# VT-HDBXT-TX HDBaseT Transmitter

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Product Brief

VT-HDBXT-TX is a high-performance HDBaseT transmitter specifically designed for professional applications requiring long-distance, high-quality audio and video signal reception. This transmitter is equipped with an HDMI output interface with EDID management, supporting ultra-high-definition video signals up to 4K/2K @30Hz (YCbCr 4:4:4) or 4K/2K @60Hz (YCbCr 4:2:0). In long-distance mode, it supports transmission up to 150 meters with a maximum video data rate of 5.3Gbps, ensuring smooth delivery of ultra-high-definition content. The transmitter offers three configuration modes: Full Duplex Deployment (transmitter connected via Cat5e/6/7), Standalone Transmitter Mode (connected to HDBaseT-supported displays), and Simple HDMI Mode (directly connected to HDMI displays).

The transmitter integrates one RS232 serial port for connecting and controlling display devices or peripheral systems, one USB 2.0 UFP Type-B interface to support the expansion of USB peripherals, and a built-in debug UART interface for convenient product maintenance and debugging. The transmitter is highly suitable for use in scenarios such as medical imaging, surveillance systems, digital signage, conference room, home theater, or large venue, ensuring a simple, clean, and efficient setup for all your connectivity needs.

Exteriors and Features
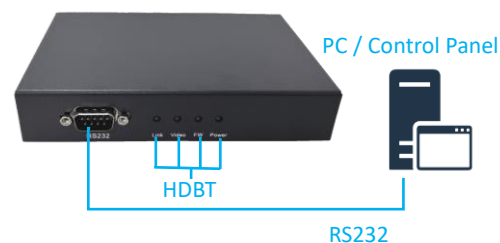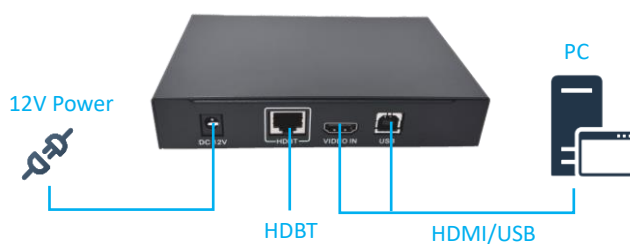
Long distance HDMI extension, supporting transmission up to 150 meters		4K/UHD video/audio signals supported
Up to 4Gbps HDBaseT traffic rate		Uncompressed data without latency
EDID adjustment mechanism for HDMI 2.0		RS232/USB/UART for expansion

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VT-HDBXT-TX HDBaseT Transmitter Datasheet

VT-HDBXT-TX		
Video	Interface	1 × HDMI 1.4/2.0 input
	Max. resolution	4K/2K @30Hz (YCbCr 4:4:4)
		4K/2K @60Hz (YCbCr 4:2:0)
	Max. traffic rate	≤ 5.3Gbps (HD video), >5.3Gbps (UHD video)
	EDID adjustment	EDID adjustment for HDMI 2.0 at pixel clock higher than 340MHz
Audio	Interface	1 × HDMI 1.4/2.0 input
I/O	Serial port	1 × RS232
	USB	1 × USB 2.0 UFP Type-B
	Debug	1 × Built-in debug UART
System Control	LED Indicator	1 × Power indicator
		1 × Firmware indicator
		1 × Video indicator
		1 × Link indicator
Power	Input	12V DC, 1 × DC jack
	Consumption	~6W (full load)
Mechanical	Dimensions	145mm × 101.4mm × 36mm
	Enclosure	Metal
	Cooling mode	Fanless, Heat sink
	Installation	DIN rail mount
Environmental condition	Temperature	Operating: 0°C ~ +50°C
		Storage: -20°C ~ +60°C
	Humidity	Operating and storage: 10%-85% RH (Non-condensing)
Compliance	Certification	FCC

Product Outlines
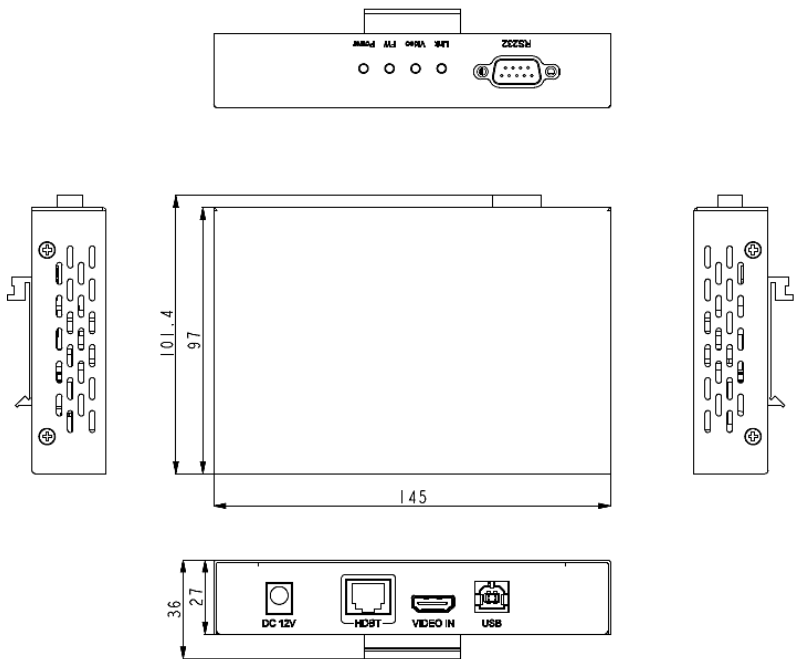
Ordering Information

Ordering No.	Description	I/O
VT-HDBXT-TX	HDBaseT transmitter	RS232, USB-B, HDMI input

Packing List	
VT-HDBXT-TX	1

Optional Accessories	
12V/2A DC power adapter	1
AC power cord	1

Since its establishment in 2002 by two Silicon Valley entrepreneurs, Vantron Technology has been at the forefront of the connected IoT devices and IoT platform solutions. Today, Vantron boasts a global customer base that includes many Fortune Global 500 companies. Its product lines cover edge intelligent hardware, IoT communication devices, industrial displays, and BlueSphere cloud platforms.

With over 20 years of experience in R&D of intelligent edge hardware, Vantron has provided users with diverse embedded solutions featuring ARM and X86 architectures. Its offerings range from Linux, Android to Windows, from embedded to desktop level, and from gateways to servers. In addition, it provides users with system trimming, driver transplantation and more to cater to the unique needs of its users.