

Dataprodukter utöver det vanliga

Best.nr: 20111343

# **1x4 HDMI Splitter Extender**

support 70m 4K@60HZ 4:4:4

OPERATION MANUAL





Direktronik AB tel. 08-52 400 700 www.direktronik.se



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# MAIL-IN SERVICE

When shipping the unit carefully pack and send it prepaid, adequately insured and preferably in the original carton. Include a letter detailing the complaint and provide a day time phone and/or email address where you can be reached.

## LIMITED WARRANTY LIMITS AND EXCLUSIONS

1) This Limited Warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The Limited Warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or service by anyone other than a Factory Service center or other Authorized Servicer, or damage that is attributable to acts of God. 2) THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE". THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRNTY. (As examples, this excludes damages for lost time, cost of having someone remove or re-install an installed unit if applicable, travel to and from the service, loss of or damage to media or images, data or other recorded content. The items listed are not exclusive, but are for illustration only.) 3) PARTS AND SERVICE, WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY, ARE YOUR RESPONSIBILITY.

# MAINTENANCE

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner of benzine to clean this unit.

# **PRODUCT SERVICE**

#### 1) Damage requiring service:

The unit should be serviced by qualified service personnel if:

- (a) The DC power supply cord or AC adaptor has been damaged;
- (b) Objects or liquids have gotten into the unit;
- (c) The unit has been exposed to rain;
- (d) The unit does not operate normally or exhibits a marked change in performance;
- (e) The unit has been dropped or the cabinet damaged.

2) Servicing Personnel: Do not attempt to service the unit beyond that described in these operating instructions. Refer all other servicing to authorized servicing personnel.
3) Replacement parts: When parts need replacing ensure the servicer uses parts

specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other hazards.4) Safety check: After repairs or service, ask the servicer to perform safety checks to confirm that the unit is in proper working condition.

# WARRANTY

If your product does not work properly because of a defect in materials or workmanship, our Company (referred to as "the warrantor") will, for the length of the period indicated as below, (Parts(2)Year, Labor(90) Days) which starts with the date of original purchase ("Limited Warranty period"), at its option either(a) repair your product with new or refurbished parts, or (b) replace it with a new of a refurbished product. The decision to repair or replace will be made by the warrantor.

During the "Labor" Limited Warranty period there will be no charge for labor.

During the "Parts" warranty period, there will be no charge for parts. You must mail-in your product during the warranty period. This Limited Warranty is extended only to the original purchaser and only covers product purchased as new. A purchase receipt or other proof of original purchase date is required for Limited Warranty service.



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### Notice

The information in this document is subject to change without notice. Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute the warranty of any kind, express or implied.

## Features

HDMI2.0 splitter, Bandwidth up to 18Gbps, HDR, Deep color support up to 12bit,
HD 8CH digital audio format

- > Distributes 1 HDMI source to 4 RJ45 output with 1xlooping HDMI output
- > Transmission distance: 90m at 1080P@60Hz, 70m at 4K@60Hz 4:4:4
- ► HDCP2.2/1.4 Compliant
- Support optical toslink and 3.5mm PCM2.0 analog audio extraction
- Support Dolby Vision, HDR10, HDR10+, HLG
- Support LPCM up to 7.1/24-bit/96 kHz, DTS5.1, Dolby5.1
- > Support Bi-Directional wide band IR and RS232 pass through
- Support auto downscaler 4K@60hz to 1080P at the RX end
- ➢ Support EDID management
- ➤ Support cascade to 8 layers
- ➢ Support Micro USB updating

# **Package Contents**

- ➤ 1 x HDMI Splitter
- ▶ 1 x 12V/3A DC Adapter
- ➤ 1 x User Manual
- ➤ 1 x IR TX cable; 1 x IR RX cable
- ➤ 2 x Mounting Ears
- ➤ 2 x Phoenix terminal
- ➤ 1 x USB cable

# SPECIFICATIONS

Operating Temperature Range	-5 to +40°C(+23 to +104°F)
Operating Humidity Range	5 to 90%RH (No Condensation)
Input Video format	720P / 1080P / 4K@60hz
Data transfer speed rate	18 Gbps(Maximum)
Input port	1xHDMI
Output ports	4xRJ45 output port, 1xHDMI loop out
Output Video Format Supported	DTV/HDTV:480i/576i/480P/576P/720P/1080i/1080P, 4K VESA resolution
Transmission Distance	90m at 1080P@60Hz, 70m at 4K@60Hz 4:4:4
Power consumption	20W(Maximum)
Dimension (L×W×H)	246.1x113.4x24mm
Net Weight	700g

## **Connecting and operating**

1) Connect the HDMI input sources into HDMI Splitter.

2) Connect HDMI receiver over Cat5e/Cat6 cables to the RJ45 port of both HDMI Splitter and Receiver, The RJ45 connections must follow EIA-TIA 568b standards.

3) Connect the HDMI output from the Receiver(RX) into the display HDMI input.

4) Connect the IR TX cables into Splitter IR TX port on the back panel and affix the emitter on to the source IR windows.

5) Connect the IR RX cable into IR RX port on the receiver and affix the IR receiver in direct line of side with the hand held remote control. It is recommended to affix the receiver on the display frame/bezel or the display stand



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#### EDID:

The splitter copy different EDID through a three-step slide switch:

(1) Local: copy EDID from loop out display (copy Default-6 EDID when HDMI loop out disconnected)

2 EMUL: copy default EDID as below table (9 default EDID, able to switch with command)

Default-0	1080@60 2CH	Default-5	4K@60 4:2:0 2CH
Default-1	4K@30 4:2:0 2CH	Default-6	4K@60 4:4:4 2CH
Default-2	4K@30 4:4:4 2CH	Default-7	4K@60 4:4:4 5.1CH + HDR
Default-3	4K@30 4:4:4 5.1CH + HDR	Default-8	4K@60 4:4:4 7.1CH + HDR
Default-4	4K@30 4:4:4 7.1CH + HDR		

③Remote: copy EDID from far-end display (automatically copy under priority from output 1-4,also able to copy the specified far-end display via input command; copy Default-6 EDID when far-end display is disconnected)

### Factory data reset:

Function description: factory Settings can be restored through RESET button via long press 5S, or through command #factory0

# RS232 command list:

Туре	Format	Target1	Target2	Parameter1
Command head	#uart	tx%4,d	rx%4,d	onoff=%d
1	t0/ 4 -1	0: all RX end	0: all RX end	0: turn off
value	tx%4,d	1~4:specified RX	1~4:specified RX	1: turn on

#### For example:

Type #uart tx1 rx1 onoff=1:bi-directional RS232 transmission for TX first port and first RX Type #uart tx0 rx0 onoff=0: turn off bi-directional RS232 transmission for TX and all RX Type #uart tx1 onoff=1:single way RS232 transmission for TX first port to first RX

#### IR command list:

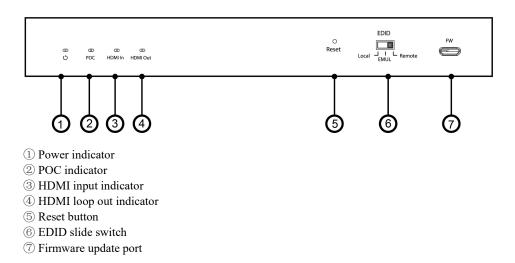
Туре	format	Target1	Target2	Parameter1
Command head	#ir	in%4,d	Out%4,d	onoff=%d
value	tx%4,d	0:all RX end	0: all RX end	0:turn off
value		1~4:specified RX	1~4:specified RX	1:turn on

For example:

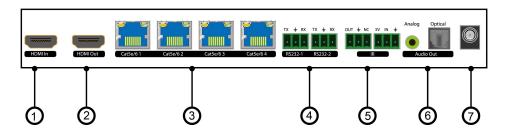
Type #ir in1 out1 onoff=1: bi-directional IR control for TX first port and first RX Type #ir in0 out0 onoff=1: bi-directional IR control for TX and all RX Type #ir in1 onoff=1: single way IR control for TX first port to first RX

#### PANEL DESCRIPTIONS

**Front Panel** 



**Rear Panel** 



HDMI input port
HDMI loop out port
RJ45 output 1~4 ports
RS232 port

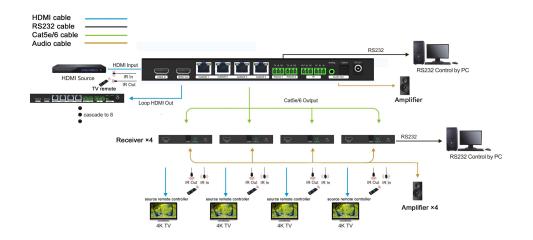
- 5 IR in and out port
- <sup>(6)</sup> Audio out port
- ⑦ DC 12V port



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#### The Splitter has to work with Receivers

#### **Connection Diagram:**





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# The RS232 PASS THROUGH

Basic Settings: double-click the software in the installation package to install RS232 software on the computer. Select the serial port number which connecting the serial port line to PC in the parameter configuration area. Fill in the baud rate of the communication protocol: 115200. Data bit: 8. Stop bit: 1. Check bit: none.

And then input the instruction in the command input area to realize the bi-directional transmission of the serial port between the local and the remote receiver. Support pass through baud rate: 115200; 57600; 38400; 19200; 14400; 9600; 4800; 2400.

RS232-1 port is applied for transmission with remote receiver;

As the standby serial port, RS232-2 only transmission with RS232-1.

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