

# HDTVET0201VF1VF2 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

HDTV Supply's **HDTVET0201VF1 (Transmitter) VF2 (Receiver)** is a Dual HDMI and VGA/Audio to HDBaseT Switcher Extender. It switches between HDMI and VGA/audio inputs, digitizes, and transmits via HDBaseT. Both the transmitter and receiver offer manual and RS232 switching between HDMI and VGA inputs. By using **F1** and **VF2**, the transmission distance for 1080P reaches 100 meters (330ft), and 4K x2K reaches 70 meters (230ft).

**HDTVET0201VF1VF2** have the ability of equalization and amplification to ensure signal's transmission through long cable with POH (power over HDBaseT) without quality loss.

**HDTVET0201VF1VF2** was designed for simple low-cost systems in schools and businesses.

## Features

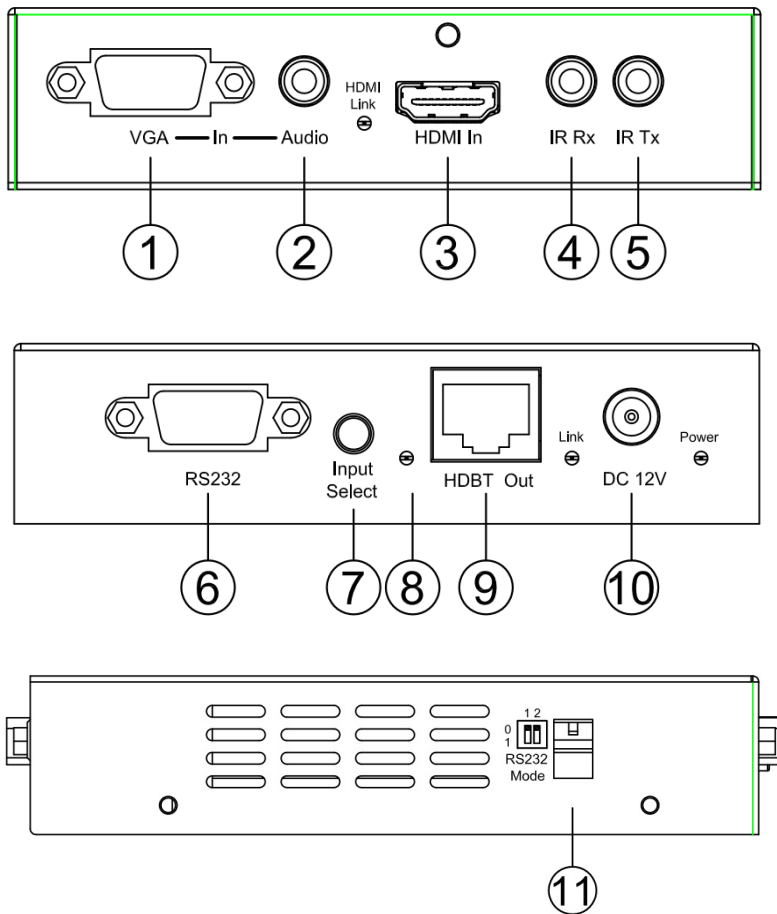
- Switching between HDMI and VGA with 3.5mm audio input, HDMI output with L/R Analog audio and Coax Digital audio outputs.
- HDMI v1.4 and HDCP compliant, support 1080p@60Hz, 3D and 4Kx2K.
- Support 1080P@60Hz or VESA: 1920x1200@60Hz up to 100m (330ft).
- Transmission distance for 4Kx2K@30Hz up to 70m (230ft).
- Support all popular VGA resolution inputs:  
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
- Support Bi-Directional POH and Bi-Directional IR.
- Support EDID learning mode
- RS232 supports 4 modes: bypass through HDBaseT link(Default), control the switching between VGA and HDMI inputs, update Valens FW and update MCU FW
- With ESD Protection.

### Note:

The POH function is designed for powering compatible transmitter or receiver units of Tonlyware only.

## Panel Descriptions

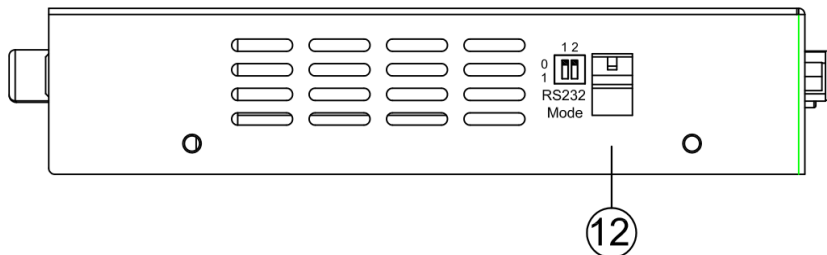
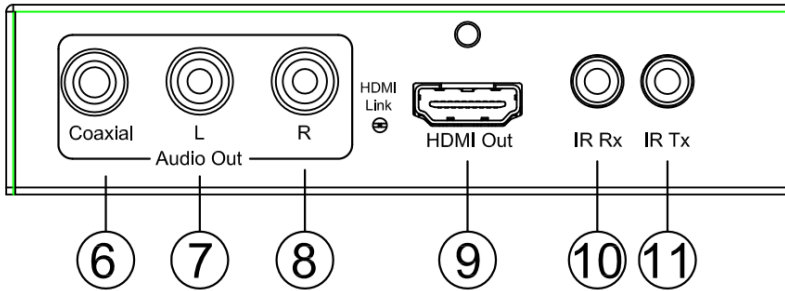
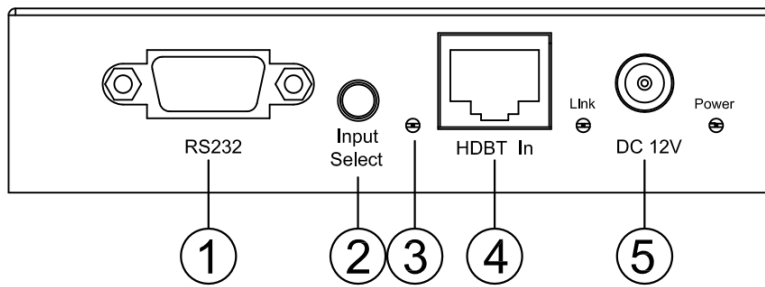
HDTVET0201VF1



1. VGA input
2. Audio input(go with VGA input)
3. HDMI input
4. IR Receiver jack
5. IR Transmitter jack
6. RS232 port
7. Input select button
8. Inputs indicator light, red for VGA input, blue for HDMI input
9. HDBaseT output
10. DC power input
11. RS232 Mode DIP switch, mode selections as below:

DIP Position -1	DIP Position -2	Mode
0	0	RS232 pass through HDBaseT (Default)
0	1	Update Valens FW
1	0	Update MCU FW
1	1	Switch between VGA and HDMI by codes & RS232 pass through HDBaseT

HDTVET020VF2



1. RS232 port
2. Input select button
3. Inputs indicator light, red for VGA input, blue for HDMI input
4. HDBaseT input
5. DC power input
6. Coaxial Digital Audio output,SPDIF
7. RCA L: Left channel of stereo analog audio output
8. RCA R: Right channel of stereo analog audio output
9. HDMI output
10. IR Receiver jack
11. IR Transmitter jack
12. RS232 Mode DIP switch, mode selections as below:

DIP Position -1	DIP Position -2	Mode
0	0	RS232 pass through HDBaseT (Default)
0	1	Update Valens FW
1	0	Update MCU FW
1	1	Switch between VGA and HDMI by codes & RS232 pass through HDBaseT

## 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

**Note:** Codes are case sensitive. Carriage return ( 0X0D) needs to be pressed to activate the code.

## RS-232 Pin Assignment

HDTVET0201VF1VF2		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

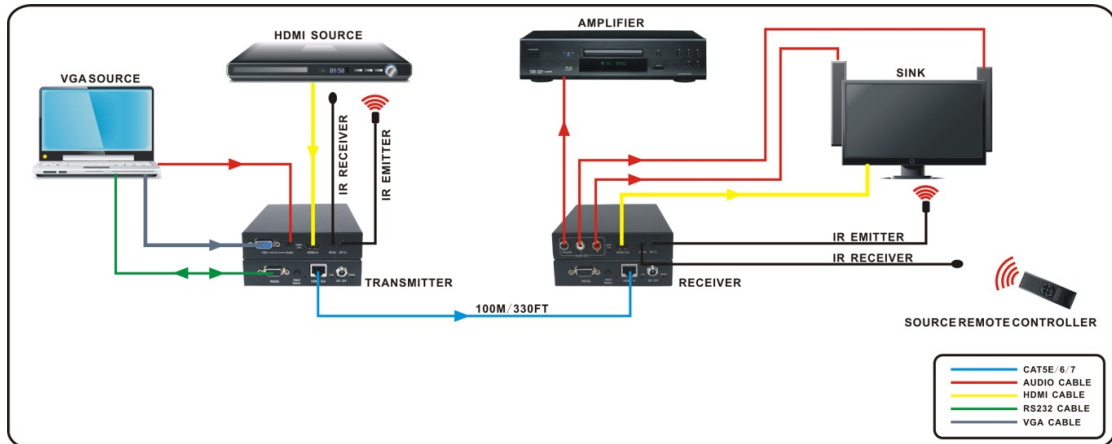
Data Bit: 8-bit

Parity: None

Stop Bit: 1-bit

Flow Control: None

## Application Diagram



## Specifications

### HDTVET0201VF1:

Bandwidth:	2.97Gbps per color
Video Input Connectors:	1 x HDMI Type A, 19-pin, female, locking 1 x VGA Type A, 15-pin, female, locking
Video Output Connectors:	1x RJ-45
RS-232 serial port:	DB-9, female
IR Input ports:	1x 3.5mm stereo jack
IR Output ports:	1x 3.5mm stereo jack
Rack-Mountable:	Rack ears included
Dimensions (W x H x D):	125mm x 112mm x 27mm , without feet
Shipping Weight:	375g
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

### HDTVET0201VF2:

Bandwidth:	2.97Gbps per color
Video Input Connectors:	1x RJ-45
Video Output Connectors:	1 x HDMI Type A, 19-pin, female, locking
Audio Output Connectors:	3x RCA, female
RS-232 serial port:	DB-9, female
IR Input ports:	1x 3.5mm stereo jack
IR Output ports:	1x 3.5mm stereo jack
Rack-Mountable:	Rack ears included
Dimensions (W x H x D):	125mm x 112mm x 27mm , without feet
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