



HDMI™ EXTENDER

ELE8084

INSTALLATION MANUAL



x.v.Color





SAFETY AND NOTICE

The **ELE8084 HDMI™ EXTENDER** has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipments, the **ELE8084** 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.

- Follow all instructions and warnings marked on this 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.



INTRODUCTION

The **ELE8084 HDMI™ EXTENDER** allows user to extend HDMI™ transmission range up to 330ft (100m) with resolutions as high as 1080p 50/60Hz and also supports 3D. ELE8084 is extremely easy to install and works perfectly with existing RGBHV or RG-6 coaxial cables, even original Component + Audio cables will work, which makes it perfect to retrofit those extenders to the current technology. Built with Bi-Directional IR pass-through extension, users can control the remote HDMI™ source devices such as Blu-ray players, Cable/Sat Boxes, Video Game consoles, etc... instantly at the display site. The Bi-Directional IR also gives advantage to user to control display via Control System by sending commands (such as on/off, input change, etc...) from Control System to Display.

The ELE8084 comes with one transmitting module and one receiving module. Both transmitter modules are based on the HDMI™ 1.4a (3D) and HDCP 2.0 and therefore are compatible with:

- » All latest video formats such as 1920x1200 or 1080p
- » 3D Compatible (all 7 formats)
- » EDID pass-through (very important if user would want to connect sources such as computers, 3D players, latest Satellite receivers).
- » Supports all latest Audio formats such as Dolby TrueHD, DTS-HD Master Audio, etc...
- » HDCP compatible

► Features

- » 3D capable
- » HDMI™ 1.4a (3D) and DVI 1.0 compliant
- » HDCP compliant
- » Supports 7.1-channel DTS-HD Master Audio and Dolby TrueHD high bitrate audio
- » Supports Deep Color and x.v.Color (xvYCC)
- » Extends the transmission range up to 330ft (100m) at full 1080p 24-bit color depth; and up to 165ft (50m) at full 1080p 36-bit color depth
- » Supports bi-directional IR pass-through (0~60Khz) and Consumer Electronics Control (CEC) channel
- » Supports Video resolutions up to WQXGA (2560x1600@60Hz or 1920x1200@75Hz) or 1080p
- » Supports VESA DDC and Hot-Plug Detect (HPD)

► Package Contents

- » ELE8084 x1
- » IR receiver x1
- » Installation manual x1
- » IR blaster x1
- » DC 5V 4A in-line with C7 power cord x2

➤ Specifications

Technical		Transmitter	Receiver
Technical			
3D Support		Yes	
HDMI™ compliance		HDMI™ 1.4a (3D)	
HDCP compliance		Yes	
Video bandwidth		Single-link 340MHz (10.2Gbps)	
Video support		480i / 480p / 720p / 1080i / 1080p60 / 1920x1200@75 / 2560x1600@60	
HDMI™ over Coax transmission range		Full HD [1080p 24-bit color] @ 330ft (100m) Deep Color Full HD [1080p 36-bit color] – 165ft (50m)	
HDMI™ equalization		N/A	Auto
Input TMDS signal		1.2 Volts [peak-to-peak]	
Input DDC signal		5 Volts [peak-to-peak, TTL]	
ESD protection		[1] Human body model — ±19kV [air-gap discharge] & ±12kV [contact discharge] [2] Core chipset — ±8kV	
PCB stack-up		4-layer board [impedance control — differential 100 Ω; single 50 Ω]	
Input		1x HDMI™ 1x IR socket for IR receiver	5x BNC 1x IR socket for IR receiver
Output		5x BNC 1x IR socket for IR blaster	1x HDMI™ 1x IR socket for IR blaster
IR remote control		Electro-optical characteristics: $\tau = 25^\circ$ / Carrier frequency: 20-60kHz	
HDMI™ connector		Type A [19-pin female]	
BNC connector		75Ω interlocking socket	
3.5mm connector		Earphone jack for IR blaster and IR receiver	
Mechanical			
Housing		Metal enclosure	
Dimensions [L x W x H]	Model	[TX/RX] – 3.6" x 5" x 1.1" (93 x 128 x 27mm)	
	Package	6.9" x 10.6" x 3.1" (175 x 270 x 80mm)	
	Carton	1'6" x 1'3" x 1' (450 x 370 x 300mm)	
Weight	Model	1.2 lbs (560g)	
	Package	3.0 lbs (1350g)	
Fixedness		Interlocking power supply & wall-mount case with screws	
Power supply		+5V DC	
Power consumption		3 Watts (max)	
Operation temperature		32~104°F (0~40°C)	
Storage temperature		-4~140°F (-20~60°C)	
Relative humidity		20~90% RH (no condensation)	

INPUT/OUTPUT PANELS

► Transmitting unit (TX)

INPUT PANEL



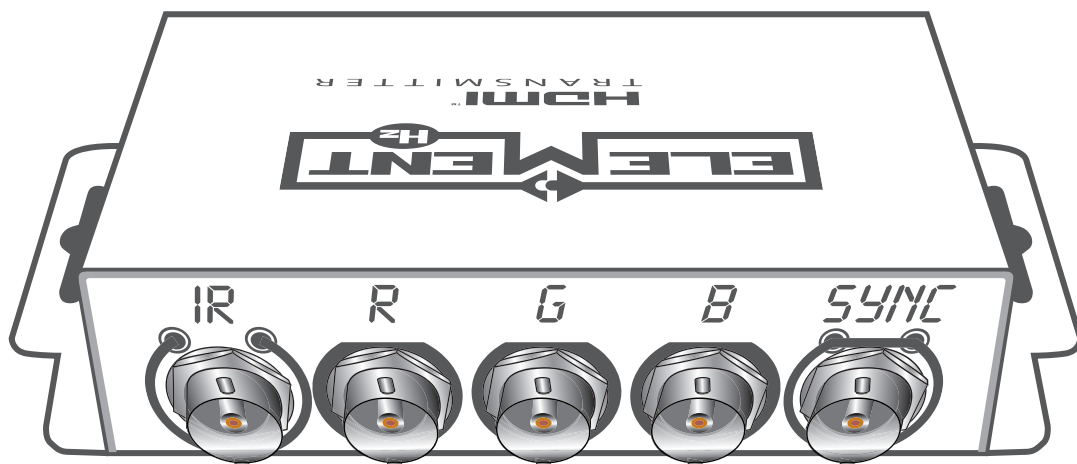
IR-OUT: 3.5mm socket for plugging in the extension cable of IR blaster

IR-IN: 3.5mm socket for plugging in the extension cable of IR receiver

HDMI IN: connect to a HDMI™ source device with a HDMI™ male-male cable

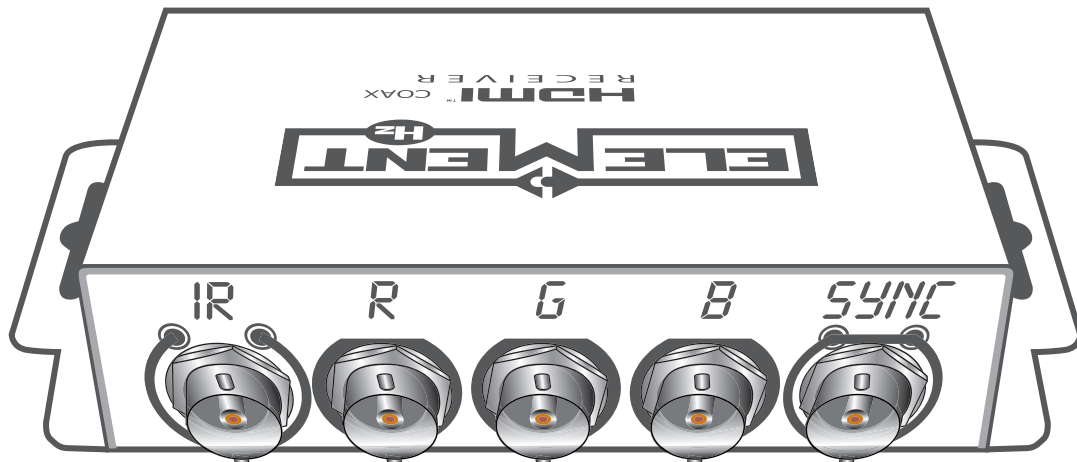
POWER: connect to 5V DC power supply unit

OUTPUT PANEL



► Receiving unit (RX)

INPUT PANEL



OUTPUT PANEL



IR-OUT: 3.5mm socket for plugging in the extension cable of IR blaster

IR-IN: 3.5mm socket for plugging in the extension cable of IR receiver

HDMI OUT: connect to a HDMI™ display with a HDMI™ male-male cable

POWER: connect to 5V DC power supply unit

IR PASS-THROUGH

➤ IR Extenders

IR Blaster



IR Receiver



➤ IR Sockets

IR-OUT: plug in the IR blaster to emit all IR command signals received from the IR receiver from the other end to control the devices corresponding to the IR signals.

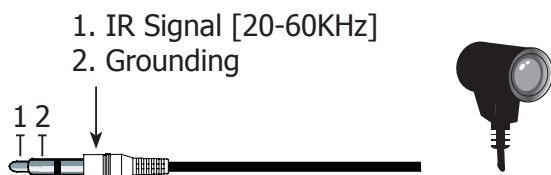
IR-IN: plug in the IR receiver to receive all IR command signals from the IR remote controls of the corresponding devices.

CAUTION!

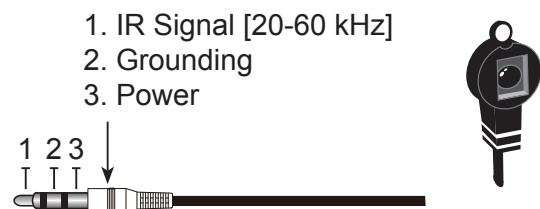
Incorrect placement of IR Blaster and Receiver may result in the failure of the IR extenders. Please check carefully before plugging in the IR extender to the respective IR sockets. Warranty will not cover the damage.

➤ Definition of IR Earphone Jack

IR Blaster



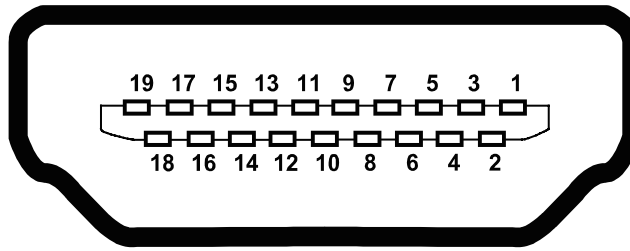
IR Receiver



➤ Supported IR Data Format

Data Format	Suitable	Not Recommended
NEC	✓	
RC5	✓	
TOSHIBA MICOM CODE	✓	
GRUNDIG CODE	✓	
SONY 12 BIT CODE	✓	
SONY 15 BIT CODE	✓	
SONY 20 BIT CODE	✓	
RCA CODE		✓
RCM CODE		✓
MATSUSHITA CODE		✓
MITSUBISHI CODE	✓	
ZENITH CODE	✓	
JVC CODE	✓	
M50560-001P	✓	
MN6125H	✓	
MN6125L	✓	
MN6014_C5D7	✓	
MN6014-C6D6	✓	
MC14457P	✓	
LC7464(AHEA)	✓	
GEMINI_CM	✓	

HDMI™ PIN DEFINITION



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 — CEC	
Pin 7 — TMDS Data0+	Pin 14 — Reserved (N.C. on device)	

NOTICE

1. Incorrect placement of IR Blaster and Receiver may result in the failure of the IR extenders. Please check carefully before plugging in the IR extender to the respective IR sockets. Warranty will not cover the damage.
2. All HDMI™ transmission distances are measured using Belden 7789A coaxial cables and ASTRODESIGN Video Signal Generator VG-859C & VG-870B. The lab testing result shows that 5 RG-6 coaxial cables can transmit 1080p 60 signalsuo to 80m (260ft).



Designed & Manufactured by



Headquarters: 9390 Veterans Memorial Parkway, O'Fallon, MO 63366

 (800) 844 – 9555 / (636) 272 – 8025

 (636) 272 – 8214

 retailsupport@skywalker.com


Branch Office: 4168 North Pecos Rd, Ste 103, Las Vegas, NV 89115

 (888) 319 – 3554 / (702) 632 – 3413

 (702) 643 – 2379

Branch Office: 2445 South 179th St, New Berlin, WI 53146

 (800) 444 – 9320 / (262) 786 – 5887

 (262) 786 – 9031

www.skywalker.com