

4K 60Hz HDMI over IP Matrix Kit

<P/N: CE-H28A11-S1/CE-H27F11-S1/CE-H27G11-S1>



Features

- Extends your video/audio transmission distance up to 120m (396ft) in UHD 4Kx2K 60Hz format over Cat6/7 network cable
- Supports HDMI 4K60Hz up to 18Gbps bandwidth, HDCP 2.2, PoE, IR and RS-232 pass-through path
- Flexible and scalable UHD Video Broadcasting by Gigabit Ethernet LAN/Switch
- One to one, one to many & multi-casting broadcasting architecture
- Each transmitter can be theoretically multicast up to an unlimited number of displays in video wall applications or unlimited displays in multicast applications
- Support up to 1,023 Groups Multi-Casting
- Built-in bi-directional IR signal from 20kHz to 60kHz, provides full control capability to allow remote controlling the HDMI source device from the display and vice versa
- Support RS-232 control up to 115,200 bps through connector
- Easy Dip Switch matching for multi-casting group configuration
- Supports Video Wall function and KVM
- Supports 90, 180 and 270 clockwise image rotation
- Metal housing with wall mounting design for easy and robust installation
- Support Lightning/Surge/ESD protection provides durability and minimizes EMI/RFI noise interference

Package content

Kits

- 4K 60HZ HDMI over IP Matrix Kit (CE-H28A11-S1)
- Power adapter x 2
- IR Blaster/Receiver cable
- User Manual

Transmitter

- 4K 60HZ HDMI over IP Matrix Transmitter (CE-H27F11-S1)
- Power adapter
- IR Blaster cable
- User Manual

Receiver

- 4K 60HZ HDMI over IP Matrix Receiver (CE-H27G11-S1)
- Power adapter
- IR Receiver cable
- User Manual

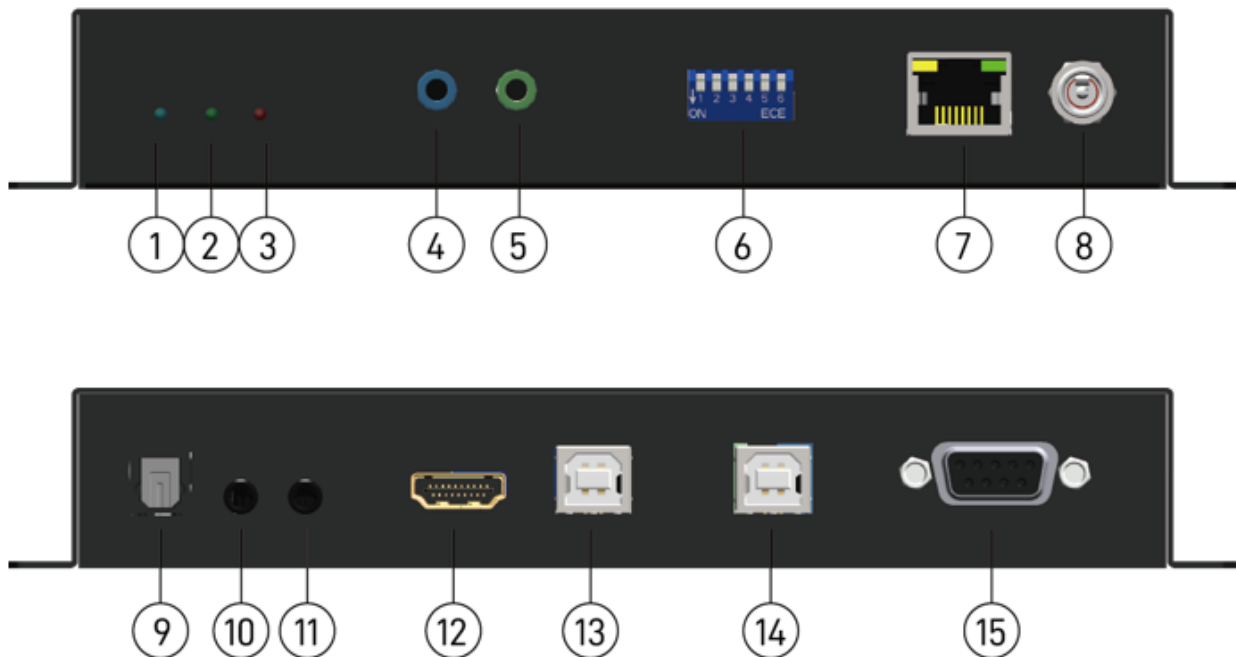
Specifications

Transport protocol	ASPEED, AV Over IP	
Standard	HDMI 2.0, HDCP 2.2	
Resolution	2160p / 1080p / 1080i / 720p / 480p	
Video	Up to 4096x2160 / 3840x2160 60Hz 4:4:4, HDR 10	
Bandwidth	Up to 18Gbps	
Audio	Surround Sound 7.1-ch or Stereo digital audio	
Transmission Distance	4K 60Hz: Up to 120m via Cat6/6a/7 cable	
Connectors	<u>TX:</u> 1x 19-pin HDMI, Female, Input 1x 8-pin RJ45, Output 2x 4-pin USB 2.0 Type-B, Input 2x 3.5mm IR Blaster / Receiver 2x 3.5mm Audio & MIC 1x S/PDIF for Audio Extractor 1x 9-pin RS-232 Serial port, Female 1x 6-pin DIP Switch for Video channel selection 1x DC Power jack	<u>RX:</u> 1x 19-pin HDMI, Female, Output 1x 8-pin RJ45, Input 2x 4-pin USB 1.1 Type-A, for Keyboard & Mouse 2x 4-pin USB 2.0 Type-A for USB flash driver or other devices 2x 3.5mm IR Blaster / Receiver 2x 3.5mm Audio & MIC 1x S/PDIF Audio input 1x 9-pin RS-232 Serial port, Female 1x 6-pin DIP Switch for Video channel selection 1x DC Power jack

RS-232 serial	Baud rate up to 115,200
Connections	Up to 1023 group (TX up to 1023, and up to 65,536 units for total connection)
Housing Material	Metal
AC Power Adapter	Input: AC 100-240V/ 50~60Hz Output: DC 5V/2A
Power over Ethernet	48V
Dimensions	TX/RX: 6.81" (W) x 1.09" (H) x 5.19" (D)
Weight	TX: 1.41 lbs, RX: 1.44 lbs
Operating temperature	32 to 104 degrees F
Storage temperature	-4 to 140 degree F
Operating Humidity	5% to 90% RH (non-condensing)
Certifications	FCC / CE / RoHS
Warranty	3 years
Country of origin	Taiwan, TAA Compliant

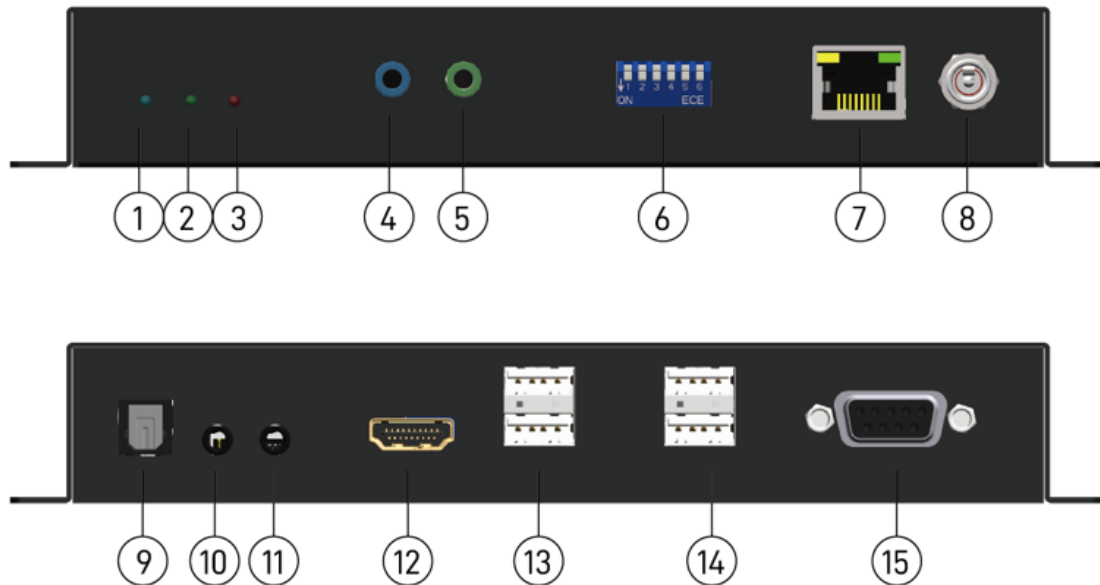
Product Layout

Transmitter (TX)



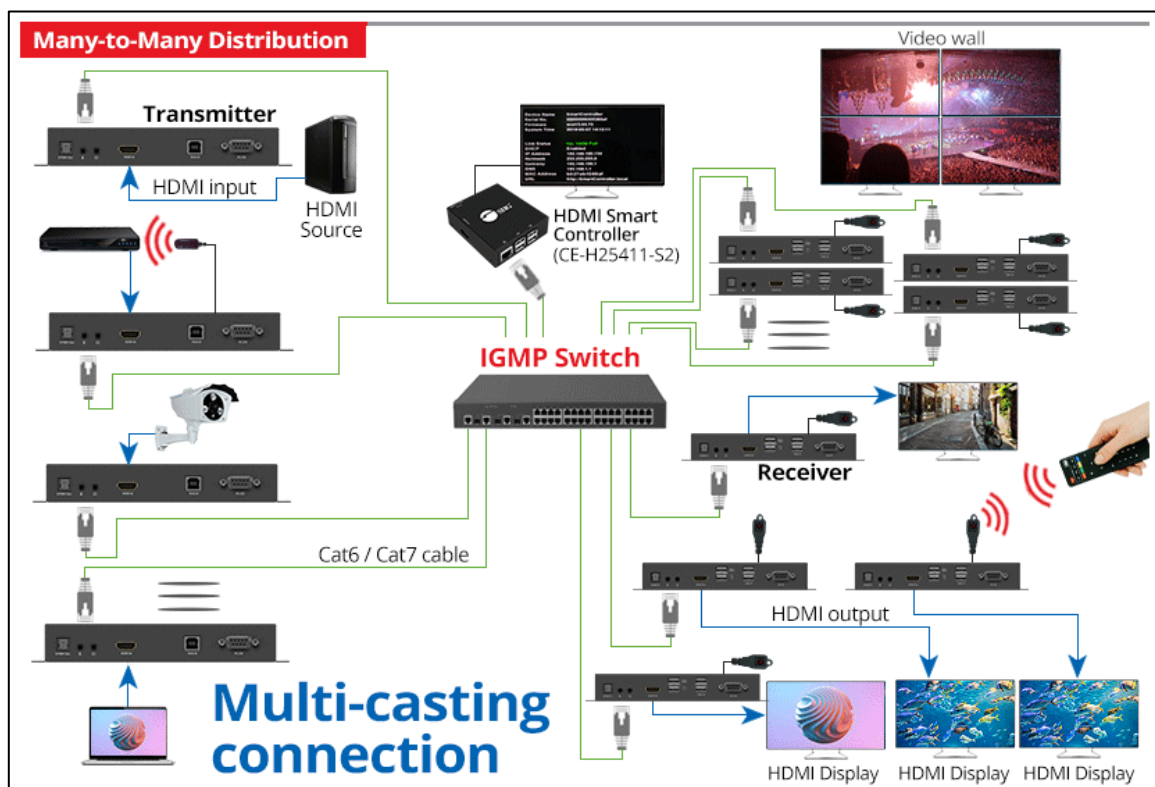
1	Power LED indicator	6	Dip Switch	11	Analog Audio output
2	Link LED indicator	7	RJ-45 output	12	HDMI input
3	Info LED indicator	8	DC power jack	13	NC
4	IR Blaster	9	S/PDIF output	14	USB upstream port
5	IR Receiver	10	Analog MIC in	15	9-pin RS-232

Receiver (RX)



1	Power LED indicator	6	Dip Switch	11	Analog Audio output
2	Link LED indicator	7	RJ-45 output	12	HDMI output
3	Info LED indicator	8	DC power jack	13	USB 1.1 K/M port
4	IR Blaster	9	S/PDIF input	14	USB 2.0 device port
5	IR Receiver	10	Analog Audio in	15	9-pin RS-232

Connection Diagram



IR Extenders

IR Blaster



IR Receiver

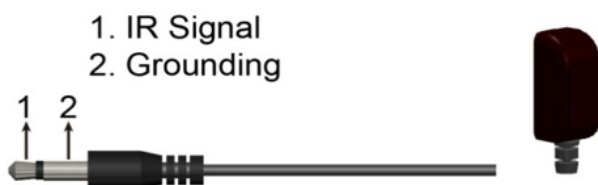


IR Blaster: plug in the IR blaster to emit all IR command signals received from the IR receiver from the other end to control the devices corresponding to the IR signals.

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

[Definition of IR Earphone Jack]

IR Blaster



IR Receiver



Notes: TX/RX group ID dip-switch setting

1. For ID = 1 to 63, please refer the table below to set up (Hardware control)
2. For ID = 64 to 1023, please adjust the DIP switch to ID = 0, and the real ID can be decided by the external software (software control)

ID	Pin1	Pin2	Pin3	Pin4	Pin5	Pin6
0	↑	↑	↑	↑	↑	↑
1	↓	↑	↑	↑	↑	↑
2	↑	↓	↑	↑	↑	↑
3	↓	↓	↑	↑	↑	↑
4	↑	↑	↓	↑	↑	↑
5	↓	↑	↓	↑	↑	↑
6	↑	↓	↓	↑	↑	↑
7	↓	↓	↓	↑	↑	↑
8	↑	↑	↑	↓	↑	↑
9	↓	↑	↑	↓	↑	↑
10	↑	↓	↑	↓	↑	↑
11	↓	↓	↑	↓	↑	↑
12	↑	↑	↓	↓	↑	↑
13	↓	↑	↓	↓	↑	↑
14	↑	↓	↓	↓	↑	↑
15	↓	↓	↓	↓	↑	↑
16	↑	↑	↑	↑	↓	↑
17	↓	↑	↑	↑	↓	↑
18	↑	↓	↑	↑	↓	↑
19	↓	↓	↑	↑	↓	↑
20	↑	↑	↓	↑	↓	↑
21	↓	↑	↓	↑	↓	↑
22	↑	↓	↓	↑	↓	↑
23	↓	↓	↓	↑	↓	↑
24	↑	↑	↑	↓	↓	↑
25	↓	↑	↑	↓	↓	↑
26	↑	↓	↑	↓	↓	↑
27	↓	↓	↑	↓	↓	↑
28	↑	↑	↓	↓	↓	↑
29	↓	↑	↓	↓	↓	↑
30	↑	↓	↓	↓	↓	↑
31	↓	↓	↓	↓	↓	↑

ID	Pin1	Pin2	Pin3	Pin4	Pin5	Pin6
32	↑	↑	↑	↑	↑	↓
33	↓	↑	↑	↑	↑	↓
34	↑	↓	↑	↑	↑	↓
35	↓	↓	↑	↑	↑	↓
36	↑	↑	↓	↑	↑	↓
37	↓	↑	↓	↑	↑	↓
38	↑	↓	↓	↑	↑	↓
39	↓	↓	↓	↑	↑	↓
40	↑	↑	↑	↓	↑	↓
41	↓	↑	↑	↓	↑	↓
42	↑	↓	↑	↓	↑	↓
43	↓	↓	↑	↓	↑	↓
44	↑	↑	↓	↓	↑	↓
45	↓	↑	↓	↓	↑	↓
46	↑	↓	↓	↓	↑	↓
47	↓	↓	↓	↓	↑	↓
48	↑	↑	↑	↑	↓	↓
49	↓	↑	↑	↑	↓	↓
50	↑	↓	↑	↑	↓	↓
51	↓	↓	↑	↑	↓	↓
52	↑	↑	↓	↑	↓	↓
53	↓	↑	↓	↑	↓	↓
54	↑	↓	↓	↑	↓	↓
55	↓	↓	↓	↑	↓	↓
56	↑	↑	↑	↓	↓	↓
57	↓	↑	↑	↓	↓	↓
58	↑	↓	↑	↓	↓	↓
59	↓	↓	↑	↓	↓	↓
60	↑	↑	↓	↓	↓	↓
61	↓	↑	↓	↓	↓	↓
62	↑	↓	↓	↓	↓	↓
63	↓	↓	↓	↓	↓	↓