Free hotline:

4006-041-888


CREATOR®

**GuangZhou(Headquarters)**

Address: 3/F, Bldg 5, Guangzhou Scientech Park, No.9, Lanyu 4th St., KaiFa Avenue, Economic & Technological Development Zone, Guangzhou, China.

Tel :（+86 20）8220 8736(Direct)

Fax :（+86 20）8221 9744

Email: creator@creator.com.cn

Website: www.creator1997.com



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CREATOR®

Audio/Visual Solution Provider & Manufacturer




# 2016-2017

CROSS MATRIX SIGNAL SYSTEM

# Signal Management Brochure

CREATOR CORPORATION (CHINA)

# MENU

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A CREATOR®

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# Digital Network Matrix Series

# PRO-MAX0808/1616/3636/7272/144144/288288

## PRO-MAX series hybrid matrix switchers

PRO-MAX0808
Size (mm):
483(L)×400(W)×88(H)

PRO-MAX1616
Size (mm):
483(L)×400(W)×132.5(H)

PRO-MAX3636
Size (mm):
483(L)×400(W)×310(H)

PRO-MAX7272
Size (mm):
483(L)×400(W)×532.6(H)

PRO-MAX144144
Size (mm):
483(L)×400(W)×1043(H)


PRO-MAX288288
Size (mm):
1200(L)×800(W)×1240(H)





### Product overview

The PRO-MAX series hybrid splicing matrix switchers are a group of seamless switchers which can cross-switch and splicing multiple types of signals. High-performance hardware design ensures its support for various high definition digital and analog signals, bi-directional RS232 and IR control and signal management. They can splice one input graphic signal into multiple channels and disperse to different display units to form a complete large-scale frame. This can provide one-stop solution for mulitiple types of visual signals and control signals switching and processing in various industries, especially for Broadcasting and Television Projects, Multimedia Meeting Rooms, Big Display Projects, TV Education, Smart Traffic Management Centers, and Command Center, etc.

### Features

- All digital switching: real seamless switching for all types of output cards.
- All types of output cards support video signal splicing and assembling; supports graphic windows scaling, overlapping, and roaming over the whole graphic frame.
- The preview card supports video signal preview and switching function.
- Support DVI 1.0 protocol, and compatible with HDCP 1.3 and HDMI 1.3a standards.
- Support hot-swap, video and audio signal synchronized switching, and AUTO DELAY for audio signal.
- Support EDID read and PC Management Software.
- Support built-in and local bi-directional RS232 and IR control signal with HDBaseT inputs and outputs; Support control signals and video/audio synchronized and separate switching; Support POE function.
- Versatile management methods: IR Remote Control, RS485, RS232 and network Control, and serial port control at remote end via HDBaseT inputs and outputs. This brings great convenience for the users to integrate the signal management and control with various other equipments at the remote end.
- Support firmware online upgrade.
- Intelligent control the operation of fan in matrix.
- SDI input can achieve looping out.
- Plug-in design for cards, the input and output signal type and signal channel amount can be allocated flexibly.

### Specifications

| The parameter name | | PRO-MAX0808/1616 /3636 /7272/144144/288288 |
|---|---|---|
| Interface | The input card can be connected to Quantity / input channels | 2/8 4/16 9/36 18/72 36/144 72/288 |
| | The output card can be connected to Quantity / input channels | 2/8 4/16 9/36 18/72 36/144 72/288 |
| | Support input card type | PMAX-IN HDMI4; PMAX-IN DVI4;<br>PMAX-IN HD4; PMAX-IN VGA4;<br>PMAX-IN SF4; PMAX-IN SDI4 |
| | Support output card type | Seamless output card:<br>PMAX-OUT HDMI4; PMAX-OUT DVI4;<br>PMAX-OUT HD4; PMAX-OUT VGA4;<br>PMAX-OUT SF4; PMAX-OUT SDI4<br>Output card:<br>PJMAX-OUT HDMI4; PJMAX-OUT DVI4;<br>PJMAX-OUT HD4; PJMAX-OUT VGA4;<br>PJMAX-OUT SF4; PJMAX-OUT SDI4 |
| | Interface bandwidth | 6.75Gbps |
| Serial port control | Serial port control interface | RS-232, 9-pin female D interface and 9-pin male D interface |
| | The baud rate and protocol | Baud rate: 9600, Data bits: 8<br>Stop bit: 1, No parity |
| | Structure of serial control | 9-pin D female interface: 2 = TX, 3 = RX, 5 = GND<br>9-pin D male interface: 2 = TX, 3 = RX, 5 = GND |
| KEYBOARD Control interface | Keyboard control interface | 4 bit 3.8mm Phoenix interface |
| | Use | Use with the expansion keyboard MCP100 |
| | Keyboard control port structure | +5V=DC5V , + = DATA+, -=DATA-<br>GND = Signal ground |
| Ethernet control | Ethernet control interface | RJ-45 bus interface |
| | Ethernet Control Protocol | TCP/IP |
| | Ethernet control rate | Self-adaptive 10M/100Min full-duolex or half-duplex |
| Specifications | Working power supply | 100VAC ~ 240VAC,50/60 Hz,<br>The international adaptive power supply<br>(POE power supply is selectable for 3636/7272/144144) |
| | Storage, use temperature | 0°C ～50°C |
| | Storage, use humidity | 20% ～70% |
| | Box size | 2U 3U 7U 12U 24U —— |
| | Weight (without card) | About 5kg About 7kg About 16kg<br>About 29kg About 80kg About 250kg |
| | No-load power consumption (without card) | 18W 18W 30W 30W 70W 300W |
| | Mean time between failures | 30000 Special Ops |
| | The warranty | 1 year free warranty, life-long maintenance |

# PMAX-IN HDMI4

## HDMI input card


### Features

- 4 HDMI-A connectors, 4 3.5mm audio sockets.
- Maximum transmission distance is up to 35 meters.
- Support hot-swapping function; Support synchronized switching of audio and video signals; Support AUTO DELAY.
- Support input selection between analog audio and the HDMI embedded audio signals.
- Support EDID reading.
- Compatible with HDMI1.3a standards, HDCP1.3 protocols, and DVI1.0 protocols.
- Maximum supported resolution:
  HDPC:1920x1200P@60,
  HDTV:1920x1080P@60.

### Specifications

| The parameter name | | PMAX-IN HDMI4 |
|---|---|---|
| Protocol | HDMI1.3a, HDCP1.3, DVI1.0 | |
| Video | Gain | 0 dB |
| | Pixel bandwidth | 165MHz, full digital |
| | Interface bandwidth | 2.25Gbps, full digital (a total of 6.75Gbps, each color is 2.25Gbps) |
| | Maximum support resolution | HDPC: 1920x1200P@60, HDTV: 1920x1080P@60; |
| | Clock Jitter | <0.15 Tbit |
| | Rise time | <0.3Tbit (20%--80%) |
| | Fall time | <0.3Tbit (20%--80%) |
| | Maximum transmission delay | 5nS(±1nS) |
| | Connector | 4 female connector, 4 3.5mm audio socket |
| | Signal strength | T.M.D.S. +/- 0.4Vpp |
| | Minimum / maximum level | T.M.D.S. 2.9V/3.3V |
| | Impedance | 50 Ω |
| | EDID | Optional default EDID or field programmable |
| | Maximum DC offset error | 15mV |
| | Recommended maximum input/ output distance | Less than 35 meters, in the 1600x1200@60 (recommended use certified HDMI special wire, such as Molex TM wire) |
| The product weight | | About 0. 5kg |
| Maximum power dissipation | | 15W |

# PMAX-IN DVI4

## DVI input card


### Features

- 4 DVI-D connectors, 4 3.5mm audio sockets.
- Maximum transmission distance is up to 35 meters.
- Support hot-swapping function; Support synchronized switching of audio and video signals; Support AUTO DELAY.
- Support and analog audio and DVI video signals input.
- Support EDID reading.
- Support DVI1.0 protocols.
- Maximum supported resolutions:
  HDPC: 1920x1200P@60,
  HDTV: 1920x1080P@60.

### Specifications

| The parameter name | | PMAX-IN DVI4 |
|---|---|---|
| Protocol | DVI1.0 | |
| Video | Gain | 0 dB |
| | Pixel bandwidth | 165MHz, full digital |
| | Interface bandwidth | 2.25Gbps, full digital (a total of 6.75Gbps, each color is 2.25Gbps) |
| | Maximum support resolution | HDPC: 1920x1200P@60, HDTV: 1920x1080P@60; |
| | Clock Jitter | <0.15 Tbit |
| | Rise time | <0.3Tbit (20%--80%) |
| | Fall time | <0.3Tbit (20%--80%) |
| | Maximum transmission delay | 5nS(±1nS) |
| | Connector | 4 DVI-D female connectors, 4 3.5mm audio socket |
| | Signal strength | T.M.D.S. +/- 0.4Vpp |
| | Minimum / maximum level | T.M.D.S. 2.9V/3.3V |
| | Impedance | 50 Ω |
| | EDID | Optional default EDID or field programmable |
| | Maximum DC offset error | 15mV |
| | Recommended maximum input/ output distance | Input less than 35 meters (1600x1200@60), recommend use certified DVI special wire such as Molex TM wire |
| The product weight | | About 0. 5kg |
| Maximum power dissipation | | 15W |

# PMAX-IN HD4

## Twisted-pair input card

### Features

- 4 RJ45 connectors; 4 6-PIN phoenix sockets.
- Maximum output transmission distance ups to 100M via a CAT5e/6 cable.
- Support hot-swapping function; Support synchronized switching of audio and video signals; Support AUTO DELAY.
- Compatible with HDBaseT protocols.
- Maximum resolutions supported:
  HDPC: 1920x1200P@60,
  HDTV: 1920x1080P@60.

### Specifications

| The parameter name | | PMAX-IN HD4 |
|---|---|---|
| Connector | 4 high-speed RJ45 connectors and 4 6-pin phoenix sockets | |
| Input/output of LINK connector | Protocol | HDBaseT protocol |
| | Pixel bandwidth | 165MHz, full digital |
| | Interface bandwidth | 2.25Gbps, full digital (a total of 6.75Gbps, each color is 2.25Gbps) |
| | Maximum support resolution | HDPC: 1920x1200P@60, HDTV: 1920x1080P@60; |
| | Signal type | High speed contrast signal defined in HDBaseT protocol |
| | POE | With POE power supply function (+48V), when combined with CREATOR CAT5 series transmitters, PMAX-IN HD4 card can supply power to other devices via a CAT 5e/6 cable. Pay attention to that this card can not be connected with the transmitter which is a POE power supply equipment. |
| | Impedance | 50 Ω |
| | EDID | Optional default EDID or field programmable |
| | Maximum DC offset error | 15mV |
| | Recommended maximum input/ output distance | Less than 100 meters (1600x1200@60), recommend use certified NEXANS CAT5e/6 wire |
| The product weight | | About 0. 5kg |
| Maximum power dissipation | | 27W |

# PMAX-IN VGA4

## VGA input card


### Features

- 4 DB15 female input connectors, 4 3.5mm audio sockets.
- Support input signal formats of VGA, CVBS, YPbPr at the same time, auto-detect of the signal source.
- Support hot-swapping function; Support synchronized switching of audio and video signals; Support AUTO DELAY.
- Support analog audio input.
- Maximum input resolutions supported:
  HDPC: 1920x1200P@60,
  HDTV: 1920x1080P@60.

### Specifications

| The parameter name | | PMAX-IN VGA4 | | |
|---|---|---|---|---|
| Connector | Db15 connector, 3.5mm audio socket | | | |
| Video | Signal type | Composite video (CV) | Component video YPbPr | VGA video |
| | Gain | 0dB | 0dB | 0dB |
| | Bandwidth | 150MHz@ -3dB | 350MHz@ -3dB | 380 MH |
| | Differential phase error | 0.1°,3.58 -4.43 MHz | 0.1°,3.58 -4.43 MHz | —— |
| | Differential gain error | 0.1%,3.58 -4.43 MHz | 0.1%,3.58 -4.43 MHz | —— |
| | Signal strength | 1Vpp: Composite video(CVBS) | 1Vpp: (Y in YPbPr ), 0.3Vpp: (PbPr/CbCr in YPbPr) | 0.63 Vpp ~ 0.9 Vpp |
| | Minimum/maximum level | Analog signal: -2V/+2V | Analog signal: -2V/+2V | RGB signal: 0V/1.0V HV signal: 0V/5.0V |
| | Input impedance | 75 Ω | 75 Ω | 75 Ω |
| | Return loss | <-30dB@ 5MHz | <-30dB@ 5MHz | <-30dB@ 5MHz |
| The product weight | | About 0. 5kg | | |
| Maximum power dissipation | | 20W | | |

## PMAX-IN SDI4

### SDI input card

### Features

- 4 BNC female input connectors; 4 BNC female connector loop-out.
- Support hot-swapping function.
- Support SD/HD/3G SDI signals input.

### Specifications

| The parameter name | | PMAX-IN SDI4 |
|---|---|---|
| Connector | | 4 BNC connectors, 4 BNC loop-out output |
| Protocol | | SMPTE 425M，SMPTE 424M，SMPTE 292M，SMPTE 259M-C，DVB-ASI |
| Video | Pixel bandwidth | 2.970Gb/s,1.485Gb/s,270Mb/s |
| | Maximum support resolution | 1920x1200P@60 |
| The product weight | | About 0. 5kg |
| Maximum power dissipation | | 20W |

## PMAX-IN SF4

### Fiber optic input card

### Features

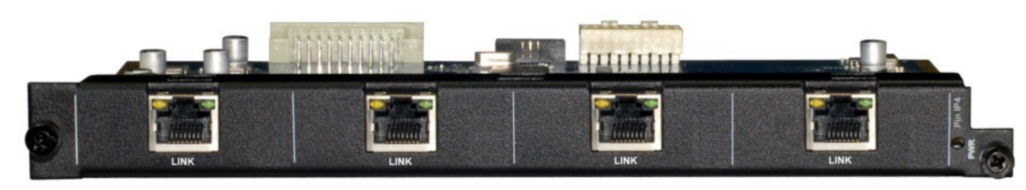
- 4 single-core fiber-optic input connectors.
- Support hot-swapping function.
- Maximum input signal transmission distance up to 300 meters (multi-mode) with fiber-optic transmitters, or maximum distance of 20 KM (Single-mode).
- Maximum resolutions supported:
  HDPC: 1920x1200P@60,
  HDTV: 1920x1080P@60.

### Specifications

| The parameter name | | PMAX-IN SF4 |
|---|---|---|
| Connector | 4 high-speed single core SC fiber connectors | |
| Video | Fiber connector | SC connector |
| | Fiber type | Multimode/Single mode (optional) |
| | Wavelength | Multimode 850nm/Single Mode: 1310-1620nm(optional) |
| | Bandwidth | Positive: 6.25Gbps, reverse：3.125Gbps |
| | Clock Jitter | <0.15 Tbit |
| | Rise time | <0.3Tbit (20%--80%) |
| | Fall time | <0.3Tbit (20%--80%) |
| | Recommended maximum input/ output distance | Less than 300m for Om3 multimode fiber, 2-20km for single mode fiber when in 1920x1080P@60 |
| | Maximum support resolution | HDPC: 1920x1200P@60<br>HDTV：1920x1080P@60 |
| The product weight | | About 0. 5kg |
| Maximum power dissipation | | 20W |

## PMAX-IN IP4

### IP input card



### Features

- 4 high speed RJ45 interfaces.
- Maximum 100 meters output distance with Cat5e/Cat6 cables.
- Support web login to set up network protocols, local network configurations, and remote network configurations, etc.
- Support receiving video from static IP address, and automatic searching network encoding devices.
- Support network protocols of onvif, RTP, RTSP, RTCP, TCP, and UDP, etc.
- Support G711a, G711u, G726, and ADPCM audio encodin.
- Support commonly used cameras from Hikvision, Dahua, and Huawei.
- Maximally Supported Resolution：1920x1080P@60Hz。

### Specifications

| The parameter name | | PMAX-IN IP4 |
|---|---|---|
| Network Protocol | Onvif、RTP、RTSP、RTCP、TCP、UDP | |
| Video | Network interface bandwidth | 100M |
| | Video Compression | H.264 Main Profile/H.264 Baseline Profile /H.264 High Profile |
| | Audio Compression | G711a/G711u/G726/ADPCM |
| | Control Protocol | Control protocol support standard protocol ONVIF |
| | Maximum transmission delay | 100ms(depend on the encoding delay and network transmission delay) |
| | IP parameters | Port1 default IP: 192.168.1.100<br>Port2 default IP: 192.168.2.100<br>Port3 default IP: 192.168.1.200<br>Port4 default IP: 192.168.2.200 |
| | Fall time | <0.3Tbit (20%--80%) |
| | Recommended Max Input/Output Distanc | 100m |
| | Maximally supported resolution | HDPC: 1920x1080P@60<br>HDTV: 1920x1080P@60 |
| The product weight | | About 0.5kg |
| Maximum power dissipation | | 25W |

## PMAX-IN DU-DVI2

### Dual-link DVI input card

### Features

- 2 channels DVI-D dual link interface, 2 3.5mm audio sockets.
- Maximum input distance: 35m.
- Support hot-swap, and audio video signal synchronized switching.
- Support receiving video from static IP address, and automatic searching network encoding devices.
- Support analog audio input.
- Support EDID reading function.
- Maximally supported resolution: 4K×2K@30.

### Specifications

| The parameter name | | PMAX-IN DU-DVI2 |
|---|---|---|
| Protocol | DVI1.0 protocol | |
| Video | Gain | 0 dB |
| | Pixel bandwidth | 165MHz, full digital |
| | Interface bandwidth | 4.5Gbps, full-digital<br>(total 13.5Gbps, each color 4.5Gbps) |
| | Maximum support resolution | 4K×2K@30 |
| | Clock Jitter | <0.15 Tbit |
| | Rise time | <0.3Tbit (20%--80%) |
| | Fall time | <0.3Tbit (20%--80%) |
| | Maximum transmission delay | 5nS(±1nS) |
| | Connector | 2 channels DVI-D dual link interface<br>2 channels 3.5mm audio jacket |
| | Signal strength | T.M.D.S. +/- 0.4Vpp |
| | Minimum / maximum level | T.M.D.S. 2.9V/3.3V |
| | Impedance | 50 Ω |
| | EDID | N/A |
| | Maximum DC offset error | 15mV |
| | Recommended maximum input/ output distance | Output less than 35 meters(4Kx2K@30Hz), recommend use certified DVI special wire such as Molex TM wire. |
| The product weight | | About 0. 5kg |
| Maximum power dissipation | | 15W |

## PMAX-IN CVBS16

### CVBS COMPONET input card

### Features

- 16 channels CVBS interface, 4 analog audio interfaces.
- Support 4 channels CVBS being integrated into 1 channel SD or HD output.
- Support hot-swap, and audio video signal sychronized switching.
- Support NTSC(M), PAL(B, D, G, H, I, M).

### Specifications

| The parameter name | | PMAX-IN CVBS16 |
|---|---|---|
| Connector | 2 DB25 female interface (come with DB25 converting cable: RCA video female interface); 4 3.5mm audio jacket | |
| Video | Gain | 0dB |
| | Bandwidth | 150MHz @ -3dB |
| | Format | NTSC, PAL (480i/NTSC,576i/PAL) |
| | Differential phase error | 0.1°, 3.58-4.43 MHz |
| | Differential gain error time | 0.1%, 3.58-4.43 MHz |
| | Switching speed | 200 ns(Maximum time length) |
| | Signal formats | Composite video (CVBS), analog audio |
| | Min/Max level | Analog signal: -2V/+2V |
| | Impedance | 75 Ω |
| | Return loss | <-30dB@5MHz |
| The product weight | | About 0. 5KG |
| Maximum power dissipation | | 15W |

## PMAX-OUT HDMI4

### HDMI output card

### Features

- Support 4 HDMI-A seamless output connectors; 4 3.5mm audio sockets.
- Support image splicing function.
- Maximum output distance is up to 7 meters.
- Support hot-swapping function; Support synchronized switching of audio and video signals; Support AUTO DELAY.
- Support EDID reading.
- Compatible with HDMI1.3a standards; HDCP1.3 protocol; and DVI1.0 protocol.
- Maximum supported resolution:
  HDPC: 1920x1200P@60
  HDTV: 1920x1080P@60.

### Specifications

| The parameter name | | PMAX-OUT HDMI4 |
|---|---|---|
| Protocol | HDMI1.3a, HDCP1.3, DVI1.0 | |
| Video | Gain | 0 dB |
| | Pixel bandwidth | 165MHz, full digital |
| | Interface bandwidth | 2.25Gbps, full digital (a total of 6.75Gbps, each color is 2.25Gbps) |
| | Maximum support resolution | HDPC: 1920x1200P@60, HDTV: 1920x1080P@60; |
| | Clock Jitter | 〈0.15 Tbit |
| | Rise time | 〈0.3Tbit (20%--80%) |
| | Fall time | 〈0.3Tbit (20%--80%) |
| | Maximum transmission delay | 5nS(±1nS) |
| | Connector | 4 HDMI-A female connector, 4 3.3mm audio socket |
| | Signal strength | T.M.D.S. +/- 0.4Vpp |
| | Minimum / maximum level | T.M.D.S. 2.9V/3.3V |
| | Impedance | 50 Ω |
| | EDID | N/A |
| | Maximum DC offset error | 15mV |
| | Recommended maximum input/ output distance | Output less than 7 meters (16000x1200@60), recommend use certified DVI |
| The product weight | | About 0. 5KG |
| Maximum power dissipation | | 15W |

## PMAX-OUT DVI4

### DVI output card

### Features

- 4 DVI-I female interfaces, 4 3.5mm audio sockets.
- Maximum output distance is up to 7 meters.
- Support hot-swapping function; Support synchronized switching of audio and video signals;
- Support analog audio output.
- Support EDID reading.
- Output is selectable between DVI and VGA.
- Support DVI1.0 protocol.
- Maximum resolutions supported:
  HDPC: 1920x1200P@60,
  HDTV: 1920x1080P@60.

### Specifications

| The parameter name | | PMAX-OUT DVI4 |
|---|---|---|
| Protocol | DVI1.0 | |
| Video | Gain | 0 dB |
| | Pixel bandwidth | 165MHz, digital/anolog(optional) |
| | Interface bandwidth | 2.25Gbps full digital or 350MHz anolog |
| | Maximum support resolution | HDPC: 1920x1200P@60, HDTV: 1920x1080P@60; |
| | Clock Jitter | 〈0.15 Tbit |
| | Rise time | 〈0.3Tbit (20%--80%) |
| | Fall time | 〈0.3Tbit (20%--80%) |
| | Maximum transmission delay | 5nS(±1nS) |
| | Connector | 4 DVI-I female connectors, 4 3.5mm audio socket |
| | Signal strength | T.M.D.S. +/- 0.4Vpp |
| | Minimum / maximum level | T.M.D.S. 2.9V/3.3V |
| | Impedance | 50 Ω |
| | EDID | N/A |
| | Maximum DC offset error | 15mV |
| | Recommended maximum input/ output distance | Output less than 7 meters(1600x1200@60), recommend use certified DVI special wire such as Molex TM wire. |
| The product weight | | About 0. 5KG |
| Maximum power dissipation | | 15W |

## PMAX-OUT HD4

### HDBaseT output card

### Features

- 4 RJ45 Interfaces; 4 6-PIN phoenix interfaces.
- Maximum output transmission distance up to 100M via CAT5e/6 cable.
- Support hot-swapping function; Support synchronized switching of audio and video signals; Support AUTO DELAY.
- Support EDID reading.
- Compatible with HDBaseT protocols.
- Maximum supported resolutions:
  HDPC: 1920x1200P@60,
  HDTV: 1920x1080P@60.

### Specifications

| The parameter name | | PMAX-OUT HD4 |
|---|---|---|
| Connector | 4 high-speed RJ45 connectors and 4 6-pin phoenix sockets | |
| Input/output of LINK connector | Protocol | HDBaseT protocol |
| | Pixel bandwidth | 165MHz, full digital |
| | Interface bandwidth | 2.25Gbps, full digital (a total of 6.75Gbps, each color is 2.25Gbps) |
| | Maximum support resolution | HDPC: 1920x1200P@60, HDTV: 1920x1080P@60; |
| | Signal type | High speed contrast signal defined in HDBaseT protocol |
| | POC | With POCpower supply function (+48V), when combined with CREATOR CAT5 series transmitters, PMAX-OUT HD4 card can supply power to other devices via a CAT 5e/6 cable. Pay attention to that this card can not be connected with the transmitter which is a POCower supply equipment. |
| | Impedance | 50 Ω |
| | EDID | N/A |
| | Maximum DC offset error | 15mV |
| | Recommended maximum input/ output distance | Less than 100 meters (1600x1200@60), recommend use certified NEXANS CAT5e/6 wire |
| The product weight | | About 0. 5KG |
| Maximum power dissipation | | 22W |

# PMAX-OUT VGA4
## VGA output card

### Features

- 4 DB15 female connectors; 4 3.5mm audio sockets.
- Selectable output signal type for VGA, CVBS and YPbPr.
- Support hot-swapping function; Support synchronized switching of audio and video signals; Support AUTO DELAY.
- Support analog audio output.
- Maximum supported resolution:
  HDPC: 1920x1200P@60,
  HDTV: 1920x1080P@60.

### Specifications

| The parameter name | | PMAX-OUT VGA4 | | |
|---|---|---|---|---|
| Connector | Db15 connector, 3.5mm audio socket | | | |
| Video | Signal type | Composite video (CV) | Component video YPbPr | VGA video |
| | Gain | 0dB | 0dB | 0dB |
| | Bandwidth | 150MHz@ -3dB | 350MHz@ -3dB | 380 MH |
| | Differential phase error | 0.1°,3.58 -4.43 MHz | 0.1°,3.58 -4.43 MHz | —— |
| | Differential gain error | 0.1%,3.58 -4.43 MHz | 0.1%,3.58 -4.43 MHz | —— |
| | Signal strength | 1Vpp: Composite video(CVBS) | 1Vpp: (Y in YPbPr ), 0.3Vpp: (PbPr/CbCr in YPbPr) | 0.63 Vpp ~ 0.9 Vpp |
| | Minimum/maximum level | Analog signal: -2V/+2V | Analog signal: -2V/+2V | RGB signal: 0V/1.0V HV signal: 0V/5.0V |
| | Output impedance | 75 Ω | 75 Ω | 75 Ω |
| | Return loss | <-30dB@ 5MHz | <-30dB@ 5MHz | <-30dB@ 5MHz |
| The product weight | | About 0. 5KG | | |
| Maximum power dissipation | | 20W | | |

# PMAX-OUT SDI4
## SDI output card

### Features

- 4 seamless BNC female connectors; 4 loop-out BNC female connector.
- Support hot-swapping function.
- Support SD/HD/3G SDI signals output.

### Specifications

| The parameter name | | PMAX-OUT SDI4 |
|---|---|---|
| Connector | | 4 BNC connectors, 4 BNC loop-out output |
| Protocol | | SMPTE 425M，SMPTE 424M，SMPTE 292M，SMPTE 259M-C，DVB-ASI |
| Video | Pixel bandwidth | 2.970Gb/s,1.485Gb/s,270Mb/s |
| | Maximum support resolution | 1920x1080P@60 |
| The product weight | | About 0. 5KG |
| Maximum power dissipation | | 20W |

# PMAX-OUT SF4
## Fiber optic output card

### Features

- 4 channel single-core fiber outputs.
- Support hot-swapping function.
- Maximum input signal transmission distance up to 300 meters (multi-mode) with fiber-optic transmitters, or maximum distance of 20 KM (Single-mode).
- Maximum supported resolution:
  HDPC: 1920x1200P@60,
  HDTV: 1920x1080P@60.

### Specifications

| The parameter name | | PMAX-OUT SF4 |
|---|---|---|
| Connector | 4 high-speed single core SC fiber connectors | |
| Video | Fiber connector | SC connector |
| | Fiber type | Multimode/Single mode (selectable) |
| | Wavelength | Multimode 850nm/Single Mode: 1310-1620nm(selectable) |
| | Bandwidth | Positive: 6.25Gbps, reverse：3.125Gbps |
| | Clock Jitter | <0.15 Tbit |
| | Rise time | <0.3Tbit (20%--80%) |
| | Fall time | <0.3Tbit (20%--80%) |
| | Recommended maximum input/ output distance | Less than 300m for Om3 multimode fiber, 2-20km for single mode fiber when in 1920x1080P@60 |
| | Maximum support resolution | HDPC: 1920x1200P@60<br>HDTV：1920x1080P@60 |
| The product weight | | About 0. 5KG |
| Maximum power dissipation | | 20W |

# PMAX-OUT IP4
## IP output card

### Features

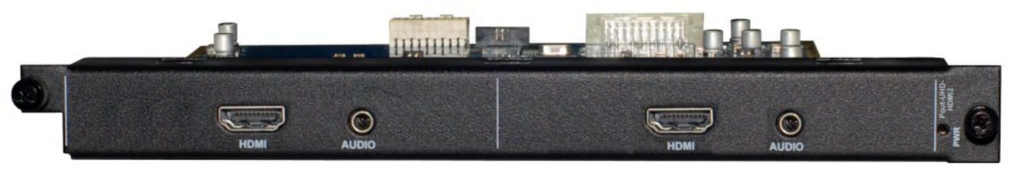
- 4 channels high speed RJ45 interface.
- Maximum 100 meters output distance with Cat5e/Cat6 cables.
- Support web login to configure Network protocols, local network parameters, etc.
- Support receiving video from static IP address, and automatic searching network encoding devices.
- Supported network protocols: RTP, RTCP, TCP, UDP, etc.
- Support ADPCM audio encoding.
- Support commonly used cameras from Hikvision, Dahua, and Huawei.
- Maximally Supported Resolution: 1920x1080P@60Hz.

### Specifications

| The parameter name | | PMAX-OUT IP4 |
|---|---|---|
| Network Protocol | RTP, RTSP, RTCP, TCP, UDP | |
| Video | Network interface bandwidth | 100M |
| | Video Compression | H.264 Main Profile/H.264 Baseline Profile /H.264 High Profile |
| | Audio Compression | ADPCM |
| | Maximum transmission delay | 100ms |
| | IP parameters | Port1 default IP: 192.168.1.100<br>Port2 default IP: 192.168.2.100<br>Port3 default IP: 192.168.1.200<br>Port4 default IP: 192.168.2.200 |
| | Fall time | <0.3Tbit (20%--80%) |
| | Recommended Max Input/Output Distance | 100m |
| | Maximally supported resolution | 1920x1080P@60 |
| The product weight | | About 0.5KG |
| Maximum power dissipation | | 25W |

# PMAX-OUT UHD-HDMI2

## HDMI 4K output card



### Features

- Support 2 channels HDMI-A interface seamless output, 3.5mm audio jacket.
- Maximum output distance up to 7 meters.
- Support hot-swap, and audio video signal synchronized switching.
- Support analog audio and HDMI built-in audio output at the same time.
- Support EDID reading function.
- Maximally Supported Resolution: 4K×2K@30.

### Specifications

| The parameter name | | PMAX-OUT UHD-HDMI2 |
|---|---|---|
| Protocol | HDMI1.4a standards/HDCP1.3 protocol , DVI1.0 protocol | |
| Video | Gain | 0 dB |
| | Pixel bandwidth | 297MHz, full-digita |
| | Interface bandwidth | 4.5Gbps,Full-digital(total 13.5Gbps, each color 4.5Gbps) |
| | Maximum support resolution | 4K×2K@30 |
| | Clock Jitter | <0.15 Tbit |
| | Rise time | <0.3Tbit (20%--80%) |
| | Fall time | <0.3Tbit (20%--80%) |
| | Maximum transmission delay | 5nS(±1nS) |
| | Connector | 2 HDMI interfaces , 2 3.5mm audio jacket |
| | Signal strength | T.M.D.S. +/- 0.4Vpp |
| | Minimum / maximum level | T.M.D.S. 2.9V/3.3V |
| | Impedance | 50 Ω |
| | EDID | N/A |
| | Maximum DC offset error | 15mV |
| | Recommended maximum input/ output distance | Output less than 7 meters(1600x1200@60), recommend use certified DVI special wire such as Molex TM wire. |
| The product weight | | About 0. 5KG |
| Maximum power dissipation | | 20W |

# PJMAX-OUT DVI4

## DVI splicing output card

### Features

- Support 4 DVI-D female output connectors.
- Support image splicing function.
- Maximum output distance is up to 7 meters.
- Support hot-swap function.
- Support EDID reading.
- Support 4 channels DVI seamless output; maximum resolution up to 1920*1200@60HZ; integrated with 4 channels independent audio output.
- 2 windows are supported on one single screen; signals can overlap with each, roam, and be zoomed in any scales.

### Specifications

| The parameter name | | PJMAX-OUT DVI4 |
|---|---|---|
| Protocol | DVI1.0 protocol | |
| Video | Gain | 0 dB |
| | Pixel bandwidth | 165MHz |
| | Interface bandwidth | 2.25Gbps, full digital (total 6.75Gbps, each color 2.25Gbps) |
| | Maximum support resolution | HDPC: 1920x1200P@60, HDTV: 1920x1080P@60; |
| | Clock Jitter | <0.15 Tbit |
| | Rise time | <0.3Tbit (20%--80%) |
| | Fall time | <0.3Tbit (20%--80%) |
| | Maximum transmission delay | 5nS(±1nS) |
| | Connector | 4 DVI-D female connectors, 4 3.5mm audio socket |
| | Signal strength | T.M.D.S. +/- 0.4Vpp |
| | Minimum / maximum level | T.M.D.S. 2.9V/3.3V |
| | Impedance | 50 Ω |
| | EDID | N/A |
| | Maximum DC offset error | 15mV |
| | Recommended maximum input/ output distance | Output less than 7 meters(1600x1200@60), recommend use certified DVI special wire such as Molex TM wire. |
| The product weight | | About 0. 5KG |
| Maximum power dissipation | | 15W |

# PJMAX-OUT DVI2

## DVI splicing output card

### Features

- Support 2 channels DVI-D female interface output.
- Support image splicing function.
- Maximum output distance up to 7 meters.
- Support hot-swap function.
- Support EDID reading function.
- Support 2 channels DVI image splicing output; maximally supported resolution: 1920*1200@60Hz.
- 4 windows are supported on one single screen; signals can overlap with each, roam, and be zoomed in any scales.

### Specifications

| The parameter name | | PJMAX-OUT DVI2 |
|---|---|---|
| Protocol | DVI1.0 protocol | |
| Video | Gain | 0 dB |
| | Pixel bandwidth | 165MHz |
| | Interface bandwidth | 2.25Gbps, full digital (a total of 6.75Gbps, each color is 2.25Gbps) |
| | Maximum support resolution | HDPC: 1920x1200P@60, HDTV: 1920x1080P@60; |
| | Control scale | One machine can control maximally 144 screen and multiple groups of screens, supports 128 presets saving and fast recall |
| | Clock Jitter | <0.15 Tbit |
| | Rise time | <0.3Tbit (20%--80%) |
| | Fall time | <0.3Tbit (20%--80%) |
| | Maximum transmission delay | 5nS(±1nS) |
| | Connector | 2 DVI-I female connectors, |
| | Signal strength | T.M.D.S. +/- 0.4Vpp |
| | Minimum / maximum level | T.M.D.S. 2.9V/3.3V |
| | Impedance | 50 Ω |
| | EDID | N/A |
| | Maximum DC offset error | 15mV |
| | Recommended maximum input/ output distance | Output less than 7 meters(1600x1200@60), recommend use certified DVI special wire such as Molex TM wire. |
| The product weight | | About 0. 5KG |
| Maximum power dissipation | | 15W |

# PJMAX-OUT HD4

## HDBaseT splicing output card

### Features

- 4 high-speed RJ45 output connectors, 4 6-PIN phoenix connectors.
- Support videowall signal processing function.
- Maximum transmission distance can up to 100M with CAT5e/6 cable.
- Support Hot-swap function; Support synchronized switching of audio and video signals; Support AUTO DELAY.
- Support EDID Reading function.
- Compatible with HDBaseT protocol.
- Support 4 HDBaseT seamless outputs, the RS-232 and IR connectors are embed on card.
- The maximum output resolution can up to 1920*1200@60Hz when cooperated with CR-UCAT5 HDMI 4KR, and transmitting distance can be up to 100m.
- Supply power to distant transmitters with an optional POC power supply.

### Specifications

| The parameter name | | PJMAX-OUT HD4 |
|---|---|---|
| Connector | 4 high-speed RJ45 connectors and 4 6-pin phoenix sockets | |
| Input/output of LINK connector | Protocol | HDBaseT protocol |
| | Pixel bandwidth | 165MHz, full digital |
| | Interface bandwidth | 2.25Gbps, full digital (a total of 6.75Gbps, each color is 2.25Gbps) |
| | Maximum support resolution | HDPC: 1920x1200P@60, HDTV: 1920x1080P@60; |
| | Signal type | High speed contrast signal defined in HDBaseT protocol |
| | POC | With POC power supply function (+48V), when combined with CREATOR CAT5 series transmitters, PMAX-OUT HD4 card can supply power to other devices via a CAT 5e/6 cable. Pay attention to that this card can not be connected with the transmitter which is a POC power supply equipment. |
| | Impedance | 50 Ω |
| | EDID | N/A |
| | Maximum DC offset error | 15mV |
| | Recommended maximum input/ output distance | Less than 100 meters (1600x1200@60), recommend use certified NEXANS CAT5e/6 wire |
| The product weight | | About 0. 5KG |
| Maximum power dissipation | | 22W |

## PJMAX-OUT HD2
### HDBaseT splicing output card

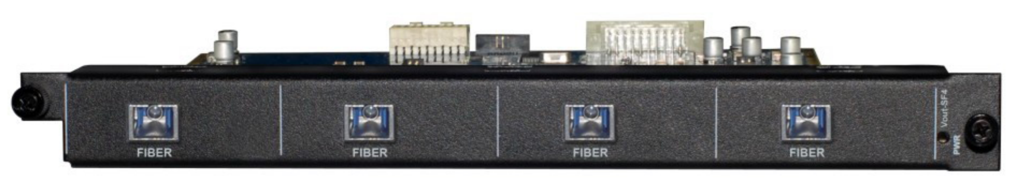
### Features

- 2 channels high speed RJ45 interface output, 2 channels 6PIN Phoenix Interface.
- Support image splicing function.
- Maximum 100 meters output distance with Cat5e/Cat6 cables.
- Support hot-swap function.
- Support IR serial port output; I/O switching card optional; support IR serial port switching.
- Compatible with HDBaseT protocol.
- Support POC power supply: needs to work with POC power supply and only available for models with 3636 or bigger size.
- Support 2 channels twisted pair image splicing output; support onboard RS232, IR interfaces
- 4 windows are supported on one single screen; signals can overlap with each, roam, and be zoomed in any scales.

### Specifications

| The parameter name | | PJMAX-OUT HD2 |
|---|---|---|
| Connector | | 2 high speed RJ45 socket and 2 6-PIN phoenix jacket |
| Input/output of LINK connector | Protocol | HDBaseT protocol |
| | Pixel bandwidth | 165MHz, full digital |
| | Interface bandwidth | 2.25Gbps, full digital (a total of 6.75Gbps, each color is 2.25Gbps) |
| | Maximum support resolution | HDPC: 1920x1200P@60, HDTV: 1920x1080P@60; |
| | Control scale | One machine can maximally control 144 screens and multiple groups of screens; supports 128 presets saving and fast recall |
| | Signal type | High speed contrast signal defined in HDBaseT protocol |
| | POC | Support PoC (+48V): the PoC function is only available when working with CREATOR CAT5 sereis transmitters, the input interface of this card cann provide power supply via network cable. Note: this card cannot work with receiving devices that have PoC power supply |
| | Impedance | 50 Ω |
| | EDID | N/A |
| | Maximum DC offset error | 15mV |
| | Recommended maximum input/ output distance | Less than 100 meters (1600x1200@60), recommend use certified NEXANS CAT5e/6 wire |
| The product weight | | About 0. 5KG |
| Maximum power dissipation | | 22W |

## PJMAX-OUT SF4
### Fiber optic splicing output card



### Features

- 4 single-core fiber-optic outputs.
- Support videowall signal processing function.
- Support hot-swapping function.
- Support 4 single-core fiber-optic seamless outputs; maximum supported resolution is up to 1920*1200@60HZ when working with CR-uSF COMP 300R.
- Working with the fiber-optic transmitters can realize maximum 300 meters (multi-mode) or 20 kilometers (single-core) transmission distance.
- Support 2 windows on 1 single screen; signals can be overlapped, roamed, and displayed in random scale.

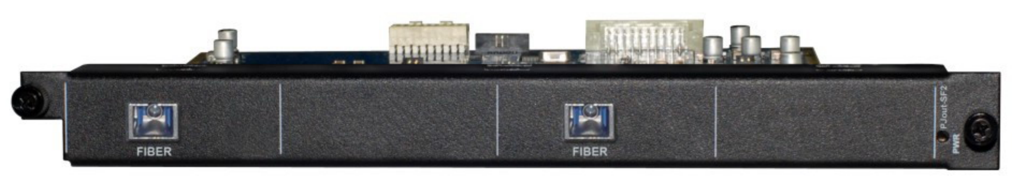
### Specifications

| The parameter name | | PJMAX-OUT SF4 |
|---|---|---|
| Connector | | 4 high-speed single core SC fiber connectors |
| Video | Fiber connector | SC connector |
| | Fiber type | Multimode/Single mode (selectable) |
| | Wavelength | Multimode 850nm/Single Mode: 1310-1620nm(selectable) |
| | Bandwidth | Forward: 6.25Gbps, backward：3.125Gbps |
| | Clock Jitter | ＜0.15 Tbit |
| | Rise time | ＜0.3Tbit (20%--80%) |
| | Fall time | ＜0.3Tbit (20%--80%) |
| | Recommended maximum input/ output distance | Less than 300m for Om3 multimode fiber, 2-20km for single mode fiber when in 1920x1080P@60 |
| | Maximum support resolution | HDPC: 1920x1200P@60 HDTV：1920x1080P@60 |
| The product weight | | About 0. 5KG |
| Maximum power dissipation | | 20W |





## PJMAX-OUT SF2
### Fiber optic splicing output card



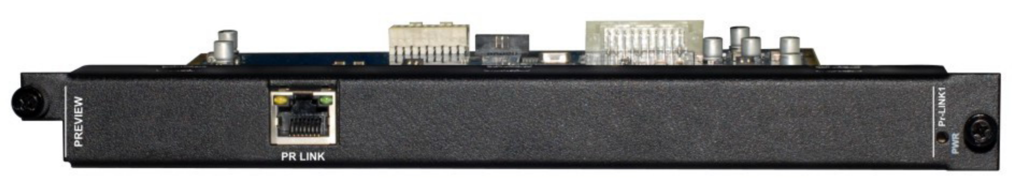
### Features

- 2 single-core fiber optic output.
- Support image splicing function.
- Support hot-swapping function.
- Working with fiber optic transmitter to realize 300 meters (multi-mode) or maximum 20Km (single mode) transmission distance.
- Optional I/O switching card to realize IR serial port switching.
- Support 2 channels single-core fiber optic seamless output; maximally supported resolution: 1920*1200@60Hz; working with CR-uSF COMP 300R to realize 300 meters (multi-mode) or maximum 20Km (single mode) transmission distance.
- 4 windows are supported on one single screen; signals can overlap with each, roam, and be zoomed in any scales.

### Specifications

| The parameter name | | PJMAX-OUT SF2 |
|---|---|---|
| Connector | | 2 SC fiber optic interfaces |
| Video | Fiber connector | SC connector |
| | Fiber type | Multimode/Single mode (selectable) |
| | Wavelength | Multimode 850nm/Single Mode: 1310-1620nm(optional) |
| | Bandwidth | Forward: 6.25Gbps, backward：3.125Gbps |
| | Clock Jitter | ＜0.15 Tbit |
| | Rise time | ＜0.3Tbit (20%--80%) |
| | Fall time | ＜0.3Tbit (20%--80%) |
| | Recommended maximum input/ output distance | Less than 300m for Om3 multimode fiber, 2-20km for single mode fiber when in 1920x1080P@60 |
| | Maximum support resolution | HDPC: 1920x1200P@60 HDTV: 1920x1080P@60 |
| | Control scale | One machine can maximally control 144 screens and multiple groups of screens; Supports 128 presets saving and fast recall. |
| The product weight | | About 0. 5KG |
| Maximum power dissipation | | 20W |

## PMAX-PR LINK
### Pre-view card



### Features

- 1 RJ45 pre-view output; support grouped pre-view of 4 video image at the same time.
- Resolution for each channel of signal is up to 1080p@30fps or 720p@30/60fps.
- Support H.264&JPEG Multi-stream encoding; Frame Rate: 1/16~60fps.
- Support hot-swapping function.
- Support video switching control pre-view.

## PMAX-Con ETN4

**Control card**

### Features

- 2 DB9 fully-functional serial ports; Support controlling and receiving commands from various peripheral equipments; support data forwarding.
- 1 Rj45 conneector to connect to PC management software for controlling, and searching functions.
- 1 4-PIN phoenix keyboard connector for external keypad connection to control the equipments.

## PMAX-Con ETN5

**Advanced control card**

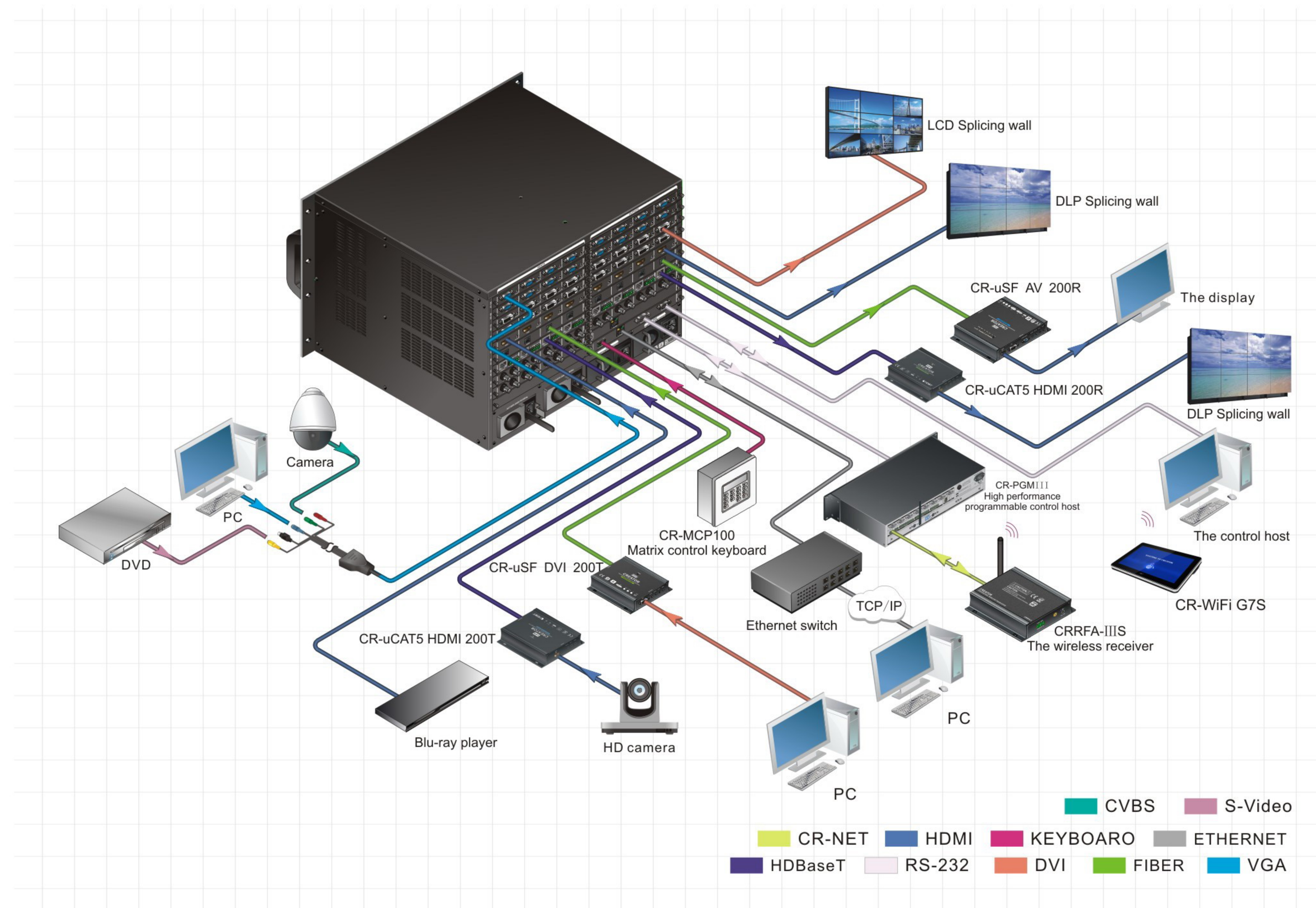
### Features

- 2 DB9 fully-functional serial ports; Support controlling and receiving commands from various peripheral equipments; Support data forwarding.
- 1 RJ45 connector to realize downloading, updating the control programming and information inquiry.
- Support 1 4P phoenix keyboard connector for external keypad connection to control the equipment.
- Embed 1 3P phoenix debugging serial port to output and debug the print information.
- Support hot-swapping function.
- Support programmable control.





### System connection diagram

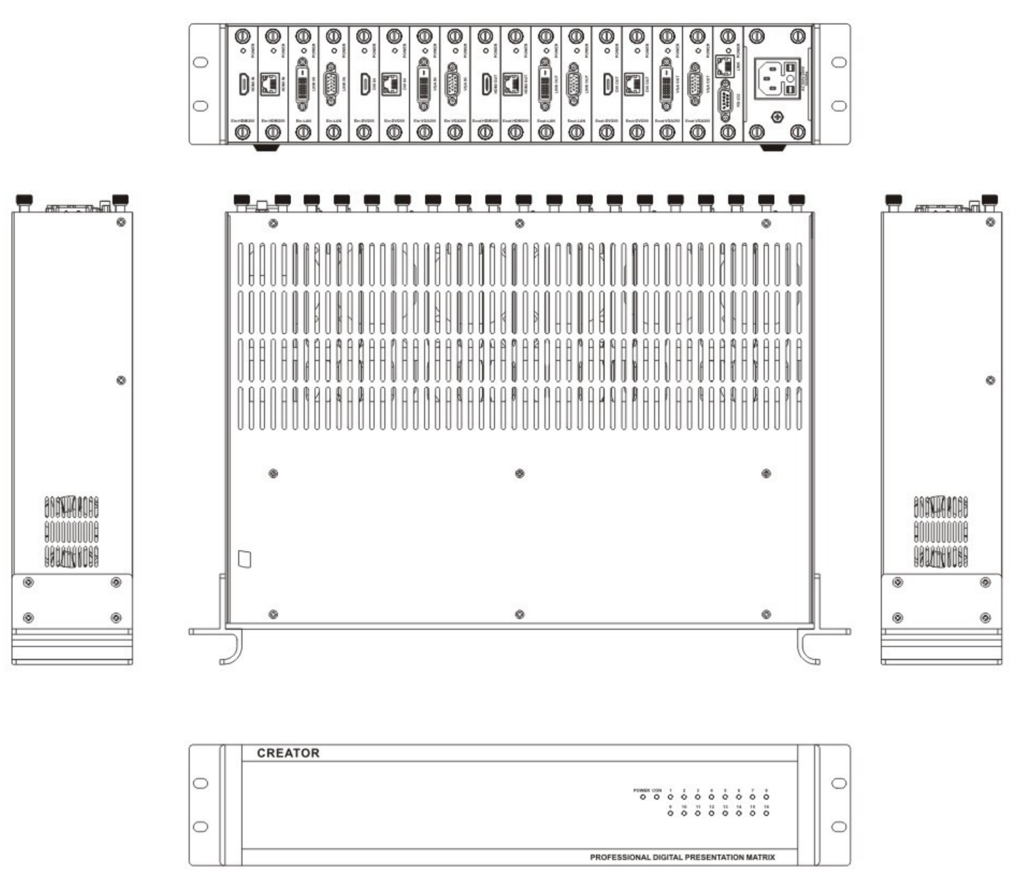


# CR-EC-ANY16-Ⅱ

## 16 channel modular matrix

CR-EC-ANY16-Ⅱ empty chassis

CR-EC-ANY16-Ⅱ



Size: (mm)
483(L) ×304(W)×88.1(H)

### Product overview

CR-EC-ANY16-Ⅱ is a digital seamless integrated modular matrix switcher, which supports inputs and outputs for signals of HDMI/DVI/VGA/SDI/YPbPr/CVBS. For traditional matrix switchers' applications, the switchers' input and output interfaces cannot be modified according to the actual requirements, which is a waste of the interfaces, and a huge limitation to the projects. What's more, during the switching operations, the crack, jittering, and black screen that happen a lot to the traditional matrix switcher cannot satisfy the requirements of high end customers and complicate projects anymore. To solve these problems with the concept of simplifying system integration and catering to high end application projects, CREATOR has launched the ANY series matrix switcher. With them, the user can configure his own input/output channels, and have crackles, jitter-less, and no black screen operations.

### Features

- Integrated HDMI/DVI/VGA/YPbPr/CVBS input on DVI-I input interface.
- Integrated HDMI/DVI/VGA/YPbPr/CVBS input on DVI-I output interface.
- Leading full-digital signal processing technology applied to ensure the lossless process of the signals, and to eliminate crack, jittering, and black screen.
- Support input frequency multiplying, scaler.
- Support analog audio input/output;.
- Support online firmware update.
- Modular design enables flexible configuration, the user can switch and transmit multiple types of audio video signals as needed.
- Support TCP/IP network control, serial port control, and external keyboard control.
- Random combinations of input and output interfaces.
- The network input output card can work with CR-uEC COMP 300T/R transmitter to realize KVM function.

### Specifications

| Parameter name | | CR-EC-ANY16-Ⅱ |
|---|---|---|
| Interface | Input slot | 1-15 |
| | Output slot | 1-15 |
| | Control slot | 1 |
| | Power slot | 1 |
| | Supported input card | Ein-DVI-I300, Ein-SDI300, Ein-LAN |
| | Supported output card | Eout-DVI-I300, Eout-SDI300, Eout-LAN |
| | Support control card | Con-ETN20 |
| Keyboard control | Control interface | 3.8mm phoenix interface |
| | Protocol | RS485 protocol |
| | Keyboard model | CR-MCP100 |
| Serial port control | Serial control interface | RS-232, 3.5mm earphone socket |
| | Baud rate and protocol | Baud rate : 9600 Data bit : 8<br>Stop Bit : 1 , no parity check |
| | Serial control card definition | 2=TX,3=RX,5=GND |

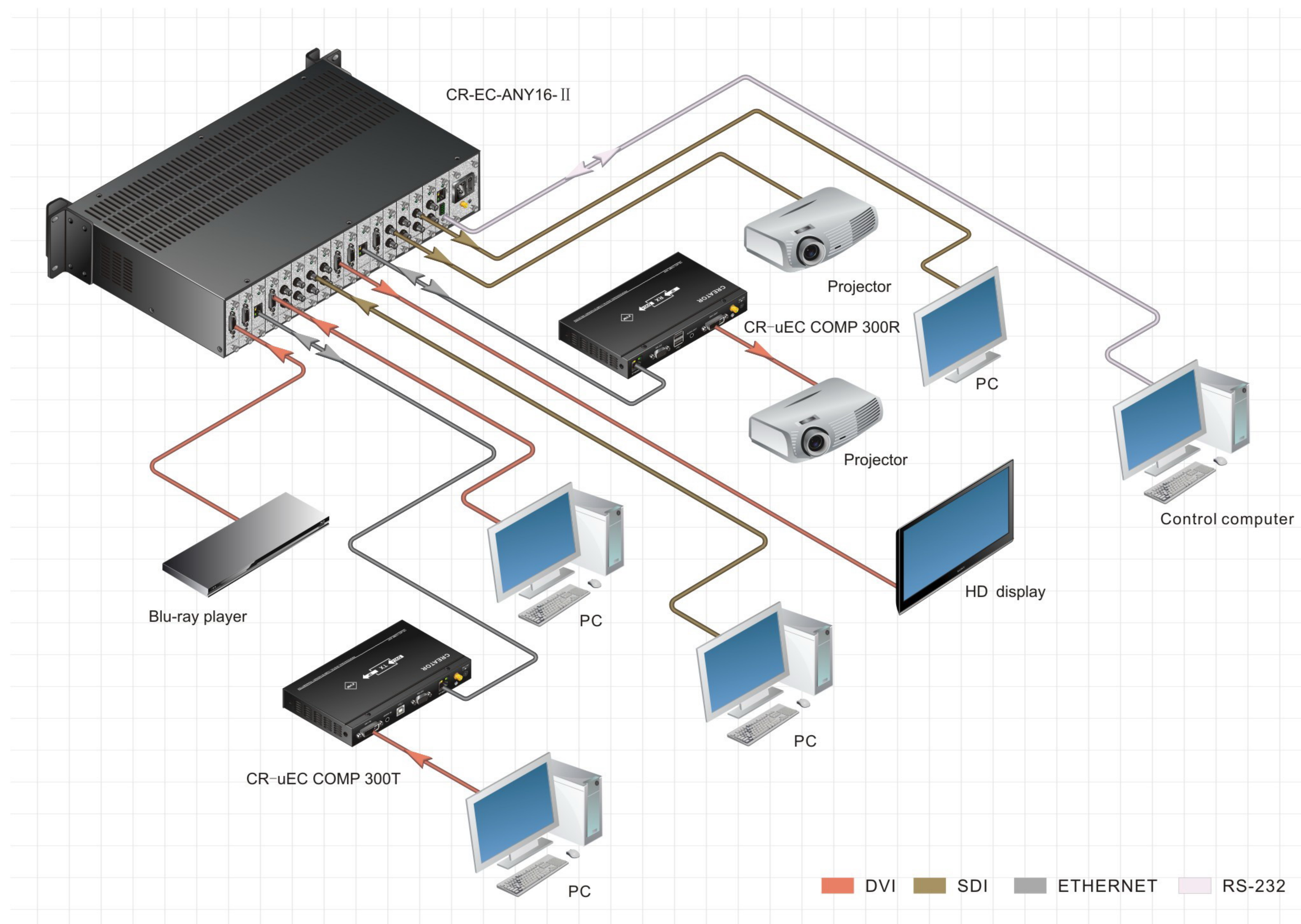




### Specifications

| Parameter name | | CR-EC-AN16-Ⅱ |
|---|---|---|
| Ethernet Control | Ethernet control interface | RJ45 |
| | Ethernet control protocol | TCP/IP |
| | Ethernet control speed | Self-adaptive 10M/100M |
| Specifications | Power supply | 100VAC-240VAC,50/60HZ |
| | Maximum power consumption | 130W |
| | Temperature | Working temperature：0℃ ~ +50℃ Storage temperature：-20℃ ~ +70℃ |
| | Humidity | Operating humidity/Storage humidity：10%~90% |
| | Mean time between failures | 30,000 hours |
| | Warranty | 1 year free warranty, life-long maintenance |

### System connection diagram

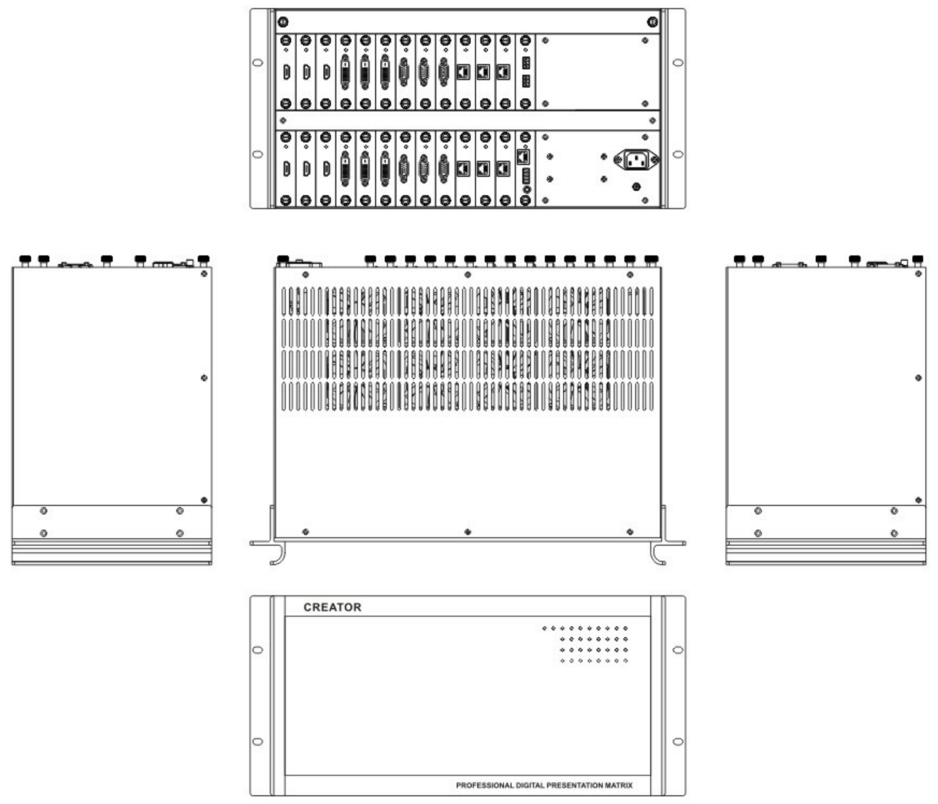


# CR-EC-ANY24-Ⅱ

## 24 channel modular matrix

CR-EC-ANY24-Ⅱ empty chassis

CR-EC-ANY24-Ⅱ



Size: （mm）
483(L) ×304(W)×221.5(H)

### Product overview

The CR-EC-ANY24-II is the second generation audio video seamless integrated modular matrix switcher, which supports inputs and outputs for signals of HDMI/DVI/VGA/SDI/YPbPr/CVBS. For traditional matrix switchers' applications, the switchers' input and output interfaces cannot be modified according to the actual requirements, which is a waste of the interfaces, and a huge limitation to the projects. What's more, during the switching operations, the crack, jittering, and black screen that happen a lot to the traditional matrix switcher cannot satisfy the requirements of high end customers and complicate projects anymore. To solve these problems with the concept of simplifying system integration and catering to high end application projects, CREATOR has launched the ANY series digital seamless integrated modular matrix switcher. With them, the user can configure his own input/output channels, and have crackles, jitter-less, and no black screen operations.

### Features

- Integrated HDMI/DVI/VGA/YPbPr/CVBS input on DVI-I input interface.
- Integrated HDMI/DVI/VGA/YPbPr/CVBS input on DVI-I output interface.
- Leading full-digital signal processing technology applied to ensure the lossless process of the signals, and to eliminate crack, jittering, and black screen.
- Support input frequency multiplying, scaler.
- Support analog audio input/output;.
- Support online firmware update.
- Modular design enables flexible configuration, the user can switch and transmit multiple types of audio video signals as needed.
- Support TCP/IP network control, serial port control, and external keyboard control.
- Random combinations of input and output interfaces.
- The network input output card can work with CR-uEC COMP 300T/R transmitter to realize KVM function.

### Specifications

| Parameter name | | CR-EC-ANY24-Ⅱ |
|---|---|---|
| Interface | Input slot | 1-23 |
| | Output slot | 1-23 |
| | Control slot | 1 |
| | Power slot | 1 |
| | Supported input card | Ein-DVI-I300, Ein-SDI300, Ein-LAN |
| | Supported output card | Eout-DVI-I300, Eout-SDI300, Eout-LAN |
| | Support control card | Con-ETN20 |
| Keyboard control | Control interface | 3.8mm phoenix interface |
| | Protocol | RS485 protocol |
| | Keyboard model | CR-MCP100 |
| Serial port control | Serial control interface | RS-232, 3.5mm earphone socket |
| | Baud rate and protocol | Baud rate : 9600 Data bit : 8<br>Stop Bit : 1 , no parity check |
| | Serial control card definition | 2=TX,3=RX,5=GND |

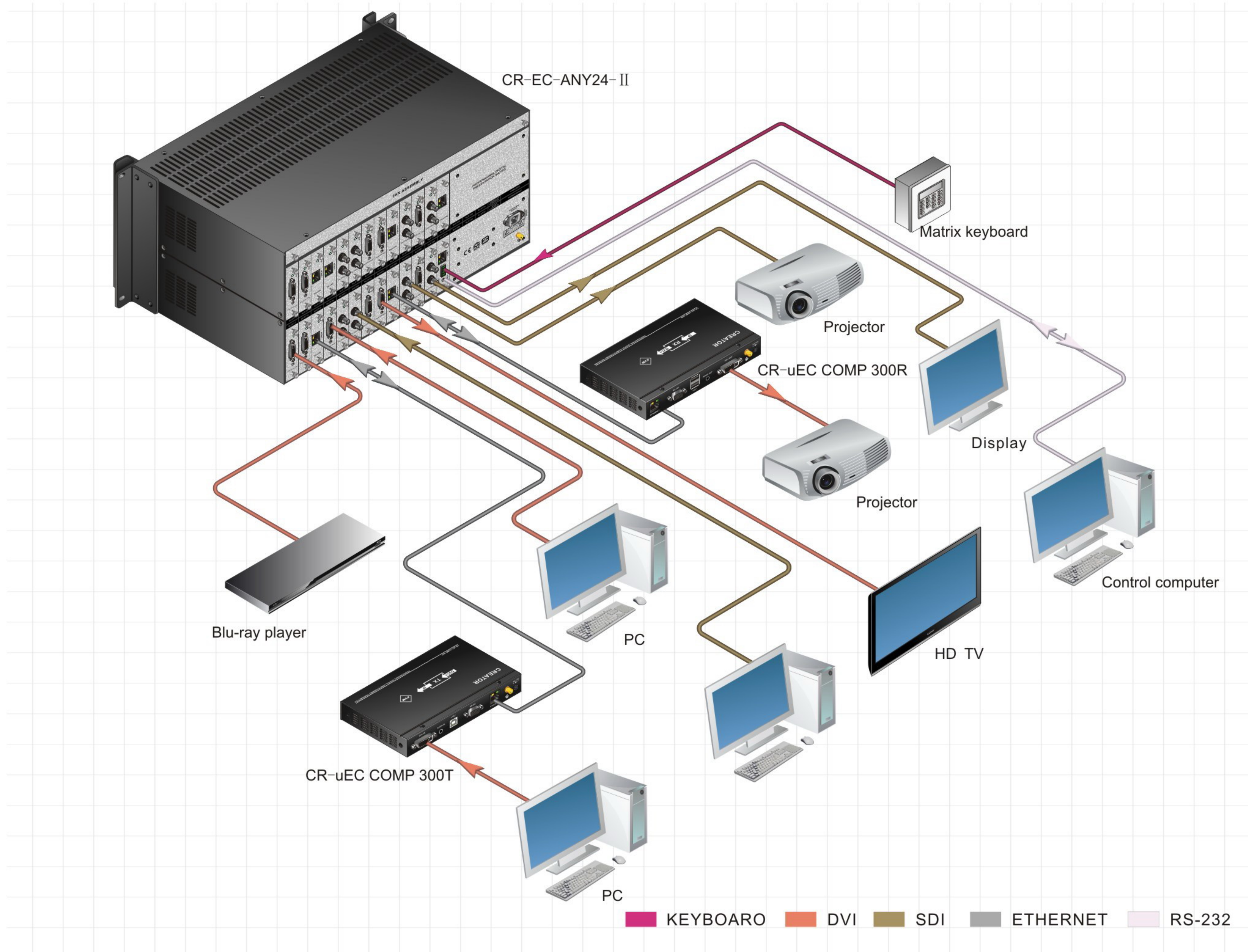




### Specifications

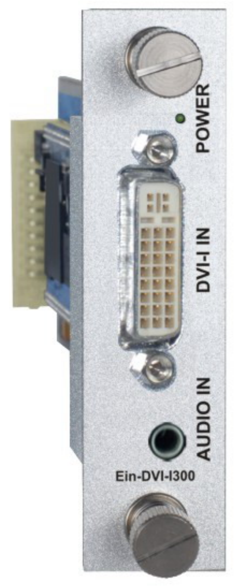
| Parameter name | | CR-EC-ANY24-Ⅱ |
|---|---|---|
| Ethernet Control | Ethernet control interface | RJ45 |
| | Ethernet control protocol | TCP/IP |
| | Ethernet control speed | Self-adaptive 10M/100M |
| Specifications | Power supply | 100VAC-240VAC,50/60HZ |
| | Maximum power consumption | 250W |
| | Temperature | Working temperature：0℃ ~ +50℃ Storage temperature：-20℃ ~ +70℃ |
| | Humidity | Operating humidity/Storage humidity：10%~90% |
| | Mean time between failures | 30,000 Hours |
| | Warranty | 1 year free warranty, life-long maintenance |

### System connection diagram



# Ein-DVI-I300

## DVI input card




### Product overview

Ein-DVI-I300 is an input card that supports multiple video formats: CV、YPbPr、VGA、DVI、HDMI, and analog audio signals;

### Specifications

| Parameter name | | Ein-DVI-I300 |
|---|---|---|
| DVI video input | Signal type | DVI digital signal |
| | Interface | DVI-I interface |
| | Supported protocol | DVI1.0 EDID1.4 |
| | Bandwidth | 2.25Gbps,full-digital (Total 6.75Gbps, each color 2.25Gbps) |
| | Impedance | Differential 100Ω |
| | Signal Strength | T.M.D.S +/-0.4Vpp |
| | Min/Max Level | T.M.D.S 2.9 V/3.3V |
| | Supported input resolution | 800 x 600@60Hz; 1024 x 768@60Hz; 1280 x 800@60Hz; 1280 x 1024@60Hz; 1366 x 768@60Hz; 1400 x 1050@60Hz; 1440 x 900@60Hz; 1600 x 900@60Hz; 1600 x 1200@60Hz; 1680 x 1050@60Hz; 1920 x 1200@60Hz; 1280 x 720@60Hz; 1920 x 1080@60Hz (factory settings) |
| VGA video input | Signal type | RGBHV |
| | Interface | The DB15 female connector |
| | Bandwidth | 350MHz@-3dB |
| | Impedance | 75 Ω |
| | Support the input resolution | 800X600@60Hz，1024X768@60Hz，1280x800@60Hz，1280x1024@60Hz，1280x768@60Hz，1280X1050@60Hz，1920X1200@60Hz，1280X720@60Hz，1920X1080@60Hz |
| YUV video input | Signal type | Component video（YPbPr/YCbCr） |
| | Interface | DB15 male connector connected to RCA female connector |
| | Bandwidth | 150MHz@-3dB |
| | Minimum / maximum level | -2V/+2V |
| | Impedance | 75 Ω |
| CVBS video input | Signal type | Composite Video(CVBS) |
| | Interface | DB15 male interface convert to RCA female interface (customized cable) |
| | Format | NTSC, PAL |
| | Signal Strength | 1V pp :Composite Video (CVBS) |
| | Min/Max Level | -2V/+2V |
| | Impedance | 75 Ω |
| Specifications | Power | ≤8W |
| | Temperature | Working temperature：0℃ ~ +50℃ Storage temperature：-20℃ ~ +70℃ |
| | Humidity | Operating humidity、Storage humidity：10%~90% |
| | Mean time between failures | 30,000 Storage humidity |
| | Warranty | 1 year free warranty, life-long maintenance |





# Ein-SDI300

## SDI input card


### Product overview

Ein-SDI300 is a input card that supports 3G HD-SDI digital signal

### Specifications

| Parameter name | | Ein-SDI300 |
|---|---|---|
| SDI video input | Signal type | HD-SDI, 3G-SDI |
| | Interface | BNC female interface |
| | Impedance | 75 Ω |
| | Bandwidth | 1.4835Gbps, 485Gbps,2.967Gbps, 2.97Gbps |
| | Supported protocol | SMPTE 292M / SMPTE 424M |
| | Signal strength | 0.8 Vpp ± 10% |
| | Minimum / maximum level | 0.5 V to 1.0 Vpp |
| | Support the input resolution | 1280x720@50Hz; 1280x720@60Hz; 1920x1080@25Hz; 1920x1080@30Hz; 1920x1080i@50Hz;1920x1080i@60Hz; 1920x1080@50Hz;1920x1080@60Hz; (factory settings) |
| Specifications | Power | ≤7W |
| | Temperature | Working temperature：0℃ ~ +50℃ Storage temperature：-20℃ ~ +70℃ |
| | Humidity | Operating humidity、Storage humidity：10%~90% |
| | Mean time between failures | 30,000 Storage humidity |
| | Warranty | 1 year free warranty, life-long maintenance |

# Ein-LAN

## IP input card


### Product overview

Ein-LAN is a network information receiving card. Working with ANY series sender, it can put the remote signal into the modular matrix.

# Eout-DVI-I300

## DVI output card

### Product overview

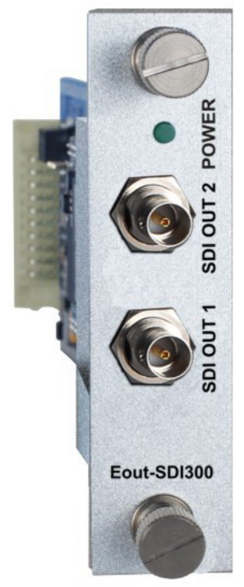
Eout-DVI-I300 is an output card that supports multiple video formats: CV、YPbPr、VGA、DVI、HDMI, and analog audio signal;

### Specifications

| Parameter name | | Eout-DVI-I300 |
|---|---|---|
| DVI video output | Signal type | DVI digital signal |
| | Interface | DVI-I interface |
| | Supported protocol | DVI1.0 EDID1.4 |
| | Support the output resolution | 800x600@60Hz，1024x768@60Hz，1280x720@60Hz，1280x768@60Hz，1280x800@60Hz，1280x960@60Hz，1280x1024@60Hz，1600x1200@60Hz，1920x1080@60Hz |
| VGA video output | Signal type | RGBHV |
| | Interface | The DB15 female interface |
| | Bandwidth | 350MHz@-3dB |
| | Impedance | 75 Ω |
| | Supported output resolution | 800X600@60Hz，1024X768@60Hz，1280x720@60Hz，1280x768@60Hz，1280x800@60Hz，1280X960@60Hz，1280X1024@60Hz，1600X1200@60Hz，1920X1080@60Hz |
| YUV video output | Signal type | Component video（YPbPr/YCbCr ） |
| | Interface | DB15 male interface convert to RCA female interface(customized cable) |
| | Bandwidth | 150MHz@-3dB |
| | Minimum / maximum level | -2V/+2V |
| | Impedance | 75 Ω |
| CVBS video output | Signal type | Composite Video(CVBS) |
| | Interface | DB15 male interface convert to RCA female interface(customized cable) |
| | Format | NTSC, PAL |
| | Signal Strength | 1V pp :Composite Video (CVBS) |
| | Min/Max Level | -2V/+2V |
| | Impedance | 75 Ω |
| | Supported Video output formats | 480i / NTSC 576i / PAL |
| Specifications | Power consumption | ≤8W |
| | Temperature | Working temperature：0℃ ~ +50℃<br>Storage temperature：-20℃ ~ +70℃ |
| | Humidity | Operating humidity、Storage humidity：10%~90% |
| | Mean time between failures | 30,000 Storage humidity |
| | Warranty | 1 year free warranty, life-long maintenance |

# Eout-SDI300

## SDI output card



### Product overview

Eout-SDI300 is a SDI signal output card.

### Specifications

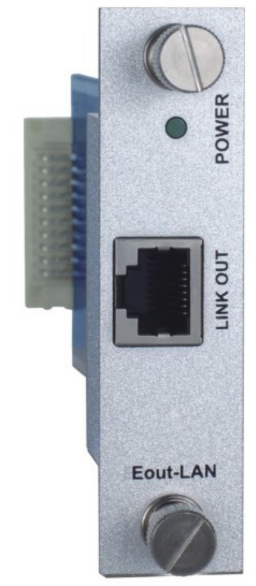
| Parameter name | | Eout-SDI300 |
|---|---|---|
| SDI video output | Signal type | HD-SDI, 3G-SDI |
| | Interface | BNC female interface |
| | Impedance | 75 Ω |
| | Bandwidth | 1.485Gbps, 2. 97Gbps |
| | Supported protocol | SMPTE 292M / SMPTE 424M |
| | Signal strength | 0.8 Vpp ± 10% |
| | Minimum / maximum level | 0.5 V to 1.0 Vpp |
| | Support the input resolution | 1280x720@50Hz; 1280x720@60Hz; 1920x1080@25Hz; 1920x1080@30Hz; 1920x1080i@50Hz;1920x1080i@60Hz; 1920x1080@50Hz;1920x1080@60Hz; (factory settings) |
| Specifications | Power | ≤7W |
| | Temperature | Working temperature：0℃ ~ +50℃<br>Storage temperature：-20℃ ~ +70℃ |
| | Humidity | Operating humidity、Storage humidity：10%~90% |
| | Mean time between failures | 30,000 Storage humidity |
| | Warranty | 1 year free warranty, life-long maintenance |





# Eout-LAN

## IP output card



### Product overview

Eout-LAN is a network information sending card. Working with ANY series receiver, it can put the modular matrix video signal to a remote display terminal.

# Power card

### Product overview

CR-EC-ANY16 Power Supply：AC100V-240V 50/60Hz.

# Con-ETN20

## Control card

### Product overview

Con-ETN20 is the control card of ANY series modular matrix .

### Specifications

| Parameter name | | Con-ETN20 |
|---|---|---|
| Serial port control | Serial control interface | RS-232, 3.5mm earphone socket |
| | The baud rate and protocol | Baud rate：9600 Data bits：8<br>Stop bit：1， No parity |
| | Structure of serial control card | 2=TX,3=RX,5=GND |
| Keyboard control | Control interface | 3.5mm earphone socket |
| | Protocol | Rs485 protocol |
| | Keyboard model | CR-MCP100 |
| Ethernet control | Ethernet control interface | RJ-45 |
| | Ethernet Control Protocol | TCP/IP |
| | Ethernet control rate | Adaptive 10M/100M |
| Specifications | Power | ≤1.5W |
| | Temperature | Working temperature：0℃ ~ +50℃<br>Storage temperature：-20℃ ~ +70℃ |
| | Humidity | Operating humidity/Storage humidity：10%~90% |
| | Mean time between failures | 30,000 Hours |
| | Warranty | 1 year free warranty, life-long maintenance |

# Power card

### Product overview

CR-EC-ANY16 Power Supply：AC100V-240V 50/60Hz.

# DVI-102DA

## DVI distributor

DVI-102DA

### Product overview

The DVI-102DA distributor can transmit 1 DVI signal source image to a remote terminal digital display device with two-way DVI/H DMI interface.

In the DVII.0 standard, the highest signal transmission rate up to 1.65Gbps; in the HDMI L.3 standard, intermediate signal transmission rate up to 2.25Gbps. Support cascading application, it can combine with matrix DVI to establish a set of HDMI matrix system, or a DVI matrix system supporting HDCP.

### Features

- Supported resolution
  NormalPC: 1600x1200@60Hz, HDCP: 1920x1200@60Hz_24bit,
  HDTV: 1920x1080@60Hz_36bit
- Support DVI I.0 HDMI protocol, L.3 protocol, HDCPI.3 protocol.
- With EDID read and write, power-down memory functions.
- Support 1 DVI-D (HDMI, need the adapter) female terminal input.
- Support 2 DVI-D (HDMI, need the adapter) female terminal output.
- The DVI/HDMI signal input transmission distance up to 20 meters.
- DVI signal output transmission distance up to 7 meters.
- HDMI signal output transmission distance up to 10 meters.
- Input supports plug-and-play function of Windows system.
- DC 12V power adapter, with power indicator lamp.

### Specifications

| The parameter name | | DVI-102DA |
|---|---|---|
| HDMI video input | Supported protocols | HDMI1.3a, DVI1.0, HDCP1.3, x.v.Color, TrueHD, DTS-HD |
| | PIXEL bandwidth | 165MHz, Full digital |
| | Interface bandwidth | 2.25Gbps |
| | Maximum supported resolution | NomalPC:1600x1200@60_24bit<br>HDPC:1920x1200@60_24bit<br>HDTV :1920x1080P@60_24bitColor depth |
| | Clock jitter | 〈0.15 Tbit |
| | Rise time | <0.3Tbit (20%--80%) |
| | Fall time | <0.3Tbit (20%--80%) |
| | Signal type | HDMI / DVI-D full digital T.M.D.S signal in HDMI 1.3A / DVI I.0 specification |
| | Interface | HDMI-A interface (Type A connector) (Requires optional interface converter) |

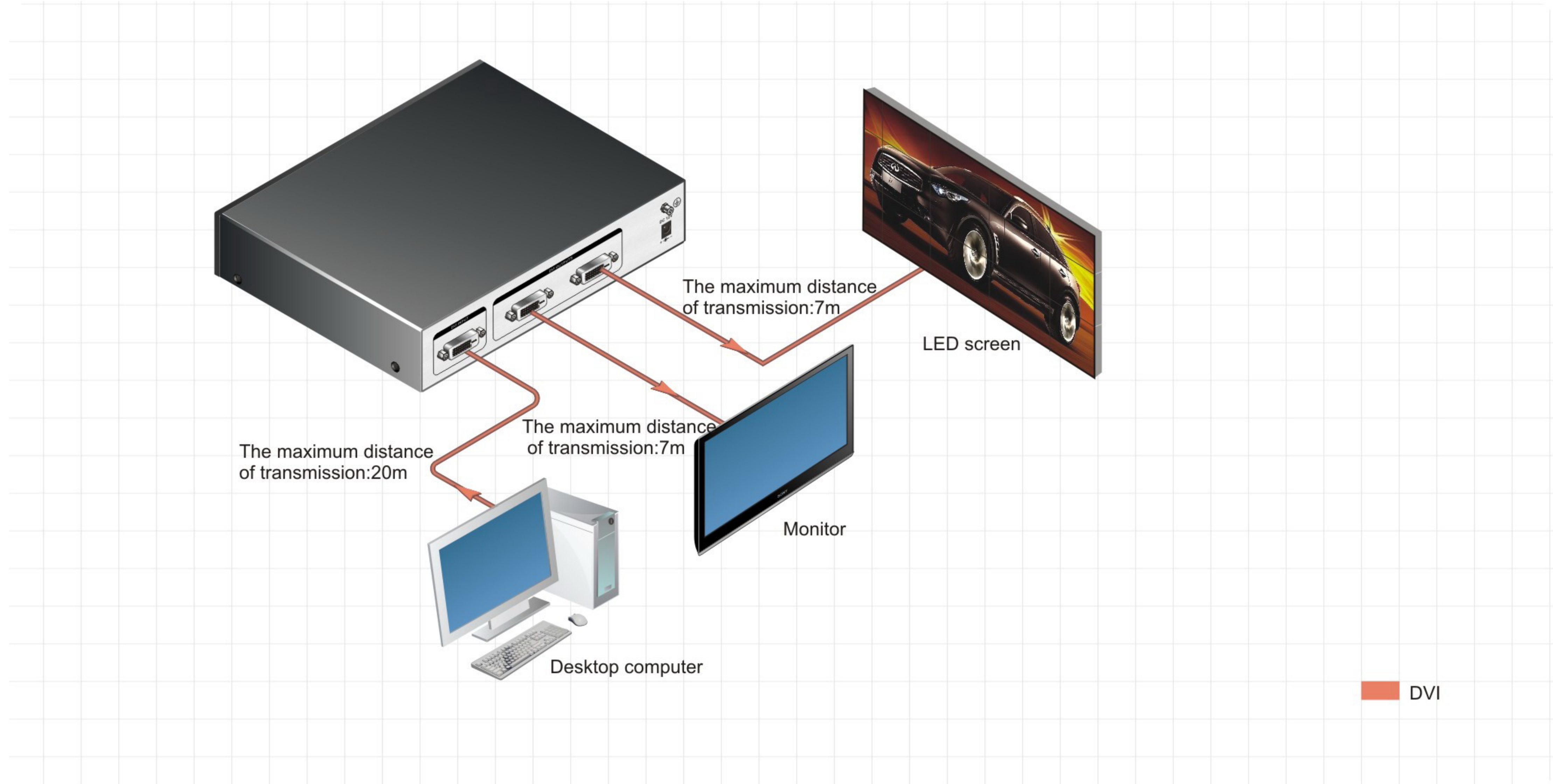




### Specifications

| The parameter name | | DVI-102DA |
|---|---|---|
| HDMI video input | Signal strength | T.M.D.S. +/- 0.4Vpp |
| | Minimum / maximum level | T.M.D.S. 2.9V/3.3V |
| | Impedance | 50 Ω |
| | Input EDID | Using the default EDID, (support terminal EDID mapping to input) |
| | Maximum DC offset error | 15mV |
| | The recommended maximum input distance | No more than 10 meters, in the 1920x1080p@60 (recommended the use of certified HDMI special wire, as Molex TM wire) |
| HDMI video output | Interface | HDMI-A interface (Tvpe A connector)(Requires optional interface converter) |
| | Minimum / maximum level | T.M.D.S. 2.9V/3.3V |
| | Impedance | 50 Ω |
| | The recommended maximum output distance | Less than 10 meters, in the 1920x1080p@60 (recommended the use of certified HDMI special wire, as Molex TM wire) |
| DVI video output | Interface | DVI-D Dual Link interface |
| | Minimum / maximum level | T.M.D.S. 2.9V/3.3V |
| | Impedance | 50 Ω |
| | The recommended maximum output distance | Less than 7 meters, in the 1920x1080p@60 (recommended the use of certified HDMI special wire, as Molex TM wire) |

### System connection diagram



# CR-DVI401S

## DVI full digital matrix switcher

CR-DVI0401S

### Product overview

CR-DV10401S can realize that a digital display terminal can switch the display screen between a plurality of DVI signal sources. The device supports four DVI signals input, a DVI signal output. Supports RS-232, infrared and key switch control. Use with DVI-S4, it also can become the switch distributor of DVI-0404.

### Features

- Support the highest resolution up to 1600 x 1200@60Hz.
- Support 4 DVI-D female terminal inputs.
- Support 1 DVI-D female terminal output.
- Support RS-232, infrared remote control, key control, etc.
- Output transmission distance up to 7 meters effective range of application.
- Support input, output signal indicator.
- Input supports the Windows plug-and-play.

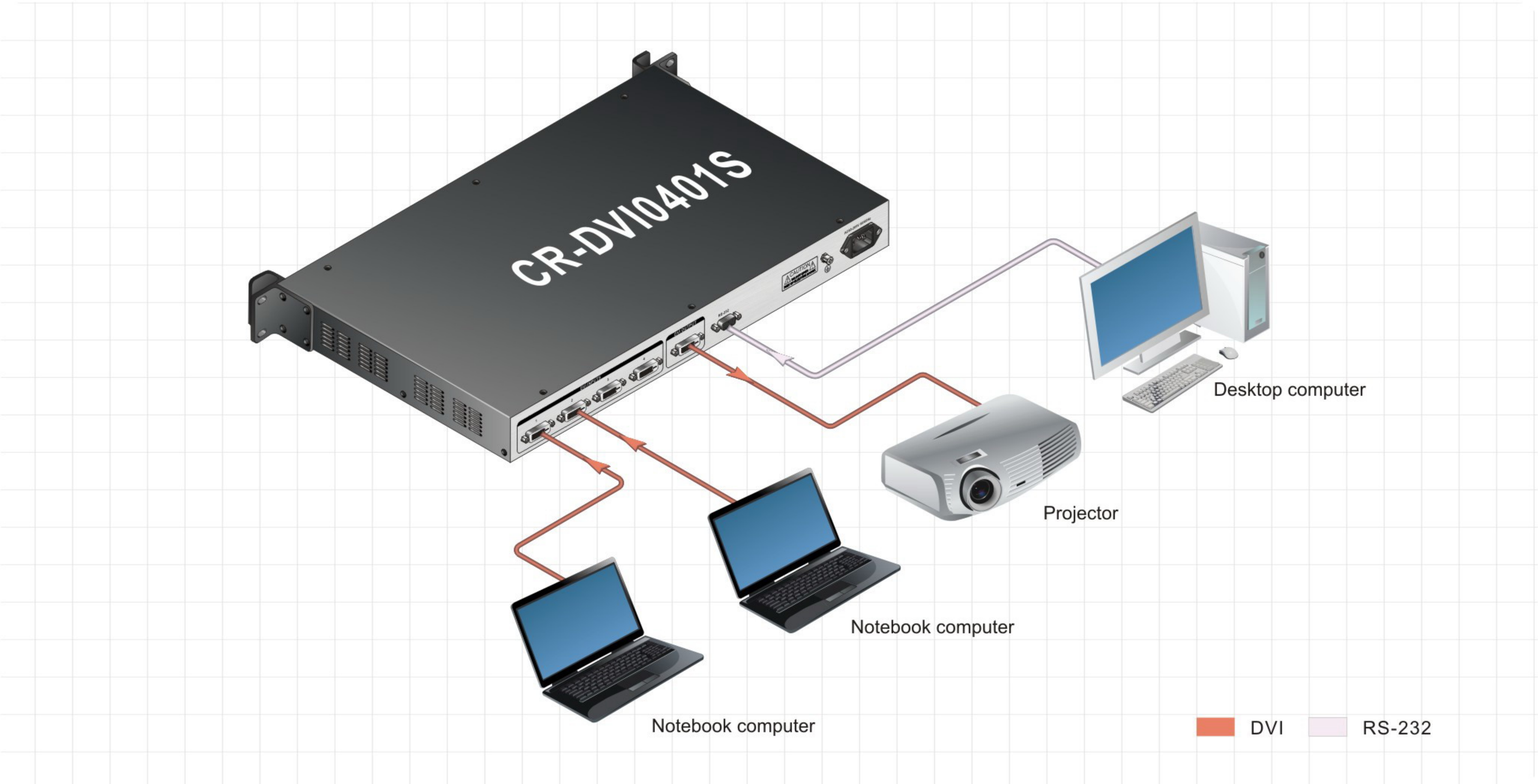
### Specifications

| The parameter name | CR-DVI0401S |
|---|---|
| Video signal bandwidth | 1.65Gpbs |
| Voltage of input video signal | 1.2 volts p-p |
| Voltage of input DDC signal | 5 volts p-p (TTL) |
| Power consumption | 3 Watts (max.) |
| Device power input | 12VDC |
| The DVI input interface | Type DVI-D |
| DVI output interface | Type DVI-D |
| RS-232 interface | Type DB9F |
| Power supply | AC100-240V，50/60HZ |





### System connection diagram



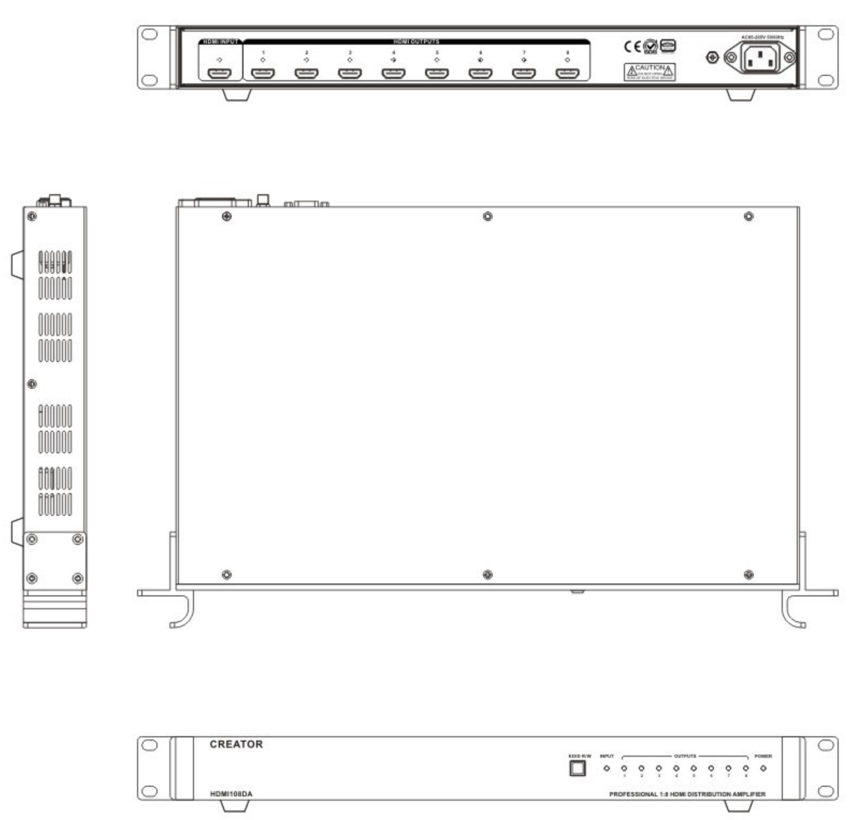
# Pt-HDMI108DA

## HDMI distributor

Pt-HDMI108DA

### Product overview

Pt-HDMI 108DA distributor can assign 1 HDMI input signal to 8 HDMI output signal port. The circuit design is of high quality, in order to ensure the transmission quality of audio and video. With EDID data reading function, it prevents the output of the signal source not matching with display and not resulting in the best image quality.



Size（mm):
483(L)×290(W)×43.6(H)

### Features

- Compatible with DVI 1 standards.
- Compatible with HDMI 1.3b standard.
- Integrated HDCP encoding / decoding engine, compatible with HDCP Rev 1.1 standard.
- Support a maximum TMDS clock 225MHz.
- Support 12 bit dark function of high resolution 1080P.

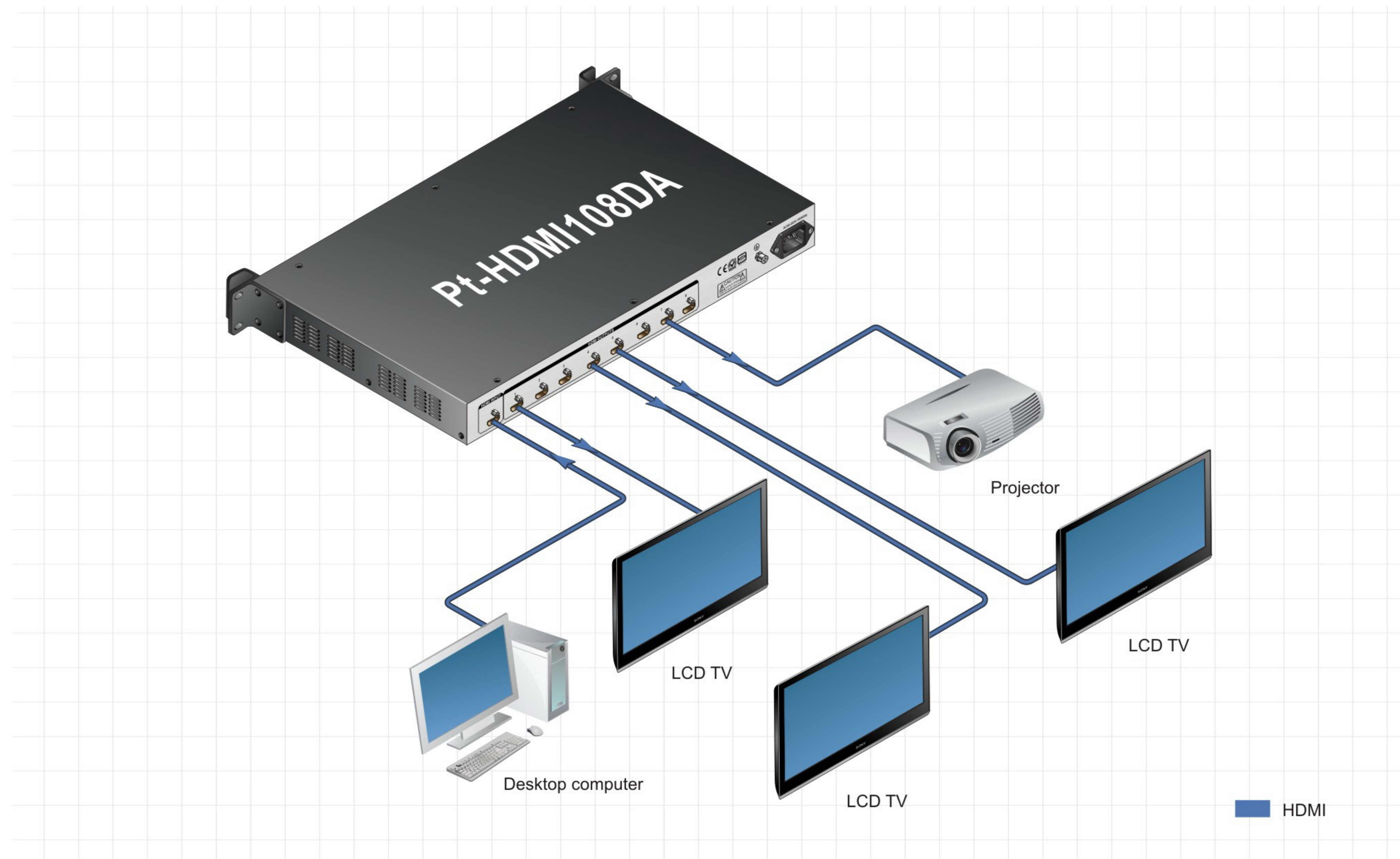
### Specifications

| The parameter name | Pt-HDMI108DA |
|---|---|
| Input | 1 road HDMI |
| Output | 8 road HDMI |
| Interface bandwidth | 2.25Gbps, all digital (a total of 6.75Gbps, each color is 2.25Gbps) |
| Maximum clock rate | 225MHz |
| In accordance with HDMI standard and /DVI standard | Support for HDMI 1.3b/DVI 1 |
| Resolution | Up to UXGA：1080P |
| Control | The front panel keys |
| The input power | AC85~265V 50/60Hz |
| Weight | About 2.2KG |





### System connection diagram



# Pt-HDMI401S

## HDMI switcher

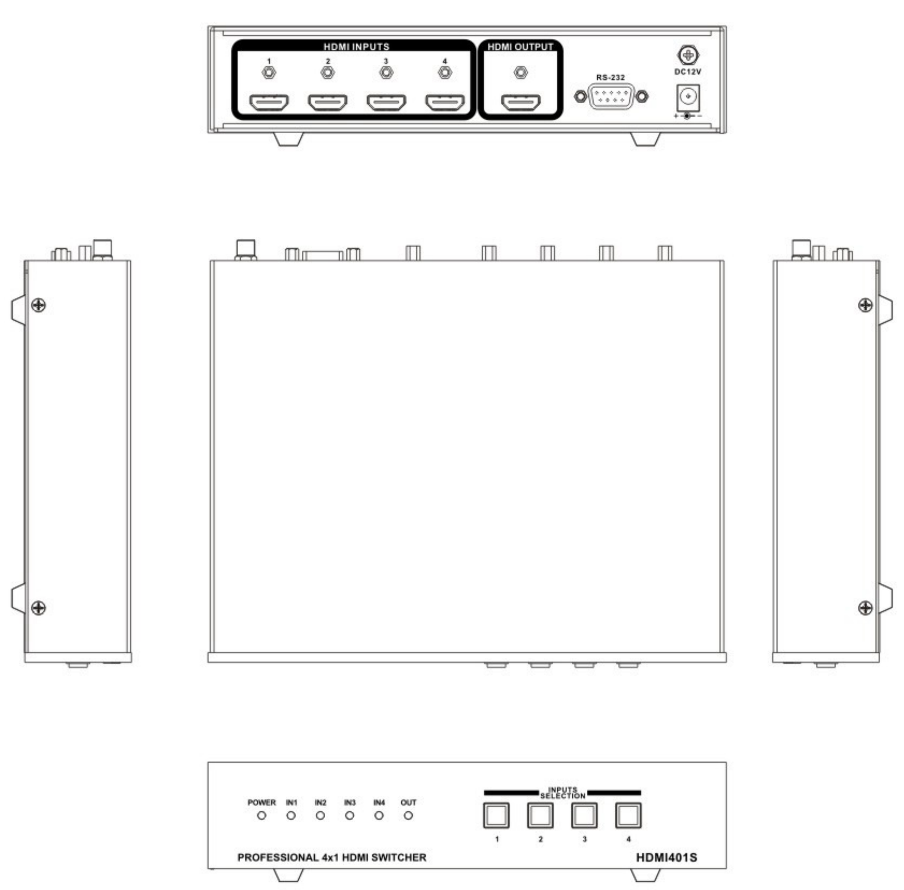
Pt-HDMI401S

### Product overview

Pt-HDMI 401S switch can switch 4 audio and video input signals to 1 audio and video output signal. The circuit design is of high quality, so as to ensure the transmission quality of audio and video. It is processing equipment compatible with audio and video of video conference system, broadcasting system, closed-circuit television system, TV monitoring system, etc.

### Features

- Compatible with HDMI 1.3b standard.
- Support a maximum TMDS clock 225MHz.
- Support 12 bit dark function of high resolution 1080P.
- Clock regeneration and equalization technology, reconstruction of digital signal for further transmission distance.
- Compact:the high quality and competitive price.



Size (mm):
212(L)×164.5(W)×43.6(H)

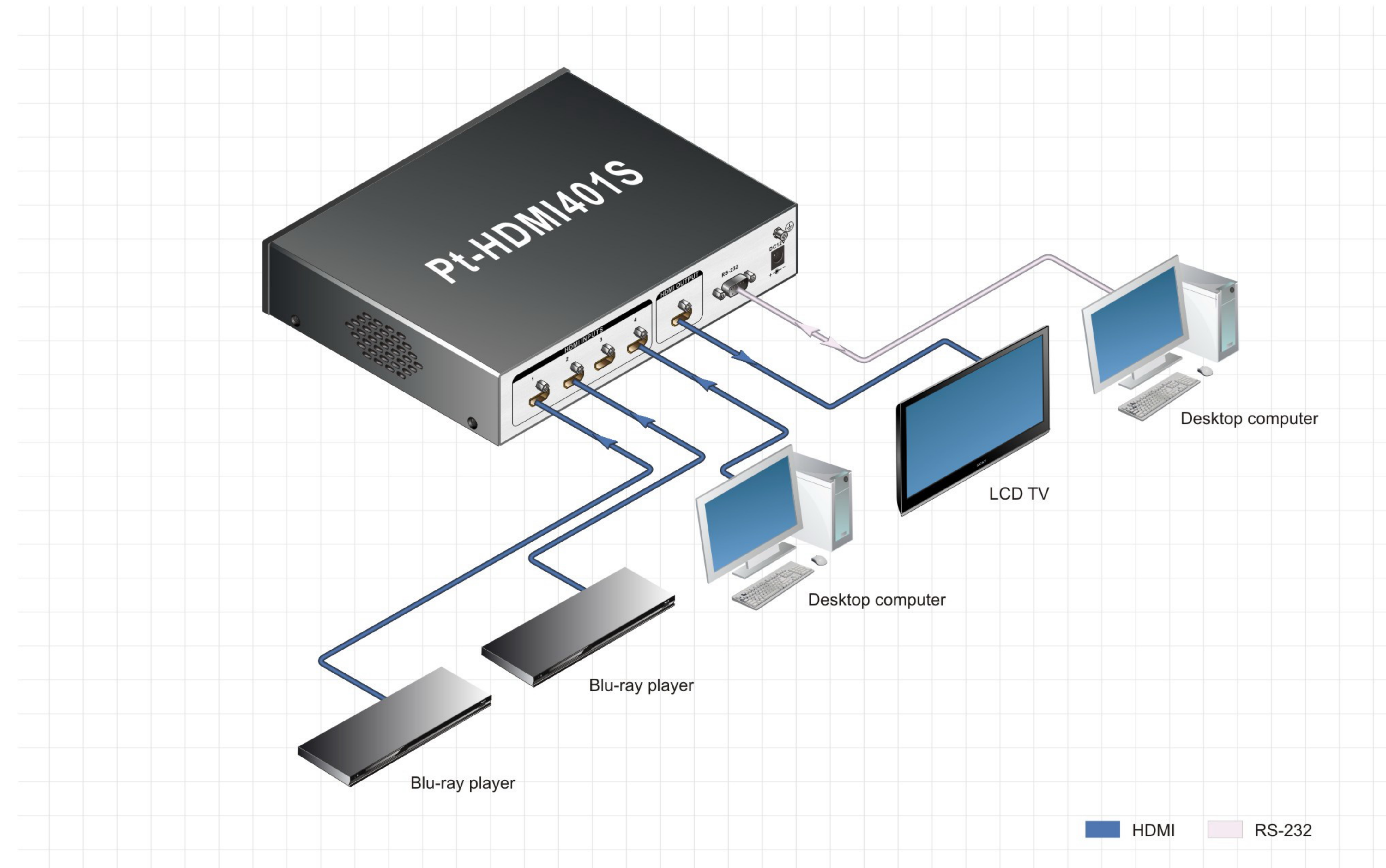
### Specifications

| The parameter name | Pt-HDMI401S |
|---|---|
| Input | 4 road HDMI |
| Output | 1 road HDMI |
| Interface bandwidth | 2.25Gbps, all digital (a total of 6.75Gbps, each color is 2.25Gbps) |
| Maximum clock rate | 225MHz |
| In accordance with HDMI standard | Support for HDMI 1.3b |
| Resolution | Up to UXGA：1080P |
| Control | The front panel buttons and RS-232 control |
| The input power | DC12V |
| Weight | About 1.2KG |





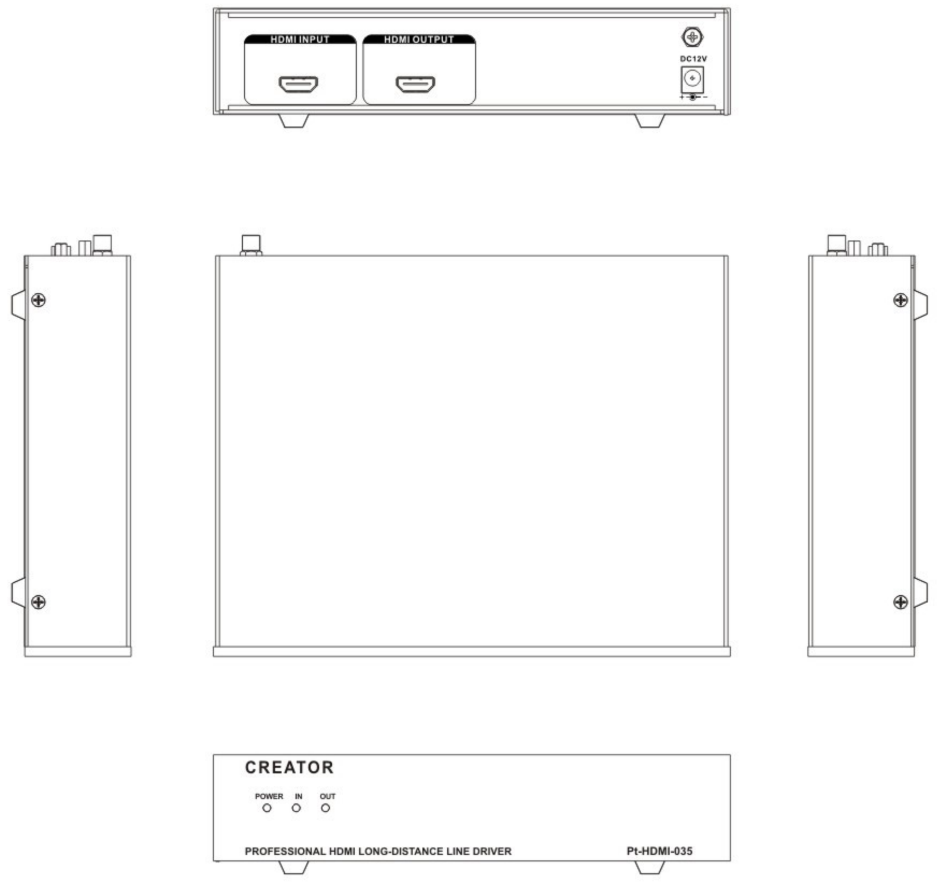
### System connection diagram



# Pt-HDMI-035

## HDMI line driver


Pt-HDMI-035




Size(mm):
212(L)×164.5(W)×43.6(H)

### Product overview

In the multimedia application system, a display terminal is often needed to display high quality image in large distance. For solving this kind of problems in Engineering version, CREATOR line driver series design Pt-HDMI-035 line driver, using the ordinary domestic cable to transmit HDM signal, make effective source end and terminal transmission distance up to 35 meters via high resolution video cable, playback of high-definition screen. Support 1 signal input, 1 signal output, small size, convenient use, without setting.

### Features

- Small volume, easy to use, no need to set.
- The input transmission distance up to 35 meters.
- Output transmission distance up to 7 meters
- 1 road signal input, 1 road signal output.
- Input support Windows, plug and play.
- Support the highest resolution up to 1600 x 1200@60Hz.
- Support for input, output signal indicator.

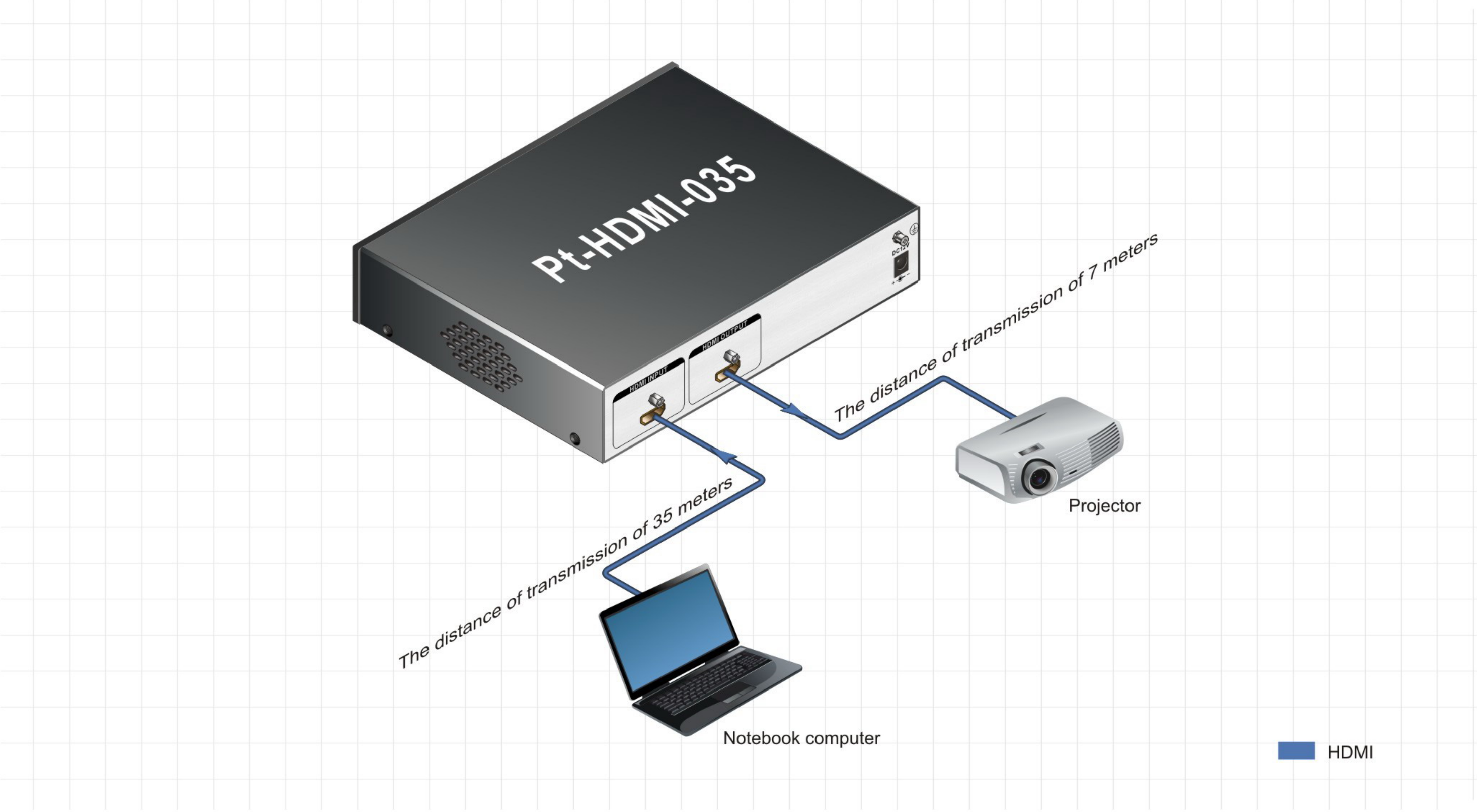
### Specifications

| The parameter name | Pt-HDMI-035 |
|---|---|
| Video input type | 1 HDMI, HDMI interface |
| Video output type | 1 HDMI, HDMI interface |
| Interface bandwidth | 2.25Gbps, all digital (a total of 6.75Gbps, each color is 2.25Gbps) |
| Input return loss | <-25dB@0-5MHz |
| The output return loss | -30dB@5MHz |
| Transmission distance | 35m |
| THD+Noise | 0.015%@1kHzRated level |
| Signal-to-noise ratio | >100 dB |
| Power supply | DC 12V |
| Weight | About 1.2kg |





### System connection diagram



# CR-HDCP 100

## HDCP adapter

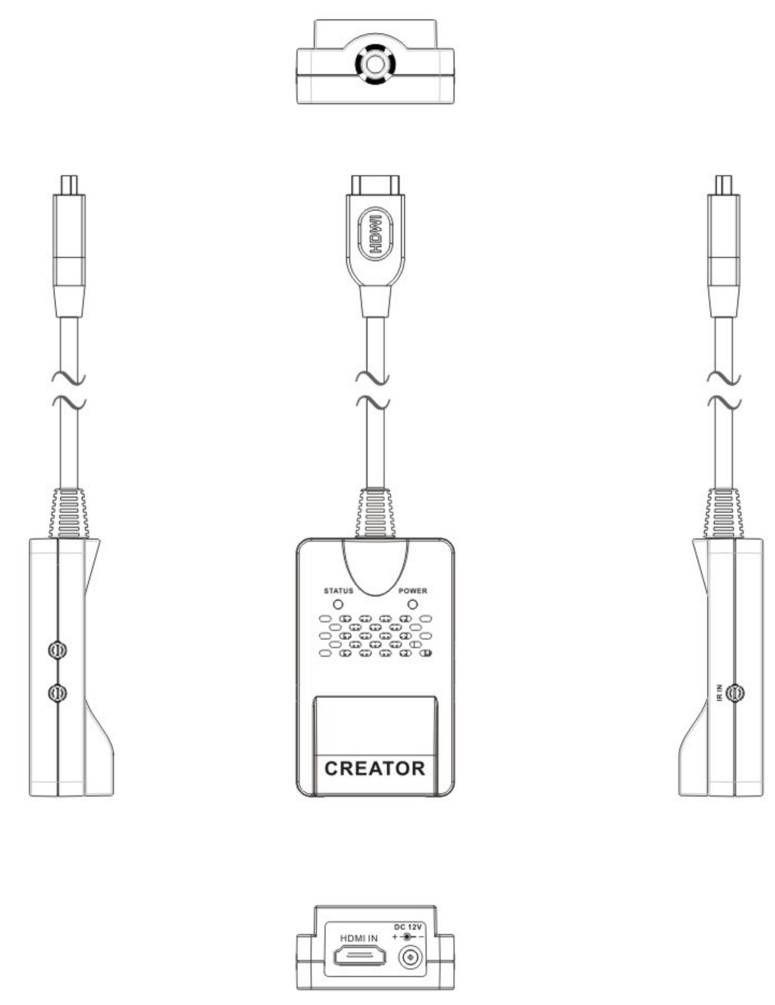
CR-HDCP 100

### Product overview

CR-HDCP 100 is an audio &amp,HDCP resolver setting HDMI audio splitter, DVI audio synthesizer, and HDCP decryption / encryption function into one. With CREATOR unique audio and video technology, it provides easy solution for problems in engineering applications, such as HDCP encryption and audio separation, DVI signal and analog audio synthesis, etc.

### Features

- Support HDCP 1.4 decryption and encryption.
- HDMI audio signal separation.
- DVI signal and analog audio synthesis.
- EDID can be set as built-in or direct mode.
- Serial port RS-232 control.



Size(mm):
90(L)×55(W)×29(H)

### Specifications

| The parameter name | | CR-HDCP 100 |
|---|---|---|
| HDMI video input | Supported protocols | HDMI1. 3a, HDCP1. 4, EDID1. 4 |
| | PIXEL bandwidth | 165MHz, Full digital |
| | Interface bandwidth | 2.25Gbps, all digital (a total of 6.75 Gbps, each color is 2.25Gbps) |
| | Maximum supported resolution | HDPC: 1900x1200@60Hz<br>NormalPC: 1600x1200@60Hz<br>HDTV: 1920x1080P@60Hz |
| | Signal type | HDMI 1. 3a / T. M. D. S. Full digital signal |
| | Interface | HDMI-A interface |
| | Signal strength | T. M. D. S. +/- 0. 4Vpp |
| | Minimum / maximum level | T. M. D. S. 2. 9V/3. 3V |
| | Impedance | The differential of 1000 |
| | The recommended maximum input distance | Less than 7 meters, in the 1920x1080p@60 (recommend the use of certified HDMI special wire, such as Molex TM wire) |
| Serial port control | Interface | 3.5mm Headset seat |
| | Baud rate | 115200bps |
| Power supply | Interface | DC block |
| | Power | 12V/1. 5A |

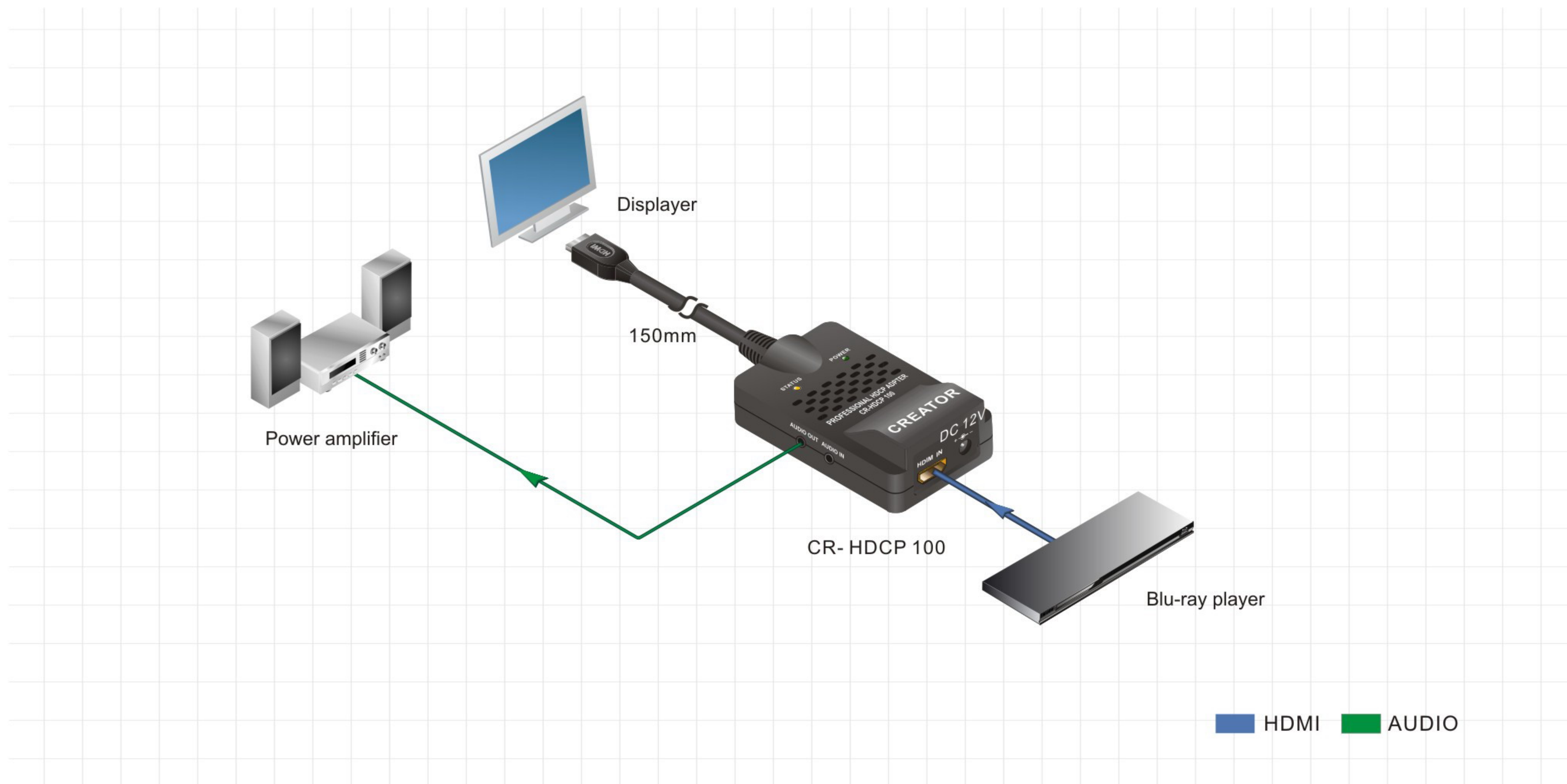




### Specifications

| The parameter name | | CR-HDCP 100 |
|---|---|---|
| HDMI video output | Supported protocols | HDMI1. 3a, HDCP1. 4,EDID1. 4 |
| | PIXEL bandwidth | 165MHz, Full digital |
| | Interface bandwidth | 2.25Gbps, all digital (a total of 6.75Gbps, each color is 2.25Gbps) |
| | Maximum supported resolution | HDPC: 1900x1200@60Hz NormalPC: 1600x1200@60Hz HDTV: 1920x1080P@60Hz |
| | Signal type | HDMI 1. 3a / T. M. D. S. Full digital signal |
| | Signal strength | T. M. D. S. +/- 0. 4Vpp |
| | Interface | HDMI-A interface |
| | Minimum / maximum level | T. M. D. S. 2. 9V/3. 3V |
| | Impedance | The differential of 1000 |
| | The recommended maximum input distance | Less than 7 meters, in the 1920x1080p@60 (recommendthe use of certified HDMI specialwire, such as Molex TM wire) |
| Audio input | Interface | 3.5mm Headset seat |
| | Signal | Analog stereo |
| | Frequency response | 20Hz~20KHz ±0. 05db |
| | Audio input level | 2Vrms (max) |
| Audio output | Interface | 3.5mm Headset seat |
| | Signal | Analog stereo |
| | Frequency response | 20Hz~20KHz ±0. 05db |
| | Audio input level | 2Vrms (max) |

### System connection diagram



# CR-iMAX901HD-A

## Presentation scaler switcher

CR-iMAX901HD-A

### Product overview

CR-iMAX901HD-A is a scaler which has 9 video input interfaces, including CV, YPbPr, VGA , DisplayPort, HDMI, HDBaseT, can switch or scale to HDMI/HDbaseT output. The output resolution can be defined by user up to WUXGA(1920 x1200). It's a high performance scaler for education institution, conference room, demonstration hall, command center etc.

### Features

- 9 video inputs: 1 x CVBS,1 x YPbPr, 2 x VGA,3 x HDMI,1 x DisplayPort,1 x HDBaseT.
- 2 video output:1 x HDMI, 1 x HDBaseT.
- 9 analog audio input: unbalanced stereo audio, 20Hz~20KHz.
- 1 balanced stereo line out, 1 stereo speaker output with 2x20W@4Ω or 2x10W@8Ω.
- 8-level volume control per audio input,100-level volume control for audio output.
- Maximum input/output resolution up to WUXGA (1920 x1200).
- Audio and video switching, no black screen or fragments.
- HDMI 1.3a,HDCP1.3,DisplayPort 1.1.
- Audio can be mixed or separated from HDMI input and HDMI output.
- EDID management for rapid integration of sources and displays.
- Control method: front panel, RS-232, Ethernet.

### Specifications

| The parameter name | | CR-iMAX901HD-A |
|---|---|---|
| Composite Video(CV)/ Component Video(YPbPr) | Bandwidth | 150MHz @ -3dB |
| | Standard | NTSC、PAL、SECAM |
| | Differential phase error | 0.1°, 3.58-4.43 MHz |
| | Differential gain error | 0.1%，3.58-4.43 MHz |
| | Signal type | Composite video（CVBS), Component video（YPbPr/YCbCr) |
| | Interface | RCA female connector(4PIN),1x(CVBS), 1xYPbPr/YCbCr) |
| | Minimum / maximum level | Analog signal：-2V/+2V |
| | Impedance | 75 Ω |
| | Echo loss | <-30dB@5MHz |





### Specifications

| The parameter name | | CR-iMAX901HD-A |
|---|---|---|
| Simulation of VGA video | Gain | 0dB |
| | Bandwidth | 380 MHz |
| | Signal type | VGA |
| | Interface | DB15 female connector, 2 x VGA input |
| | Signal strength | 0.63V p-p to 0.9 V p-p |
| | Impedance | 75 Ω |
| | DC compensation | <-40dB@5MHz |
| | Echo loss | Maximum ± 5mV |
| | The supported resolution | 640X480 @60;800X600 @60;1024X768@60; 1280X720 @60;1280X1024 @60;1600X1200 @60; 1920X1080@60;1920X1200 @60; |
| HDMI video | Supported protocols | HDMI1.3a, DVI1.0, HDCP1.3 |
| | Pixel Bandwidth | 225MHz |
| | Interface bandwidth | 6.75Gbps(RGB:2.25 Gbps/per lane) |
| | Signal type | HDMI/DVI-D full digital T.M.D.S. Signal in HDMI 1.3a/DVI 1.0 Specification |
| | Interface | HDMI-A connector（Type A connector ), 3 x HDMI input,1 x HDMI output |
| | Minimum /maximum level | T.M.D.S. 2.9V/3.3V |
| | Impedance | 100 Ω |
| | Input EDID | Use system default EDID,(Support Terminal EDID mapping to input terminal) |
| | Maximum DC offset error | 15mV |
| | The recommended maximum input distance | Less than 7m, at 1920x1080p@60 (Recommended to use special HDMI wire with authentication, like Molex TM) |
| | The supported resolution | 640x480@60, 800x600@60,1024x768@60, 1280x720@60, 1280x800@60,1280x960@60, 1280x1024@60, 1360x768@60,1366x768@60, 1400x1050@60, 1440x900@60,1600x1200@60, 1680x1050@60, 1920x1080@50,1920x1080@60, 1920x1200@60 |
| DisplayPort video | Interface | 20-pin DP connector, Standard, 1 x DisplayPort input |
| | Supported protocols | DisplayPort 1.1 |
| | Highest transmission delay | 500us |
| | Transmission Bandwidth | Up to 10.8Gb/S |
| | The supported resolution | VGA(640x480); SVGA(800x600); XGA(1024x768);SXGA(1280x1204);UXGA(1600x1200); WUVGA(1900x1200)480I;480P;720P;1080I;1080P; 576I;576P;720P;1080I50;1080P50;WXGA(1400x900);WSXGA(1680x1050);WUXGA(1920x1200); |
| HDBaseT video | Interface | RJ-45 female connector;1 x HDBaseT input,1 x HDBaseT output |
| | Supported protocols | Support HDCP standard |
| | Max Pixel clock | 225MHz |
| | Impedance | 100Ω |
| | The recommended maximum input distance | Less than 100m (with a cat5 or cat6 standard line wire) |
| | The supported resolution | 640x480@60, 800x600@60,1024x768@60,1280x720@60, 1280x800@60,1280x960@60,1280x1024@60, 1360x768@60,1366x768@60, 1400x1050@60, 1440x900@60,1600x1200@60,1680x1050@60, 1920x1080@50,1920x1080@60,1920x1200@60 |
| Sound signal | Input/output interface | 9 x 3-pin Phoenix Connector / each way is with unbalanced audio input. 1x5 pins Phoenix connector/audio line out, 1 x 4-pin Phoenix Connector /Audio power amplifier output |
| | Gain | 0 dB |
| | Frequency response | 20 Hz ~ 20 kHz, |
| | HD + Noise | 0.05% @ 1 kHz (Rated Voltage) |
| | Signal to Noise Ratio | (S/N)>80dB |
| | Stereo channel crosstalk | >80dB @ 1 kHz |
| | Common-Mode Reje-ction Ratio | >75dB @: 20 Hz ~ 20 kHz |
| | Signal type | Stereo (Imbalanced connection Audio) |
| | Impedance | Output: 50 Ω (Imbalanced connection) Input: 10 kΩ(Imbalanced connection) |
| | Max input level | +19.5dBu, |
| | Gain error | ±0.1dB @ 20 Hz ~ 20 kHz |

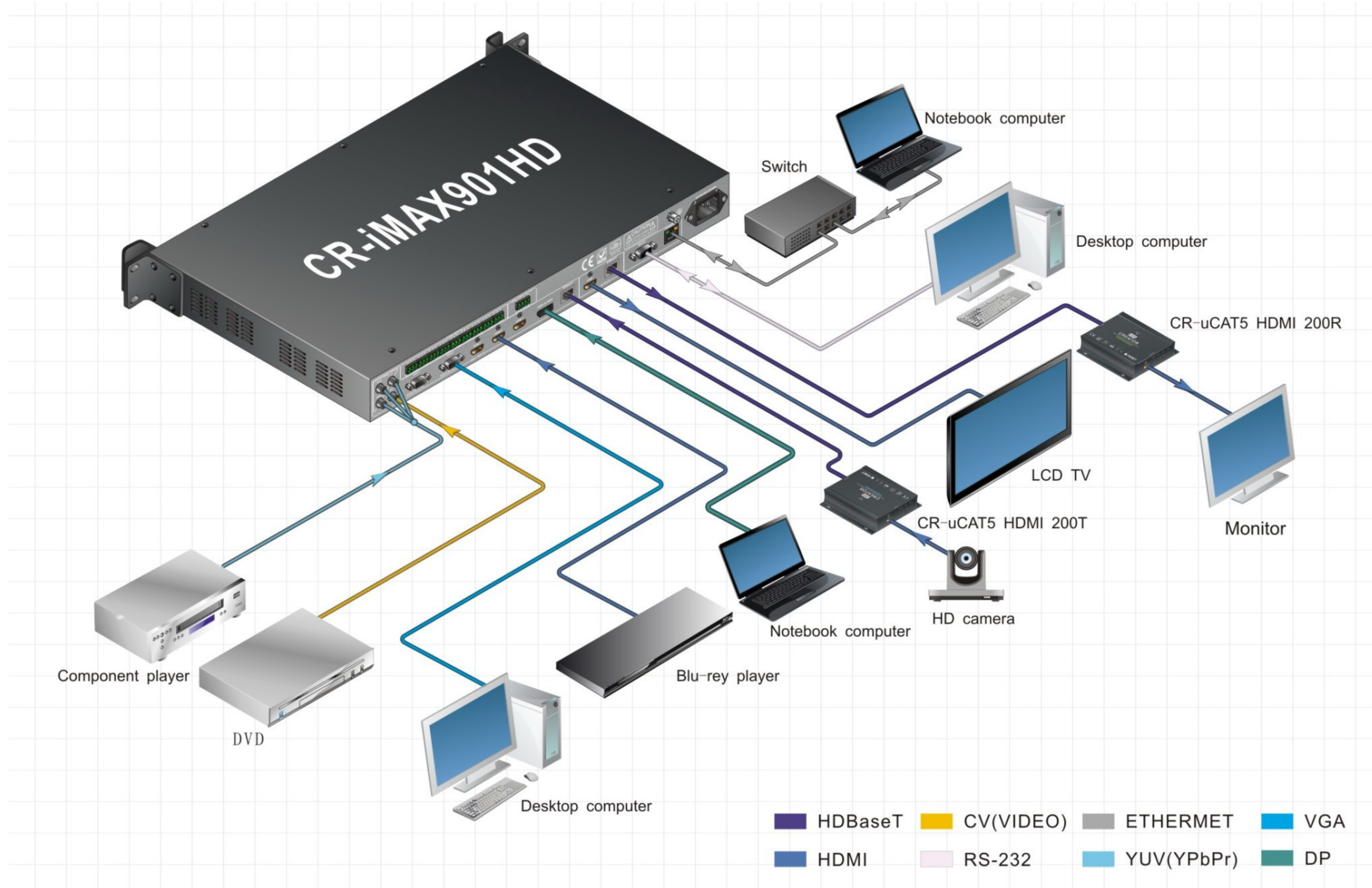
## Specifications

| The parameter name | | CR-iMAX901HD-A |
|---|---|---|
| Control types | Button | Front panel, LCD status display |
| | Serial control interface | RS-232,DB9 female connector |
| | Baud rate and protocol | Baud rate：115200, Data bit：8, Stop Bit：1, No Parity bit |
| | Structure of serial control interface | 2 = TX, 3 = RX, 5 = GND |
| | Ethernet control interface | RJ-45 female connector |
| | Ethernet control protocol | TCP/IP IP:192.168.1.190 Port:6666 |
| | Ethernet control rate | Adaptive 10 M / 100 M, full duplex or half duplex |
| | HDBaseT remote control | HDBaseT remote control via RS-232 |
| Specifications | Power supply | 100VAC~240VAC,50/60HZ |
| | Power consumption | 60W |
| | Temperature | Storage, use temperature: -20°C~ +70°C |
| | Humidity | Storage, use humidity:0 ~90% |
| | Case Dimension | 483(L)x230(W)x44mm(H) |
| | Weight of the product | About 2.3kg |
| | Mean time between failures | 30000 hours |
| | The warranty | 1 year free warranty, life-long maintenance |





## System connection diagram



# B

**CREATOR®**

Audio/Visual Solution Provider & Manufacturer

## Transmitter/Converter Series

# CR-uEC COMP 300T

ANY series COMP transmittter

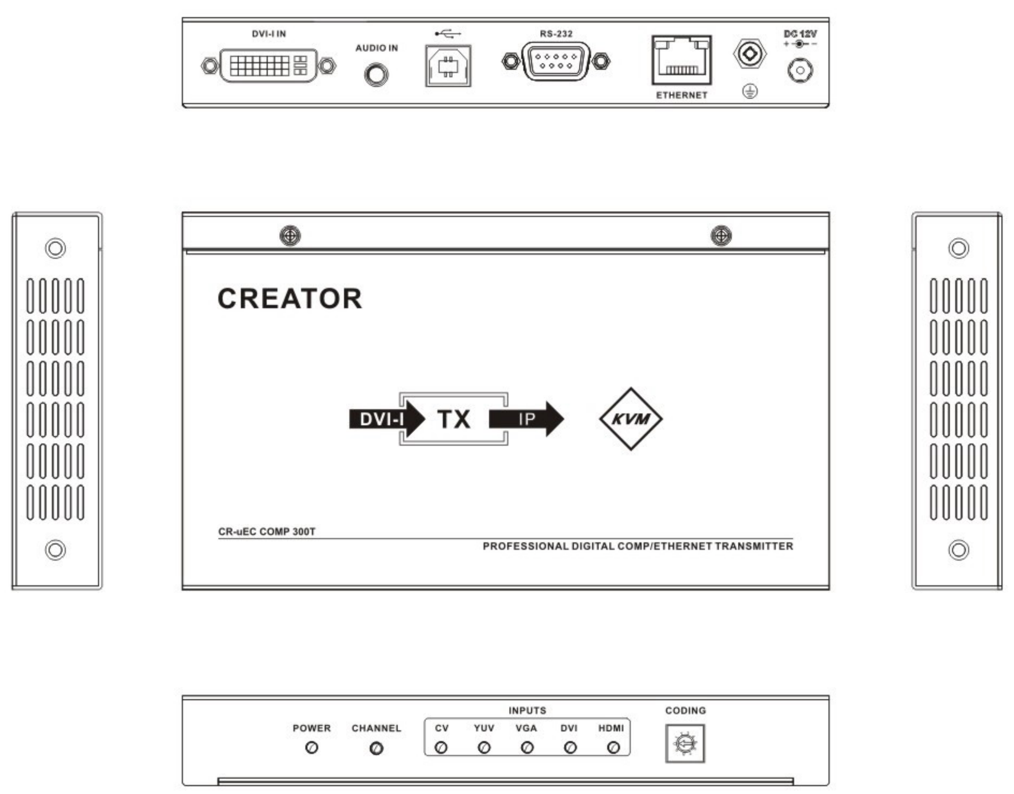
CR-uEC COMP 300T

## Product overview

The CR-uSF COMP 300T is a single-core multi-mode fiber optic transmitter that support multiple formats. It can convert CV, YPbPr, VGA, DVI, HDMi video signals and Audio signal into fiber optic signal, and then transmit to far end. It can work with matrix switchers, and support RS-232, pass-through IR signal, and USB mouse and keyboard signals.
This product is mainly applied in TV and Broadcasting projects, multi-media meeting halls, big display projects, TV education, and command centers, etc.

## Features

- Support single-core multi-mode transmission of CV, YPbPr, VGA, DVI, and HDMI signals.
- Support HDMI-Monitor monitoring video output function.
- Support synchronized transmission of audio, IR, and RS-232 signals.
- Transmission distance up to 300 meters.
- Support KVM function, which can transmit USB mouse and keyboard signals.




Size (mm) :
180 (L) X105 (W) X25 (H)

## Specifications

| | The parameter name | CR-uEC COMP 300T |
|---|---|---|
| HDMI video input | Supported protocol | DVI1.0,HDMI1.3a,HDCP1.3 |
| | Pixel bandwidth | 165MHz , full-digital |
| | Interface bandwidth | 6.75Gbps(each color 2.25Gbps) |
| | Maximally supported resolution | PC 1920x1200@60 24bit color depth HDTV 1920x1080P@60 36bit color depth |
| | Clock Jitter | <0.15 Tbit |
| | Rise Time | <0.3Tbit (20%--80%) |
| | Fall Time | <0.3Tbit (20%--80%) |
| | Signal types | DVI-D/HDMIFull-digital T.M.D.S. in DVI 1.0/ HDMI 1.3a standards |
| | Interface | DVI-I Interface |
| | Signal strength | T.M.D.S. 3.3V pp |
| | Min/Max level | T.M.D.S. 2.9V/3.3V |
| | Impendance | 50 Ω |
| | Input EDID | System default EDID |
| | Max DC bias error | +/-15mV |
| | Recommended max input distance | Less than 10 meters for 1920*1080@60 (certified special purpose cables are recommended, such as Molex TM) |





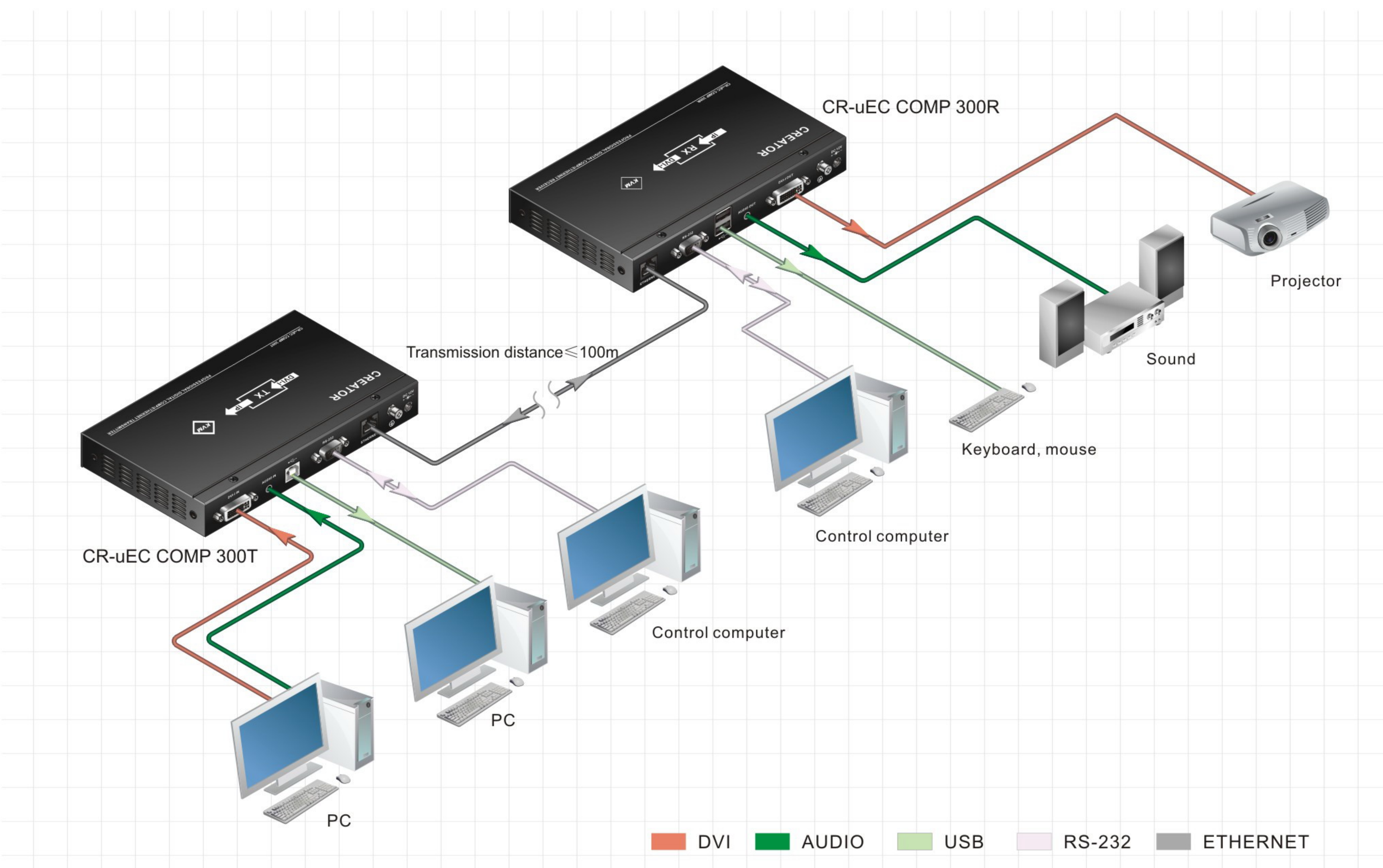
## Specifications

| | The parameter name | CR-uEC COMP 300T | | |
|---|---|---|---|---|
| DVI video input | Supported Protocol | DVI1.0 | | |
| | Pixel bandwidth | 165MHz , full-digital | | |
| | Interface bandwidth | 6.75Gbps(each color 2.25Gbps) | | |
| | Maximally supported resolution | PC 1920x1200@60 24bit color depth HDTV 1920x1080P@60 36bit color depth | | |
| | Clock jitter | <0.15 Tbit | | |
| | Rise time | <0.3Tbit (20%--80%) | | |
| | Fall time | <0.3Tbit (20%--80%) | | |
| | Signal types | Full-digital T.M.D.S. | | |
| | Interface | DVI-I interface | | |
| | Signal strength | T.M.D.S. 3.3V pp | | |
| | Min/Max level | T.M.D.S. 2.9V/3.3V | | |
| | Impendance | 50 Ω | | |
| | Input EDID | System default EDID | | |
| | Max DC bias error | +/-15mV | | |
| | Recommended max input distance | Less than 10 meters for 1920*1080@60(certified special purpose cables are recommended, such as Molex TM) | | |
| Componen video input | Interface | DVI-I interface | | |
| | Signal types | Composite video | YPbPr | VGA video |
| | Gain | 0dB | 0dB | 0dB |
| | Bandwidth | 150MHz @ -3dB | 350MHz @ -3dB | 380 MHz |
| | Differential phase error | 0.1%, 3.58-4.43 MHz | 0.1%, 3.58-4.43 MHz | |
| | Differential gain error time | 0.1%, 3.58-4.43 MHz | 0.1%, 3.58-4.43 MHz | |
| | Signal strength | 1Vpp :Composite Video(CVBS) | 1Vpp :Composite Video(CVBS) | 0.63Vpp to 0.9Vpp |
| | Min/Max level | Analog Signal: -2V/+2V | Analog Signal: -2V/+2V | RGB Signal:0V/1.0V HV Signal:0V/5.0V |
| | Input impedance | 75 Ω | 75 Ω | 75 Ω |
| | Return loss | <-30dB@5MHz | <-30dB@5MHz | <-30dB@5MHz |
| Audio input signal | Interface | 3.5mm stereo audio jacket | | |
| | Gain | 0 dB | | |
| | Frequency response | 20Hz~20KHz | | |
| | T.M.D.S + Noise | 0.01% @ 1 kHz (under rated voltage) | | |
| | S/N | >80dB at Vin=0 V | | |
| | Stereo separation | >80dB @ 1 ac | | |
| | CMRR | >75dB @: Hz ~ 20 kHz | | |
| | Signal types | Stereo | | |
| | Impedance | Input: >10 kΩ Output: 50Ω | | |
| | Max input level | 3Vpp | | |
| | Gain error | ±0.1dB @20 Hz ~ 20 kHz | | |
| Output | Internet output interface | RJ-45 | | |
| | Internet transmission | Maximally 100 meters distance with single Cat5e/Cat6 cable | | |
| | Transimission delay | Within 70ms for network cable direct connection | | |

## Specifications

| | The parameter name | CR-uEC COMP 300T |
|---|---|---|
| USB | Interface | B type female interface |
| | Signal types | USB signal |
| | Protocol | USB1.1 |
| Specifications | Power | Power adaptor, 12VDC/2V |
| | Max power consumption | 8W |
| | Temperature | Storage & Application Temperature: -20℃ ~ +70℃ |
| | Humidity | Storage & Application Humidity:10% ~90% |
| | Average malfunction interval | 30,000 hours |
| | Warranty | 1 year free repair, lifetime maintenance |

## System connection diagram








# CR-uEC COMP 300R

ANY series COMPONENT receiver

## Product overview

The CR-uEC COMP 300R is a network transmitter that can support multiple video signals of multiple formats. It can conver the CV、YPbPr、VGA、DVI、HDMI video signals and analog audio signals to network signal and transmit to far end. The USB mouse and keyboard signals are also supported.

This product is mainly applied in TV and Broadcasting projects, multi-media meeting halls, big display projects, TV education, and command centers, etc.

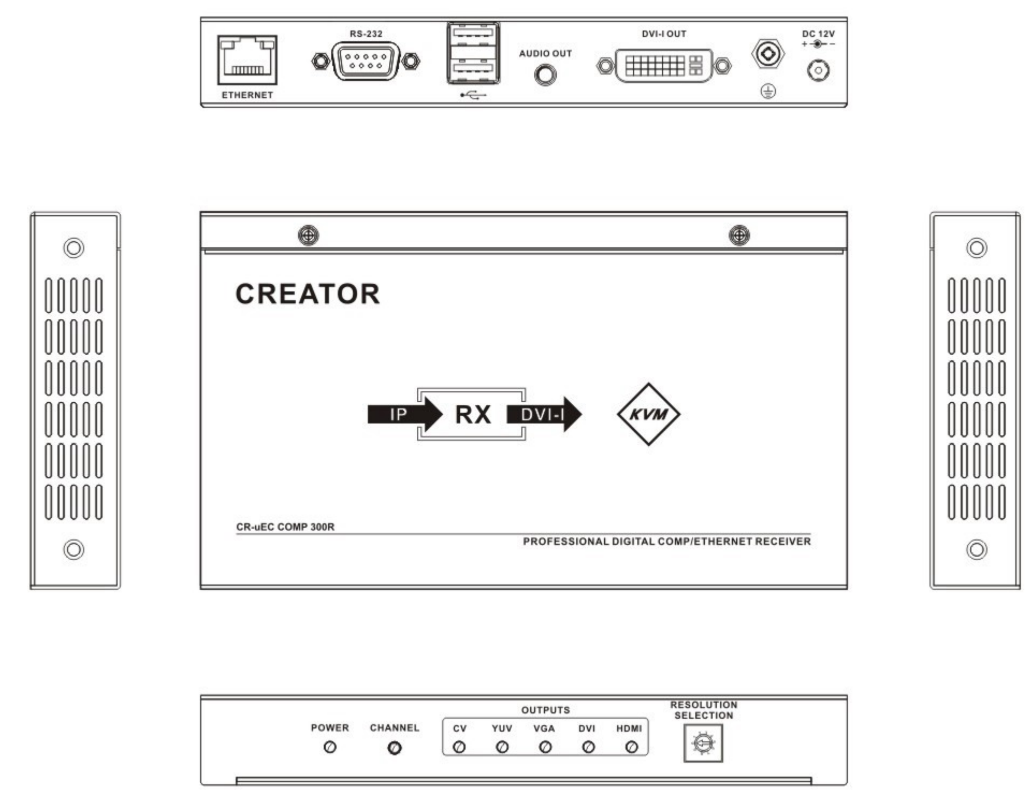
CR-uEC COMP 300R

## Features

- Support transmitting CV, YPbPr, VGA, DVI,HDMI signals over CAT5e/CAT6 cable.
- Support transmitting analog audio signal.
- 100 meters transmission distance.
- Support KVM function: can transmit USB mouse and keyboard signals.

## Specifications

| | The parameter name | CR-uEC COMP 300R |
|---|---|---|
| HDMI video output | Supported protocol | DVI1.0,HDMI1.3a,HDCP1.3 |
| | Pixel bandwidth | 165MHz , full-digital |
| | Interface bandwidth | 6.75Gbps(each color 2.25Gbps) |
| | Maximally supported resolution | PC 1920x1200@60 24bit color depth<br>HDTV 1920x1080P@60 36bit color depth |
| | Clock Jitter | <0.15 Tbit |
| | Rise Time | <0.3Tbit (20%--80%) |
| | Fall Time | <0.3Tbit (20%--80%) |
| | Signal types | DVI-D/HDMIFull-digital T.M.D.S. in DVI 1.0/ HDMI 1.3a standards |
| | Interface | DVI-I Interface |
| | Signal strength | T.M.D.S. 3.3V pp |
| | Min/Max level | T.M.D.S. 2.9V/3.3V |
| | Impendance | 50 Ω |
| | Input EDID | System default EDID |
| | Max DC bias error | +/-15mV |
| | Recommended max input distance | Less than 10 meters for 1920*1080@60 (certified special purpose cables are recommended, such as Molex TM) |




Size（mm）:
180（L）X105（W）X25（H）

## Specifications

| | The parameter name | CR-uEC COMP 300R | | |
|---|---|---|---|---|
| DVI video output | Supported Protocol | DVI1.0 | | |
| DVI video output | Pixel bandwidth | 165MHz , full-digital | | |
| DVI video output | Interface bandwidth | 6.75Gbps(each color 2.25Gbps) | | |
| DVI video output | Maximally supported resolution | PC 1920x1200@60 24bit color depth HDTV 1920x1080P@60 36bit color depth | | |
| DVI video output | Clock jitter | <0.15 Tbit | | |
| DVI video output | Rise time | <0.3Tbit (20%--80%) | | |
| DVI video output | Fall time | <0.3Tbit (20%--80%) | | |
| DVI video output | Signal types | Full-digital T.M.D.S. | | |
| DVI video output | Interface | DVI-I interface | | |
| DVI video output | Signal strength | T.M.D.S. 3.3V pp | | |
| DVI video output | Min/Max level | T.M.D.S. 2.9V/3.3V | | |
| DVI video output | Impendance | 50Ω | | |
| DVI video output | Input EDID | System default EDID | | |
| DVI video output | Max DC bias error | +/-15mV | | |
| DVI video output | Recommended max input distance | Less than 10 meters for 1920*1080@60(certified special purpose cables are recommended, such as Molex TM) | | |
| Componen video output | Interface | DVI-I interface | | |
| Componen video output | Signal types | Composite video | YPbPr | VGA video |
| Componen video output | Gain | 0dB | 0dB | 0dB |
| Componen video output | Bandwidth | 150MHz @ -3dB | 350MHz @ -3dB | 380 MHz |
| Componen video output | Differential phase error | 0.1%, 3.58-4.43 MHz | 0.1%, 3.58-4.43 MHz | |
| Componen video output | Differential gain error time | 0.1%, 3.58-4.43 MHz | 0.1%, 3.58-4.43 MHz | |
| Componen video output | Signal strength | 1Vpp :Composite Video(CVBS) | 1Vpp :Composite Video(CVBS) | 0.63Vpp to 0.9Vpp |
| Componen video output | Min/Max level | Analog Signal: -2V/+2V | Analog Signal: -2V/+2V | RGB Signal:0V/1.0V HV Signal:0V/5.0V |
| Componen video output | Input impedance | 75 Ω | 75 Ω | 75 Ω |
| Componen video output | Return loss | <-30dB@5MHz | <-30dB@5MHz | <-30dB@5MHz |
| Audio output signal | Interface | 3.5mm stereo audio jacket | | |
| Audio output signal | Gain | 0 dB | | |
| Audio output signal | Frequency response | 20Hz~20KHz | | |
| Audio output signal | T.M.D.S + Noise | 0.01% @ 1 kHz (under rated voltage) | | |
| Audio output signal | S/N | >80dB at Vin=0 V | | |
| Audio output signal | Stereo separation | >80dB @ 1 ac | | |
| Audio output signal | CMRR | >75dB @: Hz ~ 20 kHz | | |
| Audio output signal | Signal types | Stereo | | |
| Audio output signal | Impedance | Input: >10 kΩ Output: 50Ω | | |
| Audio output signal | Max input level | 3Vpp | | |
| Audio output signal | Gain error | ±0.1dB @20 Hz ~ 20 kHz | | |
| Input | Internet output interface | RJ-45 | | |
| Input | Internet transmission | Maximally 100 meters distance with single Cat5e/Cat6 cable | | |
| Input | Transimission delay | Within 70ms for network cable direct connection | | |

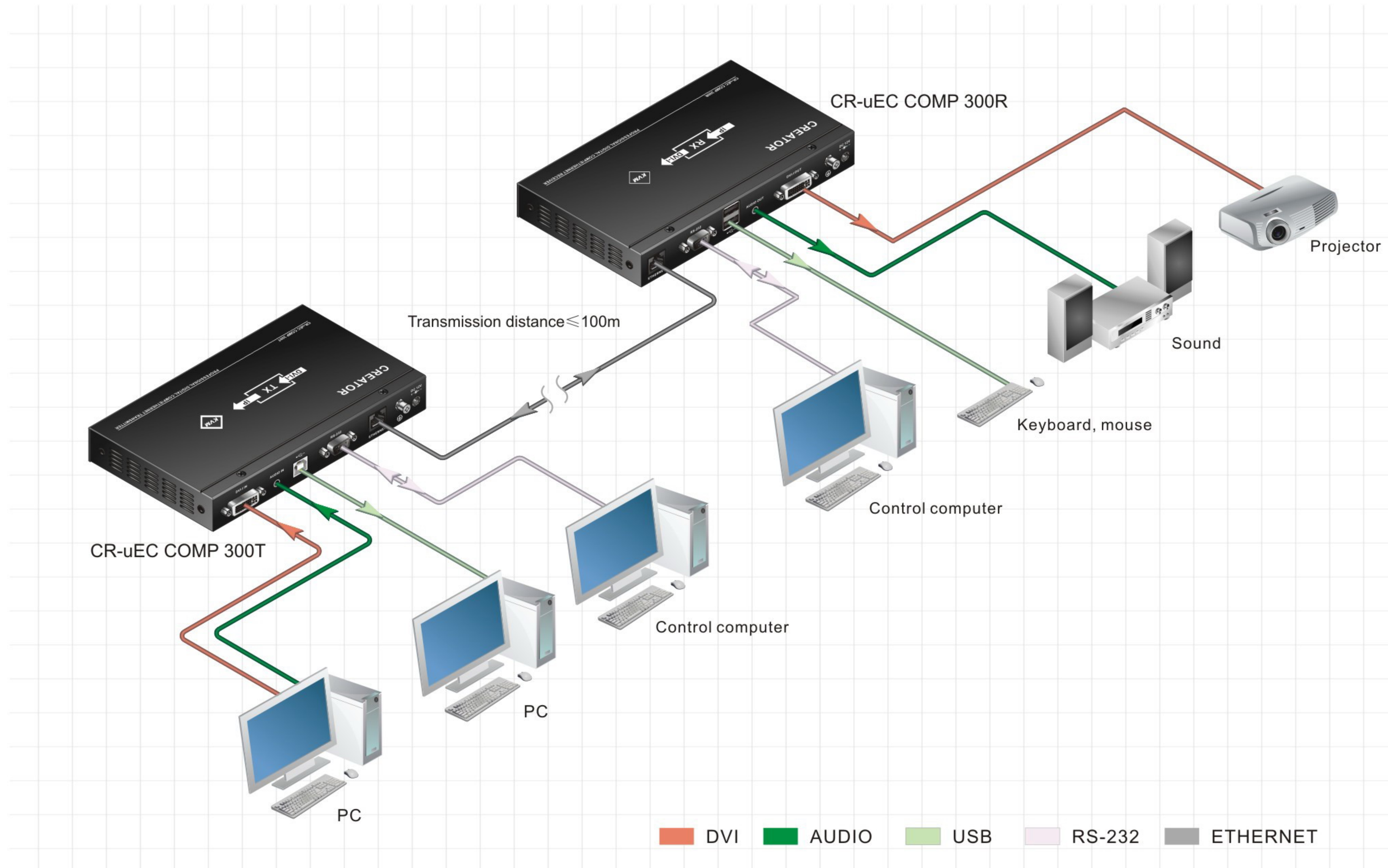




## Specifications

| | The parameter name | CR-uEC COMP 300R |
|---|---|---|
| USB | Interface | A type female interface |
| USB | Signal types | USB signal |
| USB | Protocol | USB1.1 |
| Specifications | Power | Power adaptor, 12VDC/2V |
| Specifications | Max power consumption | 8W |
| Specifications | Temperature | Storage & Application Temperature: -20℃ ~ +70℃ |
| Specifications | Humidity | Storage & Application Humidity:10% ~90% |
| Specifications | Average malfunction interval | 30,000 hours |
| Specifications | Warranty | 1 year free repair, lifetime maintenance |

## System connection diagram



# CR-uCAT5 COMP 300T

## HDBaseT series COMPONENT/CAT5 transmitter

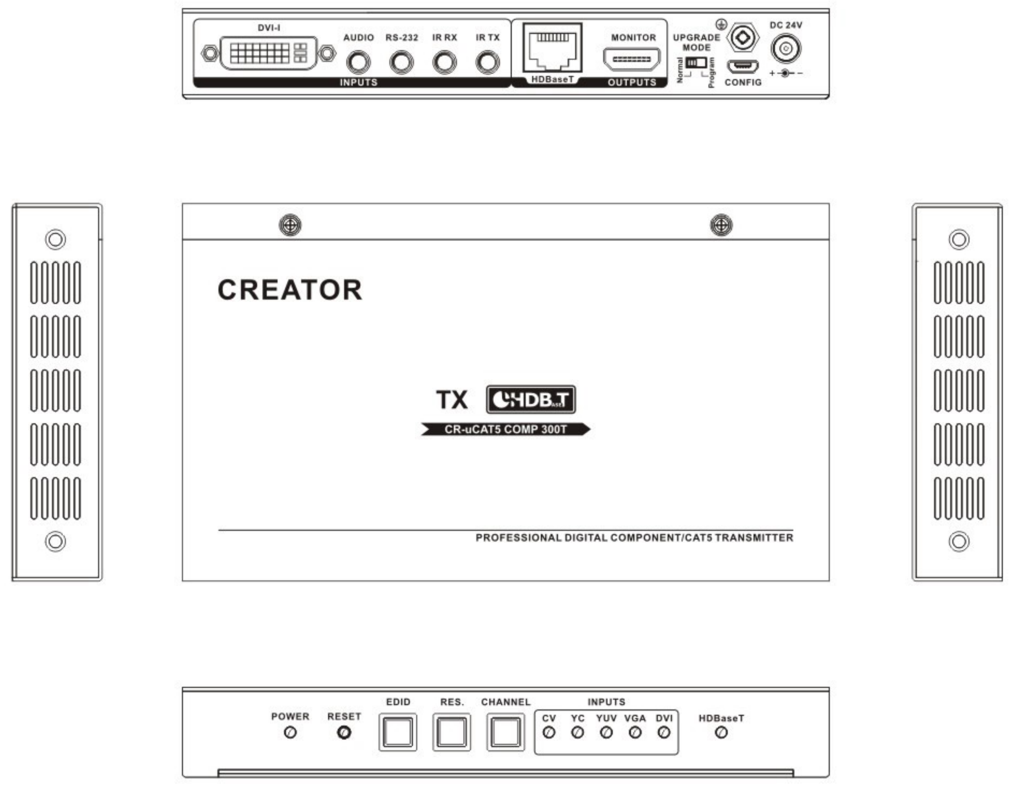
CR-uCAT5 COMP 300T

### Product overview

It can transmit high definition 1080p video is up to 100 meters. It can also transmit bi-directional RS-232, bi-directional IR signals at the same time. There is a HDMI monitoring output at the transmitter end, which can be used for extension and video monitoring.

### Features

- Support CV, Y/C, YPbPr, VGA, DVI, and HDMI signals input.
- Support outside analog audio embedded into the video signal for simultaneous transmission.
- Support resolution switching function; support up-scale to 1080p@60Hz.
- Support built-in bi-directional IR and RS-232 transmission.
- Support video, audio, IR, RS-232 simultaneous transmission. The transmission distance can be up to 100 meters with Cat5e/6 shielding cable.
- Support firmware upgrade via RS-232.
- Support PoE function.




Size (mm):
180(L)×105(W)×25(H)

### Specifications

| The parameter name | | CR-uCAT5 COMP 300T |
|---|---|---|
| CV video input | Interface type | DVI-I male socket to RCA female (Certified cable) |
| | Format | NTSC, PAL, SECAM |
| | Signal type | Composite Video (CVBS) |
| | Signal strength | 1Vpp Composite Video (CVBS) |
| | Min/Max Level | -2V/+2V |
| | Impedance | 75Ω |
| Y/C video input | Interface type | DVI-I male socket to RCA female interface(Certified cabble) |
| | Signal type | Y/C video |
| | Signal Strength | 1Vpp: (Component Video's Y) |
| | Min/Max level | -2V/+2V |
| | Impedance | 75Ω |
| YUV video input | Interface type | DV-I male socket to RCA female interface(Certified cabble) |
| | Signal type | Component Video(YPbPr/YCbCr) |
| | Signal Strength | 1Vpp: (Component Video's Y); 0.3Vpp: (Component Video's PbPr/CbCr) |
| | Min/Max level | -2V/+2V |
| | Impedance | 75Ω |
| VGA video input | Interface type | DVI-I male socket to DB15 female socket |
| | Signal type | RGBHV |
| | Signal strength | 0.63V p-p to 0.9 V p-p ( RGB signal ) |
| | Min/Max level | -2V/+2V |
| | Impedance | 75Ω |
| Audio signal | Audio output | 1 way analog stereo output; 3.5mm earphone socket |
| | Frequency response | 20Hz-20KHz |
| | Audio input level | 2Vrms (Max) |

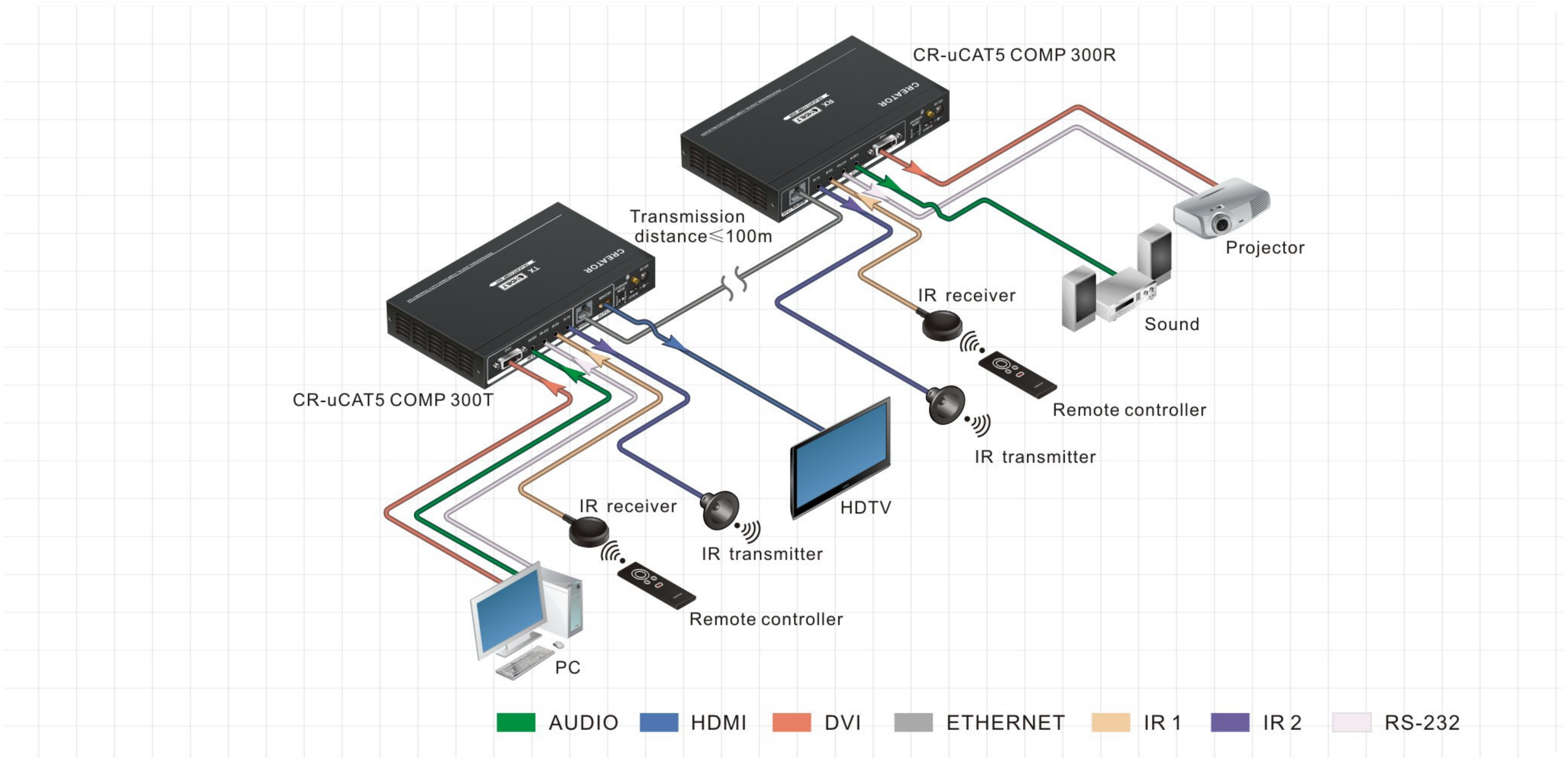




### Specifications

| The parameter name | | CR-uCAT5 COMP 300T |
|---|---|---|
| HDBaseT output | Interface type | High speed RJ45 |
| | Transmission distance | 100 meters with Cat5e/6 shielding cable |
| HD video input | Interface | 1 DVI-I female interface |
| | Supported Protocols | HDMI1.3a, HDCP1.3, DVI1.0 |
| | Gain | 0 dB |
| | Pixel bandwidth | 165MHz , full digital |
| | Interface bandwidth | 2.25Gbps , full digital (total 6.75Gbps, each color 2.25Gbps) |
| | Maximally supported resolution | HDPC:1920*1200@60Hz HDTV:1920*1080@60Hz |
| | Min/Max level | T.M.D.S. 2.9V/3.3V |
| | Impedance | 50Ω |
| | Recommended maximum output distance | Maximum 7 meters for 1920*1080p@60Hz (certified special purpose cables are recommended, such as Molex TM cable) |
| Serial port control | Serial port control interface | 3P female phoenix socket |
| | Baud rate | 110-115200bps |
| IR control | IR Control | IR (3.5mm earphone socket) |
| | IR frequency | 38KHz |
| POE (PSE/PD) | Supported protocols | Support IEEE 802.3at standard |
| | Transmission Voltage | 48V |
| | Maximum transmission power | 13W |
| Spec-ifi-cations | Power supply | DC 24V |
| | Maximum power consumption | 9W(without POE) |

### System connection diagram



# CR-uCAT5 COMP 300R

## HDBaseT series COMPONENT/CAT5 receiver

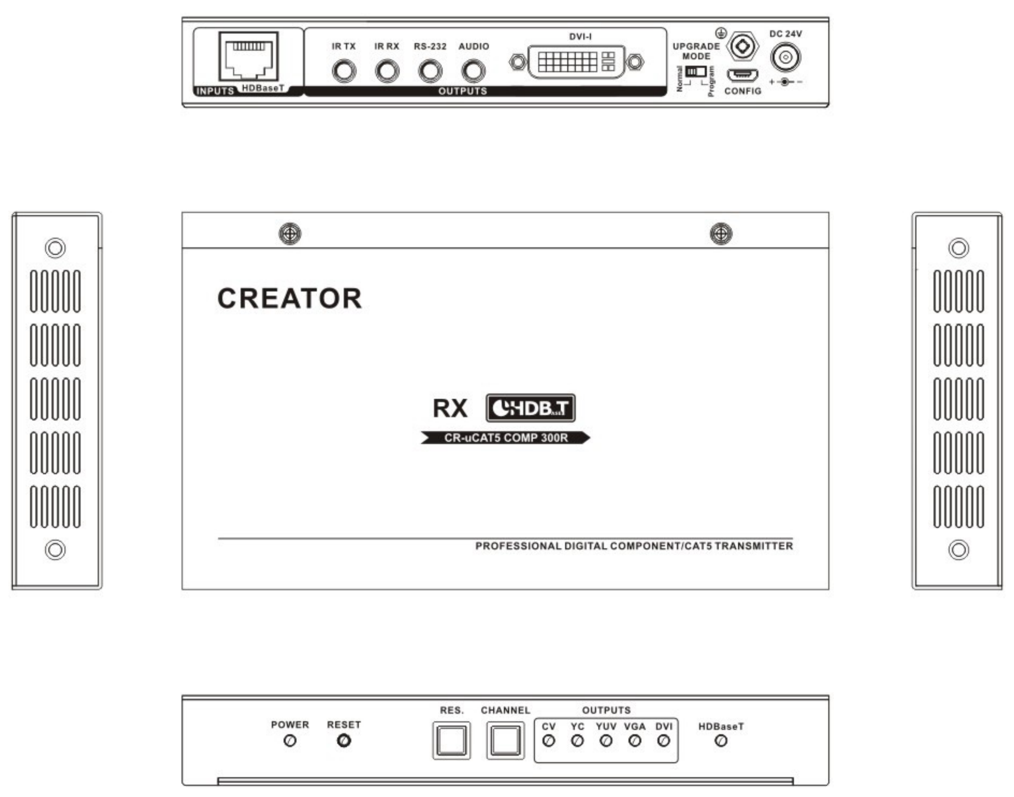
CR-uCAT5 COMP 300R

### Product overview

It can transmit high definition 1080p video is up to 100 meters. It can also transmit bi-directional RS-232, bi-directional IR signals at the same time. It's a economical solution for long distant video transmission needs.

### Features

- Support CV, Y/C, YPbPr, VGA, DVI, and HDMI signals input.
- Support outside analog audio embedded into the video signal for simultaneous transmission.
- Support resolution switching function; support up-scale to 1080p@60Hz.
- Support built-in bi-directional IR and RS-232 transmission.
- Support video, audio, IR, RS-232 simultaneous transmission. The transmission distance can be up to 100 meters with Cat5e/6 shielding cable.
- Support firmware upgrade via RS-232.
- Support PoE function.




Size（mm):
180(L)×105(W)×25(H)

### Specifications

| | The parameter name | CR-uCAT5 COMP 300R |
|---|---|---|
| CV video output | Interface type | DVI-I male socket to RCA female (Certified cable) |
| | Format | NTSC, PAL, SECAM |
| | Signal type | Composite Video (CVBS) |
| | Signal strength | 1Vpp Composite Video (CVBS) |
| | Min/Max Level | -2V/+2V |
| | Impedance | 75Ω |
| Y/C video output | Interface type | DVI-I male socket to RCA female interface(Certified cabble) |
| | Signal type | Y/C video |
| | Signal Strength | 1Vpp: (Component Video's Y) |
| | Min/Max level | -2V/+2V |
| | Impedance | 75Ω |
| YUV video output | Interface type | DV-I male socket to RCA female interface(Certified cabble) |
| | Signal type | Component Video(YPbPr/YCbCr) |
| | Signal Strength | 1Vpp: (Component Video's Y); 0.3Vpp: (Component Video's PbPr/CbCr) |
| | Min/Max level | -2V/+2V |
| | Impedance | 75Ω |
| VGA video output | Interface type | DVI-I male socket to DB15 female socket |
| | Signal type | RGBHV |
| | Signal strength | 0.63V p-p to 0.9 V p-p ( RGB signal ) |
| | Min/Max level | -2V/+2V |
| | Impedance | 75Ω |
| Audio signal | Audio output | 1 way analog stereo output; 3.5mm earphone socket |
| | Frequency response | 20Hz-20KHz |
| | Audio input level | 2Vrms (Max) |

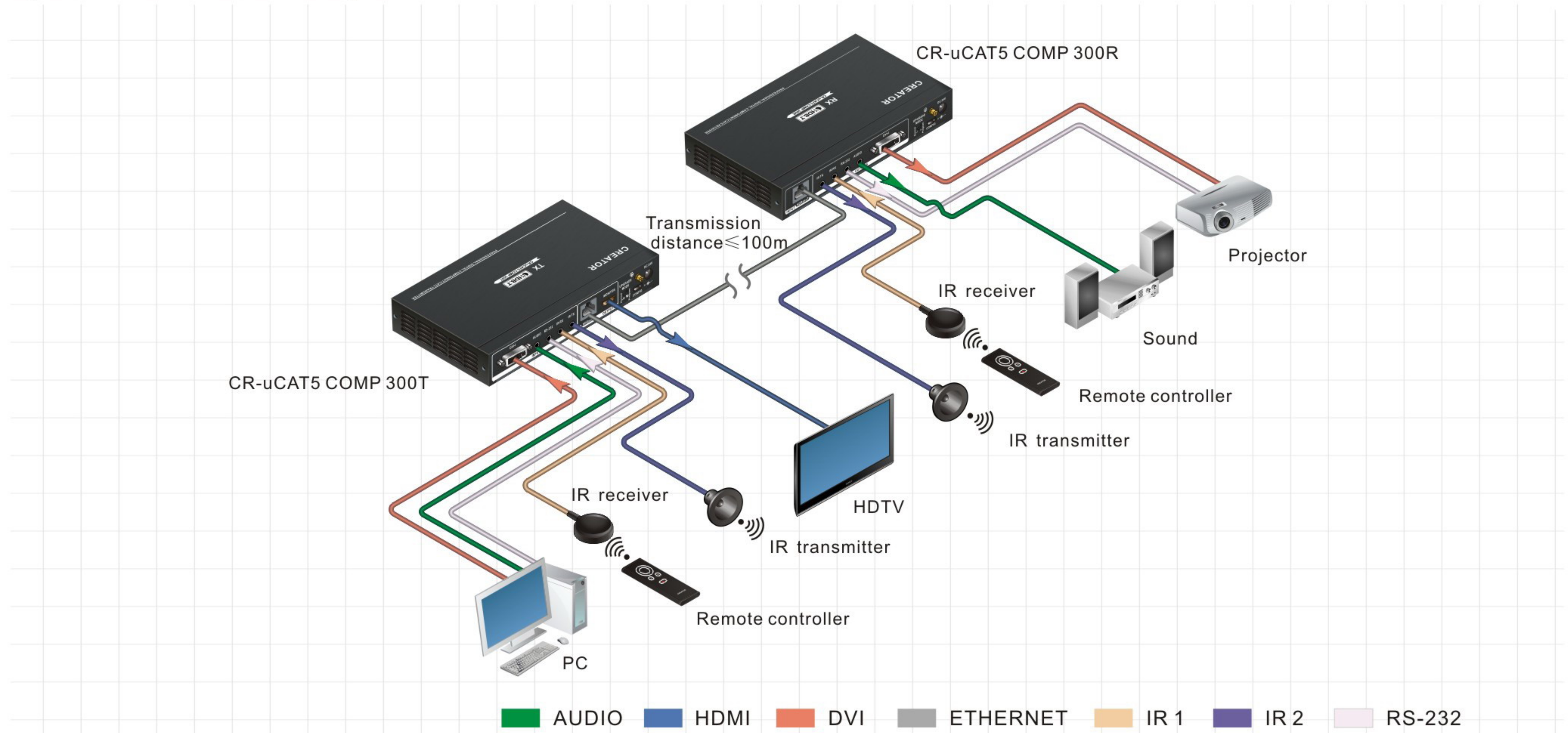




### Specifications

| | The parameter name | CR-uCAT5 COMP 300R |
|---|---|---|
| HDBaseT input | Interface type | High speed RJ45 |
| | Transmission distance | 100 meters with Cat5e/6 shielding cable |
| HD video output | Interface | 1 DVI-I female interface |
| | Supported Protocols | HDMI1.3a, HDCP1.3, DVI1.0 |
| | Gain | 0 dB |
| | Pixel bandwidth | 165MHz , full digital |
| | Interface bandwidth | 2.25Gbps , full digital (total 6.75Gbps, each color 2.25Gbps) |
| | Maximally supported resolution | HDPC:1920*1200@60Hz HDTV:1920*1080@60Hz |
| | Min/Max level | T.M.D.S. 2.9V/3.3V |
| | Impedance | 50Ω |
| | Recommended maximum output distance | Maximum 7 meters for 1920*1080p@60Hz (certified special purpose cables are recommended, such as Molex TM cable) |
| Serial port control | Serial port control interface | 3P female phoenix socket |
| | Baud rate | 110-115200bps |
| IR control | IR Control | IR (3.5mm earphone socket) |
| | IR frequency | 38KHz |
| POE (PSE/PD | Supported protocols | Support IEEE 802.3at standard |
| | Transmission Voltage | 48V |
| | Maximum transmission power | 13W |
| Spec-ifi-cations | Power supply | DC 24V |
| | Maximum power consumption | 10W |

### System connection diagram



# CR-uCAT5 HDMI 4KT

## HDBaseT series HDMI/CAT5 transmitter

CR-uCAT5 HDMI 4KT

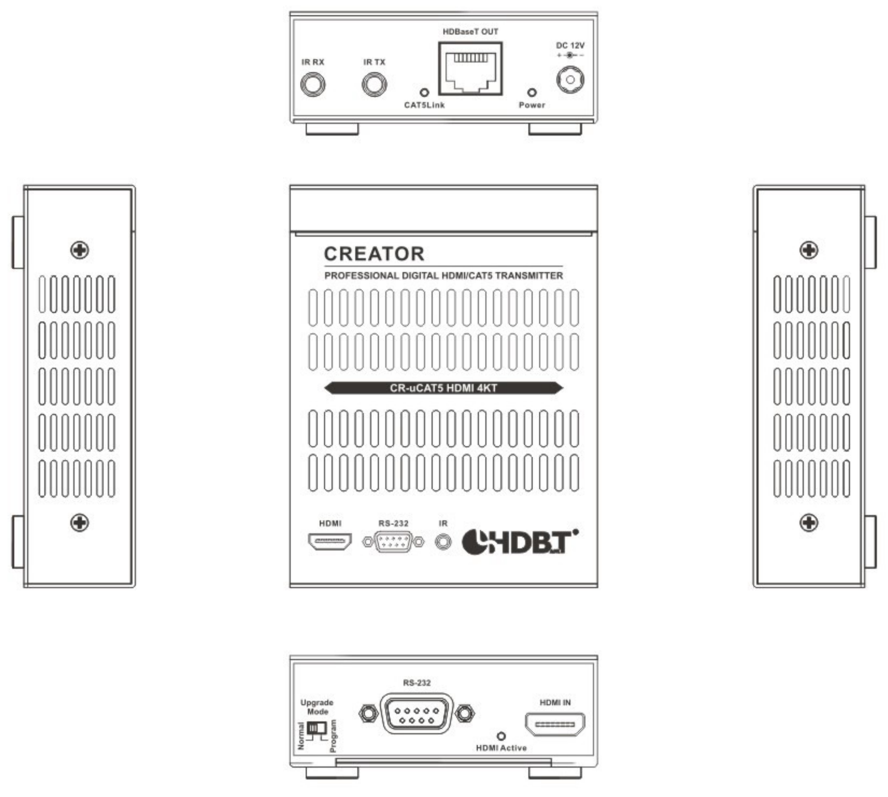
### Product overview

The CR-uCAT5 HDMI 4KT provides a simple and reliable solution for extending 4Kx2K video, audio, and control signals up to 330 feet (100 meters) over a single CAT5e/6.

The CR-uCAT5 HDMI 4KT's compact low-profile design enables discreet installation behind the sources device the display device.

### Features

- Extends uncompressed digital video, audio, and control signals up to 330 feet (100 meters) over a single CAT5e twisted-pair cable.
- Compatible with HDMI1.4a, DVI1.0, and HDCP.
- Works reliably without any programming or configuration.
- Handles Full HD 1080p video with Deep Color and 3D.
- Handles 4K video resolutions up to 230 feet (70 meters).
- Passes CEC, EDID and HDCP.
- Includes universal IR emitter up to 38kHz.
- Extends bidirectional RS-232 up to 115200 bps.
- 12VDC power pack included.
- Compatible with HDMI and DVI display devices.



Size (mm):
104. 8 (L) ×80 (W) ×29 (H)

### Specifications

| The parameter name | | CR-uCAT5 HDMI 4KT |
|---|---|---|
| HDMI video input | Interface | HDMI-A interface |
| | Supported protocols | HDMI1.4a, HDCP1.3, EDIDI.4 |
| | PIXEL bandwidth | More than 225MHz, full digital |
| | Interface bandwidth | More than 6.75Gbps |
| | Maximum supported resolution | NormalPC: 4K×2K<br>HDPC: 4K×2K HDTV: 4K×2K |
| | Video cable maximum input distance | Less than 7 meters, at 4K×2K (recommendthe use of certified HDMI special wire, such as the Molex TM wire) |
| | Signal type | HDMI l.4a / T.M.D.S full digital signal |
| | Signal strength | T.M.D.S. +/- 0.4Vpp |
| | Minimum / maximum level | T.M.D.S. 2.9V/3.3V |
| | Audio input | Via HDMI signal |
| | Impedance | The difference of 100 |
| Serial port control | Serial port control | RS-232 |
| | Baud rate | Maximum ± 5mV |
| Infrared interface | Infrared control | IR (3.5MM Headset seat) |
| | IR frequency | 38KHz |

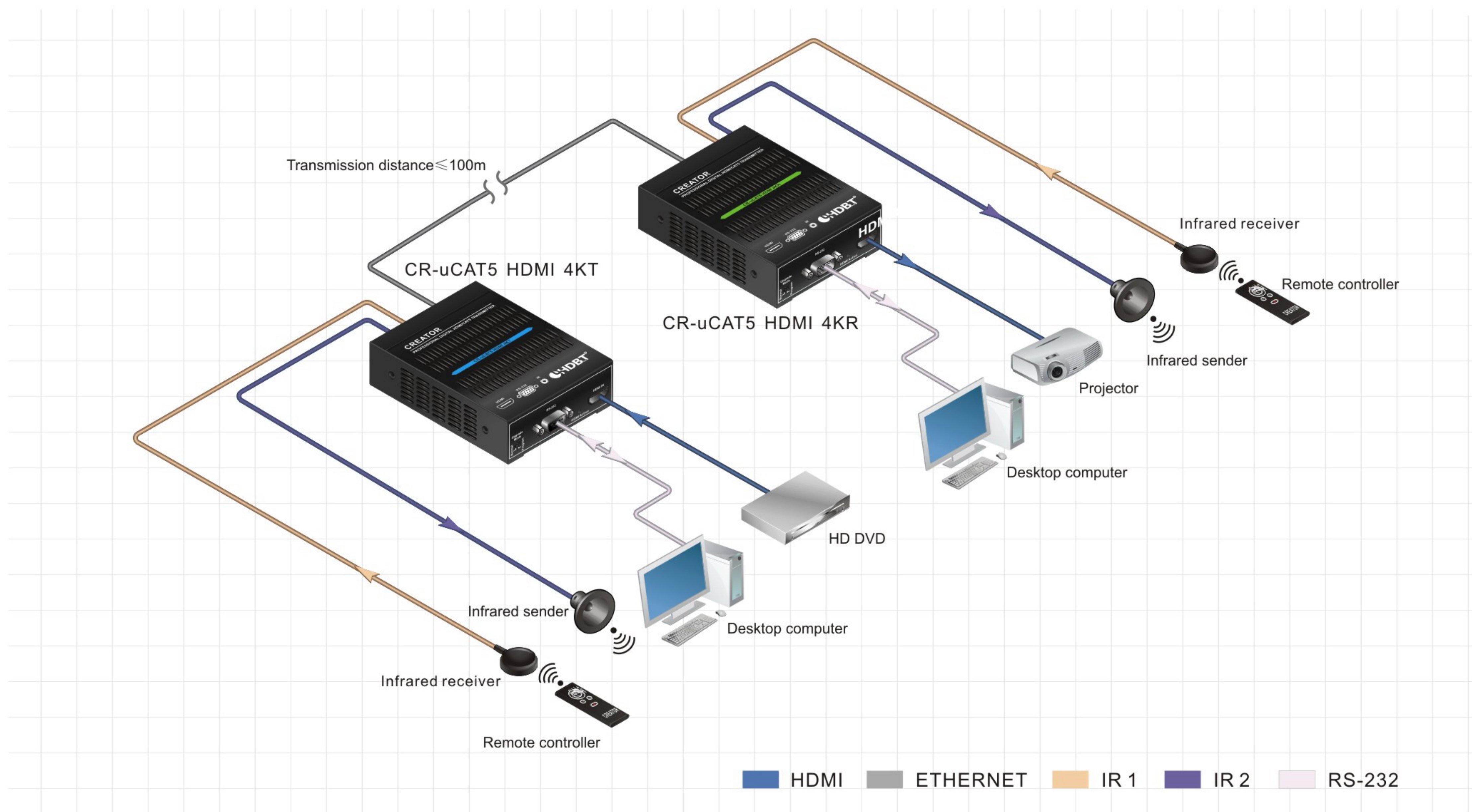




### Specifications

| The parameter name | | CR-uCAT5 HDMI 4KT |
|---|---|---|
| HDBaseT output | Interface | High speed RJ45 |
| | Transmission distance | Up to 100m if use CAT5e/6 shielded cable |
| Specifications | Power supply | DC 12V/1.5A |
| | Maximum power consumption | 3W |

### System connection diagram



# CR-uCAT5 HDMI 4KR

## HDBaseT series HDMI/CAT5 receiver

CR-uCAT5 HDMI 4KR

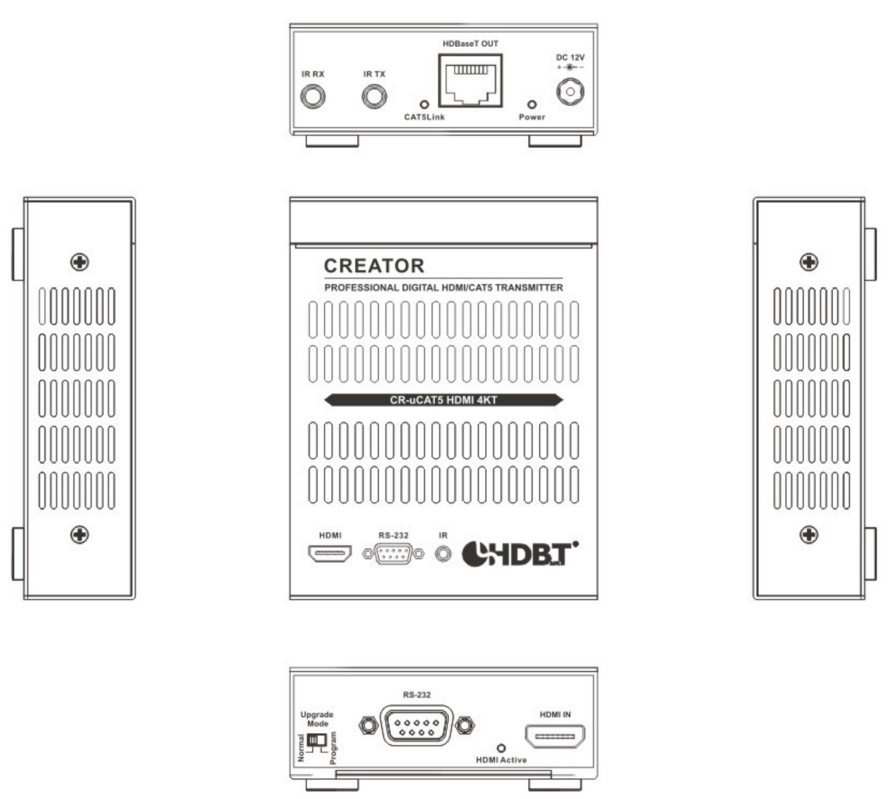
### Product overview

The CR-uCAT5 HDMI 4KR provides a simple and reliable solution for extending 4Kx2K video, audio, and control signals up to 330 feet (100 meters) over a single CAT5e/6.

The CR-uCAT5 HDMI 4KR's compact low-profile design enables discreet installation behind the sources device the display device.

### Features

- Extends uncompressed digital video, audio, and control signals up to 330 feet (100 meters) over a single CAT5e twisted-pair cable.
- Compatible with HDMI1.4a, DVI1.0, and HDCP.
- Works reliably without any programming or configuration.
- Handles Full HD 1080p video with Deep Color and 3D.
- Handles 4K video resolutions up to 230 feet (70 meters).
- Passes CEC, EDID and HDCP.
- Includes universal IR emitter up to 38kHz.
- Extends bidirectional RS-232 up to 115200 bps.
- 12VDC power pack included.
- Compatible with HDMI and DVI display devices.



Size (mm):
104. 8 (L) ×80 (W) ×29 (H)

### Specifications

| The parameter name | | CR-uCAT5 HDMI 4KR |
|---|---|---|
| HDMI video input | Interface | HDMI-A interface |
| | Supported protocols | HDMI1.4a, HDCP1.3, EDIDI.4 |
| | PIXEL bandwidth | More than 225MHz, full digital |
| | Interface bandwidth | More than 6.75Gbps |
| | Maximum supported resolution | NormalPC: 4K×2K<br>HDPC: 4K×2K HDTV: 4K×2K |
| | Video cable maximum input distance | Less than 7 meters, at 4K×2K (recommendthe use of certified HDMI special wire, such as the Molex TM wire) |
| | Signal type | HDMI I.3a / T.M.D.S full digital signal |
| | Signal strength | T.M.D.S. +/- 0.4Vpp |
| | Minimum / maximum level | T.M.D.S. 2.9V/3.3V |
| | Audio input | Via HDMI signal |
| | Impedance | The difference of 100 |
| Serial port control | Serial port control | RS-232 |
| | Baud rate | Maximum ± 5mV |
| Infrared interface | Infrared control | IR (3.5MM Headset seat) |
| | IR frequency | 38KHz |

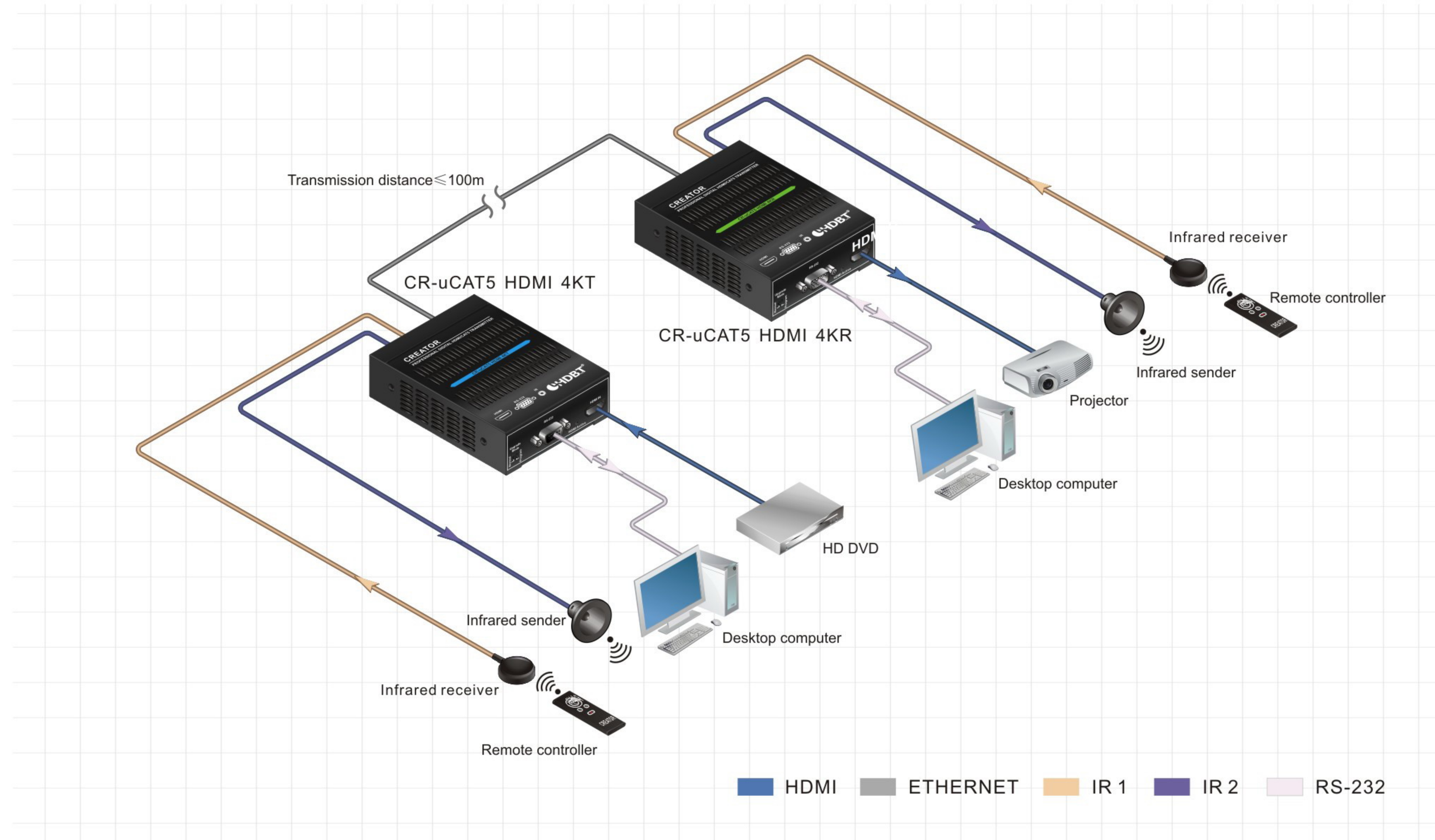




### Specifications

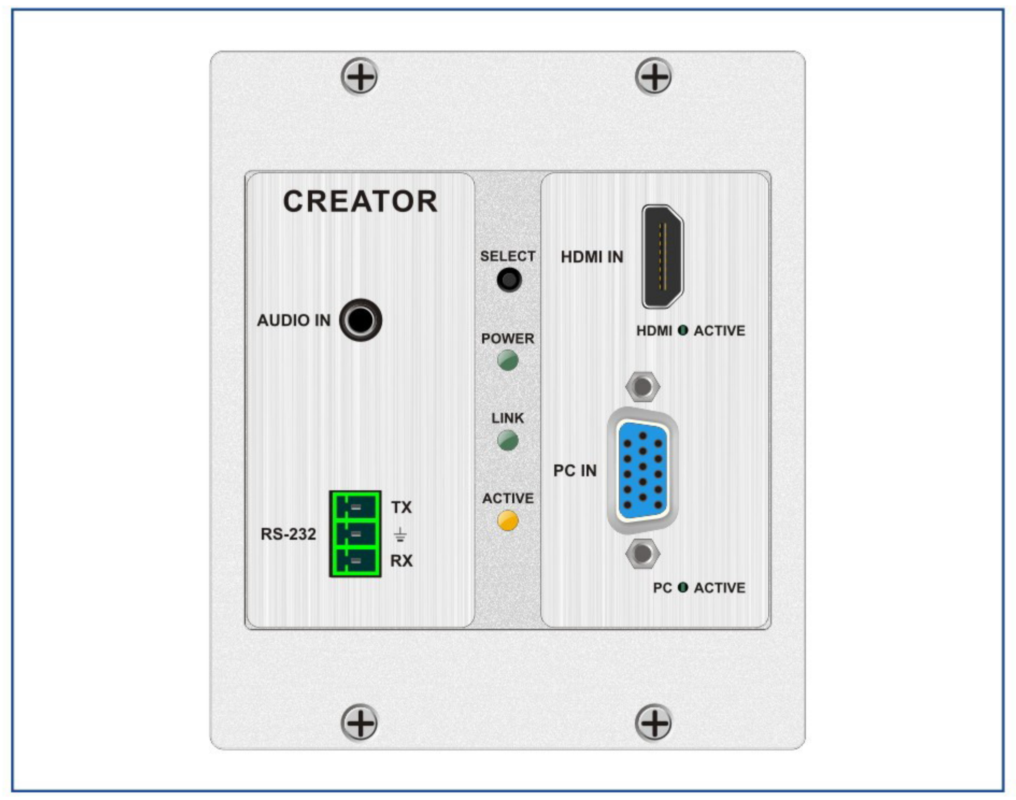
| The parameter name | | CR-uCAT5 HDMI 4KR |
|---|---|---|
| HDBaseT output | Interface | High speed RJ45 |
| | Transmission distance | Up to 100m if use CAT5e/6 shielded cable |
| Specifications | Power supply | DC 12V/1.5A |
| | Maximum power consumption | 4W |

### System connection diagram

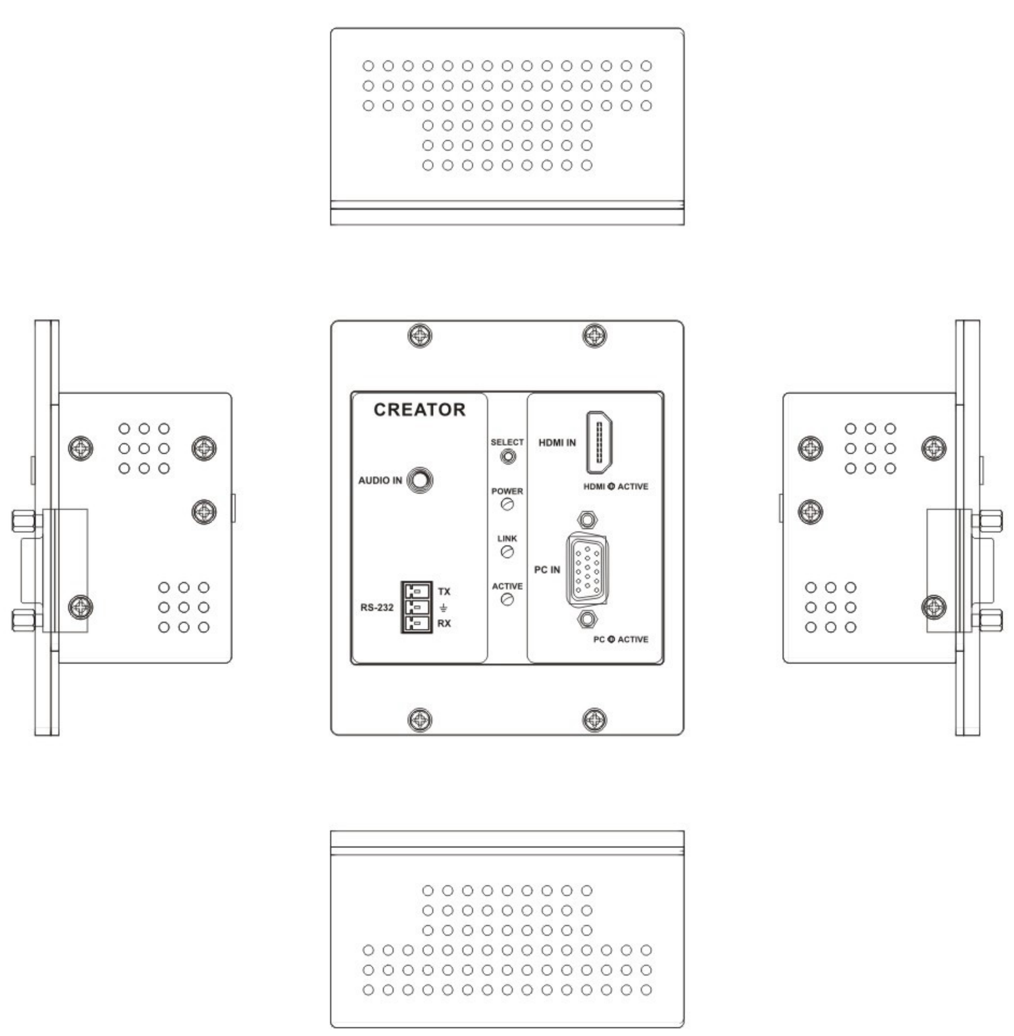


# CR-uCAT5 DWT

## HDBaseT series wallplate CAT5 transmitter




CR-uCAT5 DWT



Size (mm):
89(L)×104.5(W)×49.5(H)

### Product overview

The CR-uCAT5 DWT is a wallplate panel that supports multiple video inputs, and can transmit high definition video signal of 1080p and bi-directional RS-232 signal up to 100 meters via CAT5e/6 cable.

### Features

- Support CV, Y/CYPbPr, VGA, DVI, and HDMI signals input.
- Support outside analog audio embedded into the video signal for simultaneous transmission.
- Support resolution switching function; support up-scale to 1080p@60Hz.
- Support built-in bi-directional RS-232 transmission.
- Support video, audio, RS-232 simultaneous transmission when use CAT5e/6 shielding twisted-pair cable for up to 100 meters transmission.
- Support firmware upgrade via RS-232.
- Support POC.

### Specifications

| The parameter name | | CR-uCAT5 DWT |
|---|---|---|
| CV video input | Interface type | DB15 male socket to RCA female (Certified cable) |
| | Format | NTSC, PAL, SECAM |
| | Signal type | Composite Video (CVBS) |
| | Signal strength | 1Vpp Composite Video (CVBS) |
| | Min/Max Level | -2V/+2V |
| | Impedance | 75Ω |
| Y/C video input | Interface type | DVI-I male socket to RCA female interface(Certified cabble) |
| | Signal type | Y/C video |
| | Signal Strength | 1Vpp: (Component Video's Y) |
| | Min/Max level | -2V/+2V |
| | Impedance | 75Ω |
| YUV video input | Interface type | DB15 male socket to RCA female interface(Certified cabble) |
| | Signal type | Component Video(YPbPr/YCbCr) |
| | Signal Strength | 1Vpp: (Component Video's Y); 0.3Vpp: (Component Video's PbPr/CbCr) |
| | Min/Max level | -2V/+2V |
| | Impedance | 75Ω |
| VGA video input | Interface type | Db15 female socket |
| | Signal type | RGBHV |
| | Signal strength | 0.63V p-p to 0.9 V p-p ( RGB signal ) |
| | Min/Max level | -2V/+2V |
| | Impedance | 75Ω |
| Audio signal | Audio output | 1 way analog stereo output; 3.5mm earphone socket |
| | Frequency response | 20Hz-20KHz |
| | Audio input level | 2Vrms (Max) |

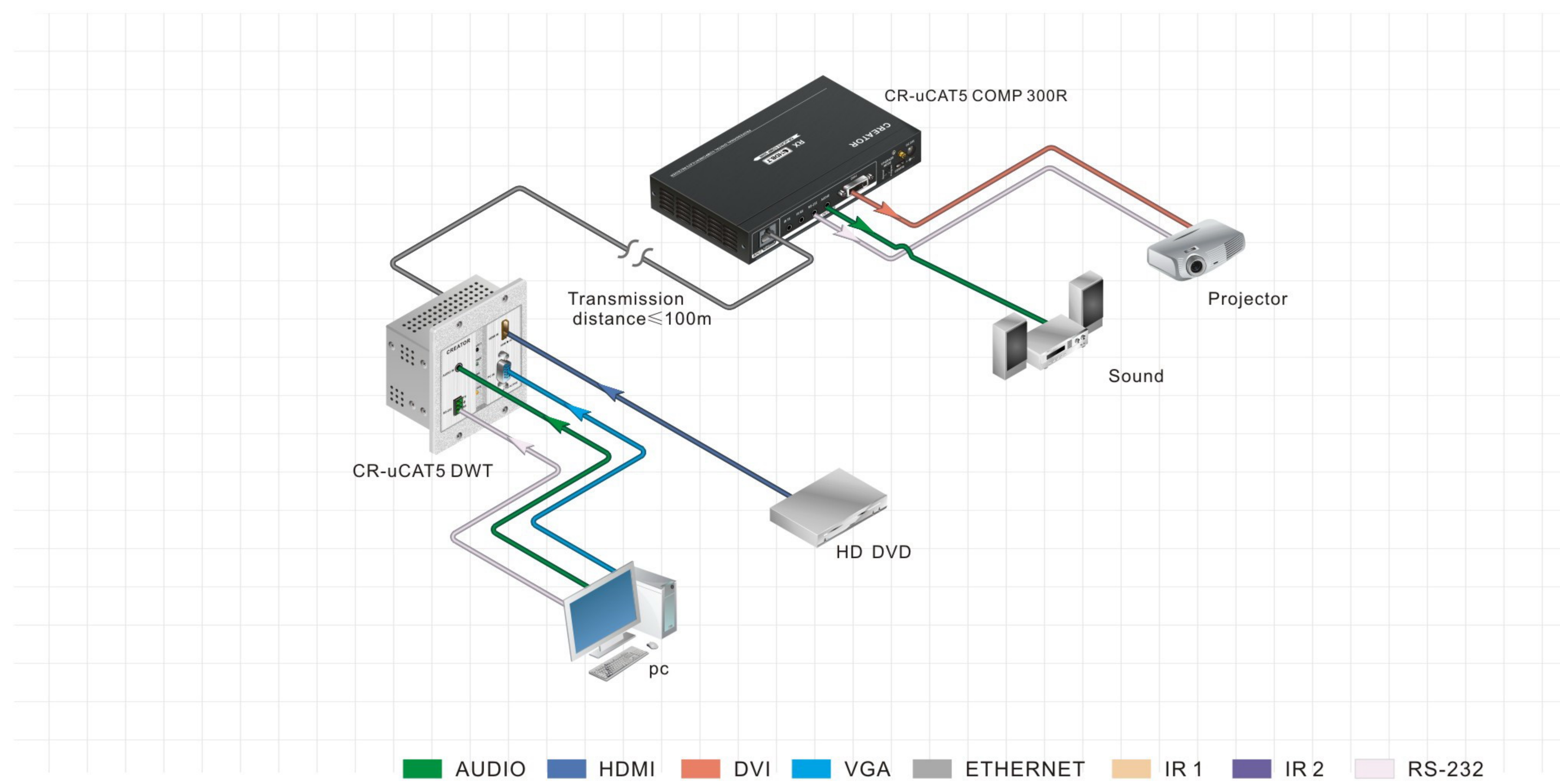




### Specifications

| The parameter name | | CR-uCAT5 DWT |
|---|---|---|
| HDBaseT output | Interface type | High speed RJ45 |
| | Transmission distance | 100 meters with Cat5e/6 shielding cable |
| HD video input | Interface | HDMI-A female interface |
| | Supported Protocols | HDMI1.3a, HDCP1.3, DVI1.0 |
| | Gain | 0 dB |
| | Pixel bandwidth | 165MHz , full digital |
| | Interface bandwidth | 2.25Gbps , full digital (total 6.75Gbps, each color 2.25Gbps) |
| | Maximally supported resolution | HDPC:1920*1200@60Hz HDTV:1920*1080@60Hz |
| | Min/Max level | T.M.D.S. 2.9V/3.3V |
| | Impedance | 50Ω |
| | Recommended maximum output distance | Maximum 7 meters for 1920*1080p@60Hz (certified special purpose cables are recommended, such as Molex TM cable) |
| Serial port control | Serial port control interface | 3P female phoenix socket |
| | Baud rate | 110-115200bps |
| Specifi-cations | Power supply | DC 24V / POC |
| | Maximum power consumption | 8W |

### System connection diagram



# CR-uSF AV 200T

## COMPONENT/FIBER transmitter

CR-uSF AV 200T

## Product overview

CR-uSF AV 200T is a single core multi-format optical fiber transmitter supporting multiple format component video. It can convert CV, Y/C, YPbPr, VGA, DVI, HDMI video signals and Audio signal into optical signal for transmission. It can be matched with the matrix. It supports RS-232 and IR pass through.

## Features

- Support for single core multi-format fiber to transmit CV, Y/C, YPbPr, VGA, DVI, and HDMI signals.
- With HDMI-Monitor video output monitor function.
- Support transmission of synchronous Audio signal, IR signal and RS-232 signal
- Support the field refresh EDID
- Transmission distance is up to 300M.


Size (mm):
162(L)×195(W)×35(H)

## Specifications

| | The parameter name | CR-uSF AV 200T |
|---|---|---|
| HDMI video input | Supported protocols | DVI1.0,HDMI1.3a,HDCP1.3 |
| | PIXEL bandwidth | 165MHz, all digital |
| | Interface bandwidth | 2.25Gbps, Full digital (a total of 6.75Gbps, each color is 2.25Gbps) |
| | Maximum supported resolution | PC 1920x1200@60_24bit Color depth<br>HDTV 1920x1080P@60_36bit Color depth |
| | Clock jitter | ＜0.15 Tbit |
| | Rise time | <0.3Tbit (20%--80%) |
| | Fall time | <0.3Tbit (20%--80%) |
| | Signal type | DVI-D/ HDMI digital T.M.D.S signal in DVI I.0/HDMI I.3a specification |
| | Interface | The HDMI-A interface (Type A connector) |
| | Signal strength | T.M.D.S. 3.3V pp |
| | Minimum / maximum level | T.M.D.S. 2.9V/3.3V |
| | Impedance | 50 Ω |
| | Input EDID | Using the default EDID, (Support terminal EDID mapping to input) |
| | Maximum DC offset error | +/-15mV |
| | The recommended maximum input distance | Less than 10 meters, in the 1920x1080p@60 (recommended the use of certified HDMI special wire, as Molex TM wire) |





## Specifications

| | The parameter name | CR-uSF AV 200T | | | |
|---|---|---|---|---|---|
| Component video input | Interface | The HD-15 famale interface | | | |
| | Signal type | Composite video CV | Y/C video | Component video YPbPr | VGA video |
| | Gain | 0dB | 0dB | 0 dB | 0 dB |
| | Bandwidth | 150MHz @ -3dB | 150MHz @ -3dB | 350MHz @ -3dB | 380 MHZ |
| | Differential phase error | 0.1%，3.58-4.43 MHz | 0.1%，3.58-4.43 MHz | 0.1%， 3.58-4.43 MHz | |
| | Differential gain error | 0.1%，3.58-4.43 MHz | 0.1%，3.58-4.43 MHz | 0.1%，3.58-4.43 MHz | |
| | Signal strength | 1Vpp：composite video (CVBS) | 1Vpp: STerminal video (Y/C) | 1V pp: (Component video in Y)<br>0.3Vpp：(Component video in PbPr/CbCr) | 0.63Vpp – 0.9 Vpp |
| | Minimum / maximum level | Analog signal: -2V/+2V | Analog signal: -2V/+2V | Analog signal: -2V/+2V | RGB signal：0V/1.0V HV signal：0V/5.0V |
| | Input impedance | 75 Ω | 75 Ω | 75Ω | 75Ω |
| | Echo loss | <-30dB@5MHz | <-30dB@5MHz | <-30dB@5MHz | <-30dB@5MHz |
| DVI video input | Supported protocols | DVI1.0,HDMI1.3a,HDCP1.3 | | | |
| | PIXEL bandwidth | 165MHz, all digital | | | |
| | Interface bandwidth | 2.25Gbps, Full digital (a total of 6.75Gbps, each color is 2.25Gbps) | | | |
| | Maximum supported resolution | PC 1920x1200@60_24bit Color depth HDTV 1920x1080P@60_36bit Color depth | | | |
| | Clock jitter | ＜0.15 Tbit | | | |
| | Rise time | <0.3Tbit (20%--80%) | | | |
| | Fall time | <0.3Tbit (20%--80%) | | | |
| | Signal type | DVI-D/ HDMI digital T.M.D.S signal in DVI I.0/HDMI I.3a specification | | | |
| | Interface | DVI-D Interface | | | |
| | Signal strength | T.M.D.S. 3.3V pp | | | |
| | Minimum / maximum level | T.M.D.S. 2.9V/3.3V | | | |
| | Input impedance | 50Ω | | | |
| | Input EDID | Using the default EDID, (Support terminal EDID mapping to input) | | | |
| | Maximum DC offset error | +/-15mV | | | |
| | The recommended maximum input distance | Less than 10 meters, in the 1920x1080p@60(recommended the use of certified DVI special wire, as Molex TM wire) | | | |
| Audio signal input | Interface | 3.5mm stereo audio socket | | | |
| | Gain | 0 dB | | | |
| | Frequency response | 20 Hz ~ 20 kHz, | | | |
| | Total harmonic distortion + noise | 0.01% @ 1 kHz (Under rated voltage) | | | |
| | The signal-to-noise ratio (S / N) | ＞80dB at Vin=0 V | | | |
| | Stereo separation | >80dB @ 1 kHz | | | |
| | Common mode rejection ratio (CMRR) | >75dB @: 20 Hz ~ 20 kHz | | | |
| | Signal type | Stereo | | | |
| | Impedance | Input: >10 kΩ(Balanced or unbalanced connection) Output：50Ω(Unbalanced connection) | | | |
| | Maximum input level | 3Vpp | | | |
| | Gain error | ±0.1dB @20 Hz ~ 20 kHz | | | |
| IR infrared | Interface | Input: 3.5mm stereo audio socket Output: 3.5mm stereo audio socket | | | |
| | Signal type | Input: Digital Output: Digital | | | |
| | Output level type | PLL level | | | |
| | Wavelength | 850nm | | | |
| | Carrier frequency of input level | 38KHz | | | |

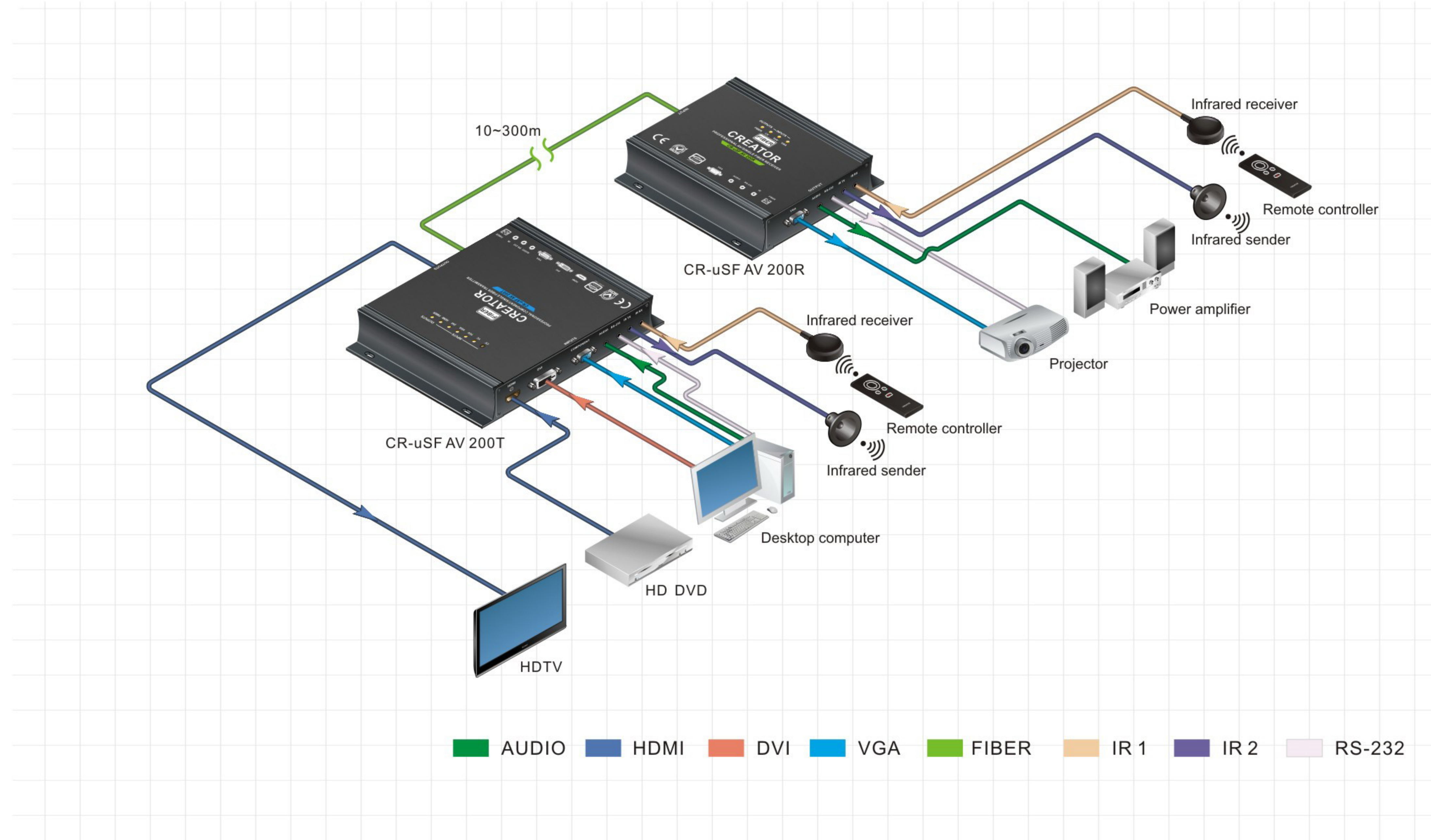
## Specifications

| | The parameter name | CR-uSF AV 200T |
|---|---|---|
| RS-232 | Interface | 3.5mm stereo audio socket |
| | Signal type | Digital |
| | Level type | RS-232 level |
| | Signal direction | Two-way communication |
| | Baud rate | Min: 4800bps Max: 115200bps |
| | Data bits | 8 |
| | Stop bit | 1 |
| | The correction bits | None |
| | Flow control | None |
| | Level delay | 500 ns |
| | Level peak | +/-15V |
| Optical fiber output | The fiber output interface | SC connector |
| | Fiber type | Multimode/Single Mode（Optional) |
| | Wavelength | Multimode 850nm/Single Mode: 1310 –1620nm（Optional) |
| | Interface bandwidth | Positive: 6.25Gbps, Reverse: 3.125Gbps |
| | Clock jitter | <0.15 Tbit |
| | Rise time | <0.3Tbit (20%--80%) |
| | Fall time | <0.3Tbit (20%--80%) |
| | The recommended maximum input distance | Om3 multimode fiber: less than 300 meters, at 1920x1080p@60. Single-mode fiber: 2`20km |
| Specifications | Power supply | The power adapter, 12VDC/2A |
| | Maximum power dissipation | MAX 8W |
| | Temperature | Storage, use temperature: -20℃~+70℃ |
| | Humidity | Storage, use humidity: 10%~90% |
| | Mean time between failures | 30,000 hours |
| | The warranty | 1 year free warranty, life-long maintenance |





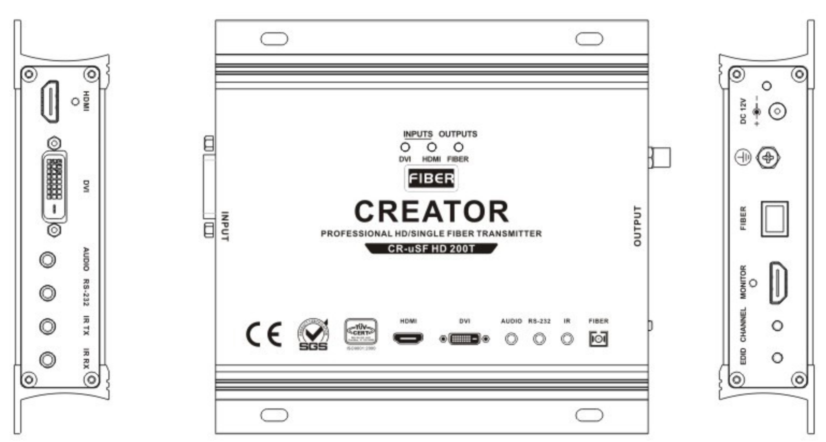
## System connection diagram



# CR-uSF HD 200T

## HD/FIBER transmitter

CR-uSF HD 200T



Size(mm):
162(L)×155(W)×35(H)

### Product overview

CR-uSF HD 200T is a single core multi-format optical fiber transmitter supporting high resolution HDMI, DVI signals. It can convert HDMI video signal into optical signal for transmission, and can be used with single core optical fiber transmission receiver or fiber matrix; supports for RS-232 and IR pass through.

### Features

- Support single core multi-format fiber transmission of high resolution of HDMI/DVI signal.
- With HDMI-monitor video output monitor function.
- Support transmission of Audio signal, IR signal and RS-232 signal.
- Support the field refresh EDID.
- Transmission distance is up to 300M.

### Specifications

| | The parameter name | CR-uSF HD 200T |
|---|---|---|
| DVI video input | Supported protocols | DVI1.0,HDMI1.3a,HDCP1.3 |
| | PIXEL bandwidth | 165MHz, all digital |
| | Interface bandwidth | 2.25Gbps, Full digital(a total of 6.75Gbps, each color is 2.25Gbps) |
| | Maximum supported resolution | PC 1920x1200@60_24bit Color depth HDTV 1920x1080P@60_36bit Color depth |
| | Clock jitter | <0.15 Tbit |
| | Rise time | <0.3Tbit (20%--80%) |
| | Fall time | <0.3Tbit (20%--80%) |
| | Signal type | DVI- D / HDMI full digital T.M.D.S signa in DVI I.0 / HDMI I.3a specification |
| | Interface | DVI-D Interface |
| | Signal strength | T.M.D.S. 3.3Vpp |
| | Minimum / maximum level | T.M.D.S. 2.9V/3.3V |
| | Input Impedance | 50Ω |
| | Input EDID | Using the default EDID, (Support terminal EDID mapping to input) |
| | Maximum DC offset error | +/-15mV |
| | The recommended maximum input distance | Less than 10 meters, in the 1920x1080p@60 (recommended the use of certified DVI special wire, as Molex TM wire) |





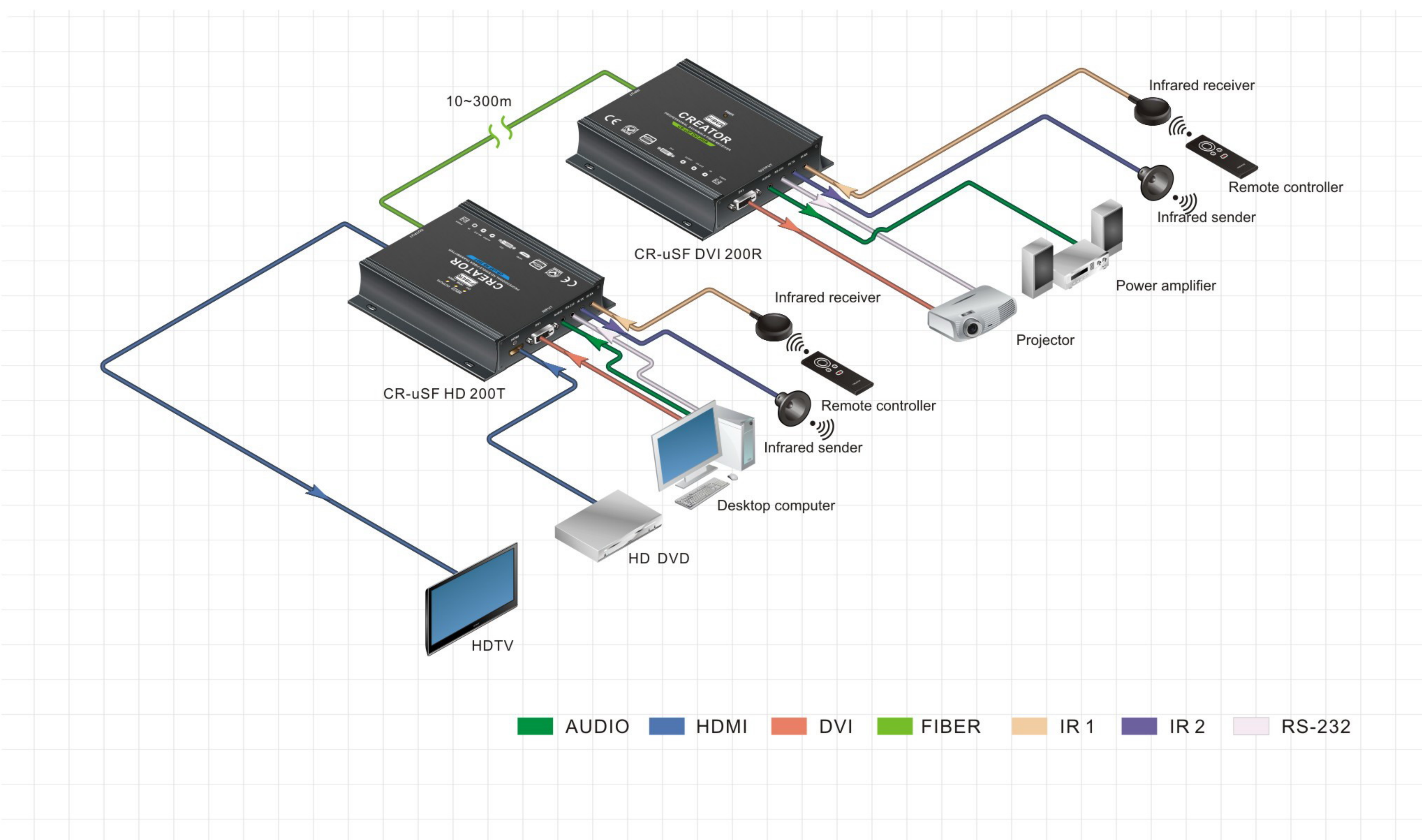
### Specifications

| | The parameter name | CR-uSF HD 200T |
|---|---|---|
| HDMI video input | Supported protocols | DVI1.0,HDMI1.3a,HDCP1.3 |
| | PIXEL bandwidth | 165MHz, all digital |
| | Interface bandwidth | 2.25Gbps, Full digital(a total of 6.75Gbps, each color is 2.25Gbps) |
| | Maximum supported resolution | PC 1920x1200@60_24bit Color depth HDTV 1920x1080P@60_36bit Color depth |
| | Clock jitter | <0.15 Tbit |
| | Rise time | <0.3Tbit (20%--80%) |
| | Fall time | <0.3Tbit (20%--80%) |
| | Signal type | DVI-D/ HDMI digital T.M.D.S signal in DVI I.0/HDMI I.3a specification |
| | Interface | HDMI-A Interface |
| | Signal strength | T.M.D.S. 3.3V p-p |
| | Minimum / maximum level | T.M.D.S. 2.9V/3.3V |
| | Impedance | 50 Ω |
| | Input EDID | Using the default EDID, (Support terminal EDID mapping to input) |
| | Maximum DC offset error | +/-15mV |
| | The recommended maximum input distance | Less than 10 meters, in the 1920x1080p@60(recommended the use of certified HDMI special wire, as Molex TM wire) |
| Audio signal input | Interface | 3.5mm stereo audio socket |
| | Gain | 0 dB |
| | Frequency response | 20 Hz ~ 20 kHz, |
| | Total harmonic distortion + noise | 0.01% @ 1 kHz (Under rated voltage) |
| | The signal-to-noise ratio (S / N) | >80dB at Vin=0 V |
| | Stereo separation | >80dB @ 1 kHz |
| | Common mode rejection ratio (CMRR) | >75dB @: 20 Hz ~ 20 kHz |
| | Signal type | Stereo |
| | Impedance | Input: >10 kΩ(Balanced or unbalanced connection) Output: 50Ω(Unbalanced connection) |
| | Maximum input level | 3Vpp |
| | Gain error | ±0.1dB @20 Hz ~ 20 kHz |
| IR infrared | Interface | Input: 3.5mm stereo audio socket Output: 3.5mm stereo audio socket |
| | Signal type | Input: Digital Output: Digital |
| | Output level type | PLL level |
| | Wavelength | 850nm |
| | Carrier frequency of input level | 38KHz |
| RS-232 | Interface | 3.5mm stereo audio socket |
| | Signal type | Digital |
| | Level type | RS-232 level |
| | Signal direction | Two-way communication |
| | Baud rate | Min: 4800bps Max: 115200bps |
| | Data bits | 8 |
| | Stop bit | 1 |
| | The correction bits | None |
| | Flow control | None |
| | Level delay | 500 ns |
| | Level peak | +/-15V |

## Specifications

| | The parameter name | CR-uSF HD 200T |
|---|---|---|
| Optical fiber output | The fiber output interface | SC connector |
| | Fiber type | Multimode/Single Mode (Optional) |
| | Wavelength | Multimode 850nm/Single Mode: 1310 –1620nm (Optional) |
| | Interface bandwidth | Positive: 6.25Gbps, Reverse: 3.125Gbps |
| | Clock jitter | <0.15 Tbit |
| | Rise time | <0.3Tbit (20%--80%) |
| | Fall time | <0.3Tbit (20%--80%) |
| | The recommended maximum input distance | Om3 multimode fiber: less than 300 meters, at 1920x1080p@60. Single-mode fiber: 2~20km |
| Specifications | Power supply | The power adapter, 12VDC/2A |
| | Maximum power dissipation | MAX 5W |
| | Temperature | Storage, use temperature: -20℃~+70℃ |
| | Humidity | Storage, use humidity: 10%~90% |
| | Mean time between failures | 30,000 hours |
| | The warranty | 1 year free warranty, life-long maintenance |

## System connection diagram








# CR-uSF HDMI 200R

## HDMI/FIBER receiver

## Product overview

CR-uSF HDMI 200R is a single core multi-format optical fiber transmitter supporting high resolution HDMI signals. It can convert optical fiber video signal into HDMI high-definition signal, and should be used with CR-uSF HD 200T or matrix; supports for RS-232 and IR

CR-uSF HDMI 200R

## Features

- Support single core multi-format fiber transmission of high resolution of HDMI signal.
- Support transmission of audio signal, IR signal and RS-232 signal.
- Transmission distance is up to 300M.

## Specifications

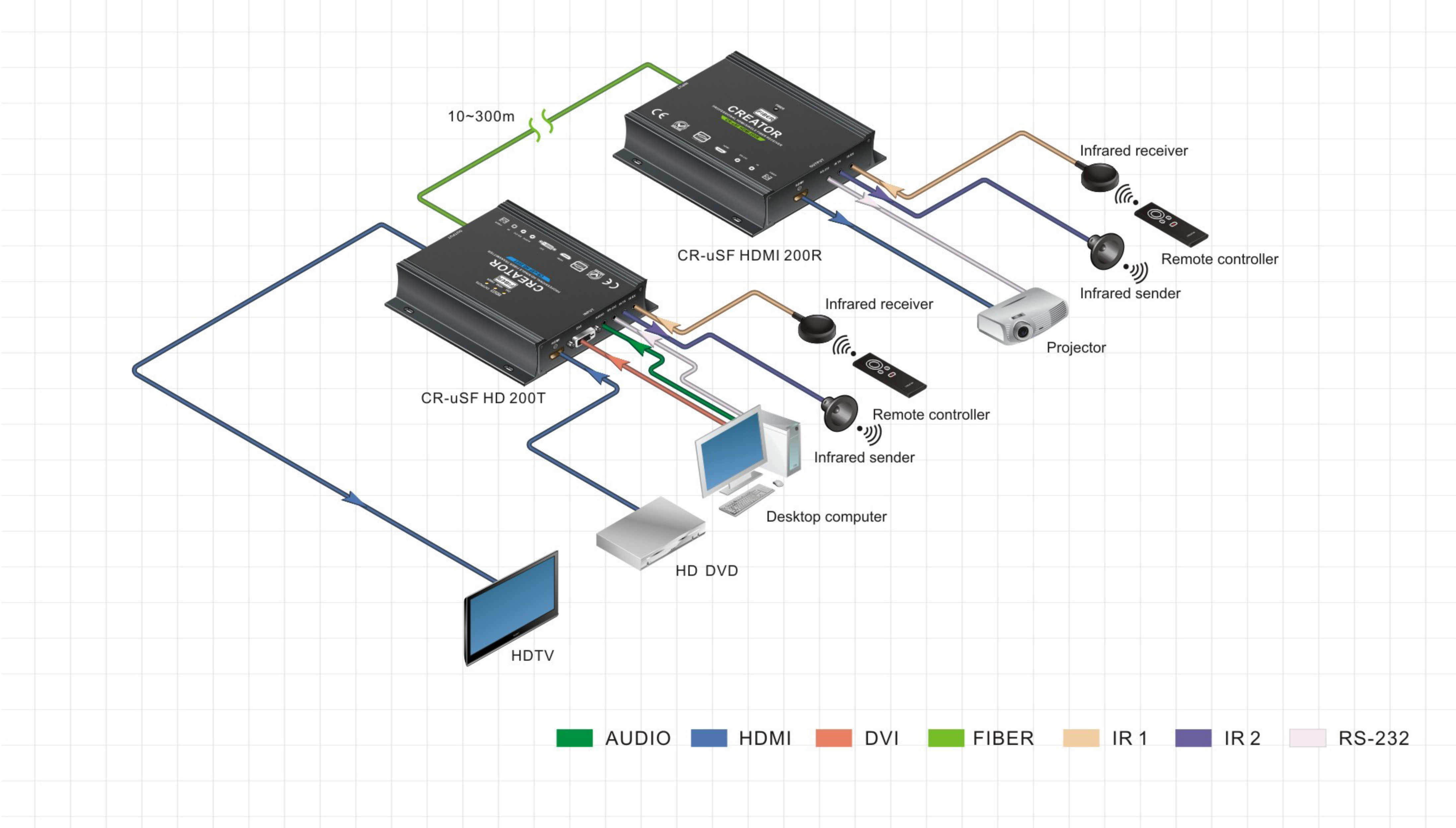
| | The parameter name | CR-uSF HDMI 200R |
|---|---|---|
| HDMI video output | Supported protocols | DVI1.0,HDMI1.3a,HDCP1.3 |
| | PIXEL bandwidth | 165MHz, all digital |
| | Interface bandwidth | 2.25Gbps, Full digital (a total of 6.75Gbps, each color is 2.25Gbps) |
| | Maximum supported resolution | PC 1920x1200@60_24bit Color depth<br>HDTV 1920x1080P@60_36bit Color depth |
| | Clock jitter | <0.15 Tbit |
| | Rise time | <0.3Tbit (20%--80%) |
| | Fall time | <0.3Tbit (20%--80%) |
| | Signal type | DVI-D/ HDMI digital T.M.D.S signal in DVI I.0/HDMI I.3a specification |
| | Interface | The HDMI-A interface |
| | Signal strength | T.M.D.S. 3.3V pp |
| | Minimum / maximum level | T.M.D.S. 2.9V/3.3V |
| | Impedance | 50 Ω |
| | Maximum DC offset error | +/-15mV |
| | The recommended maximum input distance | Less than 10 meters, in the 1920x1080p@60 (recommended the use of certified HDMI special wire, as Molex TM wire) |
| IR infrared | Interface | Input: 3.5mm stereo audio socket<br>Output: 3.5mm stereo audio socket |
| | Signal type | Input: Digital Output: Digital |
| | Output level type | PLL level |
| | Wavelength | 850nm |
| | Carrier frequency of input level | 38KHz |
| RS-232 | Interface | 3.5mm stereo audio socket |
| | Signal type | Digital |
| | Level type | RS-232 level |
| | Signal direction | Two-way communication |
| | Baud rate | Min: 4800bps Max: 115200bps |
| | Data bits | 8 |
| | Stop bit | 1 |
| | The correction bits | None |
| | Flow control | None |
| | Level delay | 500 ns |
| | Level peak | +/-15V |


Size (mm):
162(L)×155(W)×35(H)

## Specifications

| | The parameter name | CR-uSF HDMI 200R |
|---|---|---|
| Optical fiber output | The fiber output interface | SC connector |
| | Fiber type | Multimode/Single Mode（Optional) |
| | Wavelength | Multimode 850nm/Single Mode: 1310 –1620nm（Optional) |
| | Interface bandwidth | Positive: 6.25Gbps, Reverse: 3.125Gbps |
| | Clock jitter | <0.15 Tbit |
| | Rise time | <0.3Tbit (20%--80%) |
| | Fall time | <0.3Tbit (20%--80%) |
| | The recommended maximum input distance | Om3 multimode fiber: less than 300 meters, at 1920x1080p@60. Single-mode fiber: 2~20km |
| Specifications | Power supply | The power adapter, 12VDC/2A |
| | Maximum power dissipation | MAX 4W |
| | Temperature | Storage, use temperature: -20℃~+70℃ |
| | Humidity | Storage, use humidity：10%~90% |
| | Mean time between failures | 30,000 hours |
| | The warranty | 1 year free warranty, life-long maintenance |

## System connection diagram








# CR-uSF DVI 200R

## DVI/FIBER receiver

## Product overview

CR-uSF DVI 200R is a single core multi-format fiber transmission receiving terminal supporting high resolution DVI signal. It can restore the received optical signal to the HD DVI signal and audio signal, and can be used with CR-uSF HD 200T or fiber matrix; supports for RS-232 and IR pass through.

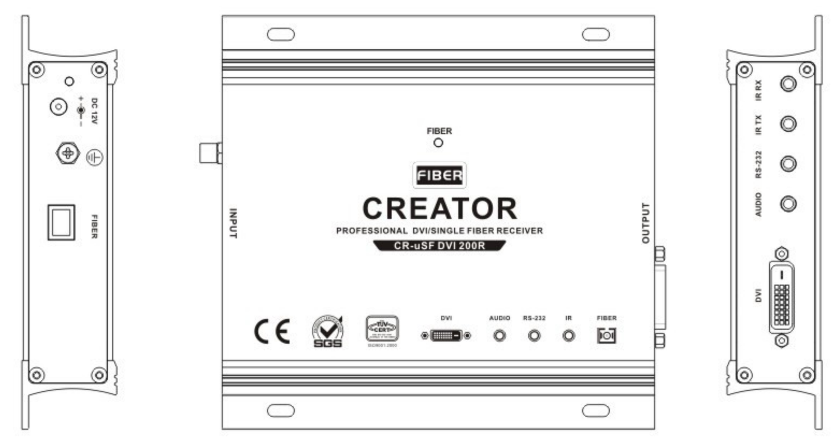
CR-uSF DVI 200R

## Features

- Support single core multi-format fiber transmission of high resolution of DVI signal.
- Support transmission of Audio signal, IR signal and RS-232 signal.
- Transmission distance is up to 300M.

## Specifications

| | The parameter name | CR-uSF DVI 200R |
|---|---|---|
| DVI video output | Supported protocols | DVI1.0,HDMI1.3a,HDCP1.3 |
| | PIXEL bandwidth | 165MHz, all digital |
| | Interface bandwidth | 2.25Gbps, Full digital（a total of 6.75Gbps, each color is 2.25Gbps) |
| | Maximum supported resolution | PC 1920x1200@60_24bit Color depth<br>HDTV 1920x1080P@60_36bit Color depth |
| | Clock jitter | ＜0.15 Tbit |
| | Rise time | <0.3Tbit (20%--80%) |
| | Fall time | <0.3Tbit (20%--80%) |
| | Signal type | DVI-D/ HDMI digital T.M.D.S signal in DVI I.0/HDMI I.3a specification |
| | Interface | The DVI-D interface |
| | Signal strength | T.M.D.S. 3.3V pp |
| | Minimum / maximum level | T.M.D.S. 2.9V/3.3V |
| | Impedance | 50 Ω |
| | Maximum DC offset error | +/-15mV |
| | The recommended maximum input distance | Less than 10 meters, in the 1920x1080p@60 (recommended the use of certified DVI special wire, as Molex TM wire) |
| Audio signal output | Interface | 3.5mm stereo audio socket |
| | Gain | 0 dB |
| | Frequency response | 20 Hz ~ 20 kHz, |
| | Total harmonic distortion + noise | 0.01% @ 1 kHz (Under rated voltage） |
| | The signal-to-noise ratio (S / N) | ＞80dB at Vin=0 V |
| | Stereo separation | >80dB @ 1 kHz |
| | Common mode rejection ratio (CMRR) | >75dB @: 20 Hz ~ 20 kHz |
| | Signal type | Stereo |
| | Impedance | Input: >10 kΩ(Balanced or unbalanced connection)<br>Output：50Ω(Unbalanced connection) |
| | Maximum input level | 3Vpp |
| | Gain error | ±0.1dB @20 Hz ~ 20 kHz |




Size（mm):
162(L)×155(W)×35(H)

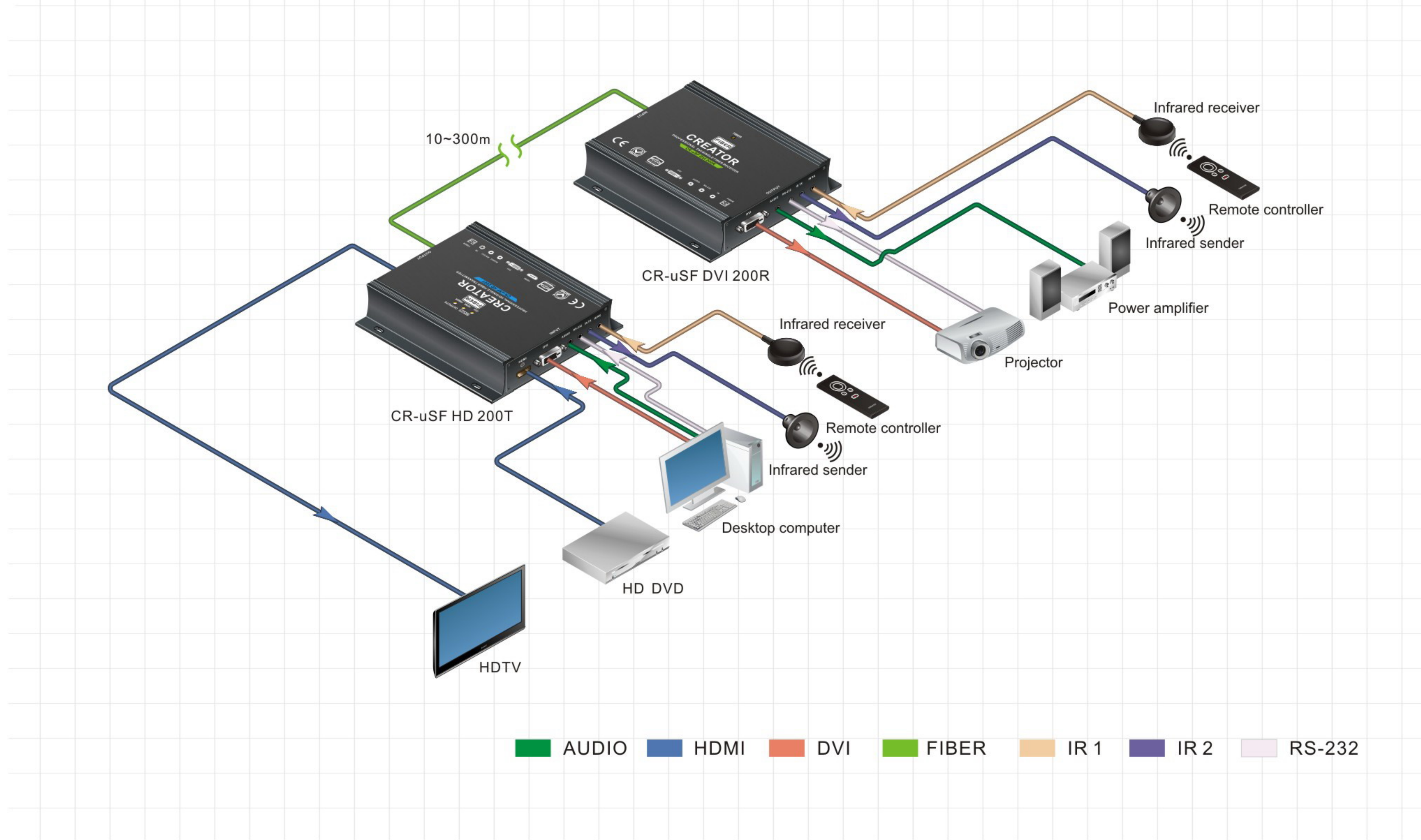
## Specifications

| | The parameter name | CR-uSF DVI 200R |
|---|---|---|
| IR infrared | Interface | Input: 3.5mm stereo audio socket Output: 3.5mm stereo audio socket |
| | Signal type | Input: Digital Output: Digital |
| | Output level type | PLL level |
| | Wavelength | 850nm |
| | Carrier frequency of input level | 38KHz |
| RS-232 | Interface | 3.5mm stereo audio socket |
| | Signal type | Digital |
| | Level type | RS-232 level |
| | Signal direction | Two-way communication |
| | Baud rate | Min: 4800bps Max: 115200bps |
| | Data bits | 8 |
| | Stop bit | 1 |
| | The correction bits | None |
| | Flow control | None |
| | Level delay | 500 ns |
| | Level peak | +/-15V |
| Optical fiber output | The fiber output interface | SC connector |
| | Fiber type | Multimode/Single Mode（Optional) |
| | Wavelength | Multimode 850nm/Single Mode: 1310 –1620nm（Optional) |
| | Interface bandwidth | Positive: 6.25Gbps, Reverse: 3.125Gbps |
| | Clock jitter | <0.15 Tbit |
| | Rise time | <0.3Tbit (20%--80%) |
| | Fall time | <0.3Tbit (20%--80%) |
| | The recommended maximum input distance | Om3 multimode fiber: less than 300 meters, at 1920x1080p@60. Single-mode fiber: 2~20km |
| Specifications | Power supply | The power adapter, 12VDC/2A |
| | Maximum power dissipation | MAX 4W |
| | Temperature | Storage, use temperature: -20℃~+70℃ |
| | Humidity | Storage, use humidity：10%~90% |
| | Mean time between failures | 30,000 hours |
| | The warranty | 1 year free warranty, life-long maintenance |





## System connection diagram



# CR-uSF AV 200R

## COMPONENT/FIBER receiver

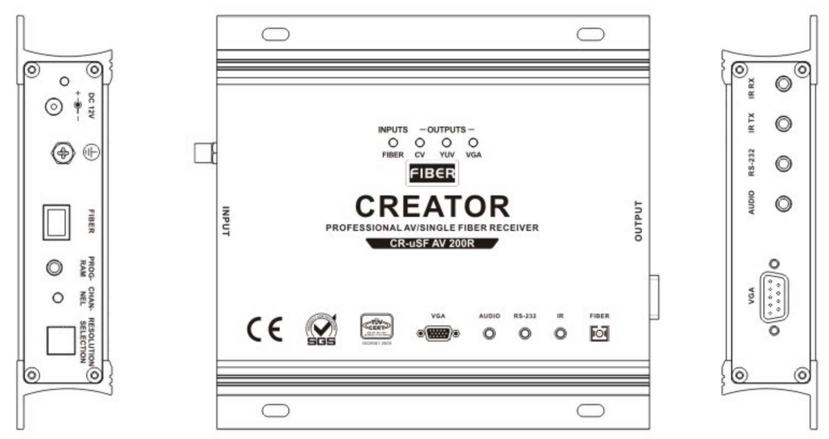
CR-uSF AV 200R

## Product overview

CR-uSF AV 200R is a single core multi-format optical fiber transmission receiving terminal supporting high resolution CVBS, YPbPr, VGA signal. It can restore the optical signals received to CVBS, YPbPr, VGA signal and audio signals, and can be used with CR-uSF HD 200T or optical fiber matrix. Support RS-232 and IR pass through.

## Features

- Support single core multi-format fiber transmission of high resolution CVBS, YPbPr, VGA signal.
- Support transmission of Audio signal, IR signal and RS-232 signal.
- Transmission distance up to 300M.




Size (mm):
162(L)×155(W)×35(H)

## Specifications

| | The parameter name | CR-uSF AV 200R | |
|---|---|---|---|
| Component video output | Interface | HD-DB15 bus interface | |
| | Signal type | Composite video CV / Component video YPbPr | VGA video |
| | Gain | 0dB | 0 dB |
| | Bandwidth | CV：150MHz @ -3dB<br>YPbPr：350MHz @ -3dB | 380 MHZ |
| | Differential phase error | 0.1%，3.58-4.43 MHz | |
| | Differential gain error | 0.1%，3.58-4.43 MHz | |
| | Signal strength | 1Vpp：composite video（CVBS)<br>1V pp:（Component video in Y)<br>0.3Vpp：（Component video in PbPr/CbCr) | 0.63Vpp - 0.9 Vpp |
| | Minimum / maximum level | Analog signal: -2V/+2V | RGB signal：0V/1.0V<br>HV signal：0V/5.0V |
| | Input impedance | 75 Ω | 75Ω |
| | Echo loss | <-30dB@5MHz | <-30dB@5MHz |
| Audio signal output | Interface | 3.5mm stereo audio socket | |
| | Gain | 0 dB | |
| | Frequency response | 20 Hz ~ 20 kHz, | |
| | Total harmonic distortion + noise | 0.01% @ 1 kHz (Under rated voltage) | |
| | The signal-to-noise ratio (S / N) | >80dB at Vin=0 V | |
| | Stereo separation | >80dB @ 1 kHz | |
| | Common mode rejection ratio (CMRR) | >75dB @：20 Hz ~ 20 kHz | |
| | Signal type | Stereo | |
| | Impedance | Input: >10 kΩ(Balanced or unbalanced connection)<br>Output：50Ω(Unbalanced connection) | |
| | Maximum input level | 3Vpp | |
| | Gain error | ±0.1dB @20 Hz ~ 20 kHz | |
| IR infrared | Interface | Input: 3.5mm stereo audio socket<br>Output: 3.5mm stereo audio socket | |
| | Signal type | Input: Digital　Output: Digital | |
| | Output level type | PLL level | |
| | Wavelength | 850nm | |
| | Carrier frequency of input level | 38KHz | |





## Specifications

| | The parameter name | CR-uSF AV 200R |
|---|---|---|
| RS-232 | Interface | 3.5mm stereo audio socket |
| | Signal type | Digital |
| | Level type | RS-232 level |
| | Signal direction | Two-way communication |
| | Baud rate | Min: 4800bps　Max: 115200bps |
| | Data bits | 8 |
| | Stop bit | 1 |
| | The correction bits | None |
| | Flow control | None |
| | Level delay | 500 ns |
| | Level peak | +/-15V |
| Optical fiber output | The fiber output interface | SC connector |
| | Fiber type | Multimode/Single Mode（Optional) |
| | Wavelength | Multimode 850nm/Single Mode: 1310 –1620nm（Optional) |
| | Interface bandwidth | Positive: 6.25Gbps, Reverse: 3.125Gbps |
| | Clock jitter | <0.15 Tbit |
| | Rise time | <0.3Tbit (20%--80%) |
| | Fall time | <0.3Tbit (20%--80%) |
| | The recommended maximum input distance | Om3 multimode fiber: less than 300 meters, at 1920x1080p@60.　Single-mode fiber: 2`20km |
| Specifications | Power supply | The power adapter, 12VDC/2A |
| | Maximum power dissipation | MAX 4W |
| | Temperature | Storage, use temperature: -20℃~+70℃ |
| | Humidity | Storage, use humidity：10%~90% |
| | Mean time between failures | 30,000 hours |
| | The warranty | 1 year free warranty, life-long maintenance |

## System connection diagram