



## 500-meter 100Mbps LAN Extender **EL500 Kit**



The EL500 KIT is born to break the limitation of Ethernet transmission of 100M and extends any networking devices up to 800M over cost-effective CAT5e cable. Furthermore, the EL500 KIT is completely transparent to protocols, codes, and applications, ensuring its great compatibility with any TCP/IP device and its management software. It is a perfect solution for extending TCP/IP signal to extra remote camera.

### Features:

- To send and extend TCP/IP signal over CAT5e/6 cable
- Distance support: 500 meters at 100Mbps, 800 meters at 10Mbps
- Support 10BASE-T, 100BASE-TX, 100BASE-T1 standard.
- Support Auto MDI/MDI-X.
- Support Full duplex and half duplex mode.
- Support EEE Energy-Efficient Ethernet.
- Built-in 1.5KV (Line to Line) surge protection.

### Transmission Distance Chart:

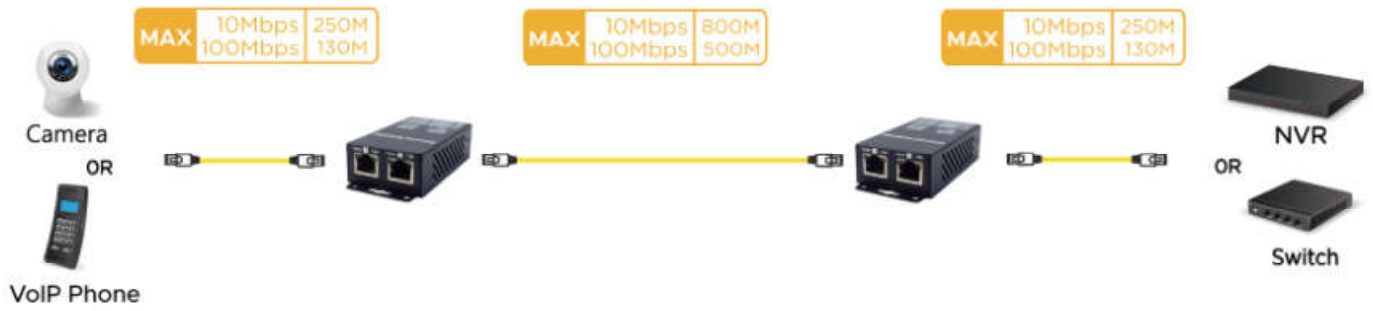
The transmission distance report below is tested through the COMMSCOPE 57535-2 (CAT5e 24AWG) cables.

Mode	Data Rate	Transmission Distance
100BASE-T with EEE	100Mbps	<b>100M</b>
100BASE-TX	100Mbps	<b>130M</b>
100BASE-T1	100Mbps	<b>300M</b>
Long Reach 100	100Mbps	<b>500M</b>
10BASE-T with EEE	10Mbps	<b>100M</b>
10BASE-T	10Mbps	<b>250M</b>
Long Reach 10	10Mbps	<b>800M</b>

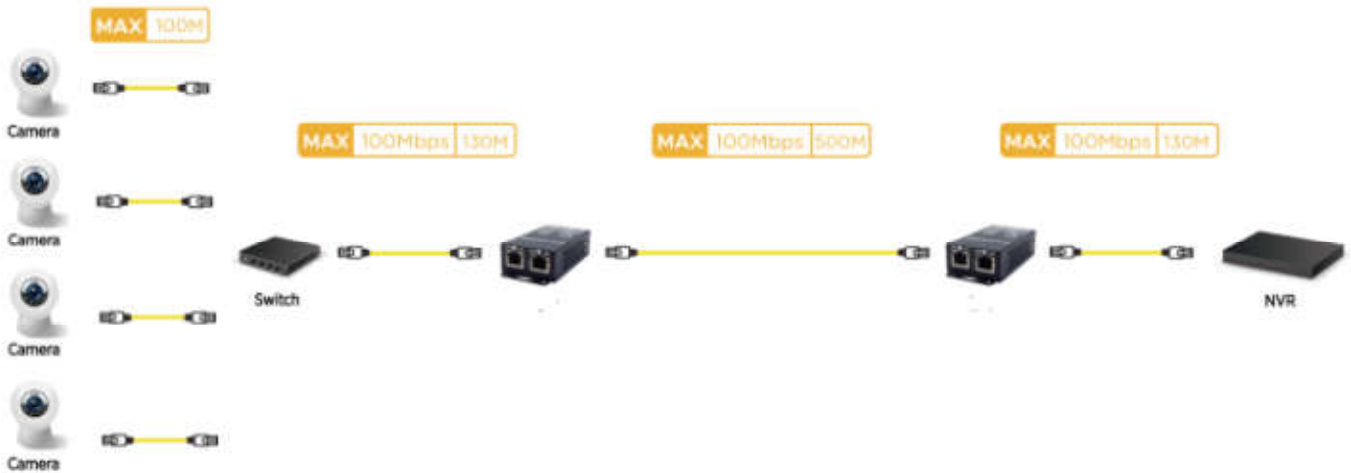
- ※ The distance may vary by installation conditions, quality of cables, and the performance of connecting devices.
- ※ 10BASE-T / 100BASE-TX and Long Reach 100Mbps mode use 2 pair wire to transmit
- ※ 100BASE-T1 and Long Reach 10Mbps mode use 1 pair wire to transmit only
- ※ When EEE mode is enabled, the transmission distance of 100BASE-TX and 10BASE-T will be shortened

## Installation:

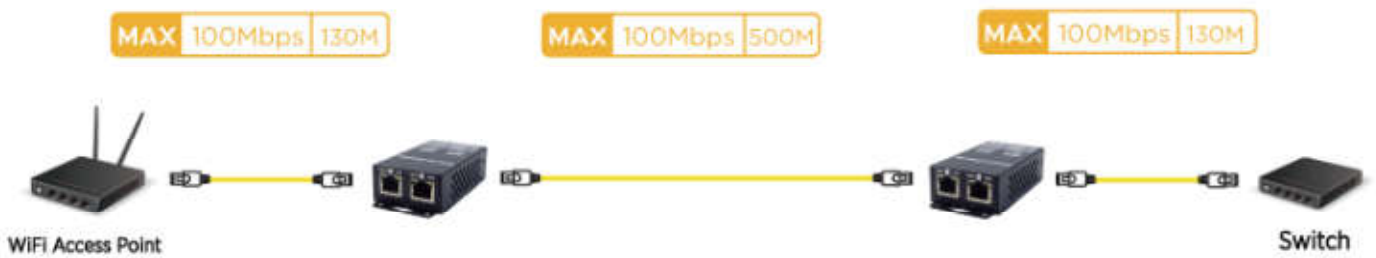
### (1) Point to Point Transmission



### (2) Multi-Camera Video Transmission



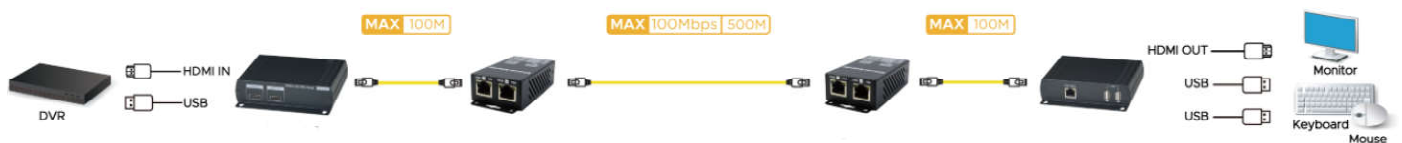
### (3) Wifi Access Point Extending Transmission



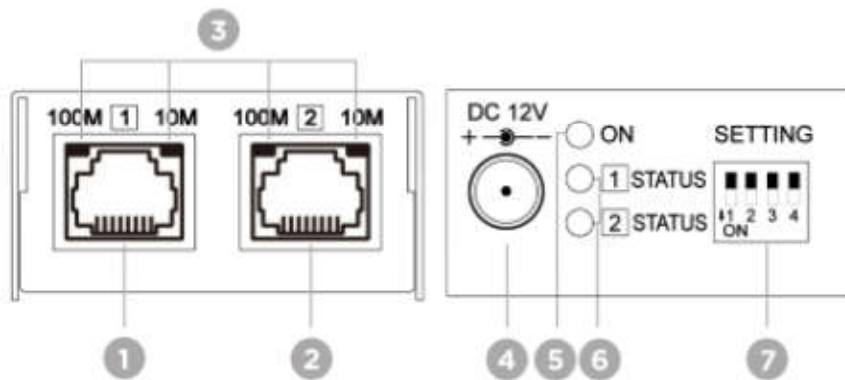
### (4) Extra Long Distance Transmission



### (5) Extra Long HDMI Transmission



## Panel Review:

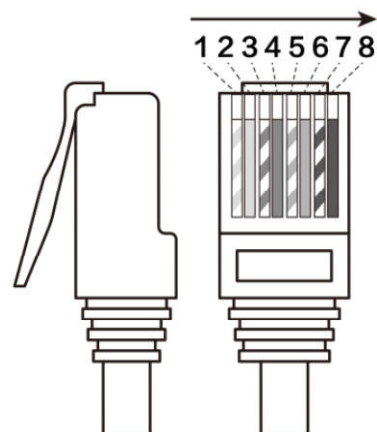


No.	Interface	Functionality
1	RJ45 Connector	Port 1 ; To connect networking devices or another EL500 (Refer to Description 1,2,3)
2	RJ45 Connector	Port 2 ; To connect networking devices or another EL500 (Refer to Description 1,2,3)
3	RJ45 LED	To indicate the network connection status (Refer to Description 4)
4	Power Jack	To connect DC12V 0.5A adapter
5	Power LED Indication	To indicate the power status (Refer to Description 5)
6	Status Indication	<input type="checkbox"/> Status : Port 1 mode indication (Refer to Description 6) <input type="checkbox"/> Status : Port 2 mode indication (Refer to Description 6)
7	DIP Switch	To select the desired mode (Refer to Description 7)

## Description:

1. Link speed of port 1 and 2 must be sync, or they are not able to activate network connection.
2. Once the port 1 and 2 remain unlinked, the EL500 kit will automatically turn to Power Saving mode.
3. RJ45 Pinout

(PIN TIA/EIA-568B)	
PIN	Wire Color
1	Orange-white
2	Orange
3	Green-white
4	Blue
5	Blue-white
6	Green
7	Brown-white
8	Brown



#### 4. RJ45 LED

Data Rate	LED On	LED Off	LED Blinking
100Mbps	Enable	Disable	Data Transferring
10Mbps	Enable	Disable	Data Transferring

#### 5. Power LED Indication

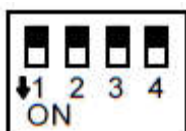
Green On	Green Off	Light Breathing
Power On	Power Off	Power Saving

#### 6. Status Indication

Blue On	Blue Off	Light Blinking	Blink twice
Long Reach	Ethernet	100BaseT-T1	Hardware Failure

#### 7. Dip Switch Setting:

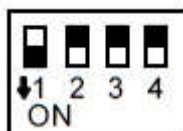
##### 7.1. Auto Mode / Default (Highly Recommended)



Dip switch 1-2-3-4 all up (OFF)

Auto Mode enables auto negotiation which automatically set up the link speed and transmission protocol.

##### 7.2. Auto+EEE Mode



Dip switch 1 down (ON), 2-3-4 up (OFF)

Auto+EEE mode supports Energy-Efficient Ethernet based on Auto Mode.

##### 7.3. Advanced Mode

Please refer to the chart below to manually set up the Link Speed, and Modes

No.	Mode	↑ OFF	↓ ON
1	LINK SPEED	10Mbps	100Mbps
2	ETHERNET	Disable	Enable
3	100BASE-T1	Disable	Enable
4	LONG REACH	Disable	Enable

※Link speed of 10Mbps is not supported on 100BASE-T1 mode

### Auto-Negotiation Priority:

Priority	Mode
1 (Highest)	Long Distance 100Mbps
2	100BASE-T1
3	Long Distance 10Mbps
4	100BASE-TX Full Duplex
5	100BASE-TX Half Duplex
6	10BASE-T Full Duplex



7 (Lowest)	10BASE-T Half Duplex
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### EL500 KIT Package Included:

- 2 x EL500.
- 2 x DC12V 0.5A Power Adapter.
- 4 x Screw
- 4 x Screw Plug

### Specification:

ITEM	EL500
Standard	IEEE 802.3 10BASE-T Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3bw 100BASE-T1 Ethernet IEEE 802.3 Nway Auto-Negotiation IEEE 802.3x Full Duplex Operation And Flow Control IEEE 802.3az Energy Efficient Ethernet
Data Rate	10 Mbps / 100 Mbps
Distance (Max)	100BASE-TX 130M / 10BASE-T 250M 100BASE-T1 300M Long Distance 100 500M / Long Distance 10 800M
Ethernet Connector	RJ45 x 2
Power Supply	5V ~ 12V Regulated
Power Consumption	1W
Power Adapter	DC 12V 500mA Regulated
Dimensions (mm)	49 x 91.8 x 25
Weight (g)	120

RoHS 