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# 50m Cat.6 4x4 HDMI & IR Matrix Extender

*User Manual*  
*Benutzerhandbuch*  
*Manuel Utilisateur*  
*Manuale*

*English*  
*Deutsch*  
*Français*  
*Italiano*

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No. 38154

[lindy.com](http://lindy.com)



Tested to comply with FCC  
For Home and Office Use!



## Introduction

Thank you for purchasing the Lindy 50m Cat.6 4x4 HDMI & IR Matrix Extender. This product has been designed to provide trouble free, reliable operation. It benefits from both a LINDY 2-year warranty and free lifetime technical support. To ensure correct use, please read this manual carefully and retain it for future reference.

The Lindy HDMI & IR Cat.6 Matrix Extender is a simple to use solution that allows users to extend four independent HDMI signals up to 50m and then distribute those signals to four remote displays using low cost Cat.6 U/UTP cable (not included). Each of the 4 outputs are also simultaneously mirrored to local HDMI output ports, perfect for monitoring outputs or for the creation of a secondary local zone.

## Package Contents

- 50m Cat.6 4x4 HDMI Matrix Extender
- 4 x HDMI & IR Cat.6 Receivers
- 12V DC 2.5A Multi Country PSU (UK, EU, US & AUS), DC round plug: 5.5mm/2.1mm
- 4 x IR Emitter with 3.5mm connector, 1m
- 5 x IR Receiver with 3.5mm connector, 1m
- 4 x IR Remote Control (with CR2025 battery)
- RS-232 9 Pin M/F Cable, 1m
- Mounting Ears & Screws
- This Manual

## RS-232 Command List

Baudrate : 115200

Data width : 8bit

Parity: none

Stop: 1bit

Port switch command package length is 18byte:

```
[0x50+0x56+0x54+0x02+0x03+inputport(1~4)+0x00+outputport(1~4)+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+checksum]
```

All you need to change is just "input port", "output port", "checksum"

```
Checksum=(0x50+0x56+0x54+0x02+0x03+inputport(1~4)+0x00+outputport(1~4)+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00)
```

For example: Set output 1 form input 2 command:

```
50 56 54 02 03 02 00 01 00 00 00 00 00 00 00 00 00 02
```

Port switch query package length is 18byte:

This is a query command which means you must send query package and then receive an answer.

For example: Query output A input port (1~4)

Send package: 50 56 54 02 01 01 00 00 00 00 00 00 00 00 00 00 00 FE

Receive package: 50 56 54 02 01 01 00 02 00 00 00 00 00 00 00 00 00

The red 01 mean the output port number, it should be 1~4.

The blue 02 mean the input port number, it should be 1~4.

EDID set command package length is 18byte:

```
[0x50+0x56+0x54+0x03+0x02+EDIDindex(1~15)+0xF0+inputport(1~4)+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+checksum]
```

```
[0x50+0x56+0x54+0x03+0x01+EDIDindex(1~15)+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+checksum]
```

Means: set EDID mode to all input port

EDID query command package length is 18byte:

This is a query command which mean you must send query package and then receive an answer.

For example: Query input 1 EDID index (1~15)

Send package: 50 56 54 01 0C 02 00 00 00 00 00 00 00 00 00 00 00 00 checksum

Receive package: 50 56 54 01 0C 01 00 01 00 00 00 00 00 00 00 00 00 00 checksum

The red 02 mean the input port number, it should be 1~4.

The blue 01 mean the EDID index number, it should be 1~15.

EDID index list:

1080p, Stereo Audio 2.0 = 1

1080p, Dolby/DTS 5.1 = 2

1080p, HD Audio 7.1 = 3

1080i, Stereo Audio 2.0 = 4

1080i, Dolby/DTS 5.1 = 5

1080i, HD Audio 7.1 = 6

3D, Stereo Audio 2.0 = 7

3D, Dolby/DTS 5.1 = 8

3D, HD Audio 7.1 = 9

4K2K30, Stereo Audio 2.0 = 10

4K2K30, Dolby/DTS 5.1 = 11

4K2K30, HD Audio 7.1 = 12

DVI 1024x768 = 13

DVI 1920x1080 = 14

DVI 1920x1200 = 15

EDID copy command package length is 18byte:

[0x50+0x56+0x54+0x03+0x04+outputport(1~4)+0x00+inputport(1~4)+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+checksum]

Means: copy output port X EDID to input port X

[0x50+0x56+0x54+0x03+0x03+outputport(1~4)+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+checksum]

Means: copy output port X EDID to all input port

Output HDP status query package is 18byte:

This is a query command which mean you must send query package and then receive an answer.

For example: Query output 1(1~4) HPD status

Send package: 50 56 54 01 05 01 00 00 00 00 00 00 00 00 00 00 00 01

Receive package: 50 56 54 01 05 01 00 FF 00 00 00 00 00 00 00 00 00 00

The red 01 mean the output port number, it should be 1~4.

The blue FF mean this port's HPD is LOW, if 00 mean HIGH.

Input port status query package is 18byte:

This is a query command which mean you must send query package and then receive an answer.

For example: Query input 1(1~4) status

Send package: 50 56 54 01 04 01 00 00 00 00 00 00 00 00 00 00 00 00

Receive package: 50 56 54 01 04 01 00 FF 00 00 00 00 00 00 00 00 00 FF

The red 01 mean the input port number, it should be 1~4.

The blue FF mean this port is plug in, if 00 mean plug out.

Beep on/off command package length is 18byte:

Beep off: 50 56 54 06 01 F0 00 00 00 00 00 00 00 00 00 00 00 F1

Beep on: 50 56 54 06 01 0F 00 DD 00 00 00 00 00 00 00 00 00 ED

Beep on/off query command package is 18byte:

This is a query command which mean you must send query package and then receive an answer.

For example:

Send package: 50 56 54 01 0B 00 00 00 00 00 00 00 00 00 00 00 00 06

Receive package: 50 56 54 01 0B 00 00 FF 00 00 00 00 00 00 00 00 00 05

The blue FF mean Beep off, if 00 mean Beep on.

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Reboot command package length is 18byte:

50 56 54 08 0D 00 00 00 00 00 00 00 00 00 00 00 00 0F

Standby Mode command package length is 18byte:

Power on: 50 56 54 08 0B 0F 00 0F 00 00 00 00 00 00 00 00 2B

Power off: 50 56 54 08 0B F0 00 F0 00 00 00 00 00 00 00 00 ED

Standby Mode query command package is 18byte:

This is a query command which mean you must send query package and then receive an answer.

For example:

Send package: 50 56 54 08 0C 00 00 00 00 00 00 00 00 00 00 00 0E

Receive package: 50 56 54 08 0C 0F 00 00 00 00 00 00 00 00 00 00 1D

The blue 0F mean Power on, if F0 mean Power off.

## IR Command List

NEC code

```
#define SYSTEM_CODE    0x00
```

```
#define IR_KEY_POWER    0x14
```

```
#define IR_KEY_OUTPUT_1_FROM_1    0x09
```

```
#define IR_KEY_OUTPUT_1_FROM_2    0x1D
```

```
#define IR_KEY_OUTPUT_1_FROM_3    0x1F
```

```
#define IR_KEY_OUTPUT_1_FROM_4    0x0D
```

```
#define IR_KEY_OUTPUT_1_PRE    0x1B
```

```
#define IR_KEY_OUTPUT_1_NEXT    0x11
```

```
#define IR_KEY_OUTPUT_2_FROM_1    0x17
```

```
#define IR_KEY_OUTPUT_2_FROM_2    0x12
```

```
#define IR_KEY_OUTPUT_2_FROM_3    0x59
```

```
#define IR_KEY_OUTPUT_2_FROM_4    0x08
```

```
#define IR_KEY_OUTPUT_2_PRE    0x55
```

```
#define IR_KEY_OUTPUT_2_NEXT    0x48
```

```
#define IR_KEY_OUTPUT_3_FROM_1    0x5e
```

```
#define IR_KEY_OUTPUT_3_FROM_2    0x06
```

```
#define IR_KEY_OUTPUT_3_FROM_3    0x05
```

```
#define IR_KEY_OUTPUT_3_FROM_4    0x03
```

```
#define IR_KEY_OUTPUT_3_PRE    0x07
```

```
#define IR_KEY_OUTPUT_3_NEXT    0x40
```

```
#define IR_KEY_OUTPUT_4_FROM_1    0x18
```

```
#define IR_KEY_OUTPUT_4_FROM_2    0x44
```

```
#define IR_KEY_OUTPUT_4_FROM_3    0x0f
```

```
#define IR_KEY_OUTPUT_4_FROM_4    0x51
```

```
#define IR_KEY_OUTPUT_4_PRE    0x1E
```

```
#define IR_KEY_OUTPUT_4_NEXT    0x0E
```

## **CE/FCC Statement**

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### ***CE Certification***

This equipment complies with the requirements relating to Electromagnetic Compatibility Standards. It has been manufactured under the scope of RoHS compliance.

### ***CE Konformitätserklärung***

Dieses Produkt entspricht den einschlägigen EMV Richtlinien der EU für IT-Equipment und darf nur zusammen mit abgeschirmten Kabeln verwendet werden.

Diese Geräte wurden unter Berücksichtigung der RoHS Vorgaben hergestellt.

Die formelle Konformitätserklärung können wir Ihnen auf Anforderung zur Verfügung stellen

### ***FCC Certification***

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

You are cautioned that changes or modification not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

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## **LINDY Herstellergarantie – Hinweis für Kunden in Deutschland**

LINDY gewährt für dieses Produkt über die gesetzliche Regelung in Deutschland hinaus eine zweijährige Herstellergarantie ab Kaufdatum. Die detaillierten Bedingungen dieser Garantie finden Sie auf der LINDY Website aufgelistet bei den AGBs.

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### **Hersteller / Manufacturer (EU):**

LINDY-Elektronik GmbH  
Markircher Str. 20  
68229 Mannheim  
Germany  
Email: info@lindy.com , T: +49 (0)621 470050

### **Manufacturer (UK):**

LINDY Electronics Ltd  
Sadler Forster Way  
Stockton-on-Tees, TS17 9JY  
England  
sales@lindy.co.uk , T: +44 (0)1642 754000

## Recycling Information

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### WEEE (Waste of Electrical and Electronic Equipment), Recycling of Electronic Products

#### Europe, United Kingdom

In 2006 the European Union introduced regulations (WEEE) for the collection and recycling of all waste electrical and electronic equipment. It is no longer allowable to simply throw away electrical and electronic equipment. Instead, these products must enter the recycling process.

Each individual EU member state has implemented the WEEE regulations into national law in slightly different ways. Please follow your national law when you want to dispose of any electrical or electronic products. More details can be obtained from your national WEEE recycling agency.

#### Germany / Deutschland

#### Rücknahme Elektroschrott und Batterie-Entsorgung

Die Europäische Union hat mit der WEEE Richtlinie Regelungen für die Verschrottung und das Recycling von Elektro- und Elektronikprodukten geschaffen. Diese wurden im Elektro- und Elektronikgerätegesetz – ElektroG in deutsches Recht umgesetzt. Das Entsorgen von Elektro- und Elektronikgeräten über die Hausmülltonne ist verboten! Diese Geräte müssen den Sammel- und Rückgabesystemen zugeführt werden! Dort werden sie kostenlos entgegen genommen. Die Kosten für den weiteren Recyclingprozess übernehmen die Gerätehersteller.

LINDY bietet deutschen Endverbrauchern ein kostenloses Rücknahmesystem an, beachten Sie bitte, dass Batterien und Akkus den Produkten vor der Rückgabe an das Rücknahmesystem entnommen werden müssen und über die Sammel- und Rückgabesysteme für Batterien separat entsorgt werden müssen. Ausführliche Informationen zu diesen Themen finden Sie stets aktuell auf der LINDY Webseite im Fußbereich.

#### France

En 2006, l'union Européenne a introduit la nouvelle réglementation (DEEE) pour le recyclage de tout équipement électrique et électronique.

Chaque Etat membre de l' Union Européenne a mis en application la nouvelle réglementation DEEE de manières légèrement différentes. Veuillez suivre le décret d'application correspondant à l'élimination des déchets électriques ou électroniques de votre pays.

#### Italy

Nel 2006 l'unione europea ha introdotto regolamentazioni (WEEE) per la raccolta e il riciclo di apparecchi elettrici ed elettronici. Non è più consentito semplicemente gettare queste apparecchiature, devono essere riciclate. Ogni stato membro dell' EU ha tramutato le direttive WEEE in leggi statali in varie misure. Fare riferimento alle leggi del proprio Stato quando si dispone di un apparecchio elettrico o elettronico.

Per ulteriori dettagli fare riferimento alla direttiva WEEE sul riciclaggio del proprio Stato.



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