	Switching to VGA input
2	hdmiselect	Switching to HDMI input
3	getselect	Get status of currently selected input, return message will be HDMI port or VGA port
4	ensigdet	Enable signal detect (Auto switching)
5	dissigdet	Disable signal detect (Auto switching)
6	resetdef	Restore factory settings

RS232 Pin assignment

Blustream		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

Specifications

HEX100HDVGA-TX

Audio Input Connectors: 1x Analogue Left/Right 3.5mm stereo jack

Video Input Connectors: 1x HDMI Type A & 1x VGA

Video Output Connectors: 1x HDBaseT RJ45 connector

IR Input Port: 1x 3.5mm stereo jack

IR Output Port: 1x 3.5mm mono jack

RS232 Serial Port: 1x DB9 female

Casing Dimensions (W x H x D): 124mm x 113mm x 29mm

Dimensions including connections (W x H x D): 133mm x 113mm x 29mm

HEX100HDVGA-RX

Audio Output Connectors: 2x Analogue RCA Left/Right & Coaxial digital

Video Input Connectors: 1x HDBaseT RJ45 connector

Video Output Connectors: 1x HDMI Type A

IR Input Port: 1x 3.5mm stereo jack

IR Output Port: 1x 3.5mm mono jack

RS232 Serial Port: 1x DB9 female

Casing Dimensions (W x H x D): 124mm x 113mm x 29mm

Dimensions including connections (W x H x D): 135mm x 113mm x 29mm

Shipping Weight (Kit): 1.1kg

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: 12V/2A DC

Package Contents:

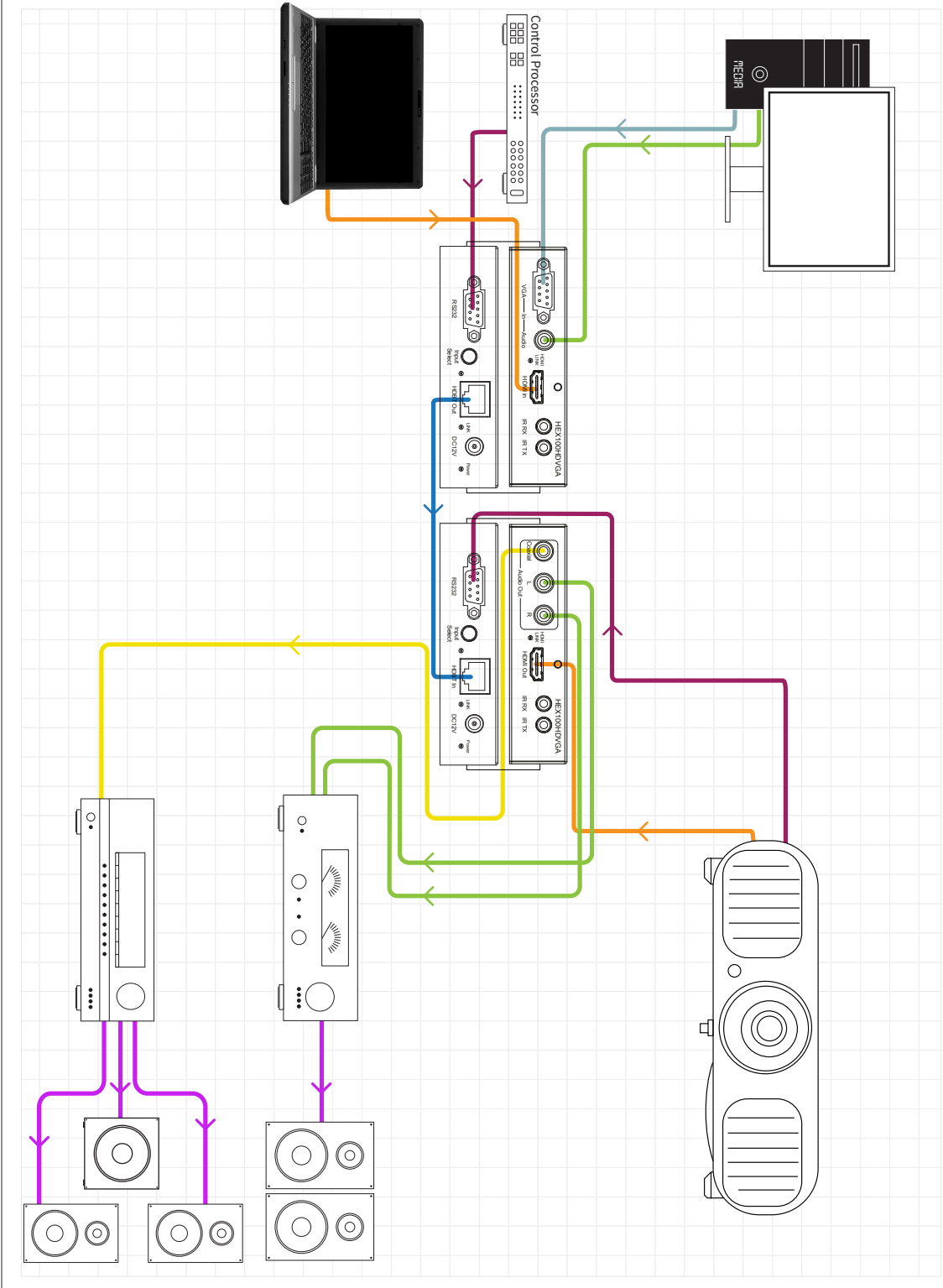
- 1 x HEX100HDVGA Transmitter
- 1x HEX100HDVGA Receiver
- 1 x 12V/2A DC power supply
- 1 x Blustream 5v IR sensor
- 1x Blustream 5v IR emitter
- 1x Mounting kit
- 1x Manual

Maintenance:

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

BLUSTREAM

Example Schematic
HEX100HDVGA





www.blustream.co.uk
www.blustream.com.au