CrystalView HDT

MODULAR CATX EXTENDER — HDMI/VGA/USB-HID/IR

Features and Benefits

- Supports HDMI, VGA, or DVI video input
- HDMI Output resolutions to 1080p
- Converts VGA and analog audio to HDMI
- Extension over standard CATx cable
- Receivers powered via CATx cable (PoE)
- USB keyboard/mouse and HID touchscreen support
- Dolby TrueHD and DTS-HD audio pass-through
- 1U chassis can house up to 6 HDMI or VGA transmitter cards
- Any combination of HDMI and VGA cards possible, each with local HDMI output
- Monitor hot plug detection and DDC support
- Infrared remote controller support (30 to 56 kHz)
- AC and DC redundant power supplies
- Headphone output at receivers for monitoring
- HDMI input is HDCP 1.3 compliant
- Laptop computers can be connected at remote receivers for keyboard and mouse control
- Connected computers can be started via Wake-on-LAN network messages
- Rack mountable options

Product Overview

The CrystalView is a modular extender system that can transport uncompressed high-definition audio and video, USB keyboard and mouse, and infrared remote controller signals over a single standard CATx cable at distances of 328 feet (100 meters).

The product employs HDBaseT and Power over Ethernet (PoE) technology to supply power to the remote receivers through the CATx link. This eliminates the need for power adapters at receiver locations.

The transmitter chassis can house up to six HDMI or VGA transmitter cards, each supplying power and high definition signals to a remote receiver. VGA cards convert incoming analog video and audio signals to HDMI. DVI inputs are plugged in to the HDMI cards using a DVI to HDMI adapter. All transmitter cards have local HDMI outputs.

Video sources can be controlled by USB keyboard and mouse, HID USB touchscreens, connected laptop’s keyboard/mouse, or Infrared Remote Controllers.

Copy-protected video streaming is provided by DDC support, hot plug detection of monitors, and HDCP compliance.
Typical Application

Models   The CrystalView HDT is available in a single chassis model, which can host a combination of up to six HDMI or VGA Transmitter cards.

Cables   HDMI cables and USB A-B cables are used to connect HDMI equipment to the CrystalView HDT HDMI card inputs. HD-15 combination VGA and audio cables, and USB A-B cables are used to connect analog video and audio equipment to the CrystalView HDT VGA card inputs.

Installation   Installing CrystalView HDT extender consists of connecting up to six HDMI or VGA sources to the video inputs, along with their associated USB inputs. Attach HDMI displays, USB keyboards, and USB mice to the receiver device connectors. Apply power to the monitors and the transmitter chassis, and then apply power to the computers.

Operation   USB keyboard hot keys can be used to adjust volume on the receiver headphone outputs. Hotkeys can also be used to adjust the HDMI video display from VGA sources.

Specifications

Dimensions (W x D x H)   
Transmitter (6-port): 17.28” x 9.63” x 1.75” (439 x 244 x 44 m)  
Transmitter/Receiver (single port): 5.71” x 4.06” x 1.22” (145 x 103 x 31 mm)

Weight   
Transmitter (6-port): 6.46 lb (2.93 kg)  
Transmitter/Rcvr (single port): 0.6 lb (0.27 kg)

Power   
100-240 VAC 50-60Hz or 48VDC/3.3A  
Transmitter Chassis: external adapter or POE  
Transmitter (6-port): 160W POE  
Transmitter (single port): 10W  
Receiver (single port): 10W

Resolution   
VGA: 1920 x 1200@60Hz  
HDMI input: 1080p (50/60Hz)  
HDMI output: 1080p (50/60Hz)  
Video Bandwidth: single-link, 225Mhz  
Color depth: 8-bit, 10-bit

Audio   
Audio pass-through: Surround sound (7.1ch), Dolby True HD and DTS-HD

IR Frequency   
30 to 56Khz

Distance   
HDMI: 330’ (100m)

Connectors   
Transmitter Cards:  
HDMI card input video: HDMI female  
VGA card input video: HD15 (Video/Audio)  
VGA local video out: HDMI female  
USB host: USB Type B  
Link: RJ45  
Power: barrel jack or PoE  
Transmitter Unit:  
HDMI video: HDMI female  
USB host: USB Type B  
Link: RJ45  
Power: barrel jack  
Receiver Unit:  
HDMI video: HDMI female  
USB device: USB Type A (2)  
Laptop connector: USB Type B

Environment   
Operating temp: 32°F–104°F (0°C–40°C)  
Storage temp: 14°F–122°F (-10°C–50°C)  
Rel. humidity: 20%–90%, non-condensing

Part numbers

| CRK-2HDTXU | CrystalView HDBaseT HDMI Extender Kit (Transmitter, Receiver, and PSU) |
| CRV-HDT-CH06-P | CrystalView HDT 6-bay chassis |
| CRV-DLHTXU-P/IRK | HDMI Transmitter Card |
| CRV-DLVTXU-P/IRK | VGA Transmitter Card |
| CRV-SRHTXU-P | HDMI Receiver Unit with POE |
| CRV-DLHTXU | HDMI Transmitter Unit |
| CRV-SRHTXU | HDMI Receiver Unit |
CrystalView HDT Application Diagrams

CrystalView HDT set-up when connecting to a host computer

CrystalView HDT set-up when connecting to multiple video sources

CrystalView HDT set-up when connected to a BLU-Ray video player