HDBaseT 100M Extender with Ethernet Switch

The KanexPro HDBASE100ME is a professional HDBaseT transmitter-receiver kit that extends Ultra HD 4K HDMI, multi-channel audio, bidirectional IR, RS-232 control, and 10/100 Ethernet over a single CAT6 cable up to 330 feet (100 meters). Unlike standard extenders, the HDBASE100ME integrates a 2-port Ethernet switch on both the transmitter and receiver, enabling direct network connectivity for devices at both ends.

> **Note —** Please use a CAT5e cable with low impedance (shielded twisted pair recommended and should be well grounded) for best transmission quality. Cut off power to all connected devices before making connections.

TABLE OF CONTENTS

FEATURES

- ✓ Extends 4K HDMI signals up to 330ft (100m) over a single CAT6 cable using HDBaseT technology
- ✓ Integrated 2-port Ethernet switch on both TX and RX for LAN access at source and display locations
- ✓ Supports resolutions from 480i to Ultra HD 4K, including 1080p/60 and 3D
- ✓ Bidirectional IR pass-through for remote control of source or display devices
- ✓ RS-232 serial control for integration with third-party control systems
- ✓ Multi-channel audio: Dolby TrueHD, DTS Master Audio, and uncompressed LPCM
- ✓ HDCP, CEC, and EDID compliant for broad device compatibility
- ✓ Front-panel LED indicators for link status, HDCP authentication, and power
- ✓ Locking HDMI and DC power connectors in aluminum enclosures with mounting ears

PACKAGE CONTENTS

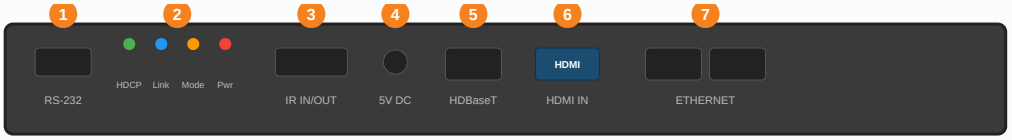
1× HDMI Pro Transmitter • 1× HDMI Pro Receiver • 4× Mounting Ears • 2× DC 5V/3A Power Adapters • 2× IR Emitters • 2× IR Receivers • 2× RS-232 Cables • 8× Screws (3×6mm) • 1× User Manual

Specifications

VIDEO	
Video Standard	HDMI 1.4
Resolution	480i, 576i, 480p, 576p, 720p, 1080i, 1080p, 3D, 4K
Bandwidth	10.2 Gbps
HDCP	Supported
CEC	Supported
EDID	Supported
AUDIO	
Audio Format	Dolby TrueHD, DTS Master Audio, LPCM (uncompressed)
Audio Transmission	Embedded over HDMI / HDBaseT
TRANSMITTER I/O	
HDMI Input	1× HDMI (female, locking)
HDBaseT Output	1× RJ-45
Ethernet	2× RJ-45 (10/100 Mbps switch)
IR	1× 3.5mm In, 1× 3.5mm Out
RS-232	1× 3-pin captive screw (bidirectional)
RECEIVER I/O	
HDMI Output	1× HDMI (female, locking)
HDBaseT Input	1× RJ-45
Ethernet	2× RJ-45 (10/100 Mbps switch)
IR	1× 3.5mm In, 1× 3.5mm Out
RS-232	1× 3-pin captive screw (bidirectional)
EXTENSION	
Technology	HDBaseT
Max Distance	330 ft (100m)
Cable Requirement	CAT5e / CAT6 (shielded recommended)
Cable Termination	TIA/EIA T568A or T568B (straight-through)
NETWORK	
Ethernet Speed	Adaptive 10/100 Mbps, full/half duplex
Ethernet Ports	2 per unit (TX and RX)
MECHANICAL	
Chassis (each)	W3.30" × H1.18" × D5.27"
Weight (each)	1 lb
Enclosure	Aluminum with mounting ears
Power Supply	DC 5V / 3A adapter (included)
Consumption	6.5W per unit
Operating Temp	-20°C to +60°C
Humidity	10% – 90% (non-condensing)

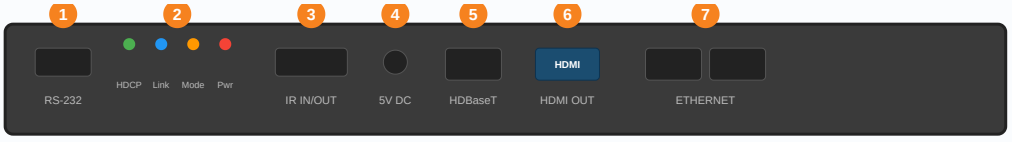
Operation Controls

TRANSMITTER



No.	Name	Function Description
1	**RS-232**	3-pin captive screw serial port. Bidirectional RS-232 between TX and RX for third-party control systems.
2	**LED Indicators**	**HDCP:** Solid when HDCP active, blinks if unsupported. **Link:** Solid when CAT link established. **Mode:** Blinks during normal operation. **Power:** Red when powered on.
3	**IR IN/OUT**	**IN:** Connect IR receiver; signal transmits to the receiver unit. **OUT:** Connect IR emitter; outputs signal received from the receiver.
4	**5V DC**	DC 5V/3A power adapter input (locking barrel connector).
5	**HDBaseT**	RJ-45 output to receiver via single CAT5e/6 cable (100m max).
6	**HDMI IN**	HDMI input port (locking). Connect to source device.
7	**ETHERNET**	2× RJ-45 10/100 Mbps switch ports. One for internet access, one for a local network device.

RECEIVER



No.	Name	Function Description
1	**RS-232**	3-pin captive screw serial port. Bidirectional RS-232 between TX and RX.
2	**LED Indicators**	Same as transmitter: HDCP, Link, Mode, Power LEDs.
3	**IR IN/OUT**	**IN:** Connect IR receiver; signal transmits to the transmitter. **OUT:** Connect IR emitter; outputs signal received from the transmitter.
4	**5V DC**	DC 5V/3A power adapter input (locking barrel connector).
5	**HDBaseT**	RJ-45 input from transmitter via single CAT5e/6 cable (100m max).
6	**HDMI OUT**	HDMI output port (locking). Connect to display device.
7	**ETHERNET**	2× RJ-45 10/100 Mbps switch ports for local network devices.

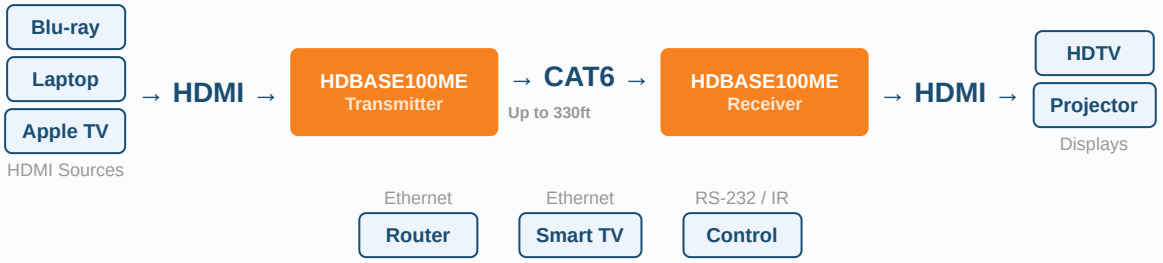
Connection & Application

CONNECTION PROCEDURE

Step 1. Connect HDMI source (e.g., Blu-ray, laptop) to HDMI IN on the transmitter.
Step 2. Connect the HDBaseT port on the transmitter to the receiver using a single CAT5e/6 cable.
Step 3. Connect the HDMI OUT on the receiver to the display (TV, projector).
Step 4. Connect IR emitter/receiver to the IR ports for remote control pass-through.
Step 5. Connect network devices to the ETHERNET ports on either unit for LAN access.
Step 6. Connect RS-232 cable if using a third-party control system.
Step 7. Connect DC 5V power adapters to both the transmitter and receiver.

APPLICATION EXAMPLE

Digital Signage with Remote Network & Control



How it works: A single CAT6 cable carries 4K HDMI video, IR, RS-232, and Ethernet between the transmitter and receiver up to 330 feet. The built-in Ethernet switch at each end provides LAN connectivity for network devices such as media players, routers, and smart TVs — without running additional cables.

TROUBLESHOOTING

Q: No video or color loss on the display?
A: Check HDMI and CAT5e/6 cable connections. Try replacing cables. Verify the Link LED is solid on both units.

Q: RS-232 control not responding?
A: Verify the COM port number and baud rate in your control software. Ensure the RS-232 cable is properly seated in the captive screw connector.

Q: Ethernet devices not connecting?
A: Ensure one of the four Ethernet ports (across both units) is connected to a router or switch for internet access. Check that the yellow LED on the Ethernet port is blinking and the green LED is solid.