## What's in the Box?

PART NO.	QTY	DESCRIPTION		
HDX-Ultra-TX	1	HDX-Ultra Transmitter		
HDX-Ultra-RX	1	HDX-Ultra Receiver		
Power Supply	1	PS5VDC2A		
CCHDMM06	1	6ft HDMI Cable		
User Manual	1			

# **Technical Specifications**

Format HDTV Resolutions	HDMI 1.3 and HDCP compliant			
HDTV Resolutions	HDMI 1.3 and HDCP compliant			
	480p, 720p, 1080i, 1080p/60Hz/48bit			
TV Resolution	480i			
Input Interface (TX)	HDMI Type A 19-pin Female TMDS			
Output Interface (RX)	HDMI Type A 19-pin Female TMDS			
Input Cable Length (TX)	Up to 40 ft.			
Output Cable Length (RX)	Up to 40 ft.			
AUDIO				
Format	Dolby TrueHD, DTS-HD MA			
Input Interface	HDMI (Integrated)			
Output Interface	HDMI (Integrated)			
IR				
Signal Type	38 KHz			
Interface	3.5 mm Jack Socket (Female)			
RS-232				
Baud Rate	Up to 19,200 bps			
Input Interface (TX)	DB-9 (Serial) Female			
Output Interface (RX)	DB-9 (Serial) Male			
SYSTEM				
Interface	RJ-45			
Cable Requirements	CAT5/5e/6			
Maximum Length	330 feet (100 meters)			
OTHER				
Power	External 100-240 VAC/5VDC2A @10W			
Dimensions	5"W x 1.125"H x 4.125"D			
Weight	0.6 lbs.			
Approvals	UL, CE, ROHS Compliant			
Operating Temp.	32-131°F (0-55 °C)			
Storage Temp.	-4-185 °F (-20-85 °C)			
Humidity	Up to 95%			

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# Installation Manual

# **HDX-Ultra**

HDMI, IR and RS-232 Extender over a single CAT5 UTP Cable



Watch and Control HDTV 1080p video over 330ft (100m) from the source

www.smartavi.com

### Introduction

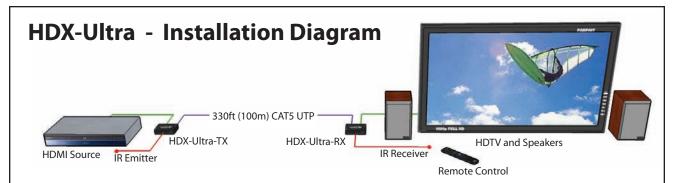
The HDX-Ultra uses only one CAT5 UTP cable to extend HDMI signals such as HDTV output over 330ft (100m) from the source. It is capable of transmitting high-resolution HD video up to 1080p. Controlling your video source is easy with the HDX-Ultra's bi-directional IR and RS-232 extension. Whether it's for a home entertainment system or a commercial installation, the HDX-Ultra delivers flexibility and control.

### **Features**

- Extends HDMI output over one CAT5/5e/6 UTP cable
- Extends IR and RS-232 control signals for remote control
- Delivers uncompressed HD video up to 1080p@60Hz@48bits and 3D
- Data signals up to 3.4Gbps
- HDMI 1.3 and HDCP compliance
- IR and RS-232 communication are bi-directional
- Transmits high-quality Dolby TrueHD, DTS-HD MA audio signals
- Transmits 1080p resolution over 330 feet (100 meters) from the source

## **Applications**

- Home Theater
- Corporate or Educational Presentations
- Call Centers
- Industrial
- Information Terminals/Kiosks
- Airport Installations
- Educational Environments



### **Installation**

- Power off the HDMI source, display and speakers.
- 2. Connect an HDMI cable from the HDMI source to the HDMI port on the HDX-Ultra transmitter.
- Connect an IR emitter/receiver (optional) to the IR ports on the HDX-Ultra transmitter.
- Connect an RS-232 compliant device (optional) to the RS-232 port on the HDX-Ultra transmitter.
- 5. Connect the HDX-Ultra transmitter to the HDX-Ultra receiver using a CAT5 UTP cable (up to 330ft/100m).
- Connect an IR emitter/receiver (optional) to the IR ports on the HDX-Ultra receiver.
- 7. Connect an RS-232 compliant device (optional) to the RS-232 port on the HDX-Ultra receiver.
- 8. Connect an HDMI cable from the HDMI port on the HDX-Ultra receiver to the HDMI Display.
- Power on the HDX-Ultra transmitter and receiver by plugging in their power adapters (5VDC2A).
- 10. Power on the HDMI source, displays and speakers.





HDX-Ultra-TX-Rear



HDX-Ultra-RX-Front



HDX-Ultra-RX-Rear

#### **RS-232 SPECIFICATIONS**

CONNECTOR	PIN	NAME	DESCRIPTION
DB9 MALE - RECEIVE	2	RxD	Receive Data on DB9 Male
00000	3	TxD	Transmit Data on DB9 Male
	5	SGND	Ground
DB9 FEMALE - TRANSMIT	2	TxD	Transmit Data on DB9 Female
00000	3	RxD	Receive Data on DB9 Female
	5	SGND	Ground

#### CAT5/5e/6 CABLE SPECIFICATIONS

CONNECTOR		PAIR	PINS		
RJ-45 MALE	RJ-45 FEMALE	1	1 & 2		
7111111		2	3 & 6		
12345678	87654321	3	4 & 5		
		4	7 & 8		
CAPACITANCE	14 pf/ft (46.2 pf/m)				
CONDUCTOR GAUGE	24 AWG				
IMPEDANCE	100 +/- 15 ohms				