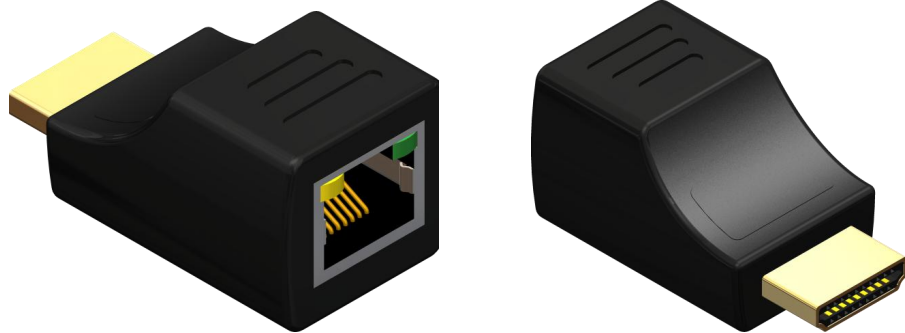


CV-715S

HDMI over Single CAT5 Mini- Receiver

User Manual



rev: 121105
Made in Taiwan



Safety and Notice

The **CV-715S HDMI over Single CAT5 Mini-Receiver** has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipments, the **CV-715S** should be used with care. Please read and follow the safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Do not attempt to service this unit yourself, except where explained in this manual.
- Provide proper ventilation and air circulation and do not use near water.
- Keep objects that might damage the device and assure that the placement of this unit is on a stable surface.
- Use only the power adapter and power cords and connection cables designed for this unit.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.



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INTRODUCTION

The **CV-715S HDMI over Single CAT5 Mini-Receiver** provides the most ideal solution by which the high definition video and high quality audio can be transmitted over a distance via a Cat-5/5e/6 cable. The CV-715S can work with any transmitter or splitter in the HDMI over single CAT5 family products and allow you to extend HDMI compliant displays almost anywhere.

FEATURES

- Support HDMI Deep Color & 3D
- HDCP compliant
- Extends up to 25m of output Cat-5/5e/6 cable under HD (720p / 1080i)
- Extends up to 15m of output Cat-5/5e/6 cable under Full HD (1080p)
- Pure unaltered uncompressed 7.1ch digital HDMI over CAT5/6 cable transmission
- Perfectly integrated with other HDMI over CAT5 series products
- Direct plug for easy use

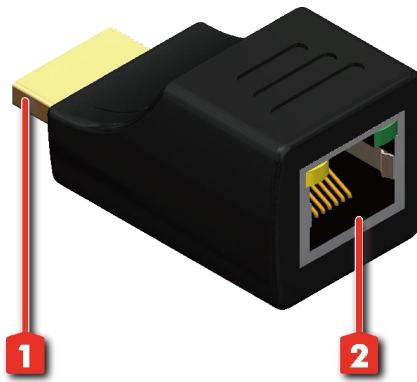
i The length depends on the characteristics and quality of the cables. Higher resolutions and longer transmission distances require low skew cables (<25ns/100m) for best performance. Unshielded CAT6 with metal RJ-45 connectors is recommended.

PACKAGE CONTENTS

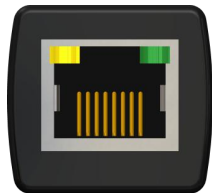
- 1x CV-715S
- 1x User Manual

SPECIFICATIONS

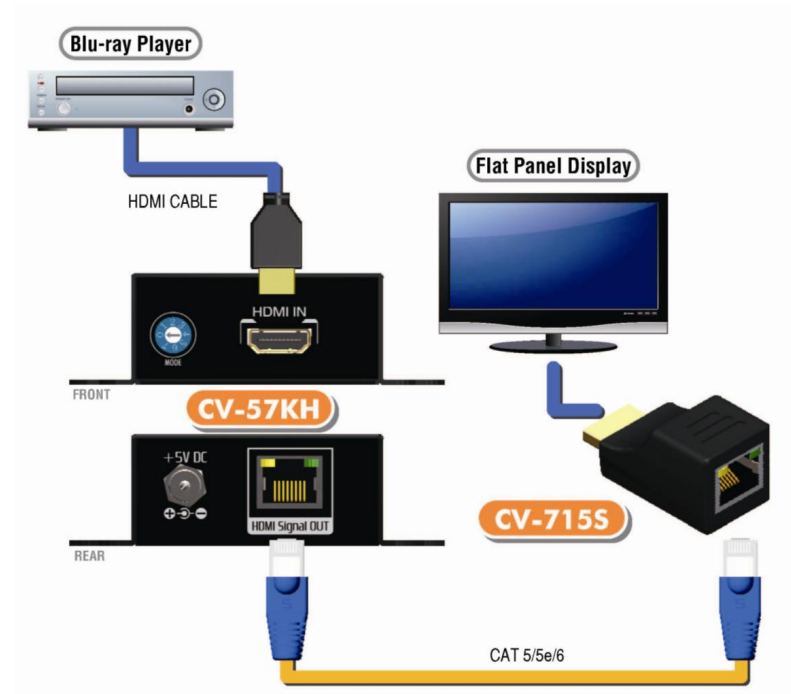
Model Name		CV-715S
Technical		
Role of usage	Receiver [RX]	
HDMI compliance	HDMI Deep Color & 3D	
HDCP compliance	Yes	
Video bandwidth	Single-link 225MHz [6.75Gbps]	
Video support	480i / 480p / 720p / 1080i / 1080p60 12-bit	
HDMI over UTP transmission (8-bit)	Full HD (1080p): 15m [CAT5e] / 18m [CAT6] HD (720p/1080i): 25m [CAT5e] / 28m [CAT6]	
Audio support	Surround sound (up to 7.1ch) or stereo digital audio	
Input TMDS signal	1.2 Volts [peak-to-peak]	
Input DDC signal	5 Volts [peak-to-peak, TTL]	
PCB stack-up	4-layer board [impedance control — differential 100Ω; single 50Ω]	
Input	1x RJ-45	
Output	1x HDMI	
HDMI connector	Type A [19-pin male]	
RJ-45 connector	WE/SS 8P8C with 2 LED indicators	
Mechanical		
Housing	Metal enclosure	
Dimensions [L x W x H]	Model	25 x 45 x 20mm
	Package	115 x 170 x 40mm
Weight	Model	25g
	Package	90g
Fixedness	Direct plug to HDMI port of the display	
Power supply	None	
Power consumption	0.5 Watt [max]	
Operation temperature	0~40°C [32~104°F]	
Storage temperature	-20~60°C [-4~140°F]	
Relative humidity	20~90% RH [no condensation]	



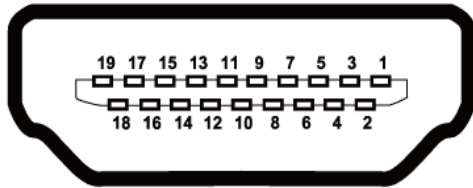
1. **HDMI output:** Connect to a HDMI display with a HDMI male-male cable here



2. **HDMI Signal IN:** Plug in a Cat-5/5e/6 cable that needs to be linked to the receiving unit CV-57KH-RX.



HDMI



Type A (Receptacle) HDMI

Pin 1	TMDS Data2+	Pin 8	TMDS Data0 Shield	Pin 15	SCL
Pin 2	TMDS Data2 Shield	Pin 9	TMDS Data0-	Pin 16	SDA
Pin 3	TMDS Data2-	Pin 10	TMDS Clock+	Pin 17	DDC/CEC Ground
Pin 4	TMDS Data1+	Pin 11	TMDS Clock Shield	Pin 18	+5V Power
Pin 5	TMDS Data1 Shield	Pin 12	TMDS Clock-	Pin 19	Hot Plug Detect
Pin 6	TMDS Data1-	Pin 13	NC		
Pin 7	TMDS Data0+	Pin 14	Reserved (N.C. on device)		

CAT5 [RJ-45]

T568A and T568B Wiring

Pin	T568A Pair	T568B Pair	Wire	T568A Color	T568B Color	Pins on plug face (socket is reversed)
1	3	2	tip	white/green stripe	white/orange stripe	
2	3	2	ring	green solid	orange solid	
3	2	3	tip	white/orange stripe	white/green stripe	
4	1	1	ring	blue solid	blue solid	
5	1	1	tip	white/blue stripe	white/blue stripe	
6	2	3	ring	orange solid	green solid	
7	4	4	tip	white/brown stripe	white/brown stripe	
8	4	4	ring	brown solid	brown solid	

Pair of Cat-5/5e/6 Cable	Definition
	White/orange stripe
	Orange solid
	White/green stripe
	Blue solid
	White/blue stripe
	Green solid
	White/brown stripe
	Brown solid

- All HDMI over CAT5 transmission distances are measured using Belden 1583A CAT5e 125MHz UTP cable and ASTRODESIGN Video Signal Generator VG-859C.
- The transmission length is largely affected by the type of Cat-5/5e/6 cables, the type of HDMI sources, and the type of HDMI display. The testing result shows solid UTP cables (usually in the form of 300m bulk cables) can transmit a lot longer signals than stranded UTP cables (usually in the form of fixed length patch cords). Shielded STP cables are better suited than unshielded UTP cables. A solid UTP Cat-5e cable shows longer transmission range than stranded STP Cat-6 cable. For long extension applications, solid UTP/STP cables are the only viable choice.
- EIA/TIA-568-B termination (T568B) for category cables is recommended.
- To reduce the interference among the unshielded twisted pairs of wires in Cat-5/5e/6 cable, one can use double shielded STP cables to improve EMI problems, which is worsen in long transmission.
- Because the quality of the CAT5/6 cables has the major effect on how long the transmission limit can achieve and how good is the received picture quality, the actual transmission range is subject to one's choice of Cat-5/5e/6 cables. For desired resolutions greater than 1080i or 1280x1024, a Cat-6 cable is recommended.

If your HDMI display has multiple HDMI inputs, it is found that the first HDMI input [HDMI input 1] generally can produce better transmission performance among all HDMI inputs.



Performance Guide for HDMI over Category Cable Transmission

Performance rating		Type of category cable		
Wiring	Shielding	CAT5	CAT5e	CAT6
Solid	Unshielded (UTP)	★★★	★★★★	★★★★★
	Shielded (STP)	★★★	★★★	★★★★
Stranded	Unshielded (UTP)	★	★★	★★
	Shielded (STP)	★	★	★★
Termination		Please use EIA/TIA-568-B termination (T568B) at any time		