

# GEFEN





www.gefen.com

Sales Info: sales@gefen.com

(818)772-9100

(800)545-6900

**About Gefen:**

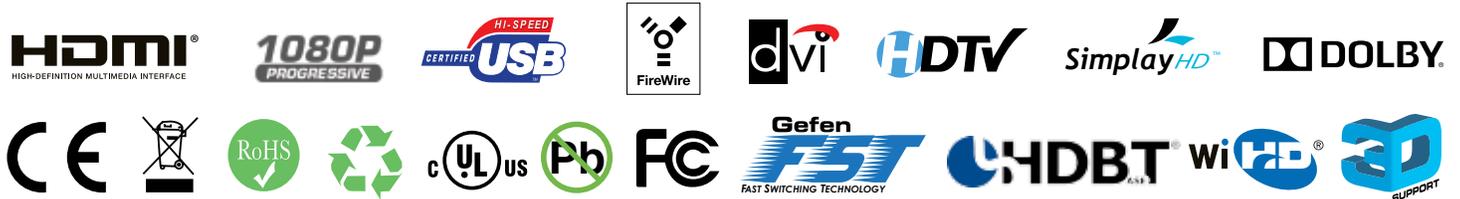
Gefen supplies a wide selection of signal switchers, splitters, extenders, scalers, converters, KVM, digital signage, and home theater accessories that enable audio/video and computer systems to be easily integrated, extended, distributed, and optimized to maximize performance.

Continual product innovations ensure the company maintains its reputation as a reliable resource for installers and integrators.

- The Gefen Classic line represents our core video distribution products our customers have come to count on.
- The GefenDS line introduces an innovative selection of hardware and software solutions for digital signage applications.
- The GefenPRO line supplies unique features and valuable 24/7 technical support for demanding professional industries.

All products include lifetime support from technical representatives and engineers available for consultation.

Detailed product information is available at [www.gefen.com](http://www.gefen.com).



HDMI, the HDMI Logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing in the United States and other countries. Dolby, Pro Logic and the double-D symbol are registered trademarks of Dolby Laboratories.

Copyright © 2013 Gefen LLC All trademarks are the property of their respective companies.

Gefen assumes no responsibility for any inaccuracies that may be contained in this catalog. In no event will Gefen LLC be liable for direct, indirect, special, incidental, or consequential damages resulting from any defect or omission in this catalog, even if advised of the possibility of such damages.

## **Extension**

Gefen's extenders send analog and digital video, audio, and computer peripheral signals up to thousands of feet from the source. Several methods are available including sender/receiver units linked by cabling, repeater, and booster technologies paired with high grade cabling, and cable-only solutions.

## **Switching**

Gefen's switchers interface multiple audio/video sources to one or more displays. Users switch between sources for unbeatable convenience in system integration. Plug-and-Play solutions enable you to reap the benefits of an interlinked system without the need for complex networking or additional software.

## **Distribution**

Gefen's splitters deliver two or more audio/video signals to multiple displays from a single source. This allows standard or high definition video and/or audio to be viewed on multiple displays at once. Gefen supplies a full range of distribution solutions; from a single split to more complex distributions with extension capability.

## **Conversion**

Gefen's converters link a variety of normally incompatible interfaces and allow analog and digital components to operate with ease in the same system. Some models offer a straight signal conversion while others offer scaling and image refinement capabilities.

## **Scaling**

Gefen's unique line of video scalers help you to achieve a seamless transition between the source and the output to your display. Gefen scalers give you a wide range of possibilities, such as the ability to use a computer display as an HD monitor, or upscale your HD components and HDMI™ sources up to 1080p. For professionals, we offer a unique conversion line designed to seamlessly integrate SDI with DVI and HDMI, as well as powerful signal generation and calibration tools.

## **Wireless**

Whether you need to transmit video or extend IR signals, Gefen's wireless devices provide unsurpassed versatility and connectivity by including wireless USB 2.0, component A/V as well as wireless HDMI™ / DVI and VGA.

## **Cabling**

Gefen's high quality cables connect components for the best results and performance. Gefen offers a selection of premium cabling ranging from industry-standard Category-5 up to all-fiber bundled cables able to withstand the most intense EMI conditions.

## **Digital Signage**

When it comes time to set up your digital signage solution, who better than Gefen to guide you through the process. We offer a versatile line of cutting edge digital signage hardware, which includes powerful, but user friendly software to bring your vision to light.

## **Automation**

Home theater components don't always play nicely. Anyone who has ever had to use three remotes just to turn on the TV understands. Our new automation line sets out to simplify the experience allowing macros and other functions to be controlled in one simple interface. Control and automate practically any device, even remotely over the web.

## **Commitment to Quality**

Gefen will always offer the finest quality products at the best price. Included in that price is a lifetime of free support from a team of outstanding technical support and sales representatives.

# Table of Contents

## Analog KVM Extenders

VGA Extender with L/R Audio (EXT-VGA-AUDIO-141).....	2
VGA Extender with RS-232 (EXT-VGARS232-141).....	2

## DVI Extenders

DVI Extra Long Range Extender (EXT-DVI-ELR).....	3
DVI Extender Over One CAT6 (EXT-DVI-1CAT6).....	3
DVI ELR Lite (EXT-DVI-1CAT5-SR).....	4

## DVI KVM Extenders

DVI Extender with RS-232 and Ethernet, ELR (EXT-DVI-CAT5-ELR).....	5
Dual-Link DVI Extender Over 2CAT6 (EXT-DVI-2CAT6DL).....	5
Extender Over One CAT5 - ELR (EXT-DVIKVM-ELR).....	6
Dual DVIKVM Extender Over Two CAT5 - ELR (EXT-2DVIKVM-ELR).....	6
Dual-Link DVI Source and USB Over CAT-6A (EXT-2DVI-DLKVM-CAT6).....	7
Dual-Link DVI Extender to Two Displays Over Four CAT-6A (EXT-2DVI-CA6DL).....	7
DVIKVM Extender with USB 2.0 (EXT-CAT5-1600HD).....	8
Dual DVIKVM Extender with USB 2.0 (EXT-CAT5-5600HD).....	8

## Fiber Optic Extenders

Single-Link DVI Fiber Optic Extender with HDCP Support (EXT-DVI-CP-FM10).....	9
Single-Link DVI Fiber Optic Extender with Virtual EDID (EXT-DVI-CP-FM15).....	10
Single-Link DVI Fiber Optic Extender (EXT-DVI-FM500).....	10
Single-Link DVI Extender Over a Single Fiber Optic Cable (EXT-DVI-FM1000P).....	11
Dual-Link DVI 2FO Extender Over Fiber (EXT-DVI-FM2500).....	11
Single-Link DVI Fiber Optic Extender (EXT-DVI-FMP).....	12
Single-Link DVI Fiber Optic Extender (EXT-DVI-1500HD).....	12
Single-Link DVI, RS-232 and Audio Extender Over Fiber (EXT-DVI-1600HD).....	13
Dual-Link DVI Extender Over Fiber (EXT-DVI-2500HD).....	13
Single-Link DVI, USB 2.0, RS-232 and Audio Extender Over Fiber (EXT-DVI-3600HD).....	14
Single-Link DVI, RS-232 Extender Over Fiber (EXT-DVIRS232-1FO).....	14

## Over IP Extenders

DVI KVM Extender Over IP (EXT-DVIKVM-LAN).....	15
HD KVM Extender Over IP (EXT-HDKVM-LAN).....	15
DiVI KVM over IP (EXT-DVIKVM-LAN-L).....	16
VGA KVM Extender Over IP (EXT-VGAKVM-LAN).....	17
IP To Dual RS-232 Converter (EXT-IP-2-RS232).....	A

## DisplayPort Extenders

3GSDI Extender Over Fiber (EXT-3GSDI-FOSM).....	18
DisplayPort Extender Over Two CAT-6A (EXT-DP-2CAT7).....	18
DisplayPort Extender Over Fiber (EXT-DP-CP-FM10).....	19
HDMI Extender Over Fiber with HDCP Support (EXT-HD-CP-FM10).....	19
Displayport Extender Over Fider Optic Cable (EXT-DP-CP-2FO).....	20
Displayport Detective Plus (EXT-DP-EDIDP).....	20

## Switchers

2x1 Dual-Link DVIKVM Switcher (EXT-DVIKVM-241DL).....	23
4x1 Dual-Link DVIKVM Switcher (EXT-DVIKVM-441DL).....	23
Four DVI Sources to one Display Switcher (EXT-DP-441N).....	24
Two Computers to Two Dual-Link Displays (EXT-DVI-422DL).....	24
8x1 Dual-Link DVIKVM Switcher (EXT-DVIKVM-841DL).....	25
2x1 DPKVM DL Switcher (EXT-DPKVM-241).....	26
4x1 DisplayPort KVM Switcher (EXT-DPKVM-441).....	26
2x2 DisplayPort KVM Switcher (EXT-DPKVM-422).....	27
8x1 DisplayPort KVM Switcher (EXT-DPKVM-841).....	27
4x1 3GSDI Switcher (EXT-3GSDI-441).....	28

## Matrixes

4x4 Dual-Link DVIKVM Matrix (EXT-DVI-444DL).....	29
8x8 DVI Matrix (EXT-DVI-848).....	30
16x16 DVI Crosspoint Matrix (EXT-DVI-16416).....	30
Matrix 10 DVI Sources To Any 4 Dual Link Monitors (GEF-DVI-1044DI).....	A

## Digital Splitters

1:2 Dual-Link DVI Splitter (EXT-DVI-142DLN).....	
1:4 Dual-Link DVI Splitter (EXT-DVI-144DL).....	
1:4 Single-Link DVI Splitter (EXT-DVI-144N).....	
1:8 Single-Link DVI Distribution Amplifier (EXT-DVI-148).....	<b>32</b>
1:4 3G-SDI Splitter (EXT-3GSDI-144).....	<b>32</b>
1:4 DisplayPort Splitter (EXT-DP-144).....	<b>33</b>

## Analog Splitters / hubs

1:2 VGA Hub (EXT-VGA-142N).....	<b>34</b>
1:4 VGA Hub (EXT-VGA-145).....	<b>34</b>

## Scalers / Converters

VGA to DVI Scaler Plus (EXT-VGA-2-DVISP).....	<b>35</b>
DVI to VGA Converter (EXT-DVI-2-VGAN).....	<b>35</b>
VGA with Audio to HDMI Scaler (EXT-VGAAUD2-HDMIS).....	
HDS DI to DVI Scaler Plus (EXT-HDS DI-DVISP).....	<b>37</b>
Single-Link DVI to HDS DI Scaler (EXT-DVI-2-HDS DISSL).....	<b>37</b>
DVI to HDS DI Scaler Plus (EXT-DVI-2-HDS DISP).....	<b>38</b>
3GSDI to HDMI Converter (EXT-3GSDI-2-HDMI1.3).....	<b>38</b>

## EDID Devices / Galvanic Isolators /Signal Boosters

DVI Detective (EXT-DVI-EDIDN).....	<b>39</b>
DVI Detective Plus (EXT-DVI-EDIDP).....	<b>40</b>
DisplayPort Detective Plus (EXT-DP-EDIDP).....	
Galvanic Isolator (EXT-DVI-GI).....	<b>41</b>
DVI Dual-Link Booster plus (EXT-DVI-141DLBP).....	<b>42</b>
DisplayPort Booster (EXT-DP-141B).....	<b>42</b>

## Rack Accessories

4x 5V Outlets Power Rack (EXT-PS5-4R).....	<b>44</b>
8x 5V Outlets Power Rack (EXT-PS5-8R).....	<b>44</b>
Modular General Purpose Racktray (EXT-RACK-MGPR).....	<b>45</b>

## GefenPRO Product Line

HDMI Extra Long Range Extender with Power (POL2) (GEF-HDCAT5-ELRPOL2R).....	<b>45</b>
HDMI Extra Long Range Extender (GEF-HDCAT5-ELRPOL).....	<b>46</b>
8x8 Matrix for HDMI with Four ELR-POI and HDMI Outputs (GEF-HDFST-848-4ELR).....	
8x8 Matrix for HDMI with Eight ELR-POI and HDMI Outputs (GEF-HDFST-848 8ELR).....	<b>47</b>
4x4 Matrix for HDMI with Four ELR-POI Outputs (GEF-HDFST-444 4ELR).....	<b>48</b>
8x8 Dual-Link DVIKVM Matrix with Push-Button Control (GEF-DVIKVM-848DL-PB).....	<b>49</b>

## Gefenpro product line continued

3GSDI Long-Range Fiber Optic Extender (GEF-3GSDI-FO-141).....	<b>50</b>
16x 3GSDI Extender Racktray (GEF-3GSDI-16X).....	<b>50</b>
Optical DVI Extender with Recordable EDID (GEF-DVI-FM1500).....	
Dual-Link DVI Module Fiber Optic Extender (GEF-DVI-FM2000).....	<b>51</b>
3GSDI Audio De-embedder (GEF-SDI-AUDD).....	<b>51</b>
3GSDI Audio Embedder (GEF-SDI-AUDE).....	<b>52</b>
3GSDI to 3GSDI Scaler (GEF-3GSDI-2-3GSDIS).....	<b>52</b>
HDMI and DVI to 3GSDI Scaler with Frame Synchronizer (GEF-HDVI-2-3GSDI).....	<b>53</b>
3GSDI to HD Scaler (GEF-3GSDI-2-HDS).....	<b>53</b>
HDMI and DVI to 3G-SDI Scaler (GEF-HDVI-2-3GSDIS).....	<b>54</b>
	<b>54</b>
	<b>55</b>
	<b>55</b>



### Digital Signage

HD Digital Signage Media Player (EXT-HD-DSMP).....	57
Digital Signage Player with Wi-Fi (EXT-HD-DSWFN).....	58
Digital Signage Player with Wi-Fi Plus (EXT-HD-DSWFPN).....	58
Digital Signage Creator (EXT-DSC).....	59

Remotes / IR.....	60
-------------------	----

### Extreme Booster Cables

DVI Fiber Optic Based DVI Cables (CAB-DVIFO).....	61
HDTV Extreme Cables (CAB-HDTV).....	61
Extreme Fiber Optic Cables for HDMI (CAB-HDMIX1.3).....	61
Super Booster Cables for HDMI (EXT-HDMISB).....	61

### Video / MISC Cables

High Speed HDMI Cable with Ethernet and Mono-LOC (CAB-HD-LCK).....	62
DVI to HDMI Cables (CAB-DVI2HDMI).....	63
Dual-Link DVI DL Cables (CAB-DVIC-DL).....	63
Single-Link DVI Cables (CAB-DVIC).....	64
CAT-5 Cables (CAB-CAT5).....	64
CAT-6A Cables (CAB-CAT6AS).....	64
CAT-6A+ Cables (Unshielded) (CAB-CAT6AB).....	64
CAT-7 Cables (CAB-CAT7-AS).....	64

### Fiber Optic Link Cables

4 Strand ST Fiber Optic Cables (CAB-ST).....	65
4 Strand LC-LC Fiber Optic Cables (CAB-LC).....	65
2 Strand LC-LC Fiber Optic Cables (CAB-2LC).....	65
2 Strand SC-SC Fiber Optic Cables (Single-mode) (CAB-2SC).....	65
2 Strand SC-SC Fiber Optic Cables (Multi-mode) (CAB-2SC).....	65
1 Strand SC-SC Fiber Optic Cables (CAB-1SC).....	65

### Adapters

VGA F-F Cable Coupler (ADA-VGA-).....	66
VGA M-M cable Coupler (ADA-VGA-MM).....	66
VGA Cable Coupler (ADA-VGA-MF).....	66
DVI to DVI and VGA Adapter (ADA-DVI-2-DVIVGA).....	67
DVI to DVI Component VGA Adapter (ADA-DVI-2-DVI).....	68
DVI-a VGA Adapter (ADA-DVI-2-VGA).....	68
HDMI to DVI Adapter (ADA-HDMIM-2-DVIF).....	68
DVI Mate with Power (ADA-DVI-FFWPN).....	68
DVI Mate DVI Adapter (ADA-DVI-FFN).....	68
HDMI Mate (ADA-HDMI-FF).....	68
DVI to HDMI Adapter (ADA-DVIM-2-HDMIFN).....	68

Glossary.....	69
---------------	----

## Wiring Diagram Color Key

### Audio Connections

MIC	
MINI STEREO	
RCA	
S/PDIF	
TOSLINK	

### Video Connections

COMPONENT	
COMPOSITE	
DISPLAYPORT	
DVI	
HDMI	
SDI (BNC)	
S-VIDEO	
VGA	

### Peripheral Connections

PS/2 KEYBOARD	
PS/2 MOUSE	
RS-232	
USB	
FIREWIRE	
ETHERNET	

### Extension Methods

CAT-6	
FIBER	
CAT-5	
IR	
SDI (BNC)	

### Electrical Connections

POWER	
-------	---

## IP To Dual RS-232 Converter

Control two RS-232 devices over an IP network

### FEATURES

- Allows IP Control of two RS-232-enabled devices • Independently configurable RS-232 baud rate and line delay for each
- RS-232 port
- Supports Telnet and UDP protocols • Field-upgradeable firmware via web server interface
- Each of the RS-232 devices can be addressed independently
- Locking power supply connector
- Configurable via web server interface Surface mountable

### SPECIFICATIONS

- RS-232 Connectors: (2) DB-9, male
- IP Control port: (1) RJ-45
- RS-232 Baud Rate: Adjustable via web server interface from 9600 to 115200 baud
- RS-232 Line Delay: Adjustable via web server interface from 0 to 10000 ms (10 s)
- IP Reset button: (1) tact-type, recessed
- Power Indicator: (1) LED, blue
- Power Supply: 5V DC, locking
- Power Consumption: 1W (max.)
- Dimensions (W x H x D): 4.3" x 1" x 3.4" (110mm x 26mm x 86mm)
- Shipping Weight: 1.8 lbs. (0.8 kg)



**EXT-IP-2-RS2322**

## Matrix 10 DVI Sources To Any 4 Dual Link Monitors

Route any 10 DVI Dual Link Sources to any 4 DVI Dual Link Monitors

### FEATURES

- Supports 1080p Full HD at 120Hz and dual-link resolutions up to 3840 x 2400 (WQXGA)
- Front-panel push buttons for local switching
- Advanced EDID management with programmable routing presets
- Front-panel LCD Display
- Standby mode
- Output masking control
- Switching is controlled via front panel buttons, IR remote, IP, or RS-232 commands
- Supports DDWG standards for DVI
- IP control and configuration with built-in Web server
- Internal power supply
- Rack-mountable

### SPECIFICATIONS

- Maximum Pixel Clock: 2 x 165 MHz
- Video Input Connector: (1) DVI-D, 29-pin, female
- Video Output Connectors: (2) DVI-D, 29-pin, female
- Power On indicator: (1) LED, blue
- Link indicators: (2) LED, green
- Power Consumption: 5 W (max.)
- Power Supply: 5V DC
- Operating Temperature: 0 to +40°C
- Dimensions (W x H x D): 4" x 1.25" x 3.25" (102mm x 32mm x 83mm)
- Shipping Weight: 2 lbs (0.9 kg)



**GEF-DVI-1044DL**



# Extenders



## VGA Extender with L/R Audio

Extends VGA and analog L/R audio over a single CAT-5 cable

### FEATURES

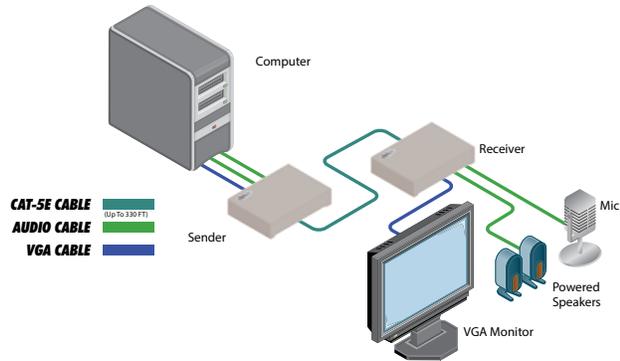
- Extends VGA and Analog L/R Audio up to 150 feet (45 meters) over one CAT-5 cable
- Supports resolutions up to 1920 X 1200
- Bi-directional audio transmission for L/R audio and microphone
- Trim pot and DIP switches for fine video equalization

### SPECIFICATIONS

- Video Amplifier Bandwidth: 350 MHz
- Input Video Signal: 1.2 V p-p / Input Sync Signal: 5V p-p (TTL)
- Horizontal Frequency Range: 15-70 kHz
- Vertical Frequency Range: 30 - 170 Hz
- Video Input Connector (Sender): (1) VGA HD-15, male
- Video Output Connector (Receiver): (1) VGA HD-15, female
- Audio Input Connector (Sender): (1) 3.5 mm mini-stereo jack
- Audio Output Connector (Receiver): (1) 3.5 mm mini-stereo jack
- Microphone Output Connector (Sender): (1) 3.5 mm mini-mono jack
- Microphone Input Connector (Receiver): (1) 3.5 mm mini-mono jack
- Link Connector (Sender / Receiver): (1) RJ-45, Shielded
- Audio Frequency Response: 20Hz - 20kHz
- Power Supplies (Sender / Receiver): 5V DC
- Power Consumption: 5W (max.) each
- Dimensions: 4.7" W x 2.8" D x 1.1" H



**EXT-VGA-AUDIO-141**



## VGA Extender with RS-232

Extends VGA and RS-232 over a single CAT-5e cable

### FEATURES

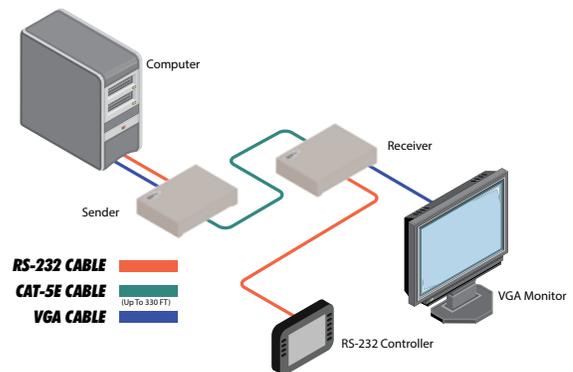
- Extends VGA and RS-232 up to 330 feet (100 meters) over one CAT-5 cable
- Supports resolutions up to 1920 x 1200
- Trim pot and Dip switches for fine video adjustment
- Supports RS-232 pins 2 (Rx), 3 (Tx), and 5 (Ground) up to 19,200 bits per second
- Useful for Digital Signage Applications

### SPECIFICATIONS

- Video Amplifier Bandwidth: 350 MHz
- Input Video Signal: 1.2V p-p
- Input Sync Signal: 5V p-p (TTL)
- Horizontal Frequency Range: 15 - 70 kHz
- Vertical Frequency Range: 30 - 170 Hz
- Video Input Connector (Sender): (1) VGA HD-15, male
- Video Output Connector (Receiver): (1) VGA HD-15, female
- RS-232 Input Connector (Sender): (1) DB-9, female
- RS-232 Output Connector (Receiver): (1) DB-9, male
- Link Connectors (Sender / Receiver): (1) RJ-45, Shielded
- Power Supplies (Sender / Receiver): 5V DC
- Power Consumption: 5W (max.) each
- Dimensions: 4" W x 2.8" D x 1.1" H
- Shipping Weight: 4 lbs.



**EXT-VGARS232-141**



## DVI Extra Long Range Extender

Extra long range extender for DVI over a single CAT-5e cable up to 330 feet (100 meters)

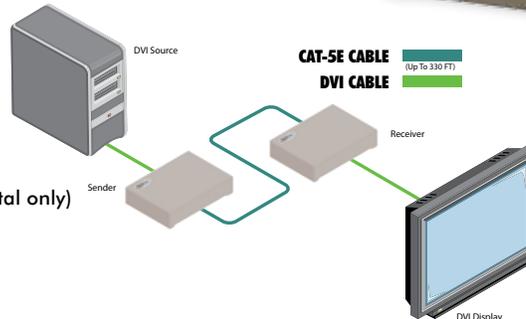
### FEATURES:

- Extends DVI up to 330 feet (100 meters) over one CAT-5 cable
- Supports DVI Resolutions to 1920x1200@60 Hz or 1080p at 330 feet (100 meters)
- EDID Management for Local and Pass-through modes
- Locking Power Supplies for secure connections
- Wall mountable



### SPECIFICATIONS:

- Maximum Pixel Clock: 165 MHz
- Maximum TMDS Clock: 165 MHz
- DVI Connector (Sender / Receiver): DVI-I, 29-pin, female (digital only)
- Link Connector (Sender / Receiver): RJ-45
- Power Supply (Sender / Receiver): 5V DC
- Power Consumption: 10 W per unit (max.)
- Operating Temperature: 0 - 40 °C
- Dimensions (W x H x D): 5" x 1.25" x 3.4" (127mm x 31.75mm x 86.36mm)
- Shipping Weight: 4 lbs. (1.8 kg)



**EXT-DVI-ELR**

**HDCP COMPLIANT**



## DVI Extender Over One CAT6

Extends DVI up to 200 feet (60 meters) over one CAT-6 cable

### FEATURES

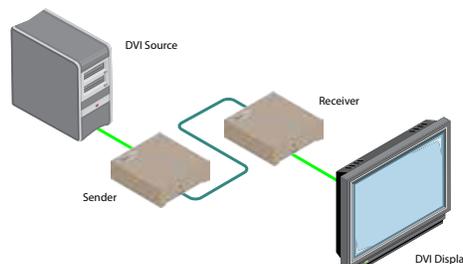
- Extends any DVI source up to 200 feet (60 meters)
- Supports resolutions up to 1080p and 1920 x 1200
- HDCP pass-through
- Supports any Operating System (OS)
- Trim pot adjustment to compensate for cable skew



**EXT-DVI-1CAT6**

### SPECIFICATIONS

- Video Amp. Bandwidth: 165 MHz
- Input Video Signal: 1.2V p-p
- Input Sync Signal: 5V p-p (TTL)
- Video Input Connector (Sender): (1) DVI-I 29-pin, female (digital only)
- Video Output Connector (Receiver): (1) DVI-I 29-pin, female (digital only)
- Link Connector (Sender / Receiver): (1) RJ-45, Shielded
- Power Supplies (Sender / Receiver): 5V DC
- Operating Temperature: +5 to +45 deg. C (+41 to +113 deg. F)
- Storage temperature range: -20 to +70 deg. C (-4 to +158 deg. F)
- Power Consumption (Sender / Receiver): 10W (max.)
- Dimensions: 2" W x 3.1" D x 1.1" H
- Shipping Weight: 4 lbs.



**CAT-6a CABLE (Up To 200 Ft)**  
**DVI CABLE**

**HDCP COMPLIANT**



# DVI Extenders



## DVI ELR LITE

Extend DVI up to 230 feet (70 meters) over one CAT-6A cable,  
or up to 200 feet (60 meters) over one CAT-5e

### FEATURES

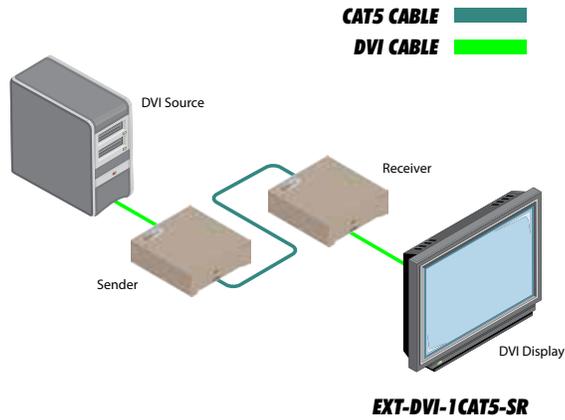
- Extends DVI up to 230 feet (70 meters) over one CAT-6A cable
- Extends DVI up to 200 feet (60 meters) over one CAT-5e cable
- Supports resolutions up to 1920 x 1200 (WUXGA)
- EDID management for rapid integration of source and display
- HDCP compliant
- Locking power supplies
- Surface-mountable

### SPECIFICATIONS

- Maximum Pixel Clock: 165 MHz
- Video Input Connector (Sender): (1) DVI-I, 29-pin, female (digital only)
- Video Output Connector (Receiver): (1) DVI-I, 29-pin, female (digital only)
- Link Connector (Sender / Receiver): (1) RJ-45
- Internal/External EDID Selector (Sender): (1) DIP switch
- HPD Pass-Through Selector (Sender): (1) DIP switch
- HDCP Pass-Through Selector (Sender): (1) DIP switch
- Power Indicator (Sender/Receiver): (1) LED, blue
- Link Indicator (Sender/Receiver): (1) LED, green
- Power Supply (Sender / Receiver): 5V DC, Locking
- Power Consumption (Sender/Receiver): 10 W per unit (max.)
- Operating Temperature: 0 to +45°C
- Operating Humidity: 0 to 90% RH, non-condensing
- Dimensions (W x H x D): 4.3" x 1" x 3.4" (110mm x 26mm x 86mm)
- Shipping Weight: 3 lbs (1.4 kg)



EXT-DVI-1CAT5-SR



EXT-DVI-1CAT5-SR



## DVI RS-232 ELR Extender

Extra Long Range Extender for DVI, RS-232, and Ethernet over a single CAT-5e cable

### FEATURES

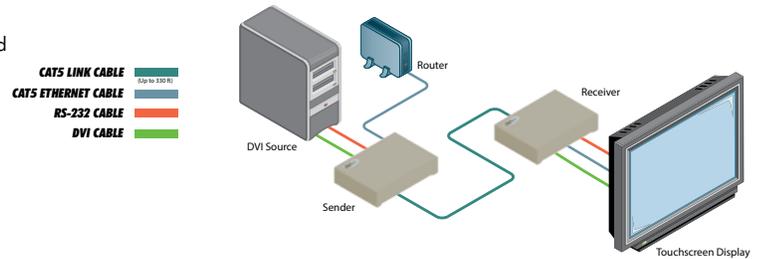
- Extends any DVI source with RS-232 and Ethernet to a display, touch screen, or digital signage application up to 330 feet (100 meters)
- Supports resolutions up to 1080p and 1920 x 1200
- EDID Management enables integration of different sources and display devices
- Low power consumption (Green Mode) when DVI source is not detected
- Uses only one CAT-5e cable
- Full-Duplex Ethernet
- Supports any Operating System (OS)
- Locking power supplies
- Wall-mountable

### SPECIFICATIONS

- Maximum Pixel Clock: 165 MHz
- Maximum TMDs Clock: 165 MHz
- Video Input Connector (Sender): (1) DVI-I 29-pin, female (digital only)
- Video Input Connector (Receiver): (1) DVI-I 29-pin, female (digital only)
- Ethernet Connector (Sender / Receiver): (1) RJ-45 Shielded
- RS-232 Input Connector (Sender): (1) DB-9, female
- RS-232 Input Connector (Receiver): (1) DB-9, male
- Link Connector (Sender / Receiver): (1) RJ-45, Shielded
- Power Supplies (Sender / Receiver): 5V DC, Locking
- Power Consumption (Sender / Receiver): 10W (max.) per unit
- Operating Temperature: 0 - 40 °C
- Dimensions (Sender / Receiver)(W x H x D): 5" x 1.2" x 3.4" (127mm x 30mm x 86mm)
- Shipping Weight: 5 lbs. (2.3 kg)



**EXT-DVI-CAT5-ELR**



**HDCP COMPLIANT**



## DVI Dual-Link Over 2CAT6 Extender

Extend Dual-link DVI and RS-232 over two CAT-6A cables

### FEATURES

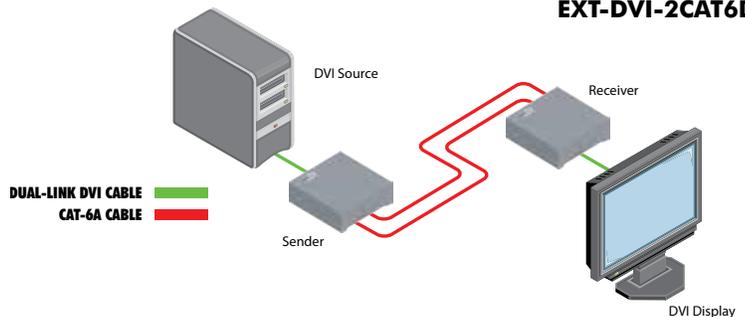
- Extends dual-link DVI and RS-232 up to 200 feet (60 meters) over two CAT-6a cables
- Supports 1080p Full HD at 120Hz and dual-link resolutions up to 3840 x 2400
- EDID management for Local and Pass-through modes
- Trim pot adjustment to compensate for cable skew
- Firmware upgradable via RS-232
- Locking Power Supplies
- Rack-mountable

### SPECIFICATIONS

- Maximum Pixel Clock: 2 x 165 MHz
- Input Video Signal: 1.2V p-p
- Input DDC Signal: 5V p-p (TTL)
- Video Input Connector (Sender): (1) DVI-I, 29-pin, female
- Video Output Connector (Receiver): (1) DVI-I, 29-pin, female
- Link Connectors (Sender / Receiver): (2) RJ-45
- Serial Port (Sender): DB-9, female
- Serial Port (Receiver): DB-9, male
- Power Supply (Sender / Receiver): 5V DC, Locking
- Power Consumption: 10W per unit (max.)
- Operating Temperature: 0 - 40 °C
- Dimensions (W x H x D): 8.4" x 1.7" x 4.3" (213mm x 43mm x 109mm)
- Shipping Weight 4.5 lbs.(2 kg)



**EXT-DVI-2CAT6DL**



**HDCP COMPLIANT**



## DVIKVM Extra Long Range Extender

Extra Long Range KVM Extender for DVI and USB 2.0 over a single CAT-5e Cable

### FEATURES

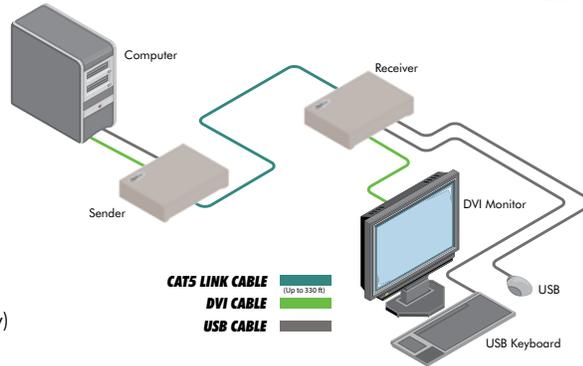
- Extends DVI and USB 2.0 up to 330 feet (100 meters) over one CAT-5 cable
- Supports resolutions up to 1080p and 1920 x 1200
- Supports up to 30 Mbps when using USB 2.0
- Backward-compatible with USB 1.1
- EDID management for rapid integration of source and display devices
- Field-upgradeable via mini-USB port
- Supports any Operating System (OS)
- Rack-mountable
- Locking power supplies
- Rack-mountable

### SPECIFICATIONS

- Video Amplifier Bandwidth: 165 MHz
- Maximum TMDS Clock: 165 MHz
- Video Input Connector (Sender): (1) DVI-I 29-pin, female (digital only)
- Video Output Connector (Receiver): (1) DVI-I 29-pin, female (digital only)
- USB Host Connector (Sender): (1) USB Type B, female
- USB Device Connectors (Receiver): (3) USB Type A, female
- Link Connector (Sender/Receiver): (1) RJ-45, Shielded
- Service Connector for Field Upgrades: USB Mini-B, female
- Power Supply (Sender / Receiver): 5V DC, Locking
- Power Consumption (Sender / Receiver): 10W (max.)
- Dimensions: 8.5" W x 1.75" H x 4.5" D
- Shipping weight: 8 lbs.



**EXT-DVIKVM-ELR**



## 2 x DVIKVM Extra Long Range Extender

Extra Long Range KVM Extender for two DVI and USB over CAT-5e

### FEATURES

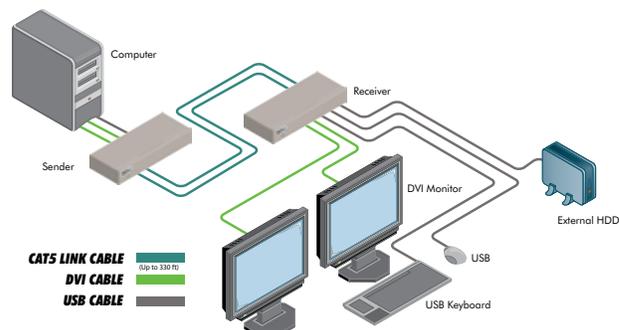
- Extends two DVI sources and USB up to 330 feet (100 meters)
- Supports resolutions up to 1920 x 1200
- Supports 100 Mbps using USB 2.0
- Backward-compatible with USB 1.1 devices
- Field-upgradeable via mini-USB service port
- Supports DDWG standard for DVI-compliant monitors
- Supports any Operating System (OS)
- EDID management for rapid integration of source and display devices
- ELR and HDBaseT® technologies allow extension up to 330 feet (100 meters)
- Rack-mountable

### SPECIFICATIONS

- Maximum Pixel Clock: 165MHz
- Maximum TMDS Clock: 165 MHz
- Video Input Connectors (Sender): (2) DVI-I 29-pin, female (digital only)
- Video Output Connectors (Receiver): (2) DVI-I 29-pin, female (digital only)
- USB Host Connector (Sender): (1) USB Type B, female
- USB Device Connectors (Receiver): (3) USB Type A, female
- Link Connectors (Sender/Receiver): (2) RJ-45, Shielded
- Service Connectors for Field Upgrades (Sender / Receiver): (2) USB Mini-B, female
- Power Supply (Sender / Receiver): 5V DC, Locking
- Power Consumption (Sender / Receiver): 20W (max.)
- Operating Temperature: 0 - 40° C
- Dimensions (Sender / Receiver): 17.1" W x 4.2" D x 1.7" H (434mm x 107mm x 43mm)
- Rack Space: 1U (rack ears included)
- Shipping Weight: 9 lbs. (4 kg)



**EXT-2DVIKVM-ELR**



## Extend two Dual-Link DVI Sources and USB Over Five CAT-6A Cables

### FEATURES

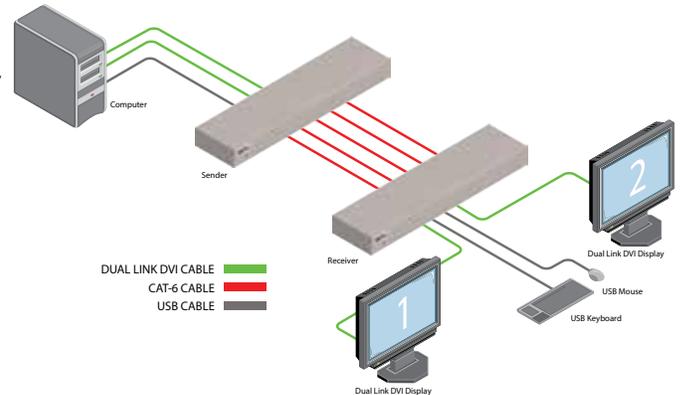
- Extends two dual-link DVI sources with USB 2.0 up to 200 feet (60 meters) using CAT-6a cables
- Supports 1080p Full HD at 120Hz and dual-link resolutions up to 3840 x 2400
- HDCP-compliant
- Supports 480 Mbps using USB 2.0
- Backward-compatible with USB 1.1 devices
- Supports DDWG standard for DVI-compliant monitors
- Supports any Operating System (OS)
- EDID management for rapid integration of source and display devices
- EQ adjustment trim pots on Receiver unit to equalize the signal to compensate for cable length and the quality/skew variances found among different CAT-5e/ CAT-6a cables
- Rack-mountable
- Plug and Play

### SPECIFICATIONS

- Maximum Pixel Clock: 2 x 165 MHz
- Input Video Signal: 1.2V p-p
- Input DDC Signal: 5V p-p (TTL)
- Video Input Connectors (Sender): (2) DVI-I, 29-pin, female (digital only)
- Video Output Connectors (Receiver): (2) DVI-I, 29-pin, female (digital only)
- USB Host Connector (Sender): (1) USB Type B, female
- USB Device Connectors (Receiver): (4) USB Type A, female
- Link Connectors (Sender / Receiver): (5) RJ-45
- Power Supply (Sender / Receiver): 5V DC, Locking
- Power Consumption (Sender / Receiver): 20W (max.)
- Operating Temperature: +32 to +104 °F (0 to + 40 °C)
- Dimensions: (W x H x D): 17.5" x 2.5" x 5" (445mm x 64mm x 127mm)
- Rack Space: 1U (rack ears included)
- Shipping Weight: 9.5 lbs (4.3 kg)



**EXT-2DVI-DLKVM-CAT6**



**HDCP COMPLIANT**



## Extend Dual-Link DVI to Two Displays Over Four CAT-6A Cables

### FEATURES

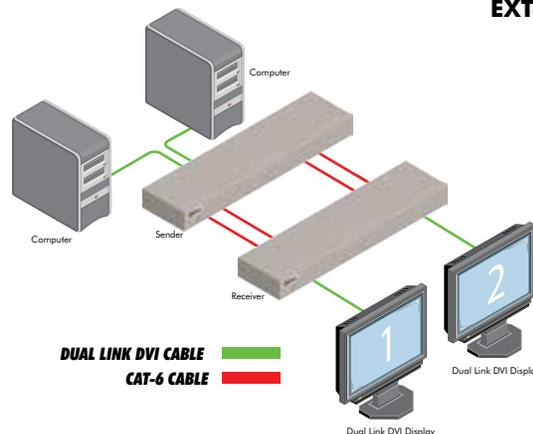
- Supports 1080p Full HD at 120Hz and dual-link resolutions up to 3840 x 2400 (WQXGA)
- EDID management with Local and Pass-through modes
- EQ adjustment trim pots on Receiver equalize the signal to compensate for cable length and the quality/skew variances found among different CAT-6a cables
- Locking Power Supplies
- Rack mountable (rack ears included)

### SPECIFICATIONS

- Maximum Pixel Clock: 2 x 165 MHz
- Input Video Signal: 1.2V p-p
- Input DDC Signal: 5V p-p (TTL)
- Video Input Connector (Sender): (2) DVI-I, 29-pin, female (digital only)
- Video Output Connector (Receiver): (2) DVI-I, 29-pin, female (digital only)
- Link Connectors (Sender / Receiver): (4) RJ-45
- Power Supply (Sender / Receiver): 5V DC, Locking
- Power Consumption: 20W per unit (max.)
- Operating Temperature: +32 to +104 °F (0 to +40 °C)
- Dimensions: (W x H x D): 17.5" x 1.7" x 4.3" (435mm x 45mm x 110mm)
- Shipping Weight: 10 lbs (4.32 kg)



**EXT-2DVI-CAT6DL**



**HDCP COMPLIANT**



# DVI KVM Extenders



## DVI KVM Extender with USB 2.0

Extends DVI and USB 2.0 up to 200 feet (60 meters) over two CAT-6A cables

### FEATURES

- Extends DVI up to 200 feet (60 meters) using two CAT-6a cables
- Extends DVI up to 150 feet (45 meters) using CAT-5 cable
- Supports resolutions up to 1920 X 1200
- USB 2.0 extension of 200 feet (60 meters) or more using CAT-5 cable
- Supports USB 2.0 at up to 480 Mbps transfer rate
- Backward-compatible with USB 1.1 devices
- HDCP Pass-through
- Locking power supply
- Rack-mountable

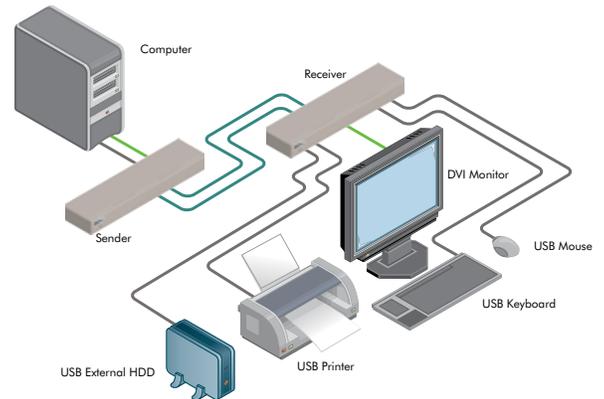
### SPECIFICATIONS

- Video Amplifier Bandwidth: 165 MHz
- Input Video Signal: 1.2V p-p
- Input DDC Signal: 5V p-p (TTL)
- Video Input Connector (Sender): (1) DVI-I 29 pin, female (digital only)
- Video Output Connector (Receiver): (1) DVI-I 29 pin, female (digital only)
- Link Connectors (Sender / Receiver): (2) RJ-45, Shielded
- USB Host Connector (Sender): (1) USB Type B, female
- USB Device Connectors Receiver: (4) USB Type A, female
- Power Supplies: (2) 5V DC, Locking
- Power Consumption: 20W (max.) per unit
- Dimensions (Sender / Receiver): 17" W x 4.5" D x 1.75" H
- Rack Size: 1U (rack ears included)
- Shipping Weight: 7 lbs.

**CAT-5 CABLE** (Up to 150 Ft)  
**USB CABLE**  
**DVI CABLE**



**EXT-CAT5-1600HD**



**HDCP COMPLIANT**



## 2 x DVI KVM Extender with USB 2.0

Extends two DVI sources and USB over three CAT-6A cables

### FEATURES

- Extends DVI up to 200 feet (60 meters) using two CAT-6a cables
- Extends DVI up to 150 feet (45 meters) using two CAT-5e cables
- Supports resolutions up to 1920 X 1200
- USB 2.0 extension of 200 feet (60 meters) or more using a CAT-5e cable
- Supports USB 2.0 at up to 480 Mbps transfer rate
- Backward-compatible with USB 1.1 devices
- HDCP Pass-through
- Locking power supplies
- Rack-mountable

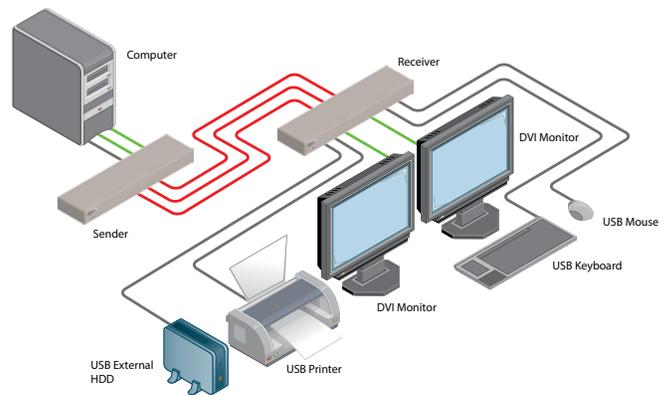
### SPECIFICATIONS

- Video Amplifier Bandwidth: 165 MHz
- Input Video Signal: 1.2V p-p
- Input DDC Signal: 5 Vp-p (TTL)
- Video Input Connectors (Sender): (2) DVI-I 29 pin, female (digital only)
- Video Output Connectors (Receiver): (2) DVI-I 29 pin, female (digital only)
- Link Connectors (Sender / Receiver): (3) RJ-45, Shielded
- USB Host Connector (Sender): (1) USB Type B, female
- USB Device Connectors (Receiver): (4) USB Type A, Female
- Indicator Lights (Sender/Receiver): (2) LINK 1 / LINK 2 (flash red for power, green when linked)
- EQ Rotary Switches (Receiver): (2) EQ 1 / EQ 2 (adjusts for cable type and length)
- Power Supply (Sender / Receiver): 5V DC, Locking
- Power Consumption: 20W (max.) per unit
- Operating Temperature: 0 - 40 °C
- Dimensions (Sender / Receiver): 17" W x 4.5" D x 1.75" H
- Shipping Weight: 8 lbs.

**CAT-6 CABLE** (Up to 200 Ft)  
**USB CABLE**  
**DVI CABLE**



**EXT-CAT5-5600HD**



## Fiber Optic Based Extenders



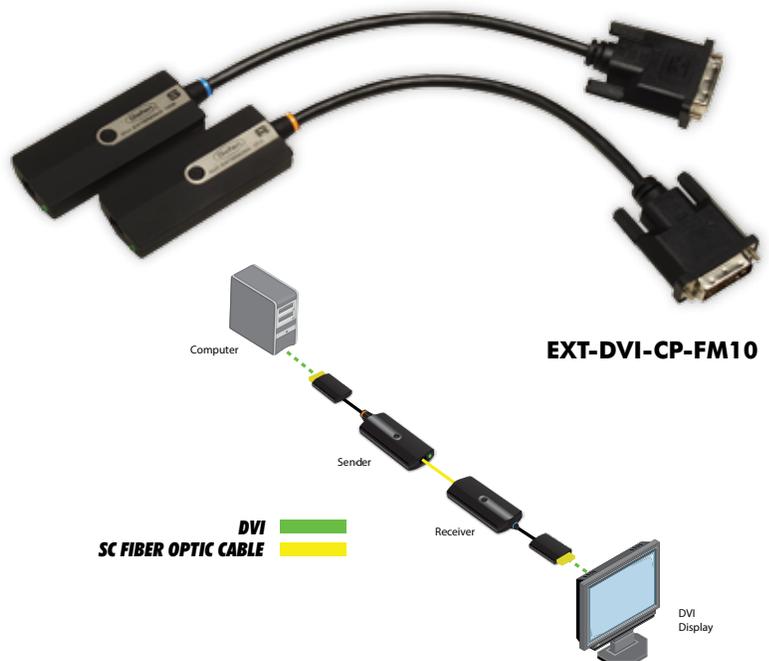
### Pigtail Module DVI Extension Using one SC Terminated Fiber Optic Cable

#### FEATURES

- Extends DVI up to 3300 feet (1000 meters) using a single-strand 50/125 $\mu$ m multimode (OM2/OM3) SC-terminated fiber optic cable
- Supports resolutions up to 1920 x 1200 (WUXGA)
- Fiber optic transmission eliminates electromagnetic interference (EMI)
- Pigtail design relieves stress and clutter on the source and display connector panels
- DDC bidirectional support
- HDCP pass-through
- Compact Sender and Receiver modules provide a clean, easy installation
- FCC and CE compliant for EMI/RFI emission

#### SPECIFICATIONS

- Maximum Pixel Clock: 165 MHz
- Video Input Connector (Sender): (1) DVI-D, 19-pin, male
- Video Output Connector (Receiver): (1) DVI-D, 19-pin, male
- Link Connector (Sender/Receiver): (1) Type SC fiber (50 /125 $\mu$ m)
- Power Supply (Sender): 5V DC (not needed for most applications)
- Power Supply (Receiver): 5V DC
- Power Consumption (Receiver): 1.5W (max.)
- Operating Temperature: +32 to 122 °F (0 to +50 °C)
- Storage Temperature: -4 to 158 °F (-20 to +70 °C)
- Relative Humidity: 10% to 80%
- Dimensions (W x H x D): 1.54" x 0.63" x 11.49" (39.11mm x 16mm x 291.84mm)
- Shipping Weight: 1 lb. (0.45 kg)



**HDCP COMPLIANT**



# Fiber Optic DVI Extenders



## DVI Extension Modules Using one Fiber Optic Cable Multimode Strand

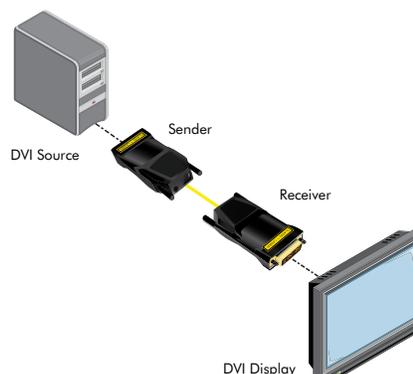
### FEATURES

- Extends DVI up to 3300 feet (1 kilometer) over a single-strand of OM3 (laser-optimized 50/125 $\mu$ m) multimode fiber optic cable
- Extends DVI up to 1650 feet (500 meters) over a single-strand of OM2 (conventional 50/125 $\mu$ m) multimode fiber optic cable
- Extends DVI up to 1000 feet (300 meters) over a single-strand of OM1 (62.5/125 $\mu$ m) multimode fiber optic cable
- Supports resolutions up to 1920 x 1200 (WUXGA)
- Virtual EDID allows EDID copying from the display to the source
- Fiber optic transmission eliminates electromagnetic interference (EMI)
- Sturdy metal die-cast enclosures are perfect for professional and industrial applications
- Compact Sender and Receiver modules provide a clean, easy installation
- Use Gefen CAB-1SC-xxxx OM1 Fiber Optic Link Cables for distances from 30 - 330 feet (9-100 meters)
- FCC and CE compliant for EMI/RFI emission



### SPECIFICATIONS

- Maximum Pixel Clock: 165 MHz
- Video Input Connector (Sender): DVI-D, 19-pin, male
- Video Output Connector (Receiver): DVI-D, 19-pin, male
- Link Connector (Sender / Receiver): (1) Type SC fiber (50/125 $\mu$ m)
- Power Supply (Sender): 5V DC (not needed for most applications)
- Power Supply: (Receiver): 5V DC
- Power Consumption (Receiver): 0.95 W (max.)
- Operating Temperature: +32 to +122 °F (0 to +50 °C)
- Storage Temperature: -22 to +158 °F (-30 to +70 °C)
- Relative Humidity: 5% to 85%
- Dimensions (W x H x D): 1.96" x 0.59" x 2.98" (49.78mm x 14.98mm x 75.69mm)
- Shipping Weight: 2 lbs. (0.91 kg)



EXT-DVI-FM15

FIBER OPTIC CABLE



## Single-Link DVI Fiber Optic Extender

Extends any DVI device up to 5,000 feet (1,500 meters) over two-strand LC-terminated fiber optic cable

### FEATURES

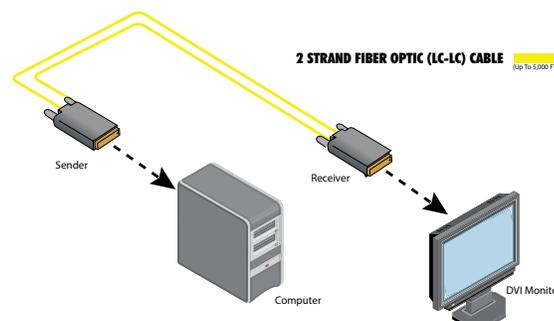
- Extends DVI up to 5,000 feet (1500 meters) using single-mode(8/125  $\mu$ m or 9/125  $\mu$ m) fiber cable
- Extends DVI up to 1,500 feet (450 meters) using multi-mode (50  $\mu$ m or 62.5  $\mu$ m) fiber cable
- Supports resolutions up to 1920 x 1200
- Supports DDWG standard for DVI-compliant monitors
- EDID Programming feature enables quick and correct sync of source to display
- Fully supports DVI 1.0 and DDC2B via virtual DDC
- Supports both singlemode and multimode fiber optic cable types
- Fiber cable provides immunity from electromagnetic interference (EMI)



EXT-DVI-FM500

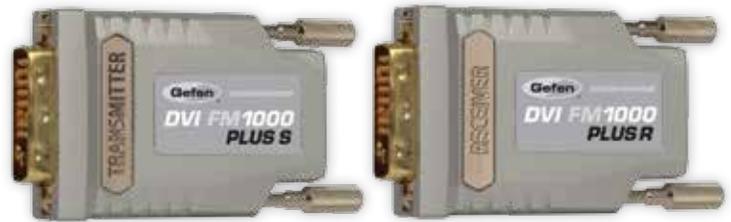
### SPECIFICATIONS

- Maximum Pixel Clock: 165MHz
- Input Video Signal: 1.2V p-p
- Input DDC Signal: 5V p-p (TTL)
- Supported fiber types: single-mode 89 $\mu$ m (5000 feet) or multi-mode 50/62.5 $\mu$ m (1500 feet)
- Default EDID: UXGA (1600 x 1200)
- Video Input Connector (Sender): (1) DVI-D (19 pin), male (digital only)
- Video Output Connector (Receiver): (1) DVI-D (19 pin), male (digital only)
- Link Connectors (Sender / Receiver): (2) Type LC (1 Duplex) fiber connectors
- LED Indicators (Sender / Receiver): (1) EDID Status
- Program Button (Sender): EDID Program (recessed)
- Fiber Cable: CAB-2LC-XXX (62.5/125 $\mu$ m multi-mode)
- Power Supply (Receiver): 5V DC (Second power supply included for use if source does not provide 5V power for Sender over DVI connector)
- Power Consumption: 2.5W (max.)
- Operating Temperature: 0°C - 50°C
- Storage Temperature: -10°C - 85°C
- Operating Humidity: 5% - 85%
- Dimensions (Sender / Receiver): 1.5" W x 2.5" D x 0.5" H
- Shipping Weight: 2 lbs



## DVI FM 1000 Plus Extender

Extend DVI Over One Strand of Fiber Optic Cable  
up to 3300 feet (1 km)



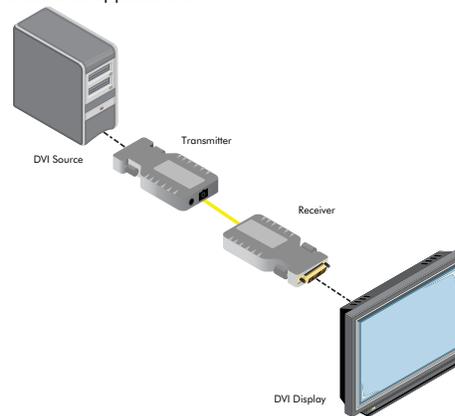
**EXT-DVI-FM1000P**

### FEATURES

- Extends DVI up to 5600 feet (1.7 km) over a single-strand of OM3e/OM4 (50/125 $\mu$ m) multimode fiber optic cable
- Extends DVI up to 4950 feet (1.5 km) over a single-strand of OM3 (50/125 $\mu$ m) multimode fiber optic cable
- Extends DVI up to 3300 feet (1 km) over a single-strand of OM2 (50/125 $\mu$ m) multimode fiber optic cable
- Extends DVI up to 1640 feet (500 meters) over a single-strand of OM1 (62.5/125 $\mu$ m) multimode fiber optic cable
- Supports resolutions up to 1920 x 1200 (WUXGA)
- Automatic EDID programming provides continuous connection of source to display
- Sturdy die-cast metal enclosures provide a robust solution for professional and industrial applications
- Compact Sender and Receiver modules provide a clean and easy installation

### SPECIFICATIONS

- Maximum Pixel Clock: 165 MHz
- Video Input Connector (Sender): (1) DVI-D (24 pin), male
- Video Output Connector (Receiver): (1) DVI-D (24 pin), male
- Link Connector (Sender / Receiver): (1) Type SC
- Power Supply (Receiver): 5V DC
- Power Consumption: 2.5 Watts (max.)
- Operating Temperature: +32° to +122°F (0° to +50° C)
- Storage Temperature: -4° to +158°F (-20° to +70° C)
- Relative Humidity: 10% to 80%, non-condensing
- Dimensions (W x H x D): 1.6" x 0.6" x 2.8" (40mm x 14mm x 70mm)
- Shipping Weight: 1 lb (0.45 kg)



**SC FIBER OPTIC CABLE**  
(up to 3,300 feet)



## Dual Link DVI Fiber Optic Extender Module

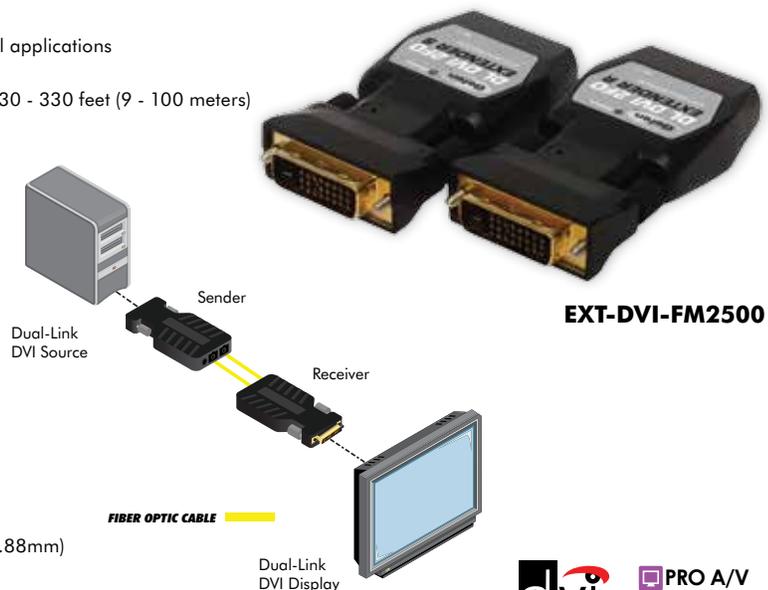
Dual-Link DVI extension using a two-strand multimode fiber optic cable terminated in SC

### FEATURES

- Extends dual-link DVI up to 3300 feet (1 kilometer) over two strands of OM3 (laser-optimized 50/125 $\mu$ m) multimode fiber optic cable
- Extends dual-link DVI up to 1650 feet (500 meters) over two strands of OM2 (conventional 50/125 $\mu$ m) multimode fiber optic cable
- Extends dual-link DVI up to 1000 feet (300 meters) over two strands of OM1 (62.5/125 $\mu$ m) multimode fiber optic cable
- Supports 1080p Full HD at 120Hz and dual-link resolutions up to 3840 x 2400
- Virtual EDID allows EDID copying from the display to the source
- Fiber optic transmission eliminates electromagnetic interference (EMI)
- Sturdy metal die-cast enclosures are perfect for professional and industrial applications
- Compact Sender and Receiver modules provide a clean, easy installation
- Use Gefen CAB-2LC-xxx OM1 Fiber Optic Link Cables for distances from 30 - 330 feet (9 - 100 meters)
- FCC and CE compliant for EMI/RFI emission

### SPECIFICATIONS

- Maximum Pixel Clock: 2 x 165 MHz
- Video Input Connector (Sender): (1) DVI-D 24-pin, male
- Video Output Connector (Receiver): (1) DVI-D 24-pin, male
- Link Connector (Sender / Receiver): (2) Type LC
- Power Supply (Sender): 5V DC (not needed for most applications)
- Power Supply: (Receiver): 5V DC
- Power Consumption (Receiver): 1.5W (max.)
- Operating Temperature: +32 to +122 °F (0 to +50 °C)
- Storage Temperature: -22 to +158 °F (-30 to +70 °C)
- Relative Humidity: 5% to 85%
- Dimensions (W x H x D): 1.54" x 0.59" x 2.83" (39.11mm x 14.98mm x 71.88mm)
- Shipping Weight: 2 lbs (0.91 kg)



**EXT-DVI-FM2500**



# Fiber Optic DVI Extenders



## DVI FM Plus Extender Modules

Extends DVI up to 2,000 feet (600 meters) over four-strand LC multi-mode fiber optic cable

### FEATURES

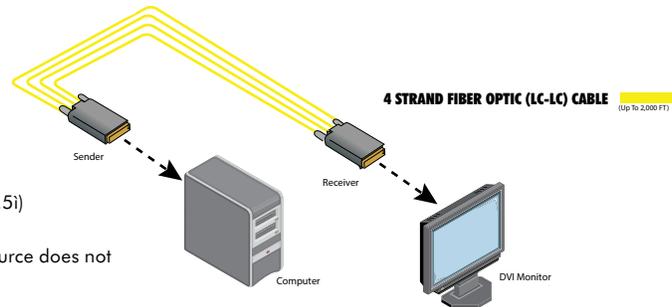
- Extends any DVI video signal up to 2000 feet (600 meters)
- Supports resolutions up to 1920 x 1200
- Uses four strands of multi-mode LC-terminated fiber optic cable
- Supports DDWG standard for DVI-compliant monitors
- EDID Programming feature enables quick and correct sync of source to display
- Fiber cable provides immunity from electromagnetic interference (EMI)
- Eliminates computer noise at your workstation
- Compact and easy to install

### SPECIFICATIONS

- Maximum Pixel Clock: 165MHz
- Input Video Signal: 1.2V p-p
- Input DDC Signal: 5V p-p (TTL)
- Video Input Connector (Sender): (1) DVI-D 19-pin, female
- Video Output Connector (Receiver): (1) DVI-D 19-pin, female
- Link Connectors (Sender / Receiver): (4) Type LC fiber connectors (50i or 62.5i)
- Fiber Cable: CAB-LC-XXX (62.5i multi-mode)
- Power Supply (Receiver): 5V DC (Second power supply included for use if source does not provide 5V power for Sender over DVI connector)
- Power Consumption: 2.5W (max.)
- Dimensions (Sender / Receiver): 2.2" D x 1.5" W x 0.5" H
- Shipping Weight: 2 lbs.



EXT-DVI-FMP



## DVI 1500 HD Extender

Extends DVI up to 1,650 feet (500 meters) over four-strand LC multi-mode fiber optic cable

### FEATURES

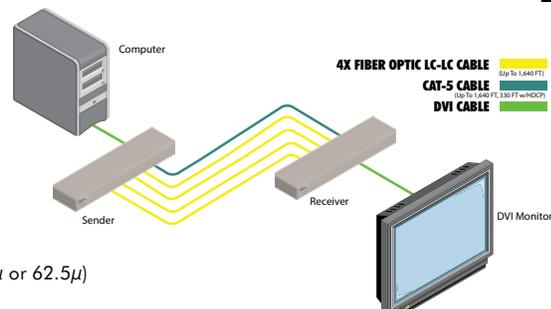
- Extends any DVI device without HDCP up to 1650 feet (500 meters)
- Extends any DVI device with HDCP up to 330 feet (100 meters) (requires additional CAT-5e Cable)
- Supports resolutions up to 1920 x 1200
- Uses a four-strand multimode LC-LC fiber optic cable
- Uses one CAT-5e cable for DDC and control signals
- Eliminates computer noise at your workstation
- Supports DDWG standard for DVI-compliant monitors
- HDCP compliant (maximum distance is 330 feet with HDCP)
- Rack-mountable

### SPECIFICATIONS

- Maximum Pixel Clock: 165MHz
- Input Video Signal: 1.2V p-p
- Input DDC Signal: 5V p-p (TTL)
- DVI Connector: (1) DVI-D 19-pin, female
- Video Link Connectors (Sender / Receiver): (4) Type LC Fiber connectors (50μ or 62.5μ)
- Fiber Cable: CAB-LC-XXX (62.5μ multi-mode)
- DDC Link Connector (Sender / Receiver): (1) RJ-45, Shielded
- Power Supplies (Sender / Receiver): 5V DC, Locking
- Power Consumption: 10W (max.) each
- Operating Temperature: +14 to +122 °F (-10 to +50 °C)
- Storage Temperature: -22 to 140 °F (-30 to +60 °C)
- Humidity (Operating): 5% to 80 %
- Humidity (Storage): 5% to 95 %
- Dimensions (W x H x D): 6.5" x 1.7" x 4.5" (165mm x 43mm x 114mm)
- Shipping Weight: 5 lbs (2.3 kg)
- Dimensions (W x H x D): 6.5" x 1.7" x 4.5" (165mm x 43mm x 114mm)
- Shipping Weight: 5 lbs (2.3 kg)



EXT-DVI-1500HD



## Single-Link DVI, RS-232 and Audio Extender Over Fiber

Extend DVI or HDMI with audio RS-232 up to 6,600 feet (2,000 meters) over four-strand LC fiber optic cable

### FEATURES

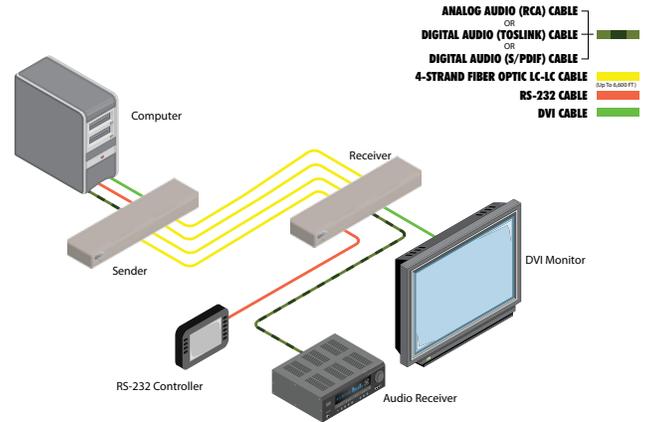
- Extends any DVI device without HDCP up to 6,600 feet (2000 meters) over single-mode fiber
- Extends any DVI device without HDCP up to 1,640 feet (500 meters) over multi-mode fiber
- Extends any HDMI device with DDC/HDCP up to 660 feet (200 meters) over single-mode or multi-mode fiber, using DVI to HDMI adapters or cables (no audio)
- Supports resolutions up to 1920 x 1200
- Plug-and-Play installation requires no software drivers
- Can use either single-mode or multi-mode optical fiber cables
- Extends L/R analog audio, S/PDIF, or TOSLINK digital audio (switch-selectable)
- RS-232 signal extension helps create long-distance control systems for A/V integration

### SPECIFICATIONS

- Max. Pixel Clock: 165MHz
- Input Video Signal: 1.2V p-p
- Input DDC Signal: 5V p-p (TTL)
- Video Input Connector (Sender): (1) DVI-I 29-pin, female (digital only)
- Video Output Connector (Receiver): (1) DVI-I 29-pin, female (digital only)
- Audio Input Connectors (Sender): (1) S/PDIF (RCA female), (1) TOSLINK, (1) L/R analog audio (2 x RCA, female)
- RS-232 Input Connector (Sender): (1) DB-9, female
- Audio Output Connectors (Receiver): (1) S/PDIF (RCA female), (1) TOSLINK, (1) L/R analog audio (2 x RCA, female)
- RS-232 Output Connector (Receiver): (1) DB-9, male
- Link Connectors (Sender/Receiver): (4) Type LC fiber connectors (2 x LC Duplex)
- Fiber Type: single-mode or multi-mode (limited distance over multi-mode)
- Fiber Cable: CAB-LC-XXX (62.5μ multi-mode)
- Power Supplies (Sender / Receiver): 12V DC, Locking
- Power Consumption: 36W (max.) each
- Operating Temperature: 0 - 50 C
- Dimensions (Sender / Receiver): 10.3" W x 5.1" D x 1.6" H
- Shipping Weight: 6 lbs.



**EXT-DVI-1600HD**



## Dual-Link DVI Extender Over Fiber

Extends dual-link DVI up to 6,600 feet (2 km) at 2560x1600 using four-strand LC fiber optic cable

### FEATURES

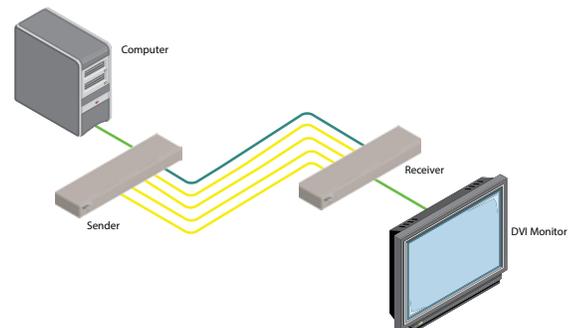
- Extends Dual-link DVI up to 6,600 feet (2000 meters) using single-mode fiber and Virtual DDC
- Extends Dual-link DVI up to 1640 feet (500 meters) using multi-mode fiber and Virtual DDC
- Extends Dual-link DVI up to 330 feet (100 meters) over single-mode or multi-mode fiber plus one CAT-5 cable using Direct DDC
- Supports 1080p Full HD at 120Hz and dual-link resolutions up to 3840 x 2400 or single-link resolutions up to 1920 x 1200
- Uses 4 fiber strands for dual-link DVI (only 2 strands required for single-link DVI)
- Uses one CAT-5 cable for DDC and control signals (only required for Direct DDC mode)
- HDCP compliant (in Direct DDC mode only)
- Supports DDWG standard for DVI compliant monitors
- Rack-mountable

### SPECIFICATIONS

- Maximum Pixel Clock: 2 x 165 MHz
- Input Video Signal: 1.2V p-p
- Input DDC Signal: 5V p-p (TTL)
- Video Input Connector (Sender): (1) DVI-I 29-pin, female (digital only)
- Video Output Connector (Receiver): (1) DVI-I 29-pin, female (digital only)
- Link Connectors (Sender/Receiver): (4) Type LC fiber connectors (2 x LC Duplex) (only 2 strands required for Single-link DVI)
- Fiber Cable: CAB-LC-XXX (62.5μ multi-mode)
- Direct DDC Link Connector (Sender / Receiver): (1) RJ-45, Shielded
- Power Supply (Sender / Receiver): (2) 12V DC
- Power Consumption: 36W (max.) each
- Dimensions (Sender / Receiver): 8.4" W x 4.2" D x 1.6" H
- Shipping Weight: 5.6 lbs



**EXT-DVI-2500HD**



# Fiber Optic DVI Extenders



## KVM Extender for DVI, USB 2.0, RS-232 and Analog Audio up to 6,600 feet (2,000 meters)



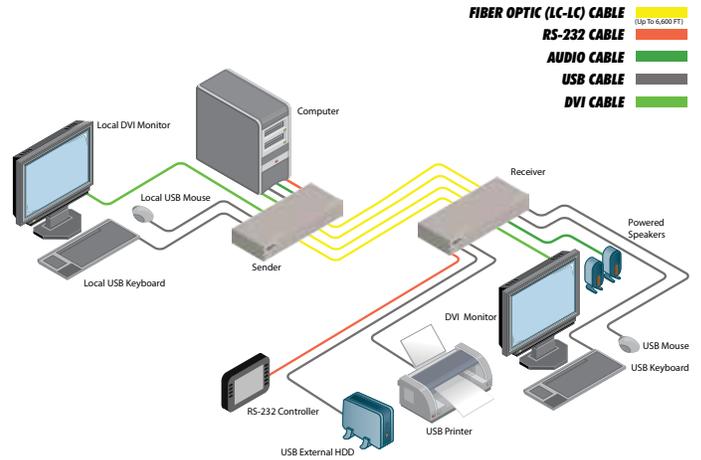
**EXT-DVI-3600HD**

### FEATURES

- Extends DVI, USB2.0, RS-232, and analog audio up to 6,600 feet (2000 meters) with single-mode fiber, and up to 1,650 feet (500 meters) with multi-mode fiber
- Supports video resolutions up to 1920 x 1200
- Uses four-strand single-mode or multi-mode LC-terminated fiber cables
- Supports Virtual DDC1 and DDC2B protocols
- Supports Local and Virtual EDIDs
- Supports USB 2.0 and USB 1.1
- Configurable to allow access of USB devices located at Sender Side or Receiver Side
- Rack-mountable (rack ears included)

### SPECIFICATIONS

- Maximum Pixel Clock: 165MHz
- Video Input Connector (Sender): (1) DVI-D (24 pin), female (digital only)
- Video Monitor Output Connector (Sender): (1) DVI-D (24 pin), female (digital only)
- Audio Input Connector (Sender) (1) 3.5 mm mini-stereo jack
- Audio Output Connector (Receiver) (1) 3.5 mm mini-stereo jack
- USB Host Connector (Sender): (1) USB Type B
- USB Local Device Connectors (Sender): (2) USB Type A, female
- USB Device Connectors (Receiver): (4) USB Type A, female
- RS-232 Port (Sender): (1) DB-9, female
- RS-232 Port (Receiver): (1) DB-9, male
- Link Connectors (Sender / Receiver): (4) Type LC fiber connectors (2 x LC Duplex)
- Fiber Cable: CAB-LC-XXX (62.5μ multi-mode)
- Console Connector (Sender / Receiver): (1) RJ-45 jack (for future use)
- Power Supply (Sender / Receiver): 12V DC
- Power Consumption: 36W (max.) each
- Dimensions (Sender / Receiver)(W x H x D): 12.4" x 1.6" x 5" (315mm x 40mm x 127mm)
- Shipping Weight: 8 lbs. (3.6 kg)



## DVI Extender with RS-232 Over One Fiber

Extends DVI and RS-232 over one Fiber Optic cable up to 1,000 feet (300 meters)

### FEATURES

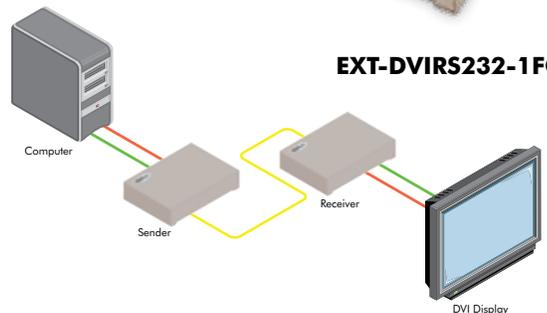
- Extends up to 1000 feet (300 meters) over 50/125μm (OM3) fiber
- Extends up to 330 feet (100 meters) over 62.5/125μm (OM1) fiber
- Extends DVI and RS-232 over a single fiber strand
- Supports resolutions up to 1080p Full HD and 1920 x 1200
- EDID management for rapid integration of source and display
- Automatic calibration based on the type and length of fiber optic cable
- Fiber cable is immune to electromagnetic interference (EMI)
- Locking power supplies
- Works with Gefen CAB-1SC-XXXX 1 Strand SC-SC Multimode Fiber Optic Link (Available lengths: 30 - 330 feet)

### SPECIFICATIONS

- Maximum Pixel Clock: 165 MHz
- Input Video Signal: 1.2V p-p
- Input DDC Signal: 5V p-p (TTL)
- DVI Connectors (Sender/Receiver): (1) DVI-I, 29-pin, female (digital only)
- RS-232 Connector (Sender): (1) DB-9, female
- RS-232 Connector (Receiver): (1) DB-9, male
- Link Connectors (Sender/Receiver): SC-terminated (for 50/125μm or 62.5/125μm fiber)
- Operating Temp: 0° - 40° C
- Power Supply: 5V DC
- Dimensions (W x H x D): 5.0" x 1.25" x 3.4" (127mm x 32mm x 86mm)
- Shipping Weight: 4 lbs. (1.8 kg)



**EXT-DVIRS232-1FO**



## DVI KVM Extender over IP

Extend and Distribute DVI, USB, RS-232, IR, and 2-way audio over a Local Area Network

### FEATURES

- Extends DVI, USB, RS-232, bi-directional stereo analog audio, and IR over IP, using a Gigabit Local Area Network
- Any combination of HDMI, DVI, and VGA Senders and Receivers can be used together to create a "Virtual Matrix"
- Supports resolutions up to 1080p Full HD and 1920 x 1200 (WUXGA)
- Supports 2 USB devices at Receiver side, with 500mA current capability per port, USB 2.0 data rates up to 480 Mbps, and backward-compatibility with USB 1.1
- Supports 256 Senders and a total of just over 65,000 Receiver units, depending on the network bandwidth and number of ports on your network switch
- Three-port Ethernet switch built into the Receiver unit
- Switch/USB button facilitates scrolling between multiple Senders and accessing a USB host computer from multiple Receivers
- Mode button on Sender for sharpness or motion optimization of image
- Easy-to-use web server interface for quick system set-up, operation, and firmware upgrade
- Locking power supply connectors
- 1U tall, half-rack width enclosures are rack-mountable using EXT-RACK-1U
- Surface mounting brackets included

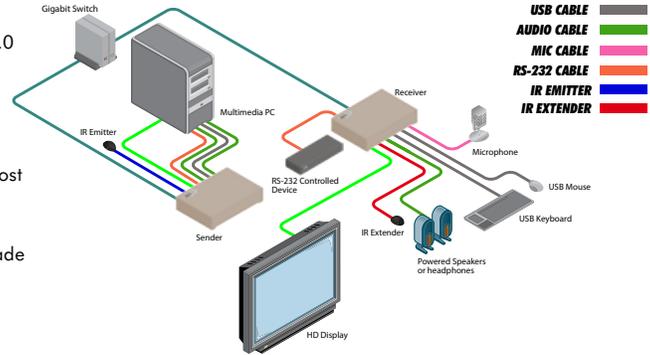
### SPECIFICATIONS

- Maximum Pixel Clock: 165 MHz
- Video Input Connector (Sender): (1) DVI 29-pin, female
- Video Output Connector (Receiver): (1) DVI 29-pin, female
- Line Input (Sender): (1) 3.5mm mini-stereo jack
- Line Output (Sender): (1) 3.5mm mini-stereo jack
- Mic Input (Receiver): (1) 3.5mm mini-stereo jack
- Line Output (Receiver): (1) 3.5mm mini-stereo jack
- USB Host Interface (Sender): (1) USB Type B, female
- USB Device Connectors (Receiver): (2) USB Type A, female
- RS-232 Connector (Sender): (1) DB-9, female
- RS-232 Connector (Receiver): (1) DB-9, male
- IR Emitter (Sender): (1) 3.5mm mini-mono jack
- IR Extender (Receiver): (1) 3.5mm mini-stereo jack

- IR Extender Type: EXT-RMT-EXTIRN
- Ethernet connector (Sender): (1) RJ-45, shielded
- Ethernet connectors (Receiver): (3) RJ-45, shielded
- Mode button (Sender): (1) tact-type
- Switch button (Receiver): (1) tact-type
- Reset button (Receiver): (1) tact-type, recessed
- Link Indicator (Sender/Receiver): (1) LED, green
- Power Indicator (Sender/Receiver): (1) LED, blue
- Power Consumption (Sender / Receiver): 10W (max.)
- Dimensions (Sender / Receiver) (W x H x D): 8.4" x 1.7" x 4.5" (213mm x 43mm x 113mm)
- Shipping Weight: EXT-DVIKVM-LAN: 8.3 lbs. (3.8 kg)



### EXT-DVIKVM-LAN



EXT-DVIKVM-LAN



## HD KVM Extender over IP

Extend and distribute HDMI, USB, analog audio, RS-232, and IR using a Local Area Network

### FEATURES

- Extends HDMI, USB, RS-232, bi-directional stereo analog audio, and IR over IP, using a Gigabit Local Area Network
- Any combination of HDMI, DVI, and VGA Senders and Receivers can be used together to create a "Virtual Matrix"
- Supports resolutions up to 1080p Full HD and 1920 x 1200 (WUXGA)
- Supported HDMI Features:
  - HDCP
  - Deep Color
  - LPCM 7.1 audio, Dolby® TrueHD, and DTS-HD® Master Audio™
  - Lip-Sync pass-through
- Supports 2 USB devices at Receiver side, with 500mA current capability per port, USB 2.0 data rates up to 480 Mbps, and backward-compatibility with

### SPECIFICATIONS

- Maximum Pixel Clock: 225 MHz
- Video Input Connector (Sender): (1) HDMI Type A 19-pin, female, locking
- Video Output Connector (Receiver): (1) HDMI Type A 19-pin, female, locking
- Line Input (Sender): (1) 3.5mm mini-stereo jack
- Line Output (Sender): (1) 3.5mm mini-stereo jack
- Mic Input (Receiver): (1) 3.5mm mini-stereo jack
- Line Output (Receiver): (1) 3.5mm mini-stereo jack

- USB 1.1
- Supports 256 Senders and a total of just over 65,000 Receiver units, depending on the network bandwidth and number of ports on your network switch
- Three-port Ethernet switch built into the Receiver unit
- Switch/USB button facilitates scrolling between multiple Senders and accessing a USB host computer from multiple Receivers
- Easy to use web server interface for quick system set-up, operation, and firmware update
- Locking power supply connectors
- 1U tall, half-rack width enclosures are rack-mountable using EXT-RACK-1U
- Surface mounting brackets included
- USB 1.1

- USB Host Interface (Sender): (1) USB Type B, female
- USB Device Connectors (Receiver): (2) USB Type A, female
- RS-232 Connector (Sender): (1) DB-9, female
- RS-232 Connector (Receiver): (1) DB-9, male
- IR Emitter (Sender): (1) 3.5mm mini-mono jack
- IR Extender (Receiver): (1) 3.5mm mini-stereo jack
- IR Extender Type: EXT-RMT-EXTIRN
- Ethernet connector (Sender): (1) RJ-45, shielded
- Ethernet connectors (Receiver): (3) RJ-45, shielded
- Mode button (Sender): (1) tact-type
- ID Selector switch (Sender): (1) rotary-type
- Switch button (Receiver): (1) tact-type



### EXT-HDKVM-LAN



- Reset button (Receiver): (1) tact-type, recessed
- Link Indicator (Sender/Receiver): (1) LED, green
- Power Indicator (Sender/Receiver): (1) LED, blue
- Power Supply (Sender / Receiver): 5V DC, locking
- Power Consumption (Sender / Receiver): 10W (max.)
- Dimensions (Sender / Receiver) (W x H x D): 8.4" x 1.7" x 4.5" (213mm x 43mm x 113mm)
- Shipping Weight: EXT-HDKVM-LAN: 8.0 lbs. (3.6 kg)



## DVI KVM over IP with Local DVI Output

Video over IP solution for extending DVI, USB, RS-232, and audio

### FEATURES

- Extends DVI, USB, RS-232, and stereo analog audio over IP, using a Gigabit Local Area Network Any combination of HDMI, DVI, and VGA Senders and Receivers can be used together to create a "Virtual Matrix"
- Any combination of HDMI, DVI, and VGA Senders and Receivers can be used together to create a "Virtual Matrix"
- Supports resolutions up to 1080p Full HD and 1920 x 1200 (WUXGA)
- Supports a local DVI monitor at Sender side
- Supports 4 USB devices at Receiver side, with 500mA current capability per port, USB 2.0 data rates up to 480 Mbps, and backward-compatibility with USB 1.1
- Supports 256 Senders and a total of just over 65,000 Receiver units, depending on the network bandwidth and number of ports of your network switch
- Three-port Ethernet switch built into the Receiver unit
- + and - / Select buttons on Receiver unit allow selection of multiple Senders
- USB button on Receiver unit allows multiple Receivers to access a USB host computer
- Mode button on Sender for sharpness or motion optimization of image
- Easy-to-use web server interface for quick system set-up and firmware upgrade
- Locking power supply connectors
- 1U tall, half-rack width enclosures are rack-mountable using EXT-RACK-1U
- Surface mounting brackets included

### SPECIFICATIONS

- Maximum Pixel Clock: 165 MHz
- Video Input Connector (Sender): (1) DVI 29-pin, female, digital only
- Video Local Output Connector (Sender): (1) DVI 29-pin, female, digital only
- Video Output Connector (Receiver): (1) DVI 29-pin, female, digital only
- Line Input (Sender): (1) 3.5mm mini-stereo jack
- Line Output (Receiver): (1) 3.5mm mini-stereo jack
- USB Host Interface (Sender): (1) USB Type B, female
- USB Device Connectors (Receiver): (4) USB Type A, female
- RS-232 Connector (Sender): (1) DB-9, female
- RS-232 Connector (Receiver): (1) DB-9, male
- Ethernet connector (Sender): (1) RJ-45, female
- Ethernet connectors (Receiver): (3) RJ-45, female
- Mode button (Sender): (1) tact-type
- + / USB button (Receiver): (1) tact-type
- - / Select button (Receiver): (1) tact-type
- Reset button (Sender/Receiver): (1) tact-type, recessed
- Link Indicator (Sender/Receiver): (1) LED, green



**EXT-DVIKVM-LAN-L**

**1080P**  
PROGRESSIVE



- Power Indicator (Sender/Receiver): (1) LED, blue
- Power Supply:
  - Sender: 5V DC 2.6A, locking
  - Receiver: 5V DC 4A, locking
- Power Consumption:
  - Sender: 10W maximum
  - Receiver: 20W maximum
- Dimensions (Sender/Receiver) (W x H x D): 8.4" x 1.7" x 4.5" (213mm x 43mm x 113mm)
- Shipping Weight:
  - EXT-DVIKVM-LAN-L: 8.0 lbs. (3.6 kg)
- Reset button (Sender/Receiver): (1) tact-type, recessed
- Link Indicator (Sender/Receiver): (1) LED, green
- Power Indicator (Sender/Receiver): (1) LED, blue
- Power Supply:
  - Sender: 5V DC 2.6A, locking
  - Receiver: 5V DC 4A, locking
- Power Consumption:
  - Sender: 10W maximum
  - Receiver: 20W maximum
- Dimensions (Sender/Receiver) (W x H x D): 8.4" x 1.7" x 4.5" (213mm x 43mm x 113mm)
- Shipping Weight: EXT-DVIKVM-LAN-L: 8.0 lbs. (3.6 kg)

## VGA KVM Extender Over IP

Extender for VGA, USB, RS-232, IR, and 2-way audio over a Local Area Network

### FEATURES

- Extends VGA, USB, RS-232, bi-directional stereo analog audio, and IR over IP, using a Gigabit Local Area Network
- Any combination of HDMI, DVI, and VGA Senders and Receivers can be used together to create a "Virtual Matrix"
- Supports resolutions up to 1920 x 1200 (WUXGA)
- Supports 2 USB devices at Receiver side, with 500mA current capability per port, USB 2.0 data rates up to 480 Mbps, and backward-compatibility with USB 1.1
- Supports 256 Senders and a total of just over 65,000 Receiver units, depending on the network bandwidth and number of ports on your network switch
- Three-port Ethernet switch built into the Receiver unit
- Switch/USB button facilitates scrolling between multiple Senders and accessing a USB host computer from multiple Receivers
- Easy to use web server interface for quick system set-up, operation, and firmware update
- Locking power supply connectors
- 1U tall, half-rack width enclosures are rack-mountable using EXT-RACK-1U
- Surface mounting brackets included

### SPECIFICATIONS

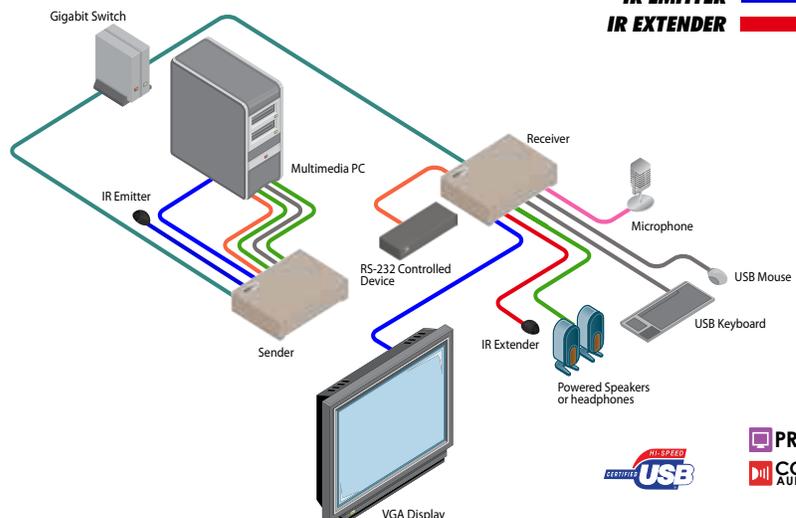
- Maximum Video Bandwidth: 350 MHz
- Video Input Connector (Sender): (1) VGA HD-15, female
- Video Output Connector (Receiver): (1) VGA HD-15, female
- Line Input (Sender): (1) 3.5mm mini-stereo jack
- Line Output (Sender): (1) 3.5mm mini-stereo jack
- Mic Input (Receiver): (1) 3.5mm mini-stereo jack
- Line Output (Receiver): (1) 3.5mm mini-stereo jack
- USB Host Interface (Sender): (1) USB Type B, female
- USB Device Connectors (Receiver): (2) USB Type A, female
- RS-232 Connector (Sender): (1) DB-9, female
- RS-232 Connector (Receiver): (1) DB-9, male
- IR Emitter (Sender): (1) 3.5mm mini-mono jack
- IR Extender (Receiver): (1) 3.5mm mini-stereo jack
- IR Extender Type: EXT-RMT-EXTIRN
- Ethernet connector (Sender): (1) RJ-45, shielded
- Ethernet connectors (Receiver): (3) RJ-45, shielded
- Mode button (Sender): (1) tact-type
- ID Selector switch (Sender): (1) rotary-type
- Switch button (Receiver): (1) tact-type
- Reset button (Receiver): (1) tact-type, recessed
- Link Indicator (Sender/Receiver): (1) LED, green
- Power Indicator (Sender/Receiver): (1) LED, blue
- Power Consumption (Sender / Receiver): 10W (max.)
- Dimensions (Sender / Receiver) (W x H x D): 8.4" x 1.7" x 4.5" (213mm x 43mm x 113mm)
- Shipping Weight: EXT-VGAKVM-LAN: 8.3 lbs. (3.8 kg)



**EXT-VGAKVM-LAN**



- CAT-5 CABLE** (Up to 330 ft)
- VGA CABLE**
- USB CABLE**
- AUDIO CABLE**
- MIC CABLE**
- RS-232 CABLE**
- IR EMITTER**
- IR EXTENDER**



### DUAL VGA EXTENDER OVER IP PACKAGE

- Includes 2 sets of EXT-VGAKVM-LAN and 1 EXT-RACK-1U rack mounting bracket
- SKU:EXT-2VGAKVMPAK-LAN



## 3G-SDI Fiber Optic Extender

Extends 3GSDI Over Fiber up to 1.25 Miles (2 km)

### FEATURES

- Supports SMPTE-424M (3G-SDI), SMPTE-292M (HD-SDI), and SMPTE-259M (SDI) specifications
- Extends 3G-SDI up to 1.25 miles (2 kilometers) over one single-mode ST-terminated fiber optic cable
- Locking power connectors
- Robust metal die-cast enclosure for reliable operation in harsh environment
- Fiber optic transmission eliminates electromagnetic interference (EMI)
- Compact Sender and Receiver modules provide a clean, easy installation
- FCC and CE compliant for EMI/RFI emission

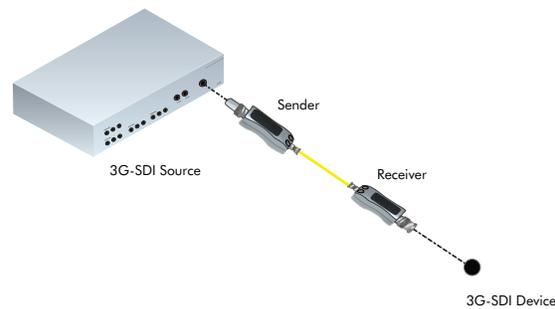


**EXT-3GSDI-FOSM**

### SPECIFICATIONS

- Data Rate: up to 3 Gbps
- Range: Up to 1.25 miles (2 kilometers)
- Input Impedance: 75 Ω
- Signal Level: 800mVp-p +/- 50mV
- Optical Fiber Type: ST (single-mode)
- Number of Fibers: 1
- SDI Connector: BNC Male
- Propagation Delay (Sender): 1.5 ns
- Propagation Delay (Receiver): 40 ns
- Power Supply: (2) 5V DC
- Power Budget: 12dB
- Operating Temperature: +4 to +158 °F (-20° to + 70 °C)
- Wavelength (Sender unit): 1290 nm (min.), 1310 nm (typical), 1330 nm (max.)
- Wavelength (Receiver unit): 1100 nm (min.), 1310 nm (typical), 1650 nm (max.)
- Dimensions (W x H x D): 0.77" x 0.77" x 1.97" (19.55mm x 19.55mm x 50.03 mm)
- Shipping Weight: 1.3 lbs. (0.58 kg)

**SINGLE MODE ST FIBER OPTIC CABLE**



## DisplayPort Extender Over CAT7

Extend DisplayPort Over Two CAT-7A Cables up to 100 Feet (30 meters)

### FEATURES

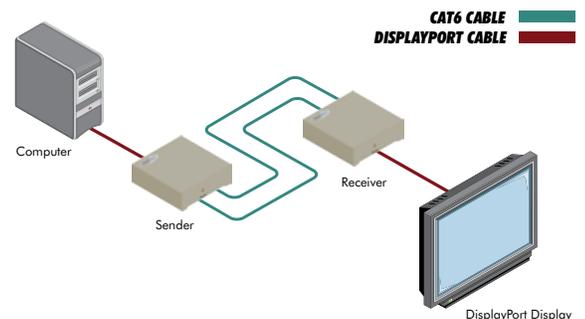
- Extends DisplayPort video up to 100 feet (30 meters)
- Supports resolutions up to 2560 x 1600 over two CAT-7 cables, and up to 1920 x 1200 or 1080p Full HD at 120Hz at over one CAT-7 cable
- HDCP compliant
- Supports DisplayPort 1.1a
- 16-position EQ rotary switch to compensate for cable skew
- HPD Auto-Calibration button
- Pre-emphasis switch
- Drive level switch
- Boost level switches
- Power On and Link indicators
- Locking power supply connectors
- Surface-mountable

### SPECIFICATIONS

- Video Data Rate: up to 2.7 Gbps
- Video Output Voltage: 1.2V p-p
- Video Input Connector (Sender): (1) DisplayPort, 20-pin, female
- Video Output Connector (Receiver): (1) DisplayPort, 20-pin, female
- Link Connectors (Sender/Receiver): (2) RJ-45, shielded
- EQ Switch (Receiver): (1) 16-position rotary type
- HPD Auto Calibration button (Receiver): (1) tact-type
- Pre-emphasis switch (Sender): (1) 3-position DIP switch
- Drive level switch (Sender): (1) 3-position DIP switch
- Boost Level Switches (Sender): (2) 3-position DIP switch
- Power On indicator (Sender): (1) LED, blue
- Link indicator (Receiver): (1) LED, green: good link, red: no link
- Power Supply connector (Sender): (1) 5V DC, locking type
- Operating Temperature: +32 to +104 °F (0 to +40 °C)
- Dimensions (W x H x D) (Sender/Receiver): 4.3" x 1" x 3.3" (110mm x 25mm x 83mm)
- Shipping Weight: 3 lbs (1.4 kg)



**EXT-DP-2CAT7**



**CAT6 CABLE**  
**DISPLAYPORT CABLE**



## DisplayPort Fiber Optic Extender (Pigtail Modules)

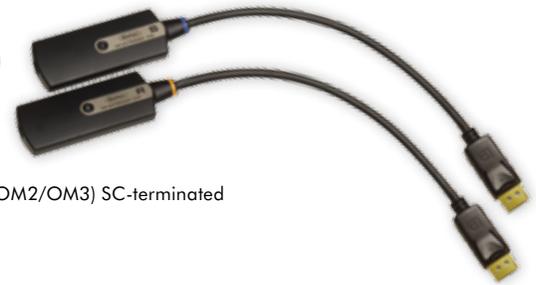
Digital Extender DisplayPort Over Fiber Optic up to 3,300 feet (1 km)

### FEATURES

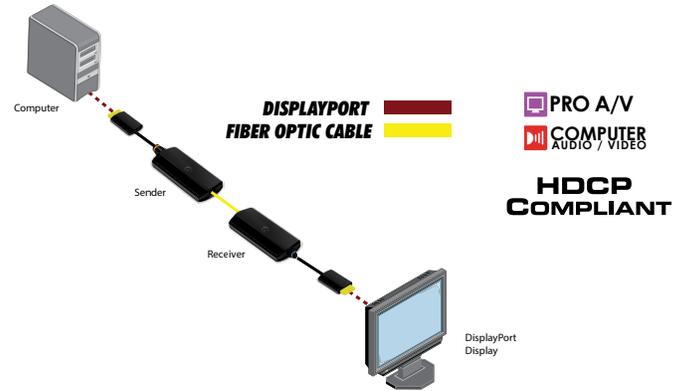
- Extends DisplayPort up to 3300 feet (1000 meters) over a single-strand of 50/125µm multimode (OM2/OM3) SC-terminated fiber optic cable
- Supports 1080p Full HD at 120Hz and dual-link resolutions up to 2560 x 1600 (WQXGA)
- Compliant with DisplayPort 1.1 standard
- Fiber optic transmission eliminates electromagnetic interference (EMI)
- Pigtail design relieves stress and clutter on the source and display connector panels
- HDCP and DPCP compliant
- DDC bi-directional support
- Compact Sender and Receiver modules provide a clean, easy installation
- FCC and CE compliant for EMI/RFI emission

### SPECIFICATIONS

- Video bandwidth: 3.5Gbps/Channel
- Video Input Connector (Sender): (1) DP-20-pin, male
- Video Output Connector (Receiver): (1) DP-20-pin, male
- Link Connector (Sender/Receiver): (1) Type SC fiber (50 /125µm )
- Power Supply (Receiver): 5V DC
- Power Supply (Sender): 5V DC (not needed for most applications)
- Power Consumption (Receiver): 1.5W (max.)
- Operating Temperature: 0° to + 50° C
- Storage Temperature: -20° to + 70° C
- Relative Humidity: 10 to + 80%
- Dimensions (W x H x D): 1.50" x 0.47" x 3.51" (38.10mm x 11.93mm x 89.15mm)
- Shipping Weight: 1 lb. (0.45 kg)



**EXT-DP-CP-FM10**



## Fiber Optic for HDMI (Pigtail Modules)

HDMI Pigtail Extender over Fiber Optic up to 3,300 feet

### FEATURES

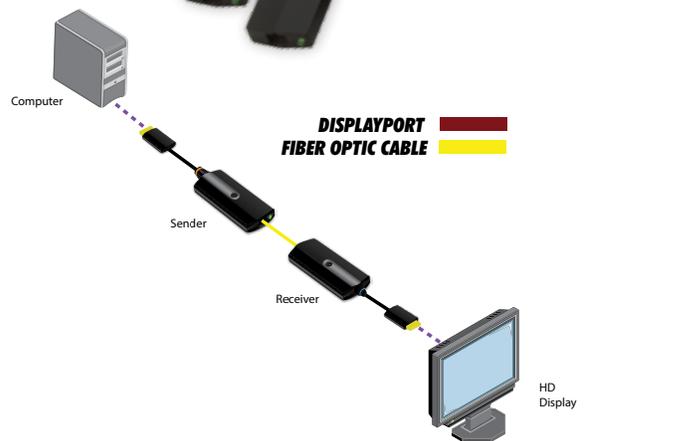
- Extends HDMI up to 3300 feet (1000 meters) using a single-strand 50/125µm multimode (OM2/OM3) SC-terminated fiber optic cable
- Supports resolutions up 1080p Full HD
- Supports HD lossless audio: LPCM 7.1 audio, Dolby® Digital Plus, Dolby® TrueHD, and DTS-HD® Master Audio™
- Fiber optic transmission eliminates electromagnetic interference (EMI)
- Pigtail design relieves stress and clutter on the source and display connector panels
- 3DTV pass-through
- DDC bidirectional support
- HDCP pass-through
- Supports Deep Color
- Compact Sender and Receiver modules provide a clean, easy installation
- FCC and CE compliant for EMI/RFI emission

### SPECIFICATIONS

- Maximum Pixel Clock: 225 MHz
- Video Input Connector (Sender): (1) HDMI Type-A, 19-pin, male
- Video Output Connector (Receiver): (1) HDMI Type-A, 19-pin, male
- Link Connector (Sender/Receiver): (1) Type SC fiber (50 /125µm)
- Power Supply (Sender): 5V DC (not needed for most applications)
- Power Supply (Receiver): 5V DC
- Power Consumption (Receiver): 1.5W (max.)
- Operating Temperature: +32 to +122 °F (0° to +50° C)
- Storage Temperature: -4 to +158 °F (-20° to +70° C)
- Relative Humidity: 10 to 80%
- Dimensions (W x H x D): 1.18" x 0.47" x 10.71" (29.97mm x 11.93mm x 272.03mm)
- Shipping Weight: 1 lb (0.45 kg)



**EXT-HD-CP-FM10**



# DisplayPort Extender / Detective



## Displayport Extender Over Fiber Optic Cable

Extend DisplayPort with HDCP and DPCP support over dual LC-terminated multi-mode fiber optic cables

### FEATURES

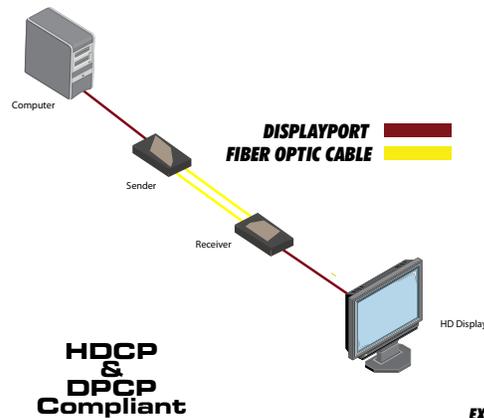
- Extends DisplayPort up to 1000 feet (300 meters) over 2 strands of 50/125µm multi-mode (OM2/OM3) LC-terminated fiber optic cable
- Extends DisplayPort up to 500 feet (150 meters) over 2 strands of 62.5/125µm multi-mode (OM1) LC-terminated fiber optic cable
- Supports 1080p Full HD at 120Hz and dual-link resolutions up to 2560 x 1600 (WQXGA)
- Compliant with DisplayPort 1.1a standard
- Supports Dual-Mode DP (DP++)
- Supports auxiliary/I<sup>2</sup>C channel over fiber
- Cast Aluminum enclosures and Fiber optic transmission eliminate susceptibility to electromagnetic interference (EMI)
- HDCP and DPCP-compliant
- Compact Sender and Receiver modules and female DisplayPort connectors provide clean and easy installation
- FCC and CE compliant for RFI (radio frequency interference) and EMI (electromagnetic immunity)



**EXT-DP-CP-2FO**

### SPECIFICATIONS

- Video bandwidth: 10.8Gbps (2.7Gbps per lane, 4 lanes)
- Video Input Connector (Sender): (1) DP-20-pin, female
- Video Output Connector (Receiver): (1) DP-20-pin, female
- Link Connector (Sender/Receiver): (2) Type LC
- Power Supply (Sender/Receiver): 5V DC
- Power Consumption (Sender/Receiver): 2.1W max. (each)
- Optical Power Budget: 9.4 dB
- Operating Temperature: 0° to + 50° C
- Storage Temperature: - 30° to + 70° C
- Operating Humidity: 10 to 85% RH, non-condensing
- Storage Humidity: 5 to 90% RH, non-condensing
- Dimensions (W x H x D): 1.4" x 0.6" x 2.8" (35mm x 16mm x 72mm)
- Shipping Weight: 1.8 lbs (0.8 kg)



**EXT-DP-CP-2FO**

## Displayport Detective Plus

Save the DisplayPort EDID

### FEATURES

- Supports 1080p Full HD at 120Hz and dual-link resolutions up to 2560 x 1600 (WQXGA)
- EDID presets for custom resolution support
- Supports RGB and YCbCr color spaces
- Write-protect switch
- HDCP/DPCP pass-through
- Configurable using Gefen EDID Tool+ software, downloadable from Gefen website
- 1 pre-programmed EDID profile
- 6 user-programmable EDID banks for copying/uploading EDIDs
- Powered through the USB port or via the included power supply
- Firmware upgradeable via Mini-USB port

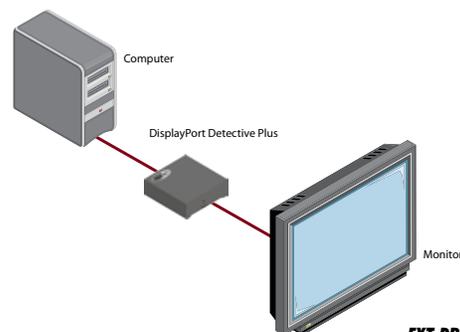


**EXT-DP-EDIDP**

**DISPLAYPORT CABLE**

### SPECIFICATIONS

- Video Input Connector: (1) DisplayPort, 20-pin, female
- Video Output Connector: (1) DisplayPort, 20-pin, female
- USB Connector: (1) USB Mini-B
- Pre-programmed EDID Selection: (3) DIP switches
- Write-protect Switch: (1) 2-position slide switch
- Program button: (1) push button, momentary switch
- Status Indicator: (1) LED, bi-color (blue/red)
- Power Supply: 5V DC
- Dimensions (W x H x D): 4.25" x 1" x 3.4" (108mm x 25mm x 87mm)
- Shipping Weight: 1.5 lbs. (0.70 kg)



**EXT-DP-EDIDP**

**Gefen**

**2x1 DVIKVM DL**  
Dual Link DVI-U

Power

IR

1

2

Select

IR

**16x16 DVI Matrix**

Switchers and Matrixes

Switch  
USB Audio Switch

2x2 DPKVM Switch  
DisplayPort USB Audio Switcher

1

2

SELECT

POWER

ix

GEFEN  
16X16 DVI MATRIX

Status

Select

IR

Power

Cancel

## 2x1 Dual-Link DVIKVM Switcher

Switch Dual-link DVI, USB 2.0, and audio between two sources to one output

### FEATURES

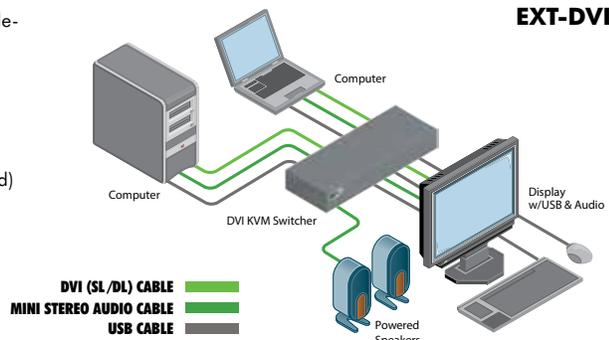
- Switches a display between two Dual-link or Single-link DVI computers, with USB 2.0 and audio
- Supports resolutions up to 3840 x 2400 (Dual-link) and 1920 x 1200 (Single-link)
- Saves time and increases your productivity
- Use either PC or Mac USB 2.0 keyboard/mouse
- Auto EQ feature
- Switching is controlled via included IR remote, front-panel push button, or remote contact closure port (Optional EXT-RMT-2 wired remote not included)
- Supports USB 2.0 at 480 Mbps transfer rate
- Supports DDWG standard for DVI compliant monitors
- Rack-mountable

### SPECIFICATIONS

- Maximum Pixel Clock: 2 x 165MHz
- Input Video Signal: 1.2V p-p
- Input DDC Signal: 5V p-p (TTL)
- Video Input Connectors: (2) DVI-I 29-pin, female
- Video Output Connector: (1) DVI-I 29-pin, female
- Audio Input Connectors: (2) 3.5 mm mini-stereo jack
- Audio Output Connector: (1) 3.5 mm mini-stereo jack
- USB Host Connectors: (2) USB Type B, female
- IR Remote Connector: (1) 3.5mm mini-stereo jack
- USB Device Connectors: (2) USB Type A, female
- Power Supply: 5V DC
- Power Consumption: 10W (max.)
- Dimensions: 8.5" W x 4.7" D x 1.75" H (Half-rack)
- Shipping Weight: 5 lbs.



**EXT-DVIKVM-241DL**



## 4x1 Dual-Link DVIKVM Switcher \*

Switch Dual-link DVI, USB 2.0, and audio between four sources to one output

### FEATURES

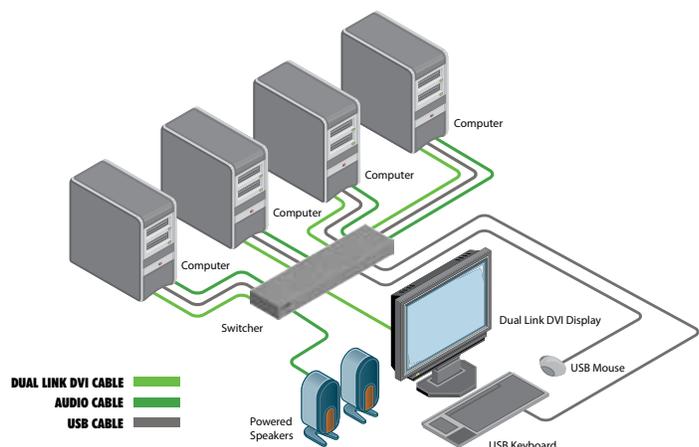
- Switches a workstation between any four computers with support for Dual-link or Single-link DVI, USB 2.0 and audio signals
- Supports 1080p Full HD at 120Hz and dual-link resolutions up to 3840 x 2400 (WQUXGA) or single-link resolutions up to 1920 x 1200 (WUXGA)
- Advanced EDID Management
- Switching is controlled via included IR remote, RS-232 commands, or Front-panel buttons
- Saves space on your desktop
- Supports DDWG standards for DVI monitors
- Locking Power Supply
- Rack-mountable

### SPECIFICATIONS

- Maximum Pixel Clock: 2 x 165 MHz
- Video Input Connectors: (4) DVI-I 29 pin, female (digital only)
- Video Output Connector: (1) DVI-I 29 pin, female (digital only)
- Audio Input Connectors: (4) 3.5 mm mini-stereo jack
- Audio Output Connector: (1) 3.5 mm mini-stereo jack
- USB Input (Host) Ports: (4) USB 2.0 Type B
- USB Output (Device) Ports: (2) USB 2.0 Type A
- RS-232 Port: DB-9, female
- Power Supply: 5V DC, Locking
- Power Consumption: 27W (max.)
- Dimensions (W x H x D): 17.1" x 1.75" x 4.2" (434mm x 44mm x 106mm)
- Rack Size: 1U (rack ears included)
- Shipping Weight: 11 lbs (5 kg)



**EXT-DVIKVM-441DL**



\*EXT-DVI-441DL (4x1 DVI Dual Link Switcher) also available

# DVI Switchers



## 4x1 DVI Switcher

Switch Four DVI Sources to One Display



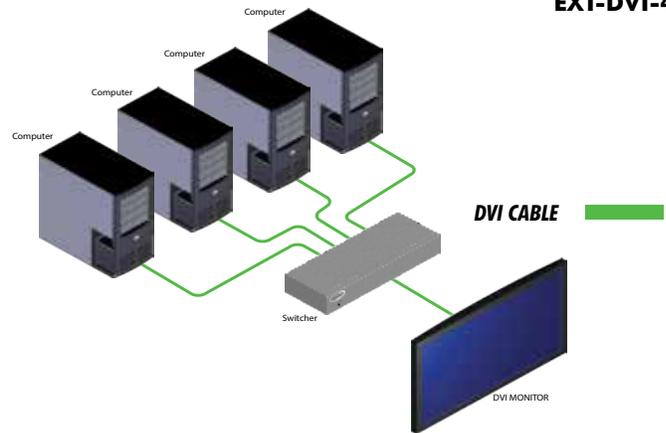
EXT-DVI-441N

### FEATURES

- Switch easily between any four DVI sources
- Extends the range of DVI compliant device by equalizing and relocking the DVI signal
- Maintains high resolution video-beautiful,sharp HDTV resolutions up to 1080p, 2k and computer resolutions up to 1920 x 1200 are easily achieved
- Discrete IR remote (included)
- HDMI pass-through
- HDCP pass-through

### SPECIFICATIONS

- Video Amplifier Bandwidth: 165 MHz
- Input Video Signal: 1.2 volts p-p
- Input DDC Signal: 5 volts p-p
- Input/Output DVI Connectors: DVI-I (29 pin) female (Digital Only)
- RS-232 Port: DB-9, female
- IR Extender connector: 3.5 mm mini-stereo
- Power Supply: 5V DC
- Power Consumption: 10W (max.)
- Dimensions (W x H x D): 14" x 1.2" x 2.9" (355mm x 30mm x 73mm)
- Shipping Weight: 7 lbs (3.2 kg)



HDCP COMPLIANT



HOME THEATER

PRO A/V

COMPUTER AUDIO / VIDEO

## 2x2 Dual-Link DVI Switcher

Switch Two Computers to Two Dual-Link Displays



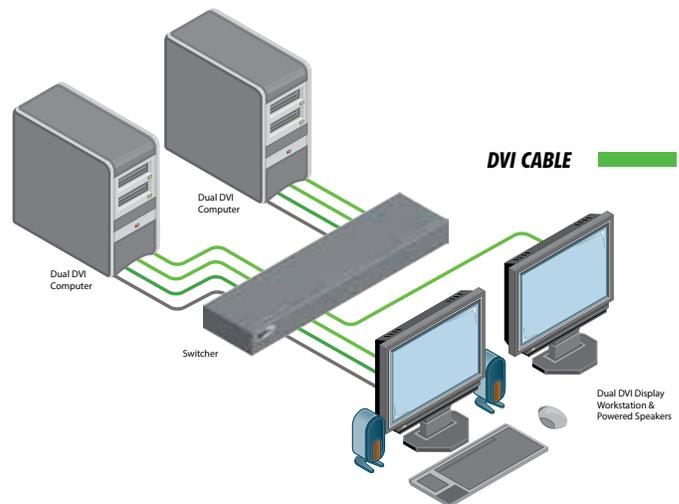
EXT-DVI-422DL

### FEATURES

- Switches an extended DVI dual link desktop between any two dual link DVI computers w/USB 2.0
- Maintains highest 3840 x 2400 resolution dual link video
- Saves you money on hardware costs
- Use either PC or Mac USB 2.0 keyboard/mouse
- Discrete IR remote (included)
- Contact closure remote control option (RMT-4)
- Auto equalization for optimal picture quality
- Supports resolutions up to 1080p, 2K, and 3840 x 2400
- Supports DDWG standards for DVI monitors
- Installs in minutes

### SPECIFICATIONS

- Video Amplifier Bandwidth: 2 x 165 MHz
- Input Video Signal: 1.2 volts p-p
- Input DDC Signal: 5 volts p-p (TTL)
- Dual Link Range: 3840 x 2400
- DVI Connector: DVI-I 29 pin female (digital only)
- Audio Connector: mini-phone stereo jack 3.5mm
- USB 2.0 Input Connection: Type "B"
- USB 2.0 Output Connection: Type "A"
- Power Supply: 5V DC
- Power Consumption: 20W (max.)
- Dimensions (W x H x D): 17.1" x 1.8" x 4.2" (434mm x 45mm x 106mm)
- Rack-mountable: 1U Rack Space (rack ears included)
- Shipping Weight: 8 lbs (3.6 kg)



HOME THEATER

PRO A/V

COMPUTER AUDIO / VIDEO

## 8X1 DVIKVM DL Switcher

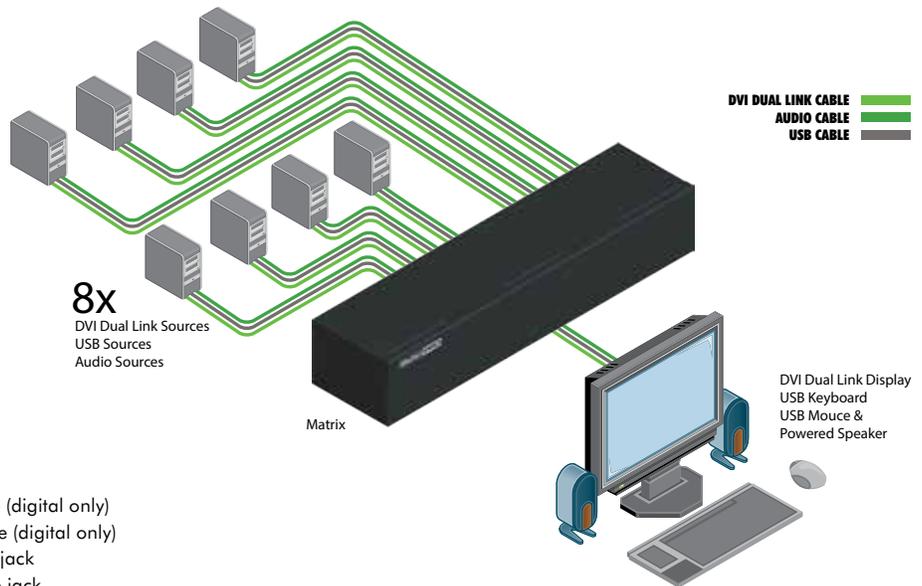
Switch between eight Dual-link DVI sources, with USB 2.0 and audio peripherals



**EXT-DVIKVM-841DL**

### FEATURES

- Switches between eight DVI Dual-link or Single-Link sources, with USB 2.0 and analog audio to one display
- Supports 1080p Full HD at 120Hz and dual-link resolutions up to 3840 x 2400 (WQUXGA) or single-link resolutions up to 1920 x 1200 (WUXGA)
- Advanced EDID management
- Saves space on your desktop
- Use either PC or Mac USB keyboard/mouse
- RS-232 port for automation
- Switching is controlled via included IR remote, RS-232 commands, or front-panel button
- Supports DDWG standard for DVI compliant monitors
- Locking Power Supply
- Rack-mountable



### SPECIFICATIONS

- Maximum Pixel Clock: 2 x 165 MHz
- Input Video Signal: 1.2V p-p
- Input DDC Signal: 5V p-p (TTL)
- Video Input Connectors: (8) DVI-I 29-pin, female (digital only)
- Video Output Connector: (1) DVI-I 29-pin, female (digital only)
- Audio Input Connectors: (8) 3.5 mm mini-stereo jack
- Audio Output Connector: (1) 3.5 mm mini-stereo jack
- USB Host Connectors: (8) USB Type B, female
- USB Device Connectors: (2) USB Type A, female
- RS-232 Control Port: DB-9, female
- IR Extender Port: 3.5 mm mini-stereo jack
- Power Supply: 5V / 4A DC, locking
- Power Consumption: 12.5W (min.) / 32.5W (max.)
- Dimensions (W x H x D): 17.1" x 1.75" x 4.2" (434mm x 44mm x 106mm)
- Rack Size: 1U (rack ears included)
- Shipping Weight: 12 lbs (5.4 kg)



## 2x1 DPKVM Switch

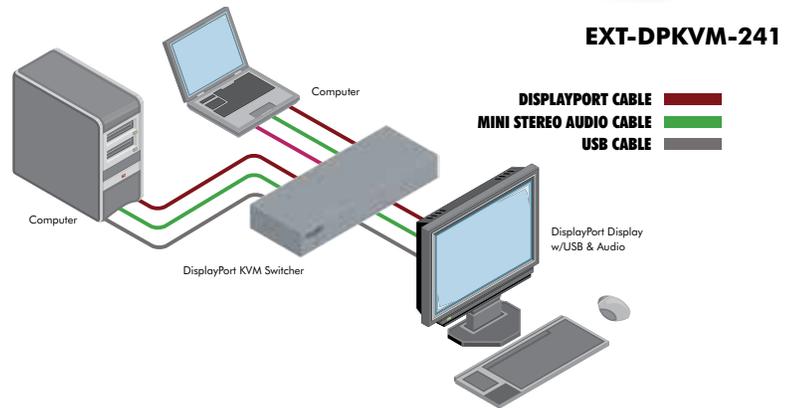
KVM Switching between two DisplayPort sources using one display

### FEATURES

- Switches one High-Resolution Display between two DisplayPort-equipped computers with audio/video and USB keyboards
- Supports resolutions up to 2560 x 1600
- Supports RGB and YCbCr color spaces
- DisplayPort utilizes a compact connector for easier installations

### SPECIFICATIONS

- Maximum Pixel Clock: 360 MHz
- Input Connector: (2) DisplayPort (from computers)
- Output Connector: (1) DisplayPort (to display)
- Input Connector: (2) USB 2.0 Type "B" (from computers)
- Output Connector: (2) USB 2.0 Type "A" (to keyboard/mouse)
- Input Connector: (2) 3.5mm analog L/R audio (from computers)
- Output Connector: (1) 3.5mm analog L/R audio (to speakers or amplifier)
- Dimensions (W x H x D): 8.41" x 1.57" x 4.23" (213mm x 39mm x 107mm)
- Shipping Weight: 6 lbs (2.7 kg)



**EXT-DPKVM-241**



## 4x1 DisplayPort KVM Switcher \*

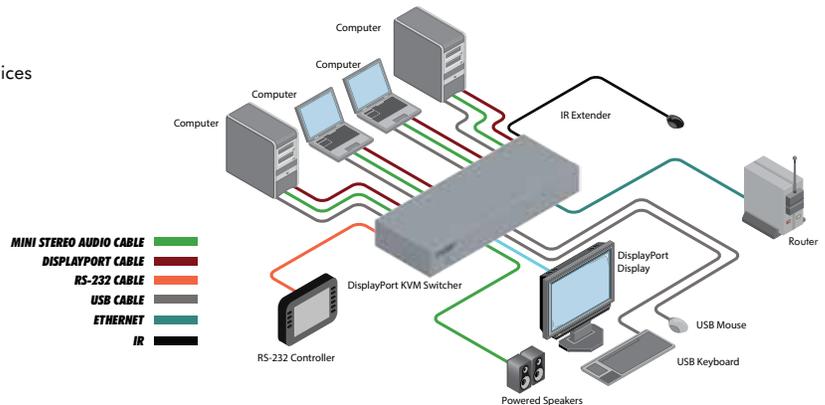
Switches between four DisplayPort sources with USB 2.0 and Audio to one display

### FEATURES

- Switches between four DisplayPort sources with USB 2.0 and Audio to one display, keyboard and mouse
- Supports resolutions up to 2560 x 1600
- Supports DisplayPort version 1.1a
- Compatible with the Gefen Keyboard Controller software
- Supports RGB and YCbCr color spaces
- Discrete front-panel push buttons for switching
- RS-232 port for automation
- IP Control
- IR remote control (included)
- Supports USB 2.0 with backward compatibility for USB 1.1 devices
- Jack for external IR Receiver (EXT-RMT-EXTIR)
- Save desktop space
- Rack-mountable
- Locking Power Supply

### SPECIFICATIONS

- Maximum Pixel Clock: 360 MHz
- Video Input Connectors: (4) DisplayPort, female
- Video Output Connector: (1) DisplayPort, female
- USB Host Connectors: (4) USB Type B, female
- USB Device Connectors: (2) USB Type A, female
- Audio Input Connectors: (4) 3.5 mm mini-stereo jack
- Audio Output Connector: (1) 3.5 mm mini-stereo jack
- IR Extender Connector: (1) 3.5 mm mini-stereo jack
- RS-232 Control Connector: (1) DB-9, female
- Power Supply: 5V DC, Locking
- Dimensions: 17.1" W x 4.3" D x 1.75" H
- Rack Size: 1U (rack ears included)
- Shipping Weight: 8 lbs.



**EXT-DPKVM-441**



\*EXT-DP-441 (4x1 DisplayPort Switcher) also available

## 2x2 DisplayPort KVM Switcher

Switches between two Dual-DisplayPort workstations and any two displays, keyboard, and mouse.

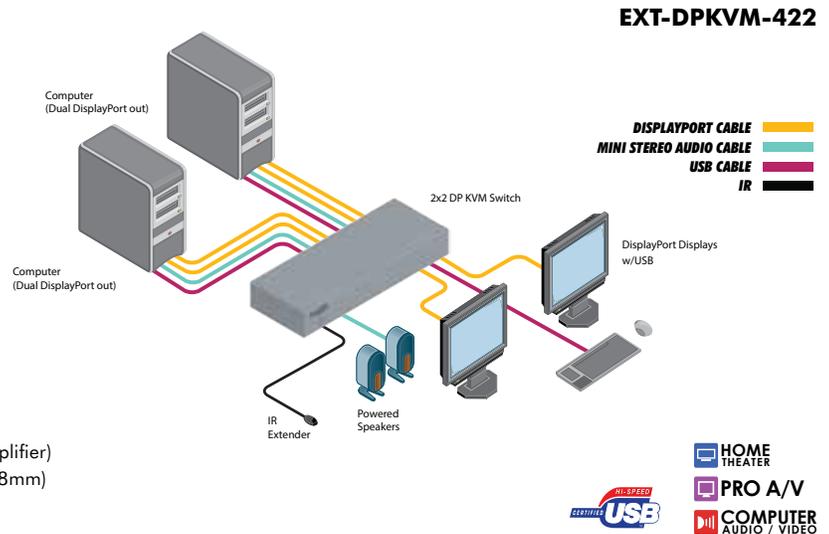


### FEATURES

- Switches two high-definition displays between two DisplayPort-equipped computers with audio/video and USB peripherals
- Supports resolutions up to 2560 x 1600
- Supports RGB and YCbCr color spaces
- Rack mountable
- Save space on your desktop

### SPECIFICATIONS

- Maximum Pixel Clock: 360 MHz
- Input Connector: (4) DisplayPort (from computers)
- Output Connector: (2) DisplayPort (to display)
- Input Connector: (2) USB 2.0 Type "B" (from computers)
- Output Connector: (2) USB 2.0 Type "A" (to keyboard/mouse)
- Input Connector: (2) 3.5mm analog L/R audio (from computers)
- Output Connector: (1) 3.5mm analog L/R audio (to speakers or amplifier)
- Dimensions (W x H x D): 17.1" x 1.7" x 4.25" (434mm x 43mm x 108mm)
- Shipping Weight: 5 lbs (2.3 kg)



## 8x1 DisplayPort KVM Switcher

Switches between eight DisplayPort KVM inputs and one DisplayPort output with USB and audio

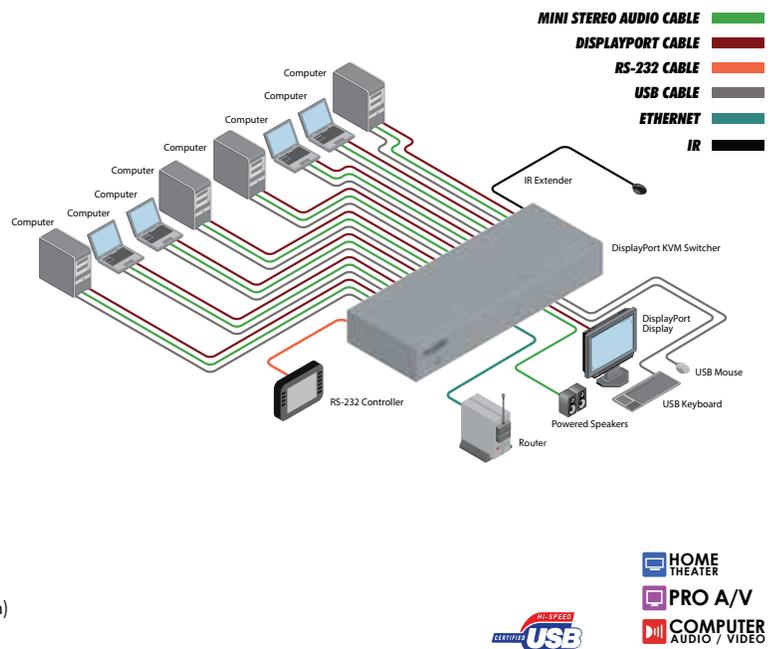


### FEATURES

- Switches between eight DisplayPort sources with USB 2.0 and Audio to one display, keyboard, and mouse
- Supports resolutions up to 2560 x 1600
- Compatible with the Gefen Keyboard Controller software
- Supports DisplayPort version 1.1a
- Green mode (low power consumption when DP source is not present)
- Firmware upgrade via RS-232 or Ethernet
- RS-232 control
- IP Control
- IR remote control
- Supports USB 2.0 with backward compatibility with USB 1.1
- Standby Feature (Green Mode)
- Control via Telnet
- Jack for external IR Receiver (EXT-RMT-EXTIR)
- Save space on your desktop
- Rack-mountable

### SPECIFICATIONS

- Maximum Pixel Clock: 360 MHz
- Video Input Connectors: (8) DisplayPort, female
- Video Output Connector: (1) DisplayPort, female
- USB Host Connectors: (8) USB Type B, female
- USB Device Connectors: (2) USB Type A, female
- Audio Input Connectors: (8) 3.5 mm mini-stereo jack
- Audio Output Connector: (1) 3.5 mm mini-stereo jack
- IR Extender Connector: (1) 3.5 mm mini-stereo jack
- RS-232 Control Connector: (1) DB-9, female
- Power Supply: 5V DC, Locking
- Dimensions (W x H x D): 17.1" x 1.75" x 4.25" (434mm x 44mm x 108mm)
- Shipping Weight: 12 lbs. (5.4 kg.)







## 4x4 Dual-Link DVIKVM Matrix

Routes four Dual-link DVI sources to any or all four displays



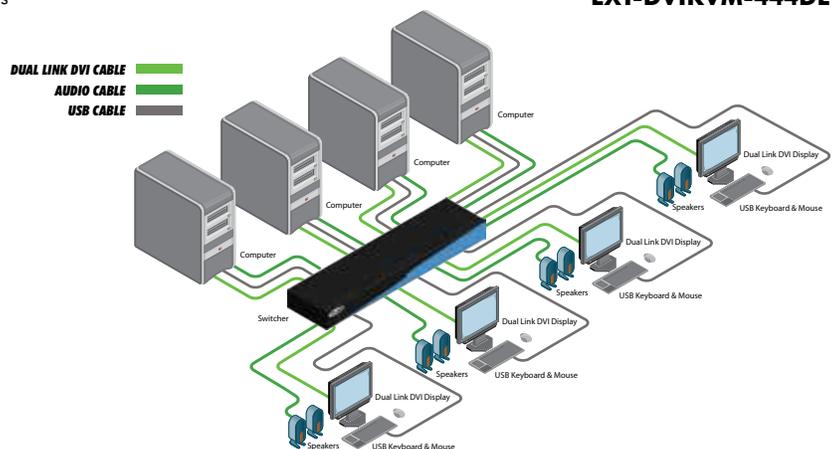
### FEATURES

- View any four Dual-link DVI video sources on any four Dual-link DVI outputs
- Supports video resolutions up to 3840 x 2400
- Supports either PC or Mac USB keyboards/mice
- Supports DDWG standards for DVI displays
- Routing is controlled via IR remote (included) or RS-232 commands
- Locking Power Supply
- Rack-mountable

### SPECIFICATIONS

- Input Video Signal: 1.2V p-p
- Input DDC Signal: 5V p-p (TTL)
- Video Amplifier Bandwidth: 165 MHz per channel
- Video Input Connectors: (4) DVI-I 29 pin, female (digital only)
- Video Output Connectors: (4) DVI-I 29 pin, female (digital only)
- USB Input Ports (4) USB 1.1 Type A
- USB Output Ports (4) USB 1.1 Type B
- Audio Input Connectors (4): 3.5 mm mini-stereo jack
- Audio Output Connectors (4): 3.5 mm mini-stereo jack
- RS-232 Control Port: DB-9, female
- Operating Temperature: 0 to +40 deg C
- Power Supply: 5V DC, Locking
- Power Consumption: 30W (max.)
- Dimensions: 17.1" W x 4.2" D x 1.75" H
- Rack Size: 1U (rack ears included)
- Shipping Weight: 7 lbs.

**EXT-DVIKVM-444DL**



# DVI Matrixes



## 8x8 DVI Matrix

Routes any 8 DVI sources to 8 DVI displays

### FEATURES

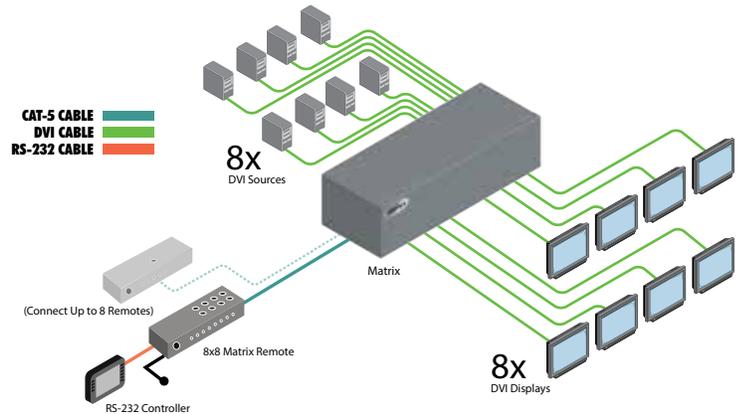
- Supports resolutions up to 1920 x 1200
- Increases productivity by providing access to eight computers from eight workstations
- Routing can be done using an IR remote (included) cabled remotes (optional), or RS-232 commands
- Long-distance remote control using wired remotes (optional)
- Supports DDWG standards for DVI monitors
- Rack-mountable

### SPECIFICATIONS

- Video Amplifier Bandwidth: 165 MHz per channel
- Maximum Resolution: 1080p (HDTV) / 1920x1200 (PC)
- Input Video Signal: 1.2V p-p
- Input DDC Signal: 5V p-p (TTL)
- Video Input Connectors: (8) DVI-I 29 pin, female (digital only)
- Video Output Connectors: (8) DVI-I 29 pin, female (digital only)
- IR Extender connector: 3.5 mm mini-stereo jack
- RS-232 Port: (1) DB-9 female
- External IR Input: (1) 3.5 mm mini-stereo jack (for EXT-RMT-IR)
- Wired Remote Connections: (8) RJ-45 jack (for EXT-RMT-MATRIX-848)
- Power Supply: 24V DC
- Power Consumption: 60W (max.)
- Dimensions: 17.1" W x 7.1" D x 3.5" H
- Rack Size: 2U (rack ears included)
- Shipping Weight: 9 lbs.



**EXT-DVI-848**



## 16x16 DVI Crosspoint Matrix

Routes any 16 DVI sources to any 16 displays using DVI

### FEATURES

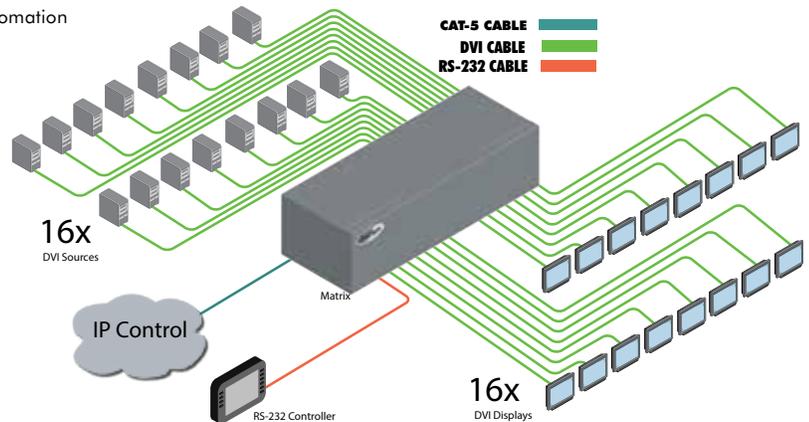
- Supports resolutions up to 1920 x 1200
- Status LCD (shows routing status)
- Advanced EDID management for rapid integration of sources and displays
- Compatible with the Gefen Keyboard Controller software
- Dynamic EDID support
- Serial RS-232 Interface for remote control via a computer or control automation device
- IP control
- Output masking control
- IR remote control
- IR Extender
- Standby mode
- Supports DDWG standards for DVI
- Rack mountable

### SPECIFICATIONS

- Video Amplifier Bandwidth: 165 MHz per channel
- Maximum Link Range: 1080p / 1920x1200 (PC)
- Input Video Signal: 1.2 Volts p-p
- Power Consumption: 60 Watts (max)
- Video Input Connector: (16) DVI-I 29 Pin Female (digital only)
- Video Output Connector: (16) DVI-I 29 Pin Female (digital only)
- Ethernet Port: RJ-45, shielded
- RS-232 Port: (1) DB-9, female
- IR Extender Input: 3.5mm mini-stereo jack
- Rack mountable: 2U rack space, rack ears included
- Dimensions: 17" W x 7.3" D x 3.5" H
- Power Supply: 24V DC
- Shipping Weight: 31 lbs.



**EXT-DVI-16416**



# Splitters



**1:2 DVIDL**

Dual Link DVI Distribution Amplifier

**1:4 DVI DL Splitter**



Power

# DVI Splitters



## 1:2 Dual Link DVI Distribution Amplifier

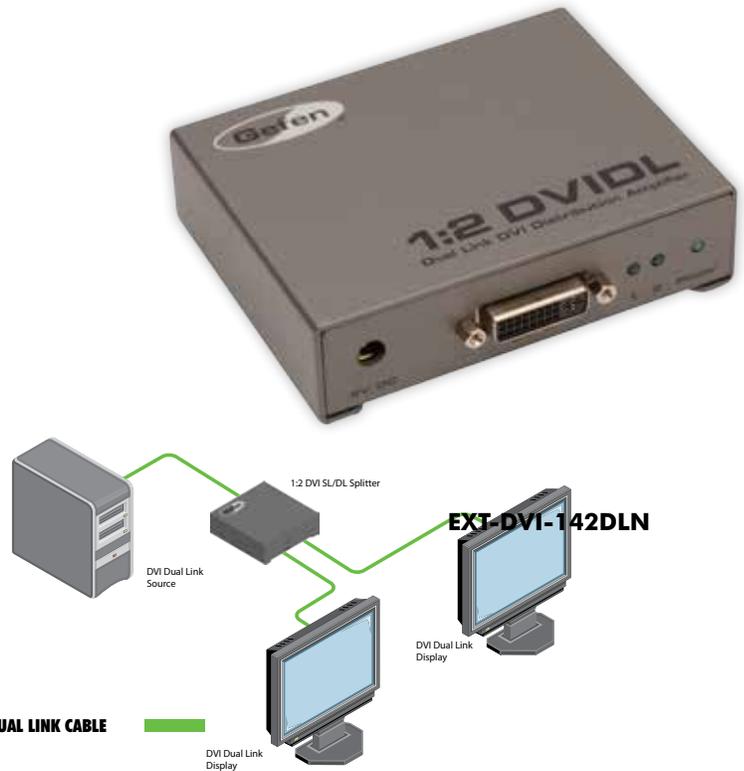
One Dual Link DVI Source Splitter to two Dual Link DVI Outputs

### FEATURES

- Split a Dual Link DVI signal to two DVI Dual Link outputs
- Allows simultaneous display of source on two screens
- Supports Single Link DVI resolutions up to 1920 x 1200, and dual-link up to 3840 x 2400
- Auto EQ compensates for any imperfections in the image
- Power On indicator
- DVI Link indicators
- Supports DDWG standard for DVI-compliant monitors
- HDCP pass-through on output #1

### SPECIFICATIONS

- Maximum Pixel Clock: 2 x 165 MHz
- Video Input Connector: (1) DVI-D, 29-pin, female
- Video Output Connectors: (2) DVI-D, 29-pin, female
- Power On indicator: (1) LED, blue
- Link indicators: (2) LED, green
- Power Consumption: 5 W (max.)
- Power Supply: 5V DC
- Operating Temperature: 0 to +40°C
- Dimensions (W x H x D): 4" x 1.25" x 3.25" (102mm x 32mm x 83mm)
- Shipping Weight: 2 lbs (0.9 kg)



## 1:4 Dual-Link DVI Splitter

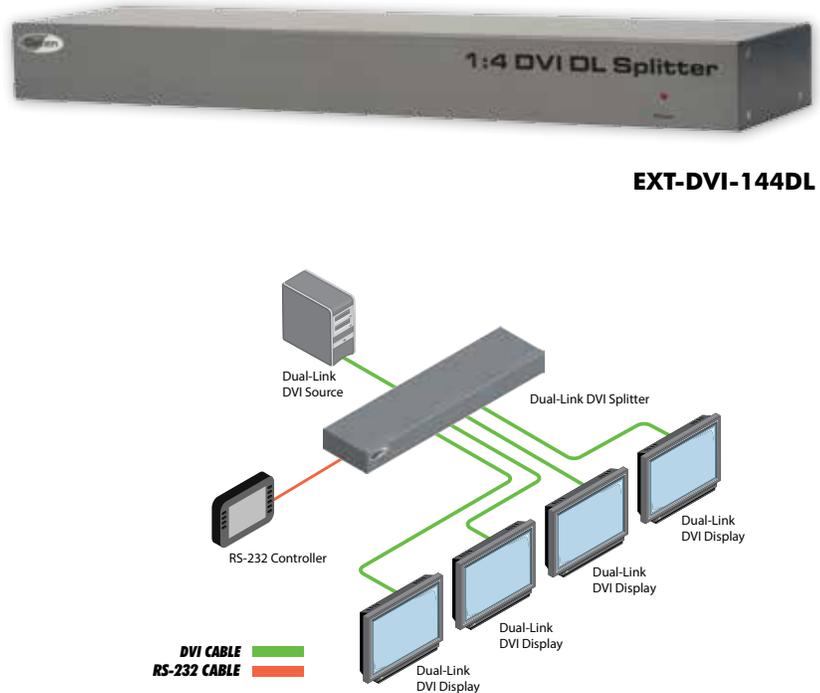
Split one Dual-link DVI source to four Dual-link DVI outputs

### FEATURES

- Distributes a dual link source to four DVI dual link outputs
- Supports 1080p Full HD at 120Hz and dual-link resolutions up to 3840 x 2400
- EDID management for rapid integration of source and display
- Output masking command
- Field-upgradeable via RS-232 port
- Standby mode
- Locking power supply
- Rack-mountable

### SPECIFICATIONS

- Maximum Pixel Clock: 2 x 165 MHz
- Input Video Signal: 1.2V p-p
- Input DDC Signal: 5V p-p (TTL)
- Video Input Connector: (1) DVI-D 19-pin, female (digital only)
- Video Output Connectors: (4) DVI-D 19-pin, female (digital only)
- RS-232 Connector: (1) DB-9, female
- Power Supply: 5V DC, Locking
- Power Consumption: 2.5A (max.)
- Operating Temperature: 0 - 40 °C
- Dimensions: 17.1" W x 4.2" D x 1.75" H
- 1U Rack Space - rack ears included
- Shipping Weight: 6 lbs.



## 1:4 Single-Link DVI Splitter

Split one Single-Link DVI source to four Single-Link DVI outputs



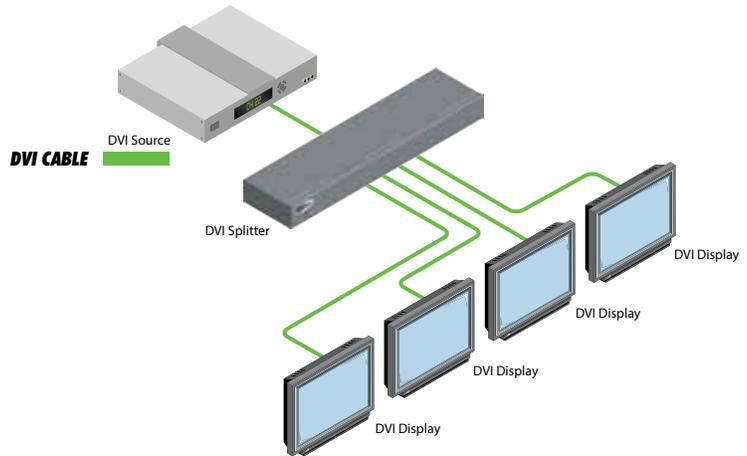
**EXT-DVI-144N**

### FEATURES

- Splits one Single-Link DVI sources to four Single-Link DVI outputs
- Supports video resolutions up to 1920 x 1200
- Supports DDWG standard for DVI monitors
- Locking power supply
- Rack-mountable

### SPECIFICATIONS

- Maximum Pixel Clock: 165MHz
- Input Video Signal: 1.2V p-p
- Input DDC Signal: 5V p-p (TTL)
- Video Input Connectors: (1) DVI-I 29 pin, female (digital only)
- Video Output Connectors: (4) DVI-I 29 pin, female (digital only)
- Power Supply: 5V DC, Locking
- Power Consumption: 5W (max.)
- Dimensions: 17.1" W x 4.2" D x 1.75" H
- Rack Size: 1U (rack ears included)
- Shipping Weight: 5 lbs.



## 1:8 Single-Link DVI Distribution Amplifier

Split one Single-Link DVI source to eight Single-Link DVI outputs



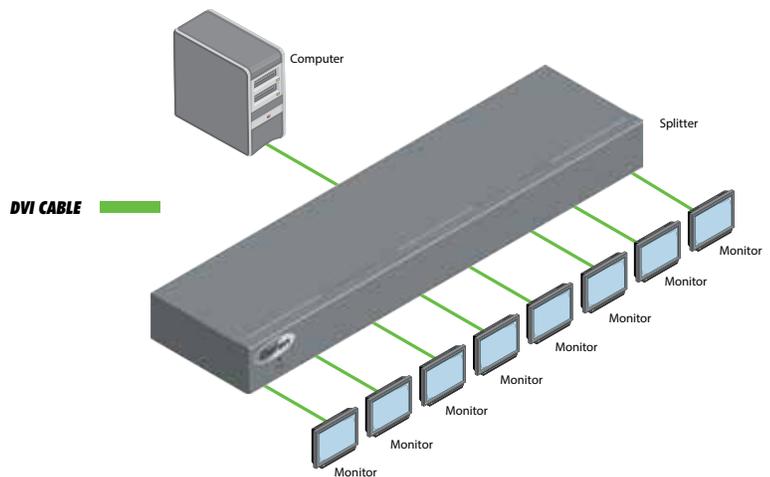
**EXT-DVI-148**

### FEATURES

- Splits one Single-Link DVI source to eight Single-Link DVI outputs
- Supports video resolutions up to 1920 x 1200
- HDCP-compliant
- Easy Plug-and-Play installation
- Rack-mountable
- Supports DDWG standard for DVI monitors

### SPECIFICATIONS

- Maximum Pixel Clock: 165MHz
- Input Video Signal: 1.2V p-p
- Input DDC Signal: 5V p-p (TTL)
- Video Input Connector: (1) DVI-I 29 pin, female
- Video Output Connectors: (8) DVI-I 29 pin, female
- Power Supply: 24V DC, Locking
- Power Consumption: 60W (max.)
- Dimensions: 17.1" W x 5.4" D x 1.75" H
- Rack Size: 1U (rack ears included)
- Shipping Weight: 6 lbs



## 1:4 3G-SDI Splitter

Splits one 3G-SDI source to four 3G-SDI output devices

### FEATURES

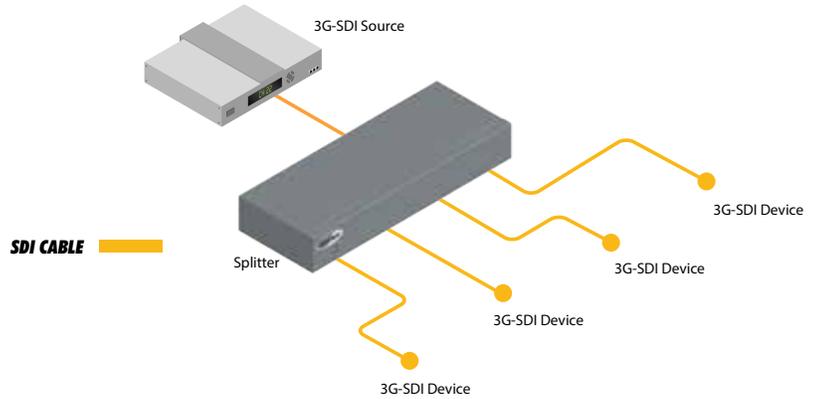
- Distributes one 3G-SDI source to four 3G-SDI output devices without latency
- Backwards-compatible with SDI and HD-SDI formats
- Supports resolutions up to 2048 x 1080/24 (2K) and 1920 x 1080p/60
- Supports NTSC, PAL, & all HD formats up to 1080p
- Plug-and-Play installation

### SPECIFICATIONS

- Input / Output formats:
  - SDI (SMTP 259M) up to 360Mbps
  - HD-SDI (SMTP 292M) up to 1.485Gbps
  - 3G-SDI (SMTP 424M/425M) up to 3.0Gbps
- Video Input Connector: (1) BNC, female
- Video Output Connectors: (4) BNC, female
- Power Supply: 5V DC, Locking
- Dimensions: 7.5" W x 1.1" H x 3.5" D
- Power Consumption: 10W (max.)
- Dimensions: 7.5" W x 3.5" D x 1.1" H
- Shipping Weight: 2 lbs



**EXT- 3GSDI-144**



**PRO A/V**

## 1:4 Splitter for DisplayPort

Connect up to four DisplayPort high-definition displays to the outputs of the 1:4 Splitter for DisplayPort.



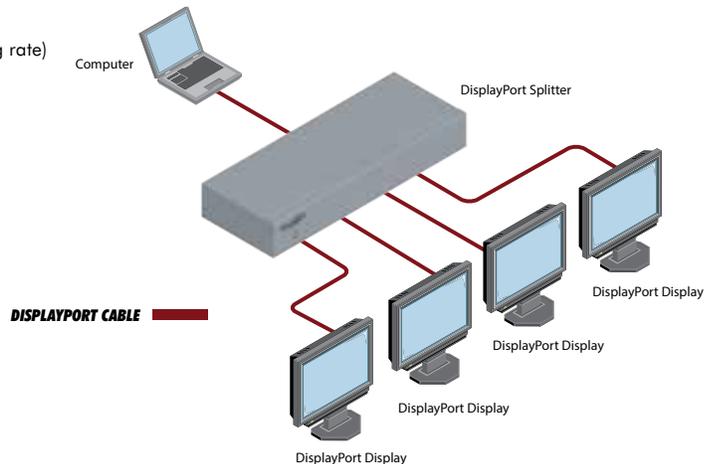
**EXT-DP-144**

### FEATURES

- Simultaneously displays one DisplayPort source on up to four displays
- Supports 1080p Full HD at 120Hz and dual-link resolutions up to 2560 x 1600 (WQXGA)
- EDID Management for rapid integration of source and displays
- EDID Reset button
- Supports up to 7.1 channels of linear PCM audio (32 kHz - 192 kHz sampling rate)
- Supports DisplayPort 1.1a

### SPECIFICATIONS

- Maximum Pixel Clock: 300 MHz
- Maximum Data Rate: 10.8 Gbps
- Maximum Resolution: 2560 x 1600
- Video Input Connector: (1) DisplayPort, female
- Video Output Connectors: (4) DisplayPort, female
- Power Supply: 5V / 3A DC
- Power Consumption: 15W (max.)
- Operating Temperature: 0 - 40° C
- Dimensions (W x H x D): 10.75" x 1.25" x 5.25" (274mm x 32mm x 134mm)
- Shipping Weight: 3 lbs. (1.2 kg)



**PRO A/V**  
**COMPUTER**  
AUDIO / VIDEO

## 1:2 VGA Hub

Distribute one VGA signal to two VGA displays

### FEATURES

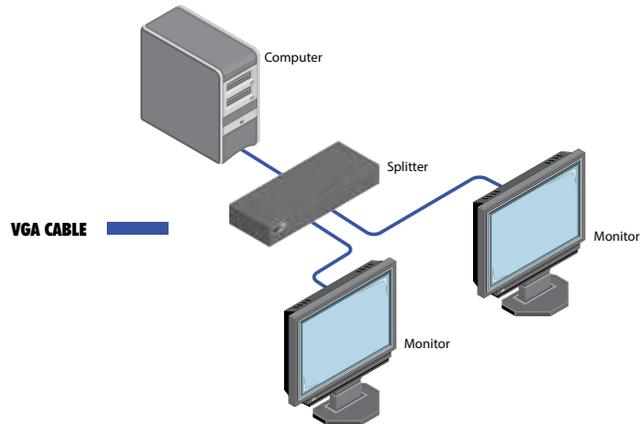
- Connects computers with VGA graphics to two VGA-compatible monitors or projectors
- Allows two VGA display monitors to be connected at the same time to the same video source
- Simultaneous display at local and remote locations
- Supports resolutions up to 1080p, 2K, and 1920 x 1200
- Supports all VESA standard resolutions
- Compact
- Plug-and-play device

### SPECIFICATIONS

- Video Amplifier Bandwidth: 350MHz
- Input Sync Signal: 5V p-p (TTL)
- Horizontal Frequency Range: 15 - 70kHz
- Vertical Frequency Range: 30 - 170Hz
- Video Input Connector: (1) VGA HD-15, male
- Video Output Connectors: (2) VGA HD-15, female
- Input Video Signal: 1.2V p-p
- Power Supply: 5V DC
- Power Consumption: 5W (max.)
- Dimensions: 5.6" W x 2.6" D x 1" H
- Shipping Weight: 2 lbs



**EXT-VGA-142N**



## 1:4 VGA Hub

Distribute one VGA Source to four VGA displays

### FEATURES

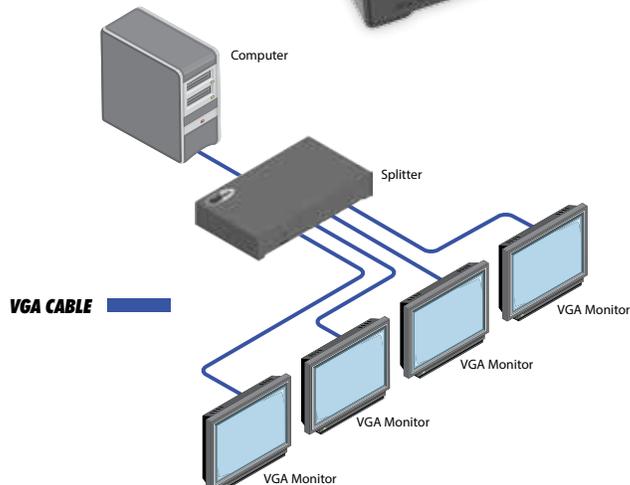
- Easily distribute one source to four simultaneous displays
- Supports component video distribution via optional Gefen cable adapters
- Supports resolutions up to 1080p, 2K, and 1920 x 1200
- Supports all VESA standard resolutions
- Allows four monitors to be connected to the same video source at the same time

### SPECIFICATIONS

- Video Amplifier Bandwidth: 350MHz
- Input Video Signal: 1.2V p-p
- Input Sync Signal: 5V p-p (TTL)
- Horizontal Frequency Range: 15 - 70kHz
- Vertical Frequency Range: 30 - 170Hz
- Video Input Connector: (1) VGA HD-15 male
- Video Output Connectors: (4) VGA HD-15, female
- Power Supply: 5V DC
- Power Consumption: 5W (max.)
- Dimensions: 5.6" W x 2.6" D x 1" H
- Shipping Weight: 2 lbs.



**EXT-VGA-145**



# Scalers



## VGA to DVI Scaler Plus

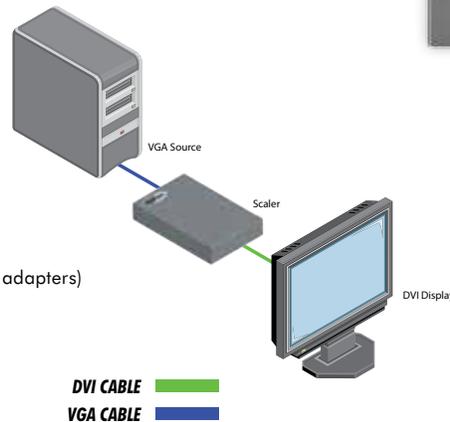
Convert analog VGA to DVI-I with scaling

### FEATURES

- Supports resolutions up to 1920 x 1200
- Output resolution can be easily selected using an On-Screen Display (OSD) Menu
- Aspect ratio control for native and full-view modes
- 48MB frame memory for frame rate conversion.
- Accepts analog PC or HDTV input signals in RGBHV, YPbPr, or YCbCr formats
- DVI output enables an all digital rendering of video without the losses associated with an analog interface and is an ideal for use with digital display such as LCD, Plasma and DLP projectors.
- High Performance Scaler that converts and scales analog RGB inputs to DVI-I (digital or analog) outputs
- Output adjustment of picture brightness, contrast, color, RGB level, and H-V position
- Output is DVI or VGA with adapter
- Supports DDWG standard for DVI compliant monitors
- Aspect ratio control for native and full view modes
- IR Remote Available (shown at left under Optional Accessories sidebar)

### SPECIFICATIONS

- Maximum Pixel Clock: 165MHz (DVI)
- Video Amplifier Bandwidth: 350MHz (VGA)
- Input Sync Signal: 5V p-p (TTL)
- Horizontal Frequency Range: 15 - 70kHz
- Vertical Frequency Range: 30 - 170Hz
- Video Input Connector: (1) VGA HD-15, male (YPbPr or YCbCr via optional adapters)
- Video Output Connector: (1) DVI-I 29 pin, female
- Power Supply: 5V DC
- Power Consumption: 10W (max.)
- Operating Temperature: 0° to +40°C / +32 to +104 °F
- Storage Temperature: -20 to +60°C / -4 to +140 °F
- Relative Humidity: 20 to 90%, non-condensing
- Dimensions: 5.8" W x 4.1" D x 1" H
- Shipping Weight: 3 lbs



**EXT-VGA-2-DVISP**



## DVI to VGA Converter

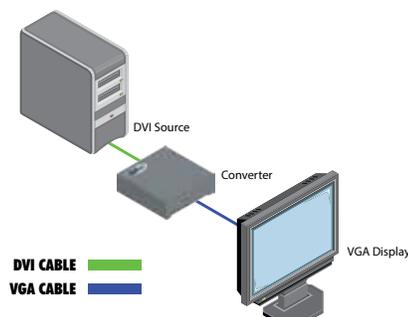
Convert DVI-I to Analog VGA

### FEATURES

- Enables DVI source to be displayed on VGA monitor or projector
- Supports resolutions up to 1920 x 1200
- EDID Management for rapid integration of source and display
- Built-in EDID switch allows choice between local EDID and external EDID

### SPECIFICATIONS

- Maximum Pixel Clock: 165MHz (DVI)
- Analog Video Bandwidth: 350MHz (VGA)
- Input Video Signal: 1.2V p-p
- Input DDC Signal: 5V p-p (TTL)
- Video Input Connector: (1) DVI-I 29-pin, female digital only
- Video Output Connector: (1) VGA HD-15, female
- Power Supply: 5V DC
- Power Consumption: 5W (max.)
- Dimensions: 3" W x 3.8" D x 1" H
- Shipping Weight: 2 lbs.



**EXT-DVI-2-VGAN**



## VGA with Audio to HDMI Scaler

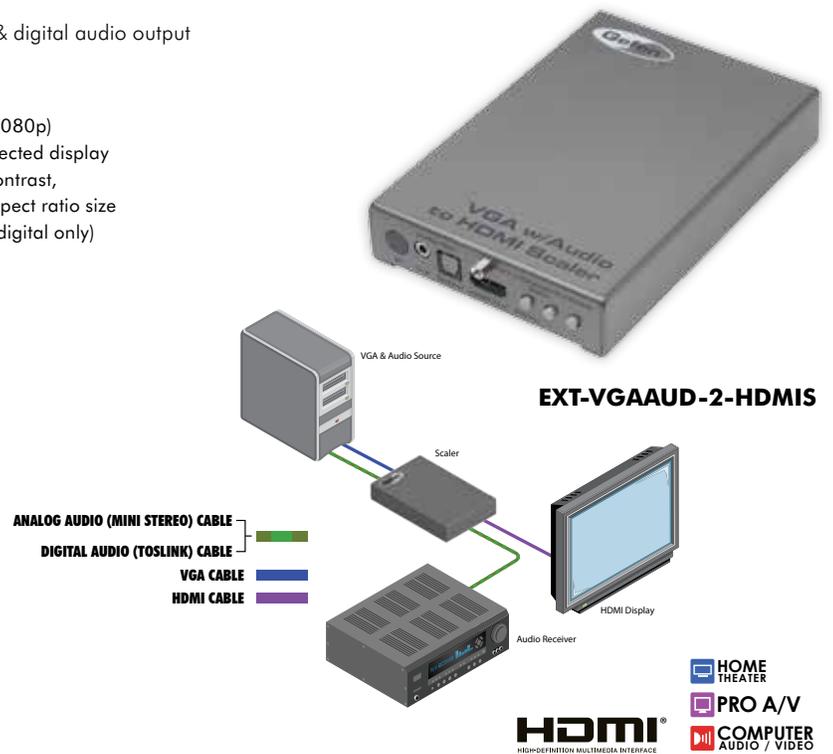
Convert PC audio/video to HDMI with scaling and provides analog & digital audio output

### FEATURES

- Scales any PC resolution (VGA - WUXGA) to SD/HD HDMI (480i - 1080p)
- Automatically detects and matches the native resolution of the connected display
- Provides output picture adjustment of many parameters including contrast, brightness, hue, saturation, sharpness, RGB (color tone) level and aspect ratio size
- Supports stereo analog and multi-channel audio up to 6 channels (digital only)
- Accepts LPCM and bitstream audio input

### SPECIFICATIONS

- Maximum Pixel Clock: 225MHz (HDMI)
- Video Amplifier Bandwidth: 350MHz (VGA)
- Input Sync Signal: 5V p-p (TTL)
- Horizontal Frequency Range: 15 - 70kHz
- Vertical Frequency Range: 30 - 170Hz
- Video Input Connector: (1) PC SVGA, HD-15 type, 15-pin
- Audio Input Connector (analog): (1) 3.5mm mini-stereo jack
- Audio Input Connector (digital): (1) TOSLINK (optical fiber)
- Audio/Video Output Connector: (1) HDMI Type A 19-pin
- Audio Output Connector (digital): (1) TOSLINK (optical fiber)
- Power Supply: 5V / 2.6A DC
- Power Consumption: 13W
- Dimensions: 3.9" W x 6" D x 1" H
- Shipping Weight: 2 lbs.



## HDSDI to DVI Plus Scaler\*

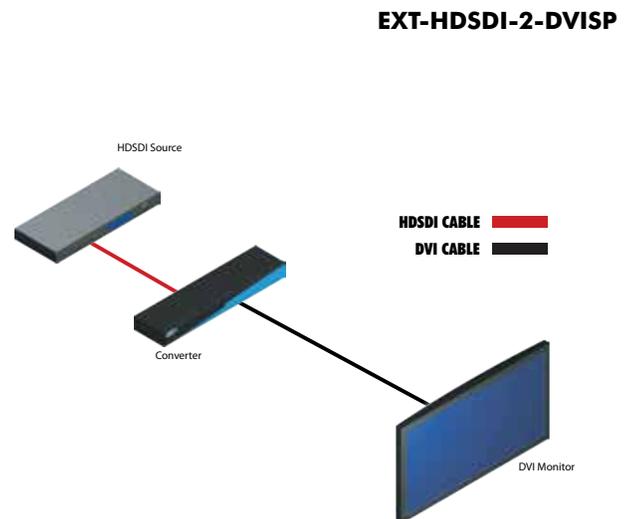
Transmit digital video through SDI connectors

### FEATURES

- 10-bit resolution for greater precision and dynamic range
- Proprietary 10-bit motion adaptive video de-interlacing with edge interpolation for HD / SD formats.
- Advanced noise reduction and detail enhancement
- Max. active image size of 2048 samples x 2048 lines PBP processing for various combinations of video and graphics with alpha blending
- Fully integrated sprite based multi-plane OSD controller.
- Frame rate conversion to / from any refresh rate
- Pattern mode w/ color bars & cross hatch patterns
- Color correction
- Noise Reduction
- Detail Enhancement
- Brightness Adjustment
- Gamma Selection
- Aspect Ratio Select
- Custom Timing output mode
- French/English Menu Set
- RS-232 upgradeable firmware
- RS-232 and/or IR Control
- Genlock

### SPECIFICATIONS

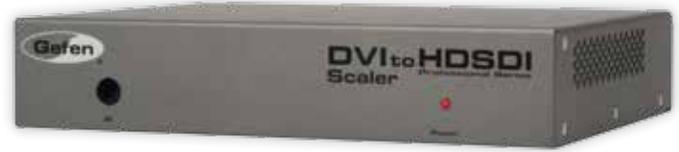
- Input Video Bandwidth: 2x 1.485 Gbps (Dual Link HD-SDI)
- Output Video Bandwidth: 165 MHz (Single Link DVI-D)
- Maximum Output Resolution: 1920x1200/60Hz
- DVI Output Connector: (1) DVI-I 29 pin female
- SDI/HDSDI Input Connector: (2) BNC female
- SDI/HDSDI Loop-out: (2) BNC female
- Audio Output Port: (1) Analog L+R RCA
- Data Port: (1) DB-9; RS-232 serial communication
- Rack Size: 1U (half-width)
- Power Supply: 5V DC w/Locking Power Connector
- Power Consumption: 20 Watts (max)
- Dimensions: 6.7"D x 8.4" W x 1.6"H
- Shipping Weight: 4 lbs



\*EXT-DVI-2-HDSIPRO (DVI to HD-SDI Pro Scaler) also available

## Single-Link DVI to HD-SDI Scaler

Enables compatibility among SDI and DVI devices



### FEATURES

- Delivers single-link DVI-D conversion and scaling to single-link SD/HD-SDI
- Maximum Input Resolution: 1920 x 1200 @60Hz
- Maximum Output Resolution: 2048 x 1080 @ 60Hz
- IR remote included with a user-friendly on-screen display (OSD) menu
- RS-232 control for automation
- Many advanced image processing functions are present including: 10-bit video processing for enhanced precision and dynamic range, noise reduction and detail enhancement, Frame rate conversion to / from any refresh rate, Color correction, Test pattern mode, Brightness and gamma adjustments, aspect ratio selection, custom timings, and French / English menus

### SPECIFICATIONS

- Maximum Pixel Clock: 165MHz (DVI)
- Input Video Signal: 1.2V p-p
- Input DDC Signal: 5V p-p (TTL)
- Output formats: SDI (SMTP 259M) up to 360Mbps, HD-SDI (SMTP 292M) up to 1.485Gbps
- Video Input Connector: (1) DVI-I 29 pin, female (digital only)
- Video Output Connector: (1) HD-SDI (BNC, female)
- RS-232 Control Port: (1) DB-9, female
- Power Supply: 5V DC
- Power Consumption: 20W (max.)
- Dimensions: 8.4" W x 6.7" D x 1.75" H (half-rack)
- Shipping Weight: 4 lbs.

### EXT-DVI-2-HDSDISSL

\* EXT-HDSDI-2-DVISSL (HD-SDI to DVI) also available



## DVI to HDSDI Scaler Plus

Enables Compatibility Among SDI and DVI Devices

### FEATURES

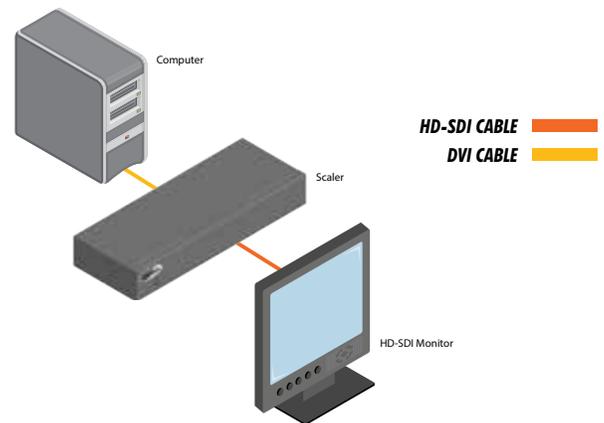
- 10-bit resolution for greater precision and dynamic range
- Proprietary 10-bit motion adaptive video de-interlacing with edge interpolation for HD / SD formats
- Advanced noise reduction and detail enhancement
- Max. active image size of 2048 samples x 2048 lines PBP processing for various combinations of video and graphics with alpha blending
- Fully integrated sprite based multi-plane OSD controller.
- Frame rate conversion to / from any refresh rate
- Pattern mode w/ color bars & cross-hatch patterns
- Color correction
- Noise Reduction
- Detail Enhancement
- Brightness Adjustment
- Gamma Selection
- Aspect Ratio Select
- Custom Timing output mode
- French/English Menu Set
- RS-232 upgradeable firmware
- RS-232 and/or IR Control
- Genlock

### SPECIFICATIONS

- Input Video Bandwidth: 165 MHz
- Output Video Bandwidth: 2 x 1.485 Gbps
- Maximum Input Resolution: 2048x1080 (2K)
- Maximum Output Resolution - Single Link: 2048x1080/24
- Maximum Output Resolution - Dual Link: 1080p/60
- DVI Connector: DVI-I 29 pin female (digital only)
- SDI/HDSDI Connector: BNC female
- Data Port: Serial RS-232
- Power Supply: 5V DC Locking Type
- Power Consumption: 20 watts (Max.)
- Dimensions: 8.25" W x 1.75" H x 7.5" D
- Shipping Weight: 4 lbs.



### EXT-DVI-2-HSDISIP



\*EXT-DVI-2-HDSDI-PRO (DVI to HDSDI Scaler Pro) also available



## 3GSDI / HDMI Converters



### 3G-SDI to HDMI Converter

Converts 3G-SDI to HDMI without scaling

#### FEATURES

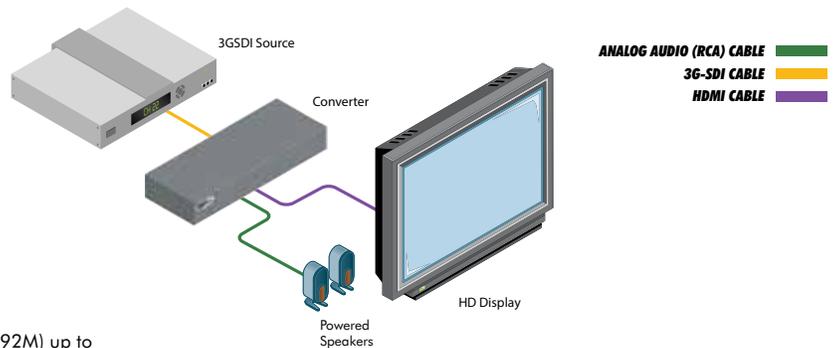
- Supports up to 1080p full HD
- Supports LPCM 7.1 audio, Dolby Digital Plus, Dolby TrueHD, and DTS-HD Master Audio
- Frame rate conversion
- SDI loop output and analog audio outputs for monitoring
- SDI: Mirrors SDI input onto a relocked buffered SDI output
- SDI: Automatic Level-B to Level-A conversion for 1080p/50-60 video formats
- Field-upgradeable
- SDI Compliant to SMPTE 292M (HD-SDI), 259M (SDI), 296M, ITU-R BT.656 and ITU-R BT.601
- SDI Compliant to 3G-SDI SMPTE 425-A and 425-B (formats 1080p @ 50/59.94/60 Hz)
- DIP switches and LED's on bottom panel for setting system options
- HDMI: Auto detects optimal monitor format with EDID
- HDMI: Supports up to four (4) stereo 48-KHz audio streams
- SDI bit depths of 8 and 10 bits on the input
- Supports 8 channel PCM audio and and Dolby Digital/DTS AC3 encoded audio

#### SPECIFICATIONS

- Maximum Pixel Clock: 225MHz
- Input formats: SDI (SMPTE 259M) up to 360Mbps, HD-SDI (SMPTE 292M) up to 1.485Gbps, and 3G-SDI (SMPTE 424M/425M) up to 3.0Gbps
- Video Output Connector: (1) HDMI Type A 19-pin, female
- Video Input Connector: (1) 3G-SDI (BNC, female)
- Video Loop Out Connector: (1) 3G-SDI (BNC, female)
- Audio Monitor Output: (1) L/R analog audio (2 x RCA, female)
- USB Port: USB Type B, female (for firmware upgrades)
- Power Supply: 5V DC, Locking
- Power Consumption: 20W (max.)
- Dimensions: 7.5" W x 1.1" H x 3.5" D
- Shipping Weight: 3 lbs.



EXT-3GSDI-2-HDMI1.3



## DVI Detective

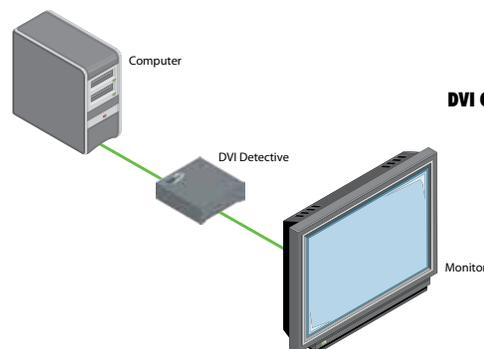
Record and store EDID information to maintain connection when switching away from your devices

### FEATURES

- Quick and easy way to store EDID information from any DVI display
- Provides a virtual EDID to maintain active monitor status when switching away from a source
- Supports resolutions up to 1920x1200, 2K, and 3840x2400 (Dual Link)
- EDID write protection switch
- No power is required after initial programming



**EXT-DVI-EDIDN**



### SPECIFICATIONS

- Maximum Pixel Clock: 2x 165 MHz
- Video Input Connector: (1) DVI-I 29-pin, female
- Video Output Connector: (1) DVI-I 29-pin, female
- Operating temperature range: +5 to +45 deg. Celsius
- Power Supply: 5V DC (needed for programming only)
- Power Consumption: 5 Watts (max)
- Dimensions: 2.6" W x 1.8" D x 1.2" H
- Shipping Weight: 1 lb.



## DVI Detective Plus

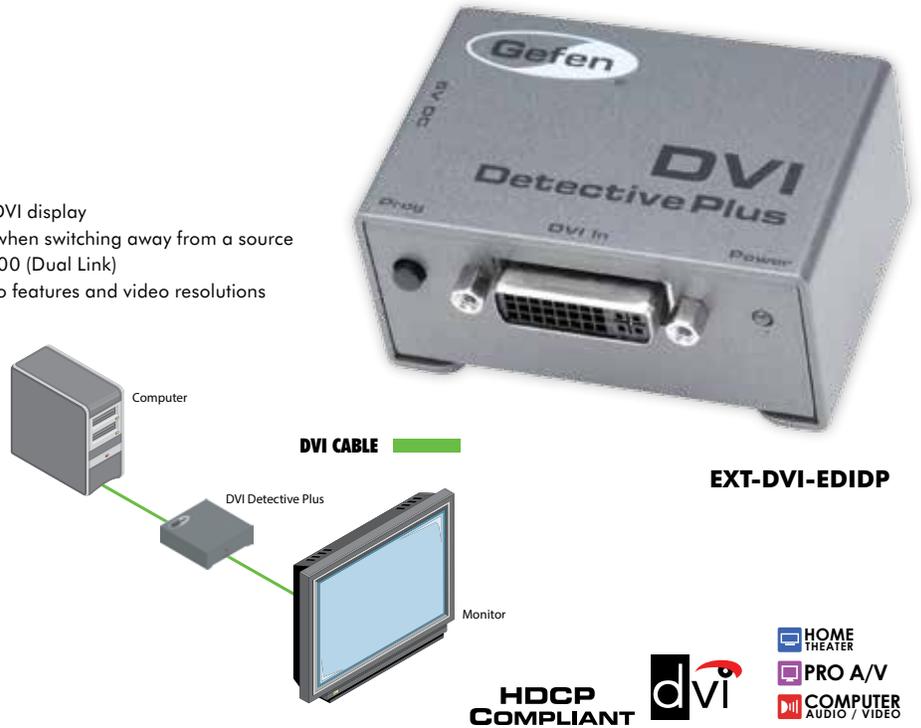
Record and store EDID information to maintain connection when switching away from your devices

### FEATURES

- Quick and easy way to store EDID information from any DVI display
- Provides a virtual EDID to maintain active monitor status when switching away from a source
- Supports resolutions up to 1920x1200, 2K, and 3840x2400 (Dual Link)
- Selection of 5 preset EDIDs are available for custom audio features and video resolutions through DIP switch selection
- EDID write protection switch
- No power is required after initial programming
- HDCP pass-through

### SPECIFICATIONS

- Maximum Pixel Clock: 2x 165 MHz
- Video Input Connector: (1) DVI-I 29-pin, female
- Video Output Connector: (1) DVI-I 29-pin, female
- Power Supply: 5V DC (needed for programming only)
- Power Consumption: 5W (max.)
- Dimensions: 2.6" W x 1.8" D x 1.2" H
- Shipping Weight: 1 lb.



## EDID Detective for DisplayPort

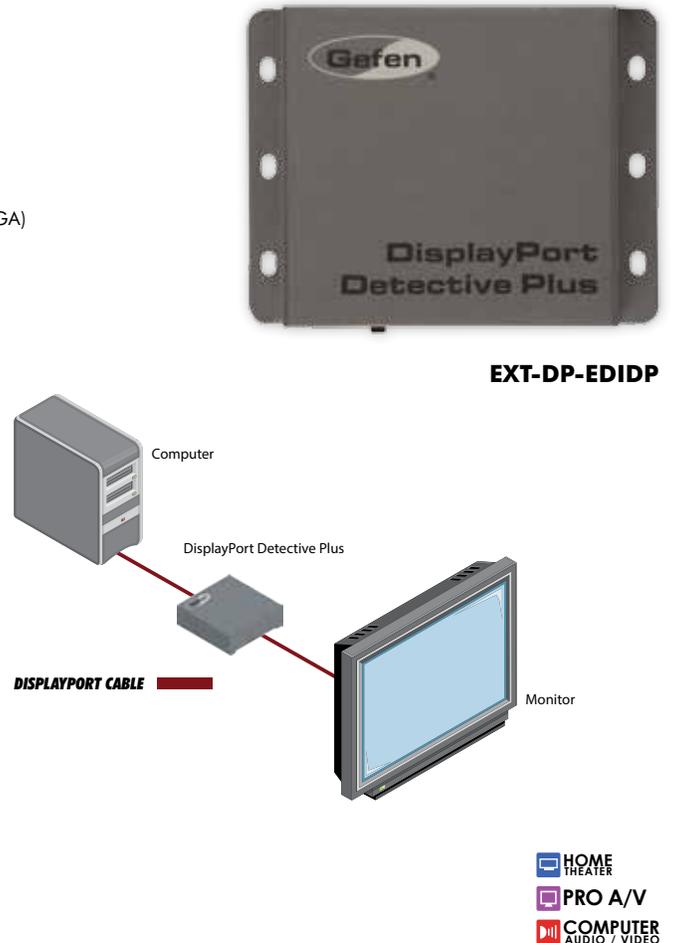
Record and store EDID information to maintain connection when switching away from your devices

### FEATURES

- Supports 1080p Full HD at 120Hz and dual-link resolutions up to 2560 x 1600 (WQXGA)
- EDID presets for custom resolution support
- Supports RGB and YCbCr color spaces
- Write-protect switch
- HDCP/DPCP pass-through
- Configurable using Gefen EDID Tool+ software, downloadable from Gefen website
- 1 pre-programmed EDID profile
- 6 user-programmable EDID banks for copying/uploading EDIDs
- Powered through the USB port or via the included power supply
- Firmware upgradeable via Mini-USB port

### SPECIFICATIONS

- Video Input Connector: (1) DisplayPort, 20-pin, female
- Video Output Connector: (1) DisplayPort, 20-pin, female
- USB Connector: (1) USB Mini-B
- Pre-programmed EDID Selection: (3) DIP switches
- Write-protect Switch: (1) 2-position slide switch
- Program button: (1) push button, momentary switch
- Status Indicator: (1) LED, bi-color (blue/red)
- Power Supply: 5V DC
- Dimensions (W x H x D): 4.25" x 1" x 3.4" (108mm x 25mm x 87mm)
- Shipping Weight: 1.5 lbs. (0.70 kg)





## DVI Galvanic Isolator

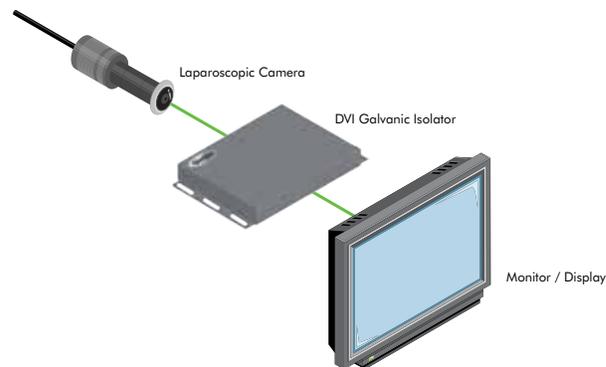
Isolate the source and display DVI connection used in an imaging system to ensure safety and a reliable operation room

### FEATURES

- Provides up to 5kV full galvanic isolation between DVI components
- Supports resolutions up to 1920 x 1200 (WUXGA)
- HDCP pass-through
- EDID pass-through
- HPD pass-through
- Grounding terminal
- Isolation between the input and out DVI
- Locking power supply connector
- Grounding Terminal
- Compliant with Medical Standards EN60601-1 and EN60601-1-2, 3rd Edition



**EXT-DVI-GI**



**DVI CABLE** 

### SPECIFICATIONS

- Maximum Pixel Clock: 165MHz
- Input Connector: (1) DVI 29-pin, female (digital only)
- Output Connector: (1) DVI 29-pin, female (digital only)
- Power Indicator: (1) LED, blue
- Power Supply: (1) 5V DC, locking connector
- Operating Temperature: 0°C to +45°C
- Storage Temperature: -20°C to +70°C
- Relative Humidity: 10% to 90%, non-condensing
- Atmospheric Pressure: 50 kPa to 106kPa
- Dimensions (W x H x D): 5.8" x 1.2" x 3.5" (146mm x 30mm x 85mm)
- Shipping Weight: 2 lbs. (0.9 kg.)

## DVI Dual-Link Booster Plus

Extends the range of any Dual-link DVI cable

### FEATURES

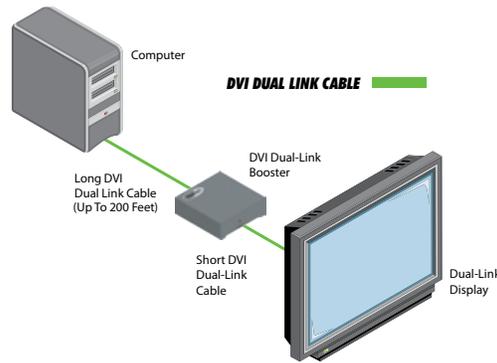
- Extends Dual-link DVI displays up to 200 feet (60 meters) away from computers
- Supports 1080p Full HD at 120Hz and Dual-link resolutions up to 2560 x 1600
- Boosts and equalizes digital video (TMDS) signal to ensure bright, sharp, and clear video
- Supports DDWG standards for DVI compliant monitors
- Boosts DDC levels to ensure stable performance
- HDCP-compliant



EXT-DVI-141DLBP

### SPECIFICATIONS

- Maximum Pixel Clock: 2 x 165MHz
- Input Video Signal: 1.2V p-p
- Input DDC Signal: 5V p-p
- Video Connectors: (2) DVI-I 29-pin, female (digital only)
- Power Supply: 5V DC
- Power Consumption: 5W (max.)
- Dimensions: 2.2" W x 2.3" D x 0.8" H
- Shipping Weight: 1 lb.



**HDCP  
COMPLIANT**



## DisplayPort Booster

Extends the range of any DisplayPort cable

### FEATURES

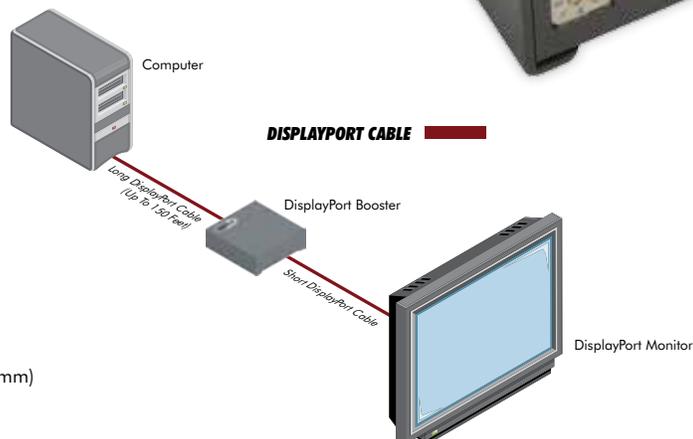
- Extends DisplayPort up to 150 feet (45 meters)
- Supports 1080p Full HD at 120Hz and dual-link resolutions up to 2560 x 1600 (WQXGA)
- EQ trim-switch for optimal signal quality at varying distances
- External 5V DC power supply
- HDCP, DPCP, and DDC pass-through
- Compact design



EXT-DP-141B

### SPECIFICATIONS

- Video Input Connector: (1) DisplayPort, 20-pin, female
- Video Output Connector: (1) DisplayPort, 20-pin, female
- Coarse EQ adjustment: (2) DIP Switches
- Fine EQ trim adjustment: (1) 8-position rotary switch
- Power Indicator: (1) LED, blue
- Power Supply: 5V DC
- Power Consumption: 5W (max.)
- Dimensions (W x H x D): 2.2" x 0.8" x 2" (55mm x 20mm x 50mm)
- Shipping Weight: 1 lb. (0.45 kg)



## Four 5v Outlet Power Rack

Powers up to four, 5-Volt devices in a single rack



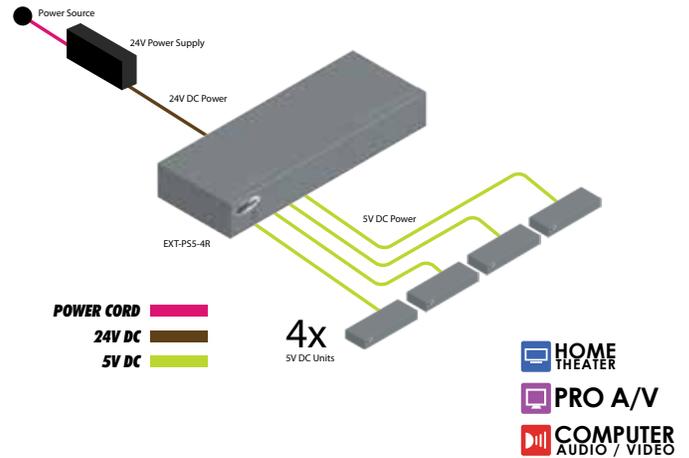
### FEATURES

- Eliminates multiple power supplies and messy cables
- Four individual 5V DC / 2.5A maximum power outputs for powering up to four devices
- Four dual-state red/green LED lights indicate correct voltage range for each power output; Green LEDs indicate satisfactory voltage ( $5V \pm 0.3V$ ) for each output)
- Over-current protection for each of four outputs
- Locking connectors ensure secure attachment of output power cables
- Includes four 6 ft. non-locking power output cables. Optional locking cables available
- Metal enclosure provides excellent electromagnetic shielding
- Rack-mountable

**EXT-PS5-4R**

### SPECIFICATIONS

- Power Output Connectors: (4) Coaxial Locking screw-down type, 5.5mm x 2.5mm
- Power Output Voltage: 5V DC / 2.5A max. per output
- Power Supply: 24V / 8A DC
- Power Consumption: 60W (max.)
- Rack Size: 1U (rack ears included)
- Dimensions: 17.1" W x 4.3" D x 1.75" H
- Shipping Weight: 5 lbs.



## Eight 5v Outlet Power Rack

Powers up to eight, 5-Volt devices in a single rack



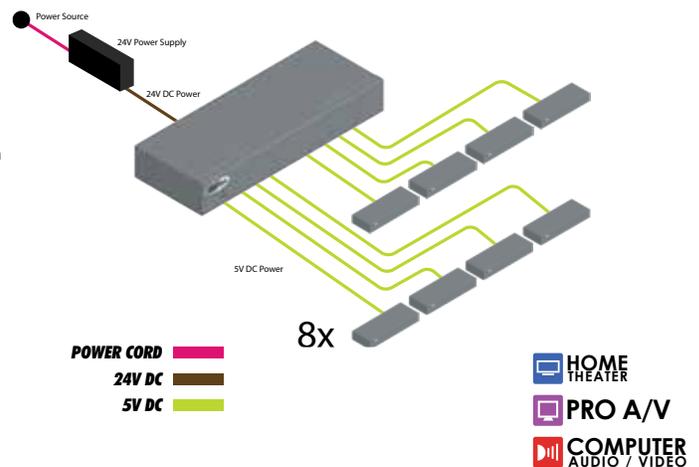
### FEATURES

- Eliminates multiple power supplies and messy cables
- Eight individual 5V DC / 2.5A maximum power outputs for powering up to eight devices
- Eight dual-state red/green LED lights indicate correct voltage range for each power output (Green LEDs indicate satisfactory voltage ( $5V \pm 0.3V$ ) for each output)
- Over-current protection for each of eight outputs
- Locking connectors ensure secure attachment of output power cables
- Includes eight 6-foot non-locking power output cables. Optional locking cables available
- Metal enclosure provides excellent electromagnetic shielding
- Rack-mountable

**EXT-PS5-8R**

### SPECIFICATIONS

- Power Output Connectors: (8) Coaxial Locking screw-down type, 5.5mm x 2.5mm
- Power Output Voltage: 5V DC / 2.5A max. per output
- Power Supply: 24V / 8A DC
- Power Consumption: 60W (max.)
- Rack Size: 1U (rack ears included)
- Dimensions: 17.1" W x 4.3" D x 1.75" H
- Shipping Weight: 7 lbs.



## Modular General Purpose Rack Tray

Secure and power up to four Gefen devices ginsu only 1U of rack space

### FEATURES

- Fits an assortment of Gefen products
- Ideal for Gefen Extenders
- Includes a 5V DC / 8A Power Supply for powering up to four (4) Gefen devices using included ADA-MGPR-KIT Power Splitter Kit
- Multiple cable tie mounting slots for organization
- Includes four locking-to-non-locking (2.5mm - 2.1mm) adapters
- Multiple cable tie mounts for cable organization
- 1U rack height

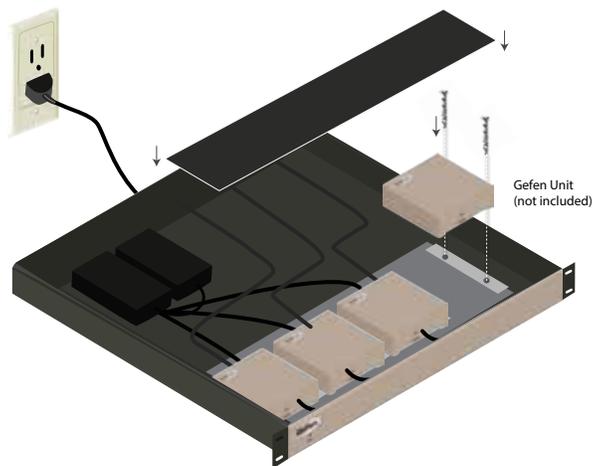
### SPECIFICATIONS

- Power Supply: 5V / 8A DC (internal)
- Dimensions: 19" W x 13.8" D x 1.75" H
- Shipping Weight: 8 lbs.



**EXT-RACK-MGPR**

SECURE AND POWER FOUR GEFEN DEVICES  
USING ONLY 1U OF RACK SPACE





## Extra Long Range Extender for HDMI with Power Over Line and Auto Switching

Extends HDMI, RS-232, IR and Ethernet up to 330 feet (100 meters) over one CAT-5 cable

### FEATURES

- Extends HDMI at up to 330 feet (100 meters) over one CAT-5E cable
- Supports resolutions up to Ultra HD 4K x 2K (3840 x 2160 @ 30Hz) and 1080P Full HD
- Supported HDMI features:
  - HDCP-compliant
  - 12-bit Deep Color
  - LPCM 7.1 audio, Dolby® TrueHD, Dolby Digital® Plus, and DTS-HD® Master Audio™ pass-through
  - 3DTV pass-through
  - CEC pass-through
  - Lip Sync pass-through
- Power over Line: Using Gefen PoL technology, the Receiver unit is powered from the CAT-5 cable, and offers one +5V 3A output to power additional devices
- HDMI input on the Receiver side allows connection of an additional source at the remote location
- Auto-switching: The Receiver unit auto-switches between the active HDMI source connected to the Sender or additional HDMI devices connected to the Receiver unit
- Manual switching of the Hi-Def sources using an optional IR remote, local push button, or RS-232
- IR back-channel to control any source equipment from the remote location
- RS-232 port for automation
- ELR and HDBaseT® technologies allow extension up to 330 feet (100 meters)
- Extends 100BaseT Ethernet to the remote location
- Internal power supply at the Sender unit
- +5V output with locking connector at the Receiver unit
- Rack-mountable (using Gefen EXT-RACK-1U)

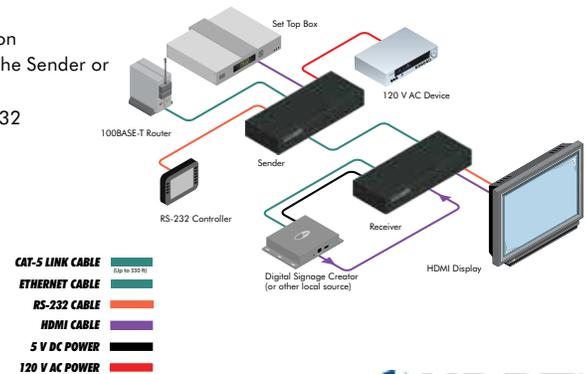
### SPECIFICATIONS

- Maximum Pixel Clock: 300MHz
- Maximum TMDS Clock: 300MHz
- Video Input Connector (Sender): (1) HDMI Type A 19-pin, female
- Video Output Connector (Receiver): (1) HDMI Type A 19-pin, female
- Local Video Input Connector (Receiver): (1) HDMI Type A 19-pin, female
- RS-232 Connector (Sender): DB-9, female
- RS-232 Connector (Receiver): DB-9, male
- Ethernet Connector (Sender / Receiver): RJ-45, Shielded
- Link Connector (Sender / Receiver): RJ-45, Shielded
- IR Extender Input (Receiver): 3.5 mm mini-stereo jack
- IR Extender Type (Receiver): EXT-RMT-EXTIR (available separately)
- IR Emitter Output (Sender): (1) 3.5 mm mini-mono jack

- Power Supply (Sender): 100 - 240V AC (Internal)
- Power Input Connector (Sender): IEC inlet with fuse-holder and power switch
- Power Indicator (Receiver) : LED, Red
- Operating Temperature: 32 °F to +113 °F (0 °C to +45 °C)
- Storage Temperature: -4 °F to +140 °F (-20 °C to +60 °C)
- Humidity: 20% to 90%RH, no condensation
- Dimensions (Sender / Receiver) (W x H x D): 8.3" x 1.7" x 6.7" (210mm x 43mm x 170mm)
- Shipping Weight: 8 lbs (3.6 kg)



**GEF-HDCAT5-ELRPOL2**



HDCP Compliant





## Extender for HDMI Extra Long Range

Extends HDMI, RS-232, IR and Ethernet up to 330 feet (100 meters) over one CAT-5 cable

**GEF-HDCAT5-ELRPOL**

### FEATURES

- Extends HDMI and Ethernet up to 330 feet (100 meters) over one CAT-5e cable
- Supports resolutions up to Ultra HD 4K x 2K (3840 x 2160 @ 30Hz) and 1080P Full HD
- Supported HDMI features:
  - HDCP-compliant
  - 12-bit Deep Color
- LPCM 7.1 audio, Dolby® TrueHD, Dolby Digital® Plus, and DTS-HD® Master Audio™ pass-through
- 3DTV pass-through
- CEC pass-through
- Lip Sync pass-through
- Power over Line: Using Gefen POL technology, the Receiver unit is powered from the CAT-5 cable, and offers one +5V 2A output to power additional devices
- IR back-channel to control any source equipment from the remote location
- RS-232 port for automation
- ELR and HDBaseT® technologies allow extension up to 330 feet (100 meters)
- Extends 100BaseT Ethernet to the remote location
- Internal power supply at the Sender unit
- +5V output with locking connector at the Receiver unit
- Rack-mountable (using Gefen EXT-RACK-1U)

### SPECIFICATIONS

- Maximum Pixel Clock: 300MHz
- Maximum TMDS Clock: 300MHz
- Video Input Connector (Sender): (1) HDMI Type A 19-pin, female
- Video Output Connector (Receiver): (1) HDMI Type A 19-pin, female
- RS-232 Connector (Sender): DB-9, female
- RS-232 Connector (Receiver): DB-9, male
- Ethernet Connector (Sender / Receiver): RJ-45, Shielded
- Link Connector (Sender / Receiver): RJ-45, Shielded
- IR Extender Input (Receiver): 3.5 mm mini-stereo jack
- IR Extender Type (Receiver): EXT-RMT-EXTIR (available separately)
- IR Emitter Output (Sender): (1) 3.5 mm mini-mono jack
- Power Supply (Sender): 100 - 240V AC (Internal)
- Power Input Connector (Sender): IEC inlet with fuse-holder and power switch
- Power Indicator (Receiver) : LED, Red
- Operating Temperature: 32 °F to +113 °F (0 °C to +45 °C)
- Storage Temperature: -4 °F to +140 °F (-20 °C to +60 °C)
- Humidity: 20% to 90%RH, no condensation
- Dimensions (Sender / Receiver) (W x H x D): 8.3" x 1.7" x 6.7" (210mm x 43mm x 170mm)
- Shipping Weight: 8 lbs (3.6 kg)



## 8x8 Matrix for HDMI with Four ELR-POL Outputs and four HDMI Outputs

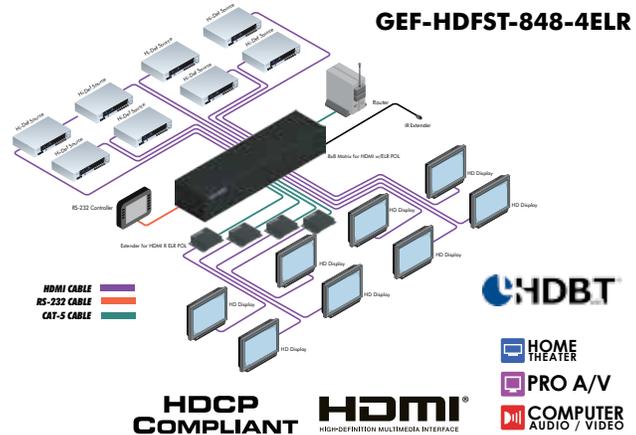
Route any eight HDMI sources to any eight outputs and extend four outputs with HDBaseT

### FEATURES

- Routes any eight Hi-Def sources to any of eight HD displays, independently
- ELR technology allows extension up to 330 feet (100 meters)
- Supports resolutions up to 1080p Full HD
- Includes four ELR-POL receivers
- POL feature provides power to each ELR receiver
- Uses HDBaseT® technology
- HDMI Features Supported:
  - HDCP compliant
  - 12-bit Deep Color
  - LPCM 7.1 audio, Dolby® TrueHD, and DTS-HD Master Audio™ pass-through
  - 3DTV pass-through
  - Lip Sync pass-through
- Gefen FST speeds up the HDCP authentication process
- Fast and Slow FST Modes
- Advanced EDID Management for rapid integration of sources and displays
- Ability to save and recall presets
- Supports DVI sources and displays
- Field-upgradeable firmware via IP
- Front Panel Switching
- IR Control via front panel sensor and back panel input (using EXT-RMT-EXTIR)
- Serial (RS-232) control for automation
- IP Control via Web Server and Telnet
- Rack mountable (2U tall, rack ears included)
- Internal power supply with detachable IEC AC cord
- Back panel master power switch

### SPECIFICATIONS

- Maximum Pixel Clock: 225 MHz
- Video Input Connectors (Matrix): (8) HDMI Type A 19-pin, female, locking
- Video Output Connectors (Matrix): (4) HDMI Type A 19-pin, female, locking; (4) ELR-POL RJ45, female
- Receiver ELR-POL Input Connector: (1) RJ45, female
- Receiver Video Output Connector: (1) HDMI Type A 19-pin, female, locking
- Power Indicator (Matrix/Receiver): LED, blue=On, red=Standby
- Lock Indicator (Matrix): LED, blue
- USB Port (Matrix): Mini-B, female
- Ethernet Port (Matrix): (1) RJ45, female, 10/100 BaseT
- RS-232 Port (Matrix): (1) DB-9, female


**GEF-HDFST-848-4ELR**

**HDCP COMPLIANT**
**HDMI**  
HIGH-DEFINITION MULTIMEDIA INTERFACE

- IR Extender Port (Matrix): (1) 3.5mm mini-stereo jack
- Power Supply: Internal, 100V to 240V AC, 50/60 Hz, detachable IEC cord
- Power Consumption (Matrix): 120W (max.)
- Operating Temperature: +32 to +104°F (0 to + 40 °C)
- Rack mounting requirements (Matrix): Standard 19 rack, 2U high
- Dimensions (Matrix - W x H x D): 17.25" x 3.5" x 12" (440mm x 89mm x 305mm)
- Dimensions (Receivers - W x H x D): 4.4" x 1.1" x 3.35" (110mm x 27mm x 85mm)
- Shipping Weight (1 Matrix and 4 Receivers): 37 lbs (16.8 kg)

## 8x8 Matrix for HDMI with Eight ELR-POL Outputs and Bi-directional IR

Route any eight HDMI sources and Bi-Directional IR control to eight different locations

### FEATURES

- Routes any eight Hi-Def sources to any eight HDTV displays independently
- Sends and Receives IR signals from any of the 8 remote locations to the matrix, when used with optional GEF-HDFST-8IRKIT
- Includes eight ELR-POL receiver units
- ELR technology allows extension up to 330 feet (100 meters)
- POL feature provides power to each ELR receiver
- HDBaseT® technology
- Gefen FST speeds up the HDCP authentication process
- Fast and Slow FST Modes
- Advanced EDID Management for rapid integration of sources and displays
- Ability to save and recall presets
- Supports DVI sources and displays
- Field-upgradeable firmware via IP or RS-232
- Front Panel Switching
- IR Control of the matrix via front panel sensor and from each Receiver
- Serial (RS-232) control
- IP Control via Web Server and Telnet
- Rack mountable (2U tall, rack ears included)
- Internal power supply with detachable IEC AC cord
- Back panel master power switch

### SPECIFICATIONS

- Maximum Pixel Clock: 225 MHz
- ELR extension range: Up to 330 feet (100 meters)
- Matrix Video Input Connectors: (8) HDMI Type A 19-pin, female, locking
- Matrix Video Output Connectors: (8) ELR-POL RJ45, female
- Receiver Video Output Connector: (1) HDMI Type A 19-pin, female, locking
- Power Indicator (Matrix/Receiver): LED, blue=On, red=Standby
- Lock Indicator (Matrix): LED, blue
- USB Port (Matrix): Mini-B, female (factory use only)
- Ethernet Port (Matrix): (1) RJ45, female, shielded
- RS-232 Port (Matrix): (1) DB-9, female


**GEF-HDFST-848-8ELR**
**HDCP COMPLIANT**
**HDMI**  
HIGH-DEFINITION MULTIMEDIA INTERFACE


- IR Input Port (Matrix): (9) 3.5mm mini-mono jacks
- IR Output Port (Matrix): (9) 3.5mm mini-mono jacks
- IR Extender Port (Receiver): (1) 3.5mm mini-stereo jack
- IR Output Port (Receiver): (1) 3.5mm mini-mono jack
- Power Supply: Internal, 100V to 240V AC, 50/60 Hz, detachable IEC cord
- Power Consumption (Matrix): 200W (max.)
- Operating Temperature: 0 to +104 °F (0 to +40 °C)
- Rack mounting requirements (Matrix): Standard 19" rack, 2U high
- Dimensions (Matrix - W x H x D): 17.25" x 3.5" x 12" (440mm x 89mm x 305mm)
- Dimensions (Receivers - W x H x D): 4.4" x 1.1" x 3.35" (110mm x 27mm x 85mm)
- Shipping Weight (1 Matrix and 8 Receivers): 40 lbs. (18 kg)

## 4x4 Matrix for HDMI with four ELR-POL Outputs and Bi-directional IR

Routes any of four HDMI sources to any four outputs

### FEATURES

- Routes any four Hi-Def sources to any four HD displays independently
- Sends and Receives IR signals from any of the 4 remote locations to the matrix, when used with optional GEF-HDFST-4IRKIT
- Includes four ELR-POL receiver units
- ELR and HDBaseT® technologies allow extension up to 330 feet (100 meters)
- POL feature provides power to each ELR receiver
- Gefen FST speeds up the HDCP authentication process
- Fast and Slow FST Modes
- Advanced EDID Management for rapid integration of sources and displays
- Ability to save and recall presets
- Supports DVI sources and displays
- Field-upgradeable firmware via IP or RS-232
- Front Panel Switching
- IR Control of the matrix via front panel sensor and from each Receiver
- RS-232 port for automation
- IP Control via web server interface and Telnet
- Internal power supply with detachable IEC AC cord switch
- Rack mountable (2U tall, rack ears included)
- Surface-mountable Receiver units



**GEF-HDFST-444-4ELR**



### SPECIFICATIONS

- Maximum Pixel Clock: 225 MHz
- ELR extension range: Up to 330 feet (100 meters)
- Matrix Video Input Connectors: (4) HDMI Type A 19-pin, female, locking
- Matrix Video Output Connectors: (4) ELR-POL RJ45, female
- Receiver ELR-POL Input Connector: (1) RJ45, female
- Receiver Video Output Connector: (1) HDMI Type A 19-pin, female, locking
- Power Indicator (Matrix/Receiver): (1) LED, blue=On, red=Standby
- Lock Indicator (Matrix): (1) LED, blue
- USB Port (Matrix): (1) Mini-B, female (factory use only)
- Ethernet Port (Matrix): (1) RJ45, female, shielded
- RS-232 Port (Matrix): (1) DB-9, female
- IR Input Port (Matrix): (5) 3.5mm mini-mono jacks
- IR Output Port (Matrix): (5) 3.5mm mini-mono jacks
- IR Extender Port (Receiver): (1) 3.5mm mini-stereo jack
- IR Output Port (Receiver): (1) 3.5mm mini-mono jack
- Power Supply: Internal, 100V to 240V AC, 50/60 Hz, detachable IEC cord
- Power Consumption (Matrix): 200W (max.)
- Operating Temperature: 0 to +104 °F (0 to +40 °C)
- Rack mounting requirements (Matrix): Standard 19" rack, 2U high
- Dimensions (Matrix - W x H x D): 17.25" x 3.5" x 12" (440mm x 89mm x 305mm)
- Dimensions (Receivers - W x H x D): 4.4" x 1.1" x 3.35" (110mm x 27mm x 85mm)
- Shipping Weight (1 Matrix and 4 Receivers): 37 lbs. (16.8 kg)

## 8X8 Dual-Link DVI KVM Matrix with Pushbutton Control\*

Routes eight computer sources with dual-link DVI, USB 2.0 and audio to any 8 KVM workstations

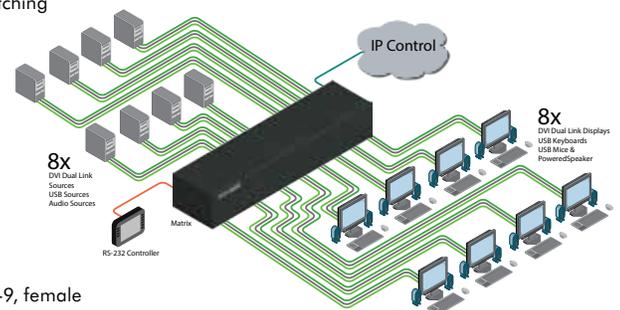
### FEATURES

- Supports 1080p Full HD at 120Hz and dual-link resolutions up to 3840 x 2400 or single-link resolutions up to 1920 x 1200
- Supports USB 2.0 compliant devices and backwards compatible with USB 1.1
- Support 2CH analog audio
- Programmable routing presets
- Output masking command
- IR Remote Control
- RS-232 control
- Telnet / IP Control
- Independent audio routing
- User-defined Input and Output naming
- Built-in IR Extender
- Grounding Pin
- Internal Power Supply
- Standby mode
- Supports DDWG standards for DVI
- Power ON / OFF switch
- Advanced EDID management permits upload of custom internal or external EDID settings
- Status LCD (shows routing status)
- Front panel control buttons for local switching
- Compatible with the Gefen Keyboard Controller software
- Rack-Mountable



**GEF-DVIKVM-848DL-PB**

- DVI DUAL LINK CABLE
- AUDIO CABLE
- USB CABLE
- RS-232 CABLE
- ETHERNET CABLE



### SPECIFICATIONS

- Maximum Pixel Clock: 2 x 165 MHz
- Input Video Signal: 1.2V p-p
- DVI Input Connectors: (8) DVI-I, female
- DVI Output Connectors: (8) DVI-I, female
- USB Input Connectors: (8) Type B
- USB Output Connectors: (16) Type A
- Audio Input Connectors: (8) 3.5 mm mini-stereo
- Audio Output Connectors: (8) 3.5 mm mini-stereo
- IR Extender connector: 3.5 mm mini-stereo (for Gefen EXT-RMT-EXTIR)
- RS-232 Interface: DB-9, female
- Ethernet Connector: RJ-45, shielded
- Power supply: Internal 110 / 220 V AC (IEC Connector)
- Power Consumption: 90W (max.)
- Operating Temperature: +32 to 104 °F (0 to +40 °C)
- Dimensions (W x H x D): 17.25" x 3.5" x 11.6" (438mm x 89mm x 295mm)
- Shipping Weight: 30 lbs (13.6 kg)



\*GEF-DVI-848DL-PB (8x8 Dual-Link DVI Matrix with Pushbutton Control) also available

## 3GSDI Long-Range Fiber Optic Extender

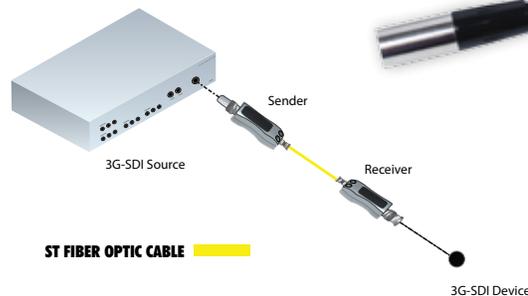
Extends 3G-SDI over a single ST-terminated fiber optic cable

### FEATURES

- Extends 3G-SDI up to 18 miles (30 kilometers) over one single-mode fiber optic cable
- Extends 3G-SDI up to 1640 feet (500 meters) over one multi-mode fiber optic cable
- Automatic Input Equalization
- Automatic Output Clock Recovery (Re-Clocking)
- Robust metal die-casting enclosure for use in harsh environments
- Locking power supplies

### SPECIFICATIONS

- Input / Output formats: SDI (SMTP 259M, up to 360Mbps), HD-SDI (SMTP 292M, up to 1.485Gbps), 3G-SDI (SMTP 424M/425M, up to 3.0Gbps)
- Video Input Impedance: 75 Ω
- Signal Level: 800 mV p-p (± 50 mV)
- Video Input Connector (Sender): BNC, male
- Video Output Connector (Receiver): BNC, male
- Link Connectors (Sender / Receiver): Type ST fiber connector
- Fiber Cable: CAB-ST-XXX (62.5μ multi-mode) (connects 4)
- Data Rate: Up to 3 Gbps
- Propagation Delay (Sender): 1.5ns
- Propagation Delay (Receiver): 40ns
- Optical Power Budget: 16dB
- Operating Temperature: -20° - 80°C
- Wavelength (Sender): 1290nm (min.), 1310nm (typ.), 1330nm (max.)
- Wavelength (Receiver): 1100nm (min.), 1310nm (typ.), 1650nm (max.)



**GEF-3GSDI-FO-141**

- Power Supplies: (2) 5V DC 2.5W, Locking (mini-XLR)
- Power Consumption (Sender / Receiver): 2.5W (max.)
- Dimensions (Sender / Receiver): 0.8" W x 2" D x 0.8" H
- Shipping Weight: 2 lbs



## 16x 3GSDI extender Racktray

Combine sixteen 3G-SDI Fiber Optic Extenders in a modular racktray

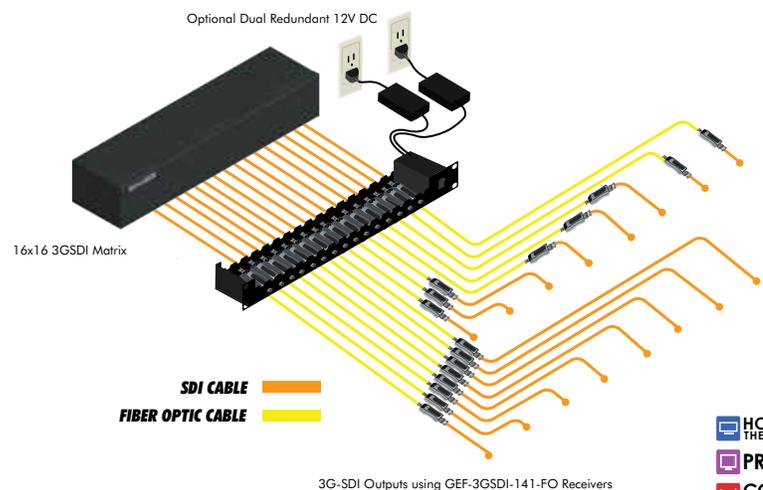
### FEATURES

- Modular design that can accommodate up to sixteen 3G-SDI fiber optic extenders
- Single 12V power bus with redundant power supplies providing power to all 16 mounting brackets
- LED power indicators
- Includes mounting hardware and tool for installing extenders

Note: Use with Gefen part no. GEF-3GSDI-FO-141 (not included)



**GEF-3GSDI-16X**



### SPECIFICATIONS

- Power Supplies: (2) 12V / 6.67A DC power supplies (second provided power supply optional for redundancy)
- Dimensions: 19" W x 6.8" D x 1.75" H
- Shipping Weight: 4 lbs.



# GefenPRO

## Optical DVI Extender with Recordable EDID

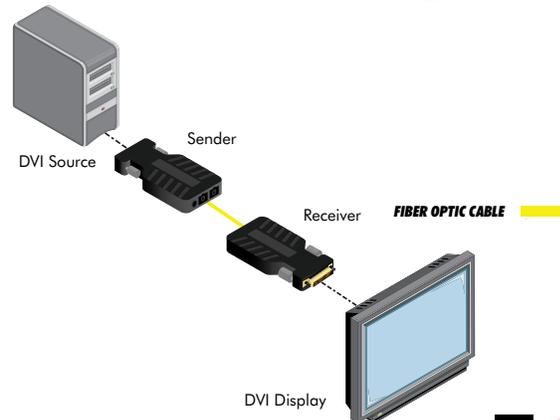
Extend a DVI source over a single strand of fiber optic cable up to 3,280 feet (1,000 meters) for single-mode and 1,640 feet (500 meters) for multi-mode cable

### Features

- Extends DVI up to 3280 feet (1000 meters) in single mode
- Extends DVI up to 1640 feet (500 meters) in multimode
- Supports resolutions up to 1920 x 1200 (WUXGA)
- Optical signal transmission provides good immunity to electromagnetic interference
- Virtual EDID programming feature provides quick installation and compatibility between source and display
- Uses one strand of single mode or multimode SC terminated fiber optic cable
- Fully supports DVI 1.0 specifications and DDC2B via virtual DDC
- Sender module does not require power if the DVI source provides sufficient power on pin 14 of the DVI connector (most sources do)

### Specifications

- Maximum Pixel Clock: 165 MHz
- Optical Wavelength: 1310 nm / 1550 nm (typical)
- Video Input (Sender): DVI-D, 19-pin, male
- Video Output (Receiver): DVI-D, 19-pin, male
- Fiber Optic Connectors (Sender / Receiver): (1) SC type
- Power Supply (Sender / Receiver): 5V DC
- Power Consumption (Sender / Receiver): 250 mA (max.) / 190 mA (max.)
- Dimensions: 1.96" W x 0.59" H x 2.98" D
- Shipping Weight: 2 lbs.



## Dual-Link DVI Fiber Optic Extender

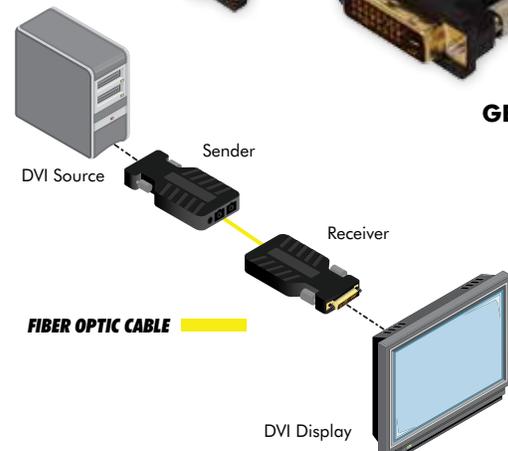
Extend Dual-link DVI using two SC-terminated fiber optic cables

### FEATURES

- Extends any Dual-link DVI source up to 1000 feet (330 meters) over multi-mode 50/125μ fiber cable
- Supports 1080p Full HD at 120Hz and dual-link resolutions up to 3840 x 2400
- Fiber optic transmission eliminates electromagnetic interference (EMI)
- Compact Sender module and Receiver module provide a clean, easy installation.
- Sender module does not require power if the DVI source provides sufficient power on pin 14 of the DVI connector (most sources do)
- HDCP pass-through

### SPECIFICATIONS

- Maximum Pixel Clock: 2 x 165 MHz
- Video Input Connector (Sender): (1) DVI-D 24-pin, male
- Video Output Connector (Receiver): (1) DVI-D 24-pin, male
- Fiber Optic Connectors (Sender / Receiver): (2) Type SC fiber connector
- Fiber Cable: CAB-2SC-150-M (50μ multi-mode)
- Power Supply (Receiver): 5V DC (Sender power supply optional)
- Power Consumption (Receiver): 1.3W (max.)
- Operating Temperature: 0° - 50° C
- Storage Temperature: -20° - 50° C
- Dimensions: 2" W x 3" D x 0.6" H
- Shipping Weight: 1 lb.



\*GEF-DVI-FM2500

## 3GSDI Audio De-Embedder

Audio DeEmbedder for 3GSDI stream removes and routes audio data from any SDI source to any four AES/EBU audio outputs



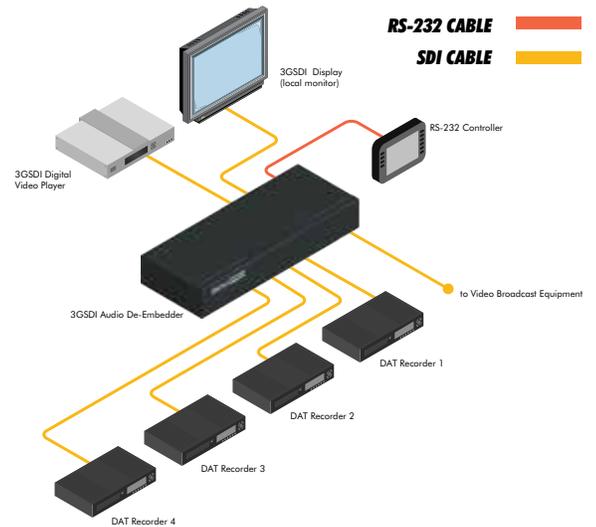
### FEATURES

- Supported Standards:
  - SDSDI(SMPTE 259M)
  - EDSDI(SMPTE 344M)
  - HDSDI(SMPTE 292M)
  - Dual-Link HDSDI(SMPTE 372M)
  - 3GSDI(SMPTE 424M)
- Supported Resolutions:
  - 525i / 720p / 1080i @ 59.94Hz
  - 1080p @ 23.98Hz
  - 625i / 720p / 1080i @ 50Hz
  - 1080p @ 24Hz
  - 1080i / 720p @ 60Hz
- 1080p @ 60Hz
- 2K
- Allows individual digital audio channels to be re-arranged on the output
- Audio delay adjustment for each pair of audio outputs (0 - 150 ms)
- 3GSDI detection
- LED Status Indicators
- Standby Mode
- RS-232 Control for automation
- USB port for upgrading firmware
- Rack mountable (rack ears included)
- Internal power supply with detachable IEC AC cord
- Back panel master power switch

### SPECIFICATIONS

- Supported formats:
  - SDI (SMPTE 259M)
  - EDSDI (SMPTE 344M)
  - Single-Link HDSDI (SMPTE 292M)
  - 3GSDI (SMPTE 424M)
- SDI Input Connector: (1) BNC, female
- SDI Loop Out Connector: (1) BNC, female
- SDI Output Connector: (1) BNC, female
- Digital Audio Output Connectors: (4) BNC, female
- RS-232 Connector: (1) DB-9, female
- Power On Indicator: (1) LED, blue
- 3G-SDI Indicator: (1) LED, blue
- Audio De-embedder Indicator: (1) LED, blue
- SDI/HD-SDI Signal Indicator: (1) LED, bi-color (red/green)
- AC Power Connector: (1) IEC type (Internal)
- Power Supply: 100 - 240V AC (Internal)
- Dimensions (W x H x D): 16.8" x 1.75" x 7" (428mm x 44.5mm x 178mm)
- Shipping Weight: 6 lbs (2.72 kg)

### GEF-SDI-AUDD



## 3GSDI Audio Embedder

3GSDI Audio Embedder allows 3GSDI Audio Embedded Stream onto the SDI signal



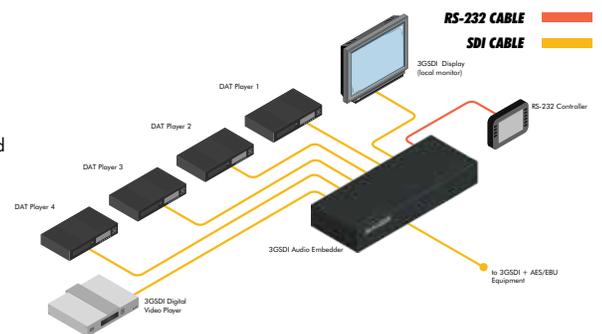
### FEATURES

- Supported Standards:
  - SDSDI(SMPTE 259M)
  - EDSDI(SMPTE 344M)
  - Single-Link HDSDI(SMPTE 292M)
  - 3GSDI(SMPTE 424M)
- Supported Resolutions:
  - 525i / 720p / 1080i @ 59.94Hz
  - 1080p @ 23.98Hz
  - 625i / 720p / 1080i @ 50Hz
  - 1080p @ 24Hz
  - 1080i / 720p @ 60Hz
  - 1080p @ 60Hz
  - 2K
- Allows different audio streams to be re-assigned on the input side
- Audio delay adjustment for each pair of audio outputs (0 - 150 ms)
- 3GSDI detection
- Built-in pattern generator
- LED Status Indicators
- Standby Mode
- RS-232 port for automation
- USB port for upgrading firmware
- Internal power supply with detachable IEC AC cord
- Back panel master power switch
- Rack mountable (rack ears included)

### SPECIFICATIONS

- Supported formats:
  - SDI (SMPTE 259M)
  - EDSDI (SMPTE 344M)
  - Single-Link HDSDI (SMPTE 292M)
  - 3GSDI (SMPTE 424M)
- SDI Input Connector: (1) BNC, female
- SDI Loop Out Connector: (1) BNC, female
- SDI Output Connector: (1) BNC, female
- Digital Audio Input Connectors: (4) BNC, female
- SDI Loop Out Connector: (1) BNC, female
- SDI Output Connector: (1) BNC, female
- Digital Audio Input Connectors: (4) BNC, female
- RS-232 Connector: (1) DB-9, female
- Power On Indicator: (1) LED, blue
- 3G-SDI Indicator: (1) LED, blue
- Audio Embedder Indicator: (1) LED, blue
- SDI/HD-SDI Signal Indicator: (1) LED, bi-color (green/blue)
- AC Power Connector: (1) IEC type
- Power Supply: 100 - 240V AC (Internal)
- Dimensions (W x H x D): 16.8" x 1.75" x 7" (428mm x 44.5mm x 178mm)
- Shipping Weight: 6 lbs (2.72 kg)

### GEF-SDI-AUDE



## 3GSDI to 3GSDI Scaler

A Scaler with additional benefit of Frame Synchronization



### FEATURES

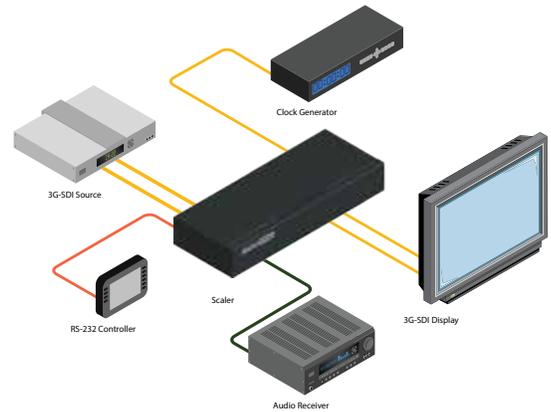
- Supported Standards:
  - SDSDI(SMPTE 259M)
  - EDSDI(SMPTE 344M)
  - HSDSDI(SMPTE 292M)
  - Dual-Link HSDSDI(SMPTE 372M)
  - 3GSDI(SMPTE 424M)
- Supported Resolutions:
  - 525i / 720p / 1080i @ 59.94Hz
  - 1080p @ 23.98Hz
  - 625i / 720p / 1080i @ 50Hz
  - 1080p @ 24Hz
  - 1080i / 720p @ 60Hz
- 1080p @ 60Hz
- 2K
- Digital audio output
- Adjustable cadence detection
- Advanced noise reduction and detail enhancement
- Frame-rate conversion
- Fully integrated sprite-based Menu System
- Built-in pattern generator with Color Bars and Hatch Pattern
- RS-232 Control
- IR Remote Control (included)
- USB port for upgrading firmware
- Internal power supply with detachable IEC AC cord
- Back panel master power switch
- Rack mountable (rack ears included)

### GEF-3GSDI-2-3GSSDIS

- RS-232 CABLE
- S/PDIF CABLE
- SDI CABLE

### SPECIFICATIONS

- Input Video Bandwidth: 2 x 2.97 Gbps
- Output Video Bandwidth: 2 x 2.97 Gbps
- SDI Inputs: (2) BNC female
- SDI Outputs: (2) BNC female
- Genlock Input: (1) BNC female
- Digital Audio S/PDIF Output: (1) RCA female
- USB Port (1): Type B female
- RS-232 Port (1): DB-9 female
- AC Inlet: (1) IEC type
- Power Supply: 100/240V (internal)
- Dimensions (W x H x D): 16.8" x 1.75" x 7" (428mm x 44.5mm x 178mm)
- Shipping Weight: 6 lbs (2.72 kg)



PRO A/V

## HDMI and DVI to 3GSDI Scaler w/ Frame Synchronizer

Scale HDMI and DVI to 3GSDI with additional benefit of frame synchronizer

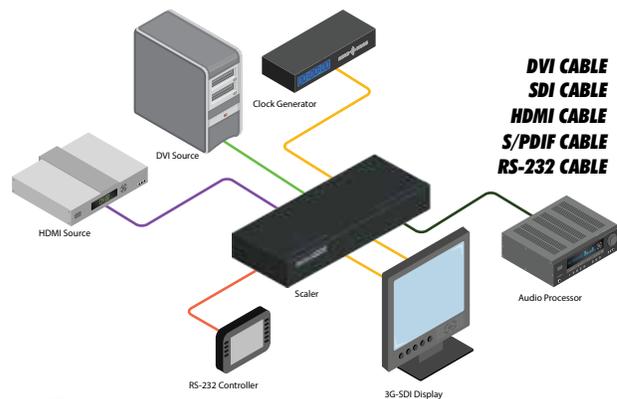
### FEATURES

- Converts HDMI and DVI to all single-link or dual-link SDI formats
- HDMI and DVI inputs switchable via IR, RS-232, and front panel
- Input Resolutions up to 1080p Full HD, 1920 x 1200, and 2K
- 10-bit Deep Color
- LPCM 7.1, Dolby® TrueHD, and DTS-HD® Master Audio™ pass-through
- Frame rate conversion
- Supports black burst (bi-level sync) and tri-level sync Genlock
- Advanced noise reduction and detail enhancement
- Fully integrated sprite based multi-plane OSD menu system
- Pattern generation of color bars and cross-hatch patterns
- Four aspect ratio modes (Full Screen, Panoramic, Letter/Pillar, Extract/Crop)
- Film Mode produces a progressively scanned output image from an interlaced scanned input image
- Serial (RS-232) control for automation
- Field-upgradeable firmware via USB port
- 1U tall and rack-mountable ? rack ears included



### GEF-HDVI-2-3GSDI

- DVI CABLE
- SDI CABLE
- HDMI CABLE
- S/PDIF CABLE
- RS-232 CABLE



### SPECIFICATIONS

- Maximum Pixel Clock: 225 MHz
- Video Input Connectors:
  - (1) HDMI Type A 19-pin, female, locking
  - (1) DVI 29-pin, female, digital only
- Video Output Connectors: (2) BNC, female
- Output Video Bandwidth: 3.0 Gbps (max.)
- Supported standards:
  - SD-SDI (SMPTE 259M)
  - ED-SDI (SMPTE 344M)
  - HD-SDI (SMPTE 292M)
  - Dual-Link HD-SDI (SMPTE 372M)
  - 3G-SDI (SMPTE 424M/425M-AB)
- Sync Reference Input Connector (Genlock): (1) BNC, female
- Audio Connector: (1) S/PDIF Coaxial (RCA female)
- USB Connector: (1) USB 2.0 Type B, female (for firmware update)
- RS-232 Port: (1) DB-9, female
- HDMI/DVI Input Selector: (1) tact-type
- Power indicator: (1) LED, blue
- 3GSDI indicator: (1) LED, green
- HDMI Input indicator: (1) LED, green
- IR Sensor: (1) on front panel
- Power Switch: (1) rocker-type, on back panel
- Power Supply: 100 - 240V AC, 50/60 Hz (Internal)
- Power Consumption: 20W (max.)
- Dimensions (W x H x D - without rack ears): 17" x 1.73" x 7.7" (432 mm x 44mm x 195mm)
- Shipping Weight: 6.5 lbs (3 kg)

PRO A/V

## 3GSDI to HD Scaler

Converts 3G-SDI sources to HDMI and provides up/down scaling plus digital audio outputs



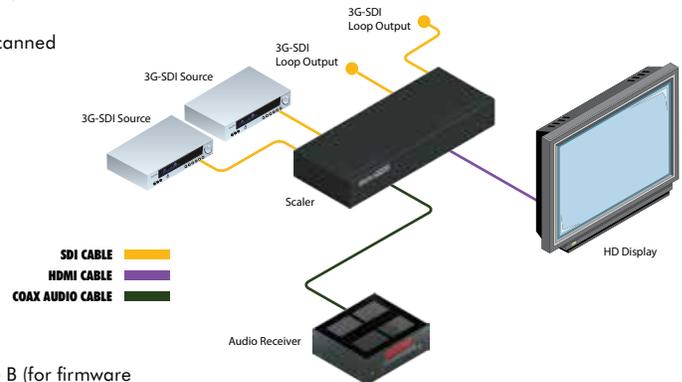
### FEATURES

- Maximum image output resolution supported: 2048 x 1080p (2K)
- Pattern generation of color bars, and cross-hatch patterns
- 10-bit Deep Color support at when using YCbCr 4:4:4 or RGB 4:4:4 output color spaces
- Four aspect ratio modes (Full Screen, Panoramic, Letter/Pillar Box, Extract/Crop)
- Film Mode (produces a progressively scanned output image from an interlaced scanned input image accounting for cadence (e.g. 3:2 / 2:2 pull-down))
- Configuration of clean aperture size and position
- SDI audio channel selection for audio output
- Fully integrated sprite-based Menu System
- Supports 8-Channel PCM audio and Dolby Digital/DTS AC3-encoded audio
- Custom frame rate and/or video timings on output
- Digital audio output (S/PDIF Coax)
- RS-232 port for automation
- Rack-mountable

### SPECIFICATIONS

- Input Video Bandwidth: Up to 2 x 2.97Gbps (Two 3G-SDI BNC connectors)
- Maximum Pixel Clock: 225MHz
- Video Input Connectors: (2) 3G-SDI (BNC female)
- Video Loop Output Connectors: (2) BNC, female
- Video Output Connector: (1) HDMI Type A 19-pin, female
- Audio Output Connector: (1) S/PDIF (Coax RCA female)
- USB Port: (1) USB 2.0 Type B (for firmware updates only)
- RS-232 Port: DB-9, female for automation
- Power Supply: 100 - 240V AC (Internal)
- Power Consumption: 20W (max.)
- Rack size: 1U (rack ears included)
- Dimensions: 17.2" W x 6.7" D x 1.75"H
- Shipping Weight: 6 lbs

### GEF-3GSDI-2-HDS



## HDMI and DVI to 3G-SDI Scaler

Convert from HDMI and DVI to 3GSDI, scale content, and synchronize SDI equipment



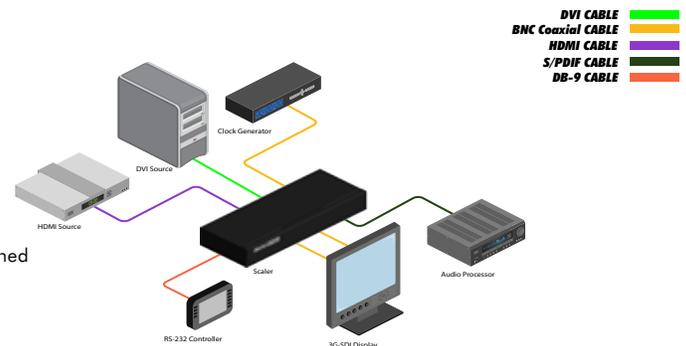
### FEATURES

- Converts HDMI and DVI to all single-link or dual-link SDI formats
- HDMI and DVI inputs switchable via IR, RS-232, and front panel
- Input Resolutions up to 1080p Full HD, 1920 x 1200, and 2K
- 10-bit Deep Color
- LPCM 7.1, Dolby® TrueHD, and DTS-HD® Master Audio™ pass-through
- Frame rate conversion
- Supports black burst (bi-level sync) and tri-level sync Genlock
- Advanced noise reduction and detail enhancement
- Fully integrated sprite based multi-plane OSD menu system
- Pattern generation of color bars and cross-hatch patterns
- Four aspect ratio modes (Full Screen, Panoramic, Letter/Pillar, Extract/Crop)
- Film Mode produces a progressively scanned output image from an interlaced scanned input image
- Serial (RS-232) control for automation
- Field-upgradeable firmware via USB port
- 1U tall and rack-mountable ? rack ears included

### SPECIFICATIONS

- Maximum Pixel Clock: 225 MHz
- Video Input Connectors: (1) HDMI Type A 19-pin, female, locking; (1) DVI 29-pin, female, digital only
- Video Output Connectors: (2) BNC, female
- Output Video Bandwidth: 3.0 Gbps (max.)
- Supported standards: SD-SDI (SMPTE 259M), ED-SDI (SMPTE 344M), HD-SDI (SMPTE 292M), Dual-Link HD-SDI (SMPTE 372M), 3G-SDI (SMPTE 424M/425M-AB)
- Sync Reference Input Connector (Genlock): (1) BNC, female
- Audio Connector: (1) S/PDIF Coaxial (RCA female)
- USB Connector: (1) USB 2.0 Type B, female (for firmware update)
- RS-232 Port: (1) DB-9, female
- HDMI/DVI Input Selector: (1) tact-type
- Power indicator: (1) LED, blue
- 3GSDI indicator: (1) LED, green
- HDMI Input indicator: (1) LED, green
- IR Sensor: (1) on front panel
- Power Switch: (1) rocker-type, on back panel
- Power Supply: 100 - 240V AC, 50/60 Hz (Internal)
- Power Consumption: 20W (max.)
- Dimensions (W x H x D - without rack ears): 17" x 1.73" x 7.7" (432 mm x 44mm x 195mm)
- Shipping Weight: 6.5 lbs (3 kg)

### GEF-HDVI-2-3GSDIS


**GEF-HDVI-2-3GSDIS**

# Digital Signage



## HD Digital Signage Media Player

Powerful, full-featured digital signage playback media player at an economical price

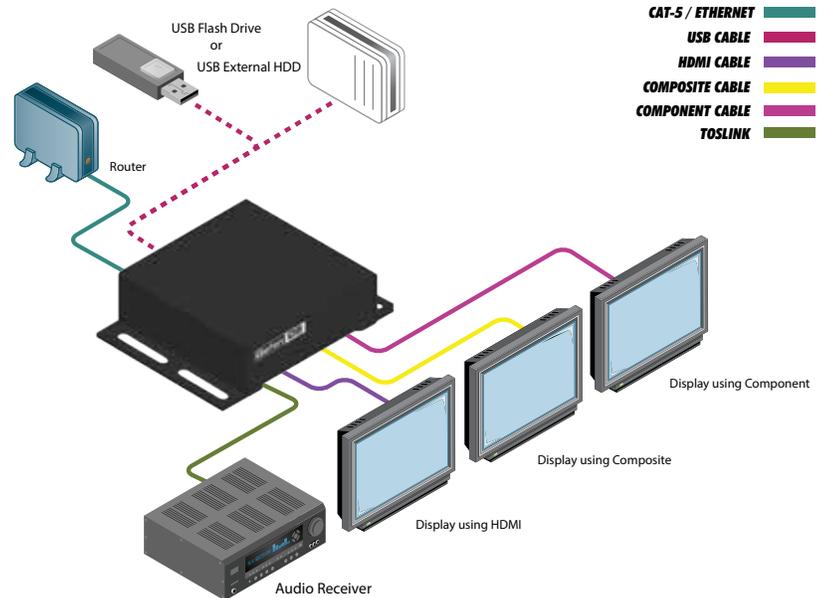
In an era of cost-cutting, more and more companies are taking matters into their own hands, finding new ways to employ effective marketing techniques on a smaller budget. If you haven't discovered one of the best new trends in marketing- digital signage- now is the time. With the abundance of affordable, large LCD displays and the release of our specialty digital signage hardware, the average business can roll out an effective and personalized digital signage display. Perfect for a screen in a location of high visibility, such as on top of a building. You can then easily control and update the content remotely over the Internet.



**EXT-HD-DSMP**

### FEATURES

- Supports resolutions up to 1080p Full HD
- HDMI, Component and Composite A/V outputs active simultaneously
- Create schedules and playlists using a text editor
- CMS for multiple units
- Supports MPEG 1/2/4, DivX 3/4/5/6, XVID and H.264/AVC video codecs
- Supports MP3, MPEG, WMA, PCM, LPCM, ADPCM, FLAC, WAV, AAC, OGG and MKA audio formats
- Wall-mountable enclosure for excellent heat dissipation and durability
- Integrated OSD Menu for device configuration
- Built-in FTP server and client
- Full media scheduling and accounting logs
- NTP client for time synchronization
- USB 2.0 ports used for storage
- Programmable PIN code prevents unauthorized access to OSD
- Compatible file systems: NTFS, FAT16/FAT32, EXT3 and HFS+
- IR remote control unit



- CAT-5 / ETHERNET
- USB CABLE
- HDMI CABLE
- COMPOSITE CABLE
- COMPONENT CABLE
- TOSLINK

### SPECIFICATIONS

- HDMI Connector: (1) Type A 19-pin, female
- Analog Video Output Connector: (1) Component, RCA-type
- Analog Video Output Connector: (1) Composite, RCA-type
- Analog Audio Output Connector: (1) L/R, RCA-type
- Digital Audio Output Connector: TOSLINK
- Ethernet Connector: RJ-45 (10/100Mbps)
- Operating Temp: 0° - 40° C
- Power Supply: 12V DC, 3A
- Power Consumption: 10W (max.)
- Dimensions (W x H x D): 8.4" x 1.6" x 5.1", (213mm x 40mm x 129mm)
- Shipping Weight: 3.5 lbs. (1.4 kg)



# Digital Signage

## Digital Signage Player with Wi Fi

HD Digital Signage with Wi-Fi Integration, Template based Content Management and HTML5 compatibility



### FEATURES

- Supports HD resolutions up to 1080p Full HD
- Supports MPEG-1, MPEG-2, MPEG L2, MP3, H.264/MPEG-4 and VC-1 codec formats
- 4 GB of built-in memory (expandable)
- Dynamic content support for SMIL 3.0 (sub-set)
- CMS device management in LAN or WAN environments is possible using 3rd party solutions which are compliant with the SMIL protocol
- NTP client for time synchronization
- Real-time clock with battery backup
- Automatic error recovery with built-in WDT
- Auto-play starts playing scheduled contents automatically
- Compact and wall-mountable solid metal enclosure for excellent heat dissipation and durability
- Access to dynamic content via HTML5 widgets (RSS feeds, news, Twitter, websites, calendars, weather and live clocks
- 13 base templates and 7 widget templates



EXT-HD-DSWFN



### SPECIFICATIONS

- Maximum Pixel Clock: 225 MHz
- HDMI Output Connector: (1) Type A 19-pin, female
- Composite Video / Audio Connector: (1) 3.5 mm mini-stereo jack
- VGA Output Connector: (1) HD-15, female
- USB Connectors: (2) USB 2.0, type A
- Ethernet Connector: (1) RJ-45
- WLAN antenna
- Wi-Fi: 802.11 b/g/n
- Wi-Fi Security: WPA / WPA2, TKIP / AES
- Compact Flash Slot: 16 GB (max.)
- Operating Temperature: 0 - 40 °C
- Power Supply: 12V DC
- Power Consumption: 10W (max.)
- Dimensions (W x H x D): 6.0" x 3.6" x 1.1", (152mm x 91mm x 28mm)
- Shipping Weight: 3 lbs. (1.4 kg)

### Adapt Switchers and Sensors for Lighting and more to your WiFi player with the optional GPIO PCB (EXT-DSWFN-GPIO)



### FEATURES

- 10 inputs
- 4 outputs
- Works with the Gefen Digital Signage Player with Wi-Fi and Digital Signage Player with Wi-Fi Plus

## Digital Signage Player with Wi Fi Plus

HD Digital Signage with Wi-Fi Integration, Template based Content Management and live video input

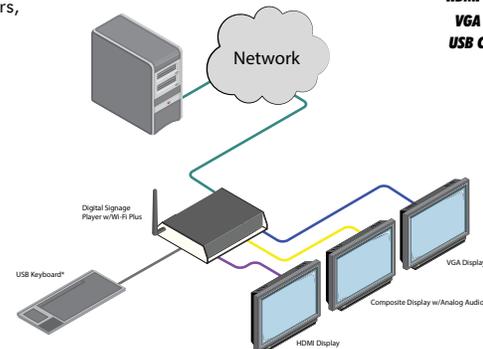
### FEATURES

- Supports HD resolutions up to 1080p Full HD
- Supports MPEG-1, MPEG-2, MPEG L2, MP3, H.264/MPEG-4 and VC-1 codec formats
- 4 GB of built-in memory (expandable)
- Dynamic content support for SMIL 3.0 (sub-set)
- CMS device management in LAN or WAN environments is possible using 3rd party solutions which are compliant with the SMIL protocol
- NTP client for time synchronization
- Real-time clock with battery backup
- Automatic error recovery with built-in WDT
- Auto-play starts playing scheduled contents automatically
- Compact and wall-mountable solid metal enclosure for excellent heat dissipation and durability
- Access to dynamic content via HTML5 widgets (RSS feeds, news, Twitter, websites, calendars, weather and live clocks
- 13 base templates and 7 widget templates



EXT-HD-DSWFNP

- CAT-5 / ETHERNET CABLE
- COMPOSITE CABLE
- HDMI CABLE
- VGA CABLE
- USB CABLE\*



### SPECIFICATIONS

- Maximum Pixel Clock: 225 MHz
- HDMI Output Connector: (1) Type A 19-pin, female
- Composite Video / Audio Connector: (1) 3.5 mm jack
- VGA Output Connector: (1) HD-15, female
- USB Connectors: (2) USB 2.0, Type A
- Ethernet Connector: (1) RJ-45
- WLAN antenna
- Wi-Fi: 802.11 b/g/n
- Wi-Fi Security: WPA / WPA2, TKIP / AES
- Compact Flash Slot: 16 GB (max.)
- Operating Temperature: 0 - 40 °C
- Power Supply: 12V DC
- Power Consumption: 10W (max.)
- Dimensions (W x H x D): 6.0" x 3.6" x 1.1", (152mm x 91mm x 28mm)
- Shipping Weight: 3 lbs. (1.4 kg)

Also works with EXT-DSWFN-GPIO above



## Digital Signage Creator (DSC)

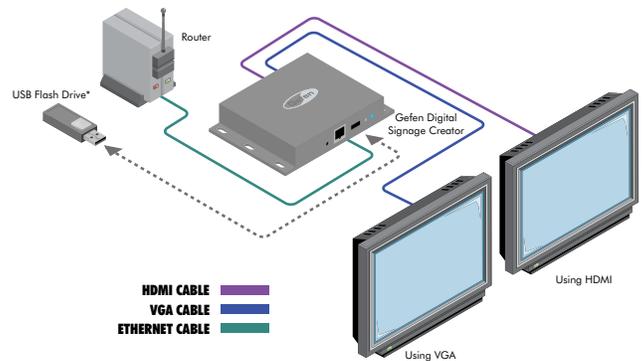
A revolutionary device that not only includes software to merge your personal content such as images, video, text, and database files into powerful digital signage presentations, but also allows you to schedule and play back your creations as you choose, with interactive and multi-screen features

### FEATURES

- Supports HD resolutions up to 720p
- Standard and simplified way to schedule and display digital signage video and audio with low operational costs
- User-friendly content creation software has built-in layout templates to get you up and running quickly
- Individual content playback can have multiple time, day, and month settings
- Small size of the DSC product makes for easy installation
- Supports horizontal and vertical displays, direct iCal sync, local and remote publishing
- 1.5 GB internal flash memory plus USB 2.0 port for expansion via USB flash drive or HDD
- Simultaneously active HDMI and VGA ports, L/R analog audio output
- Natively supports multiple Web-streaming formats including RSS and ASX
- Supported Video Codecs: MPEG-1, MPEG-2, H264, MPEG-4 (Part 2), Microsoft VC1 (Windows® Media 9) and MJPEG
- Supported Audio Codecs: AAC (HE-AAC, AAC LC), MPEG1/2 Layer 3 ("MP3"), PCM, G.726 and G.711
- Supported Media File Containers: AVI, ASF/WMV, VOB, MP4, MOV, MP3, WAV, and MP4/M4A
- Streaming media protocol: MMS, RTSP, RTP, SDP, HTTP; Unicast and Multicast
- Scripting languages: PHP5, JavaScript
- Import filters provided: Flash 9, Microsoft PowerPoint, BMP, TIFF, XPM, WBMP, PNM bitmap
- Still image formats: JPEG, PNG, GIF, SVG
- Serial RS-232 port for two way control of external devices



**EXT-DSC**



### SPECIFICATIONS

- Maximum output resolution: 1280x720 (16:9), 1024x640 (16:10), 1024x768 (4:3)
- Aspect ratio: 16:9, 16:10, 4:3 (landscape or portrait)
- Video output: 720p (HD-Ready), 576p, 480p, VGA; 50 or 60 fps
- Video Output Connectors: (1) HDMI Type A 19-pin, female; (1) VGA (HD-15, female)
- USB Device Connectors: (2) USB 2.0, Type A
- Ethernet Connector: RJ-45, Shielded
- Audio Output Connector: 3.5 mm mini-stereo jack
- RS-232 Interface: DB-9, female
- Power Supply: 5V DC, Locking
- Power Consumption: 2W (typ.)
- Dimensions (W x H x D): 4.1" x 1" x 3.3" (104mm x 25mm x 84mm)
- Shipping Weight: 2 lbs. (1 kg)





**RMT 2-IR Remote Control**

Controls your two-source switcher remotely.

**FOR USE WITH:**

- 2x1 HDMI Switcher
- 2x2 HDMI Switcher
- 2x4 HDMI Switcher/Splitter
- 2x8 HDMI DA
- 2x8 HDTV DA
- 2x1 Digital Audio
- 2x1 HDTV Switcher
- 2x1 DVI SL Switcher
- 2x1 DVI DL Switcher

**RMT-2IR**



**RMT 8-IR Remote Control**

Controls your eight-Source switcher remotely

**FOR USE WITH:**

- 8X1 DVI Switcher

**RMT-8IR**



**RMT 4-IR Remote Control**

Controls your four-source switcher remotely

**FOR USE WITH:**

- 4x1 HDMI Switcher
- 4x2 HDMI Switcher
- 4x1 DVI Switcher
- 4x1 DVI DL Switcher
- 4x2 DVI Switcher
- 1x4 Monitor Switcher
- 4x2 HD-SDI Switcher

**RMT-4IR**



**RMT 16-IR Remote Control**

Controls your 4x4 switcher remotely

**FOR USE WITH:**

- 4X4 HDMI Matrix
- 4X4 DVI Matrix
- 4X4 VGA Matrix

**RMT-16IR**



**RMT 8HDS Remote Control**

Controls your scaler remotely.

**FOR USE WITH:**

- HD-SDI to DVI Scaler Box
- DVI to HD-SDI Scaler Box

**RMT-8HDS-IR**



**RMT SR-IR Remote Control**

Controls your scaler remotely

**FOR USE WITH:**

- HD Mate Scaler
- Home Theater Scaler
- Home Theater Scaler Plus

**RMT-SR-IR**

**RMT IR Extender**

Relocate the IR Eye of Gefen Switchers up to six feet away

**FEATURES:**

- Extends the IR sensor up to 6 feet (1.8 meters)
- Adds relocation flexibility during installation of compatible products
- Small footprint IR sensor module easily blends with its surroundings
- Soft and flexible black cable fits in narrow spaces unobtrusively
- Self-adhesive backing for the IR sensor module facilitates installation

**SPECIFICATIONS:**

- Connector: (1) 3.5mm mini-stereo phone plug
- Cable Length: 6 feet (1.8 meters)
- IR Carrier Pass-Through Frequency: 30 kHz to 60 kHz
- Sensor Dimensions (W x H x D): 0.32" x 0.28" x 0.51" (8mm x 7mm x 13mm)
- Shipping Weight: 0.1 lbs (0.05 kg)
- Color: Black



**EXT-RMT-EXTIRN**

**Dual Infrared Emitter**

Control AV Components at one location

**FEATURES:**

- Two IR emitters wired in series
- Discrete flexible black cable with tiny emitter

**SPECIFICATIONS:**

- Single 3.5mm mini plug interface, mono
- 7 feet wire length, 3 feet to each IR Emitter
- Shipping Weight: 1 lb. (0.45kg)

**EXT-2IREMIT**

Also Available:

**Single Infrared Emitter**

**EXT-1IREMIT**



### DVI Fiber Optic Based DVI Cables

CAB-DVIFO-30MM	DVIFO DVI-D Fiber Optic Cable 33 FT (M-M)
CAB-DVIFO-60MM	DVIFO DVI-D Fiber Optic Cable 66 FT (M-M)
CAB-DVIFO-100MM	DVIFO DVI-D Fiber Optic Cable 100 FT (M-M)
CAB-DVIFO-150MM	DVIFO DVI-D Fiber Optic Cable 166 FT (M-M)
CAB-DVIFO-210MM	DVIFO DVI-D Fiber Optic Cable 210 FT (M-M)
CAB-DVIFO-330MM	DVIFO DVI-D Fiber Optic Cable 330 FT (M-M)



Fiber Optic based cables that exceed the performances of the copper and silver made cables. An integrated DVI-D cable solution which includes the fiber optics components built into the cable and the DVI connectors. DVI Fiber Optic cable requires a clearance of 1-1/2" wide conduit. Available in lengths of 33-330 feet. These cables are for computer use only.

### HDTV Extreme Cables

CAB-HDTV-30MM	HDTV DVI-D Fiber Optic Cable 33 ft (M-M)
CAB-HDTV-50MM	HDTV DVI-D Fiber Optic Cable 50 ft (M-M)
CAB-HDTV-60MM	HDTV DVI-D Fiber Optic Cable 66 ft (M-M)
CAB-HDTV-75MM	HDTV DVI-D Fiber Optic Cable 75 ft (M-M)
CAB-HDTV-100MM	HDTV DVI-D Fiber Optic Cable 100 ft (M-M)
CAB-HDTV-135MM	HDTV DVI-D Fiber Optic Cable 135 ft (M-M)
CAB-HDTV-150MM	HDTV DVI-D Fiber Optic Cable 166 ft (M-M)
CAB-HDTV-210MM	HDTV DVI-D Fiber Optic Cable 210 ft (M-M)
CAB-HDTV-300MM	HDTV DVI-D Fiber Optic Cable 330 ft (M-M)



An integrated DVI-D cable solution which includes fiber optic components and DDC circuitry built into the cable assembly. Requires a minimum 1 1/2" conduit for clearance. These cables are HDCP compliant.

### Extreme Fiber Optic Cables for HDMI

Fiber Optic Based Cables for HDMI

#### FEATURES

- Lip Sync Pass Through
- 225 MHz (up to 12 bit YUV 444 supported @ 1080p)
- Deep Color Supported (XV Color Supported)
- Dolby TrueHD & DTS Master Supported
- CEC Source Switching Enabled



CAB-HDMIX1.3-50MM	FIBER OPTIC CABLE FOR HDMI 50 FT
CAB-HDMIX1.3-60MM	FIBER OPTIC CABLE FOR HDMI 60 FT
CAB-HDMIX1.3-100MM	FIBER OPTIC CABLE FOR HDMI 100 FT
CAB-HDMIX1.3-150MM	FIBER OPTIC CABLE FOR HDMI 150 FT
CAB-HDMIX1.3-300MM	FIBER OPTIC CABLE FOR HDMI 300 FT



### Super Booster Cables for HDMI

Integrated HDMI cable solution that includes the booster component built into the cable.

#### FEATURES

- Lip Sync Pass Through
- 225 MHz (up to 12 bit YUV 444 @ 1080p)
- Deep Color Supported
- Dolby TrueHD & DTS Master Audio
- CEC Source Switching Enabled



EXT-HDMISB-50	SUPER BOOSTER CABLE FOR HDMI 50FT (M-M)
EXT-HDMISB-75	SUPER BOOSTER CABLE FOR HDMI 80 FT (M-M)
EXT-HDMISB-100	SUPER BOOSTER CABLE FOR HDMI 100 FT (M-M)
EXT-HDMISB-125	SUPER BOOSTER CABLE FOR HDMI 125 FT (M-M)
EXT-HDMISB-150	SUPER BOOSTER CABLE FOR HDMI 150 FT (M-M)



## High Speed HDMI Cables with Ethernet and MONO-LOC

Gefen's Mono-LOK series of cables are perfect for highly demanding installations. It provides a secure and fixed way of connecting with the source and display. The Gefen Mono-LOK High-Speed HDMI Cables with Ethernet support all of the latest-generation HDMI features, including an Ethernet connection through the HDMI cable, Audio Return Channel, 3DTV, and up to 4K resolution.

HDTV Resolutions Supported: The 1-15 foot HDMI cables support the following resolutions: 480i, 480p, 720p, 1080i, 1080p, 2K, 4K. Computer Resolutions Supported: The 1-15 foot cables are good for resolutions up to 4096 x 2160.

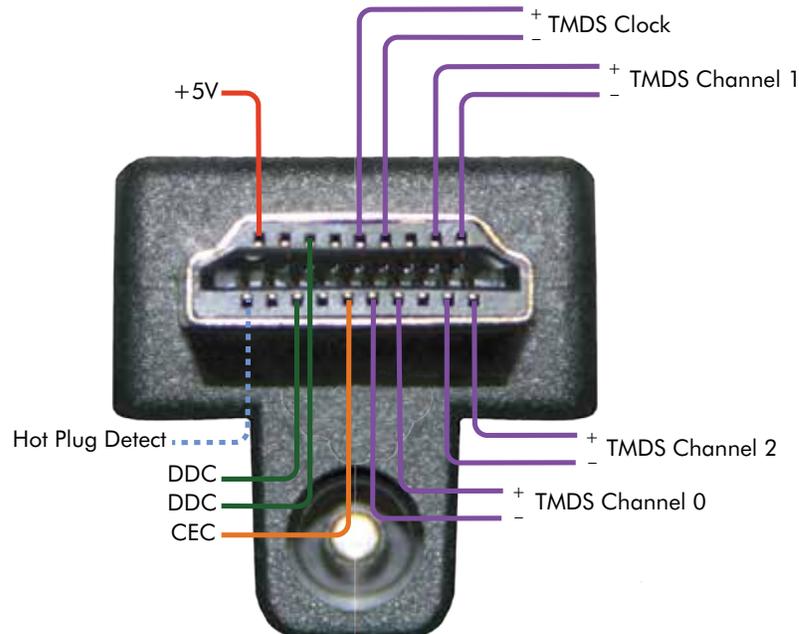
### FEATURES

- Supports HDMI Ethernet Channel (HEC), which consolidates video, audio, and data streams into a single HDMI cable, combining the unmatched signal quality and convenience of HDMI connectivity with the power and flexibility of home entertainment networking. It incorporates a dedicated data channel into the HDMI link, enabling high-speed, bi-directional networking at up to 100 Mb/sec.
- Supports the HDMI Audio Return Channel (ARC), which enables a TV, via a single HDMI cable, to send audio upstream to an A/V receiver or surround audio controller, increasing user flexibility and eliminating the need for any separate S/PDIF audio connection.
- Supports HD resolutions up to 4K (4096 x 2160) in sharp, vivid Deep Color with up to 8 channels of embedded digital audio
- Tested and certified up to HDMI Category 2 (340 MHz)
- High quality 28AWG copper conductors to deliver a pristine signal
- Multi-layer shielding protects signal from electromagnetic interference (EMI)
- Proprietary Mono-LOK technology provides a secure HDMI connection



CAB-HD-LCK-01MM	HIGH SPEED HDMI LOCKING CABLE WITH ETHERNET 1 FT (M-M)
CAB-HD-LCKR-03MM	HIGH SPEED HDMI LOCKING CABLE WITH ETHERNET 3 FT (M-M) - RETAIL
CAB-HD-LCKR-06MM	HIGH SPEED HDMI LOCKING CABLE WITH ETHERNET 6 FT (M-M)
CAB-HD-LCKR-10MM	HIGH SPEED HDMI LOCKING CABLE WITH ETHERNET 10 FT (M-M) - RETAIL
CAB-HD-LCKR-15MM	HIGH SPEED HDMI LOCKING CABLE WITH ETHERNET 15 FT (M-M) - RETAIL

High Speed HDMI Mono-LOK locking cables are to be used in devices that support them. The single locking screw allows a secure connection to the device. Retail-packaged cables are shipped in a sturdy clamshell package.





### Simplay HD High-Speed HDMI Cables

GTV-HDMI-SHD-06MM	SIMPLAY HD HDMI CABLE 6 FT (M-M)
GTV-HDMI-SHD-10MM	SIMPLAY HD HDMI CABLE 10 FT (M-M)
GTV-HDMI-SHD-15MM	SIMPLAY HD HDMI CABLE 15 FT (M-M)

Verified by Simplay for HDMI "High Speed" (Category 2) Performance up to 10.2Gbps (340MHz)



### Dual-link DVI DL Cables



L-01MM	DUAL-LINK DVI CABLE 1 FT (M-M)
CAB-DVIC-DL-06MM	DUAL-LINK DVI CABLE 6 FT (M-M)
CAB-DVIC-DLBN-03MM	DUAL-LINK DVI CABLE 3 FT (M-M)
CAB-DVIC-DLBN-06MM	DUAL-LINK DVI CABLE 6 FT (M-M)
CAB-DVIC-DLBN-10MM	DUAL-LINK DVI CABLE 10 FT (M-M)
CAB-DVIC-DLBN-15MM	DUAL-LINK DVI CABLE 15 FT (M-M)
CAB-DVIC-DLBN-25MM	DUAL-LINK DVI CABLE 25 FT (M-M)
CAB-DVIC-DLBN-30MM	DUAL-LINK DVI CABLE 30 FT (M-M)
CAB-DVIC-DLBN-50MM	DUAL-LINK DVI CABLE 50 FT (M-M)
CAB-DVIC-DLBN-60MM	DUAL-LINK DVI CABLE 60 FT (M-M)

CAB-DVIC-DLX-100MM	DUAL-LINK DVI CABLE 100 FT (M-M)
CAB-DVIC-DLX-130MM	DUAL-LINK DVI CABLE 130 FT (M-M)
CAB-DVIC-DLX-160MM	DUAL-LINK DVI CABLE 160 FT (M-M)
CAB-DVIC-DLX-200MM	DUAL-LINK DVI CABLE 200 FT (M-M)

These cables are HDCP compliant.

Video Resolutions Supported: 480i, 480p, 720p, 1080i, 1080p

Computer Resolutions Supported: These cables support video resolutions of up to 3840x2400.

**NOTE: Dual-link displays require a DVI DL Booster for extensions over 15 feet**



**Single-Link DVI Cables**

- [CAB-DVICI-06MM](#)    [DVI-I CABLE 6 FT \(M-M\)](#)
- [CAB-DVICI-15MM](#)    [DVI-I CABLE 15 FT \(M-M\)](#)
- [CAB-DVIC-40MM](#)    [DVI-D CABLE 40 FT \(M-M\)](#)
- [CAB-DVIC-DBL-50MM](#)    [DVI-D CABLE 50 FT \(M-M\)](#)



**CAT-5E Cables**

- [CAB-CAT5-025](#)    [CAT-5E 25 FT CABLE](#)
- [CAB-CAT5-050](#)    [CAT-5E 50 FT CABLE](#)
- [CAB-CAT5-060](#)    [CAT-5E 60 FT CABLE](#)
- [CAB-CAT5-075](#)    [CAT-5E 75 FT CABLE](#)
- [CAB-CAT5-100](#)    [CAT-5E 100 FT CABLE](#)
- [CAB-CAT5-125](#)    [CAT-5E 125 FT CABLE](#)
- [CAB-CAT5-150](#)    [CAT-5E 150 FT CABLE](#)
- [CAB-CAT5-200](#)    [CAT-5E 200 FT CABLE](#)
- [CAB-CAT5-250](#)    [CAT-5E 250 FT CABLE](#)
- [CAB-CAT5-300](#)    [CAT-5E 300 FT CABLE](#)
- [CAB-CAT5-330](#)    [CAT-5E 330 FT CABLE](#)

**Shielded CAT-5E Cables**

- [CAB-CAT5S-010](#)    [SHIELDED CAT-5E 10 FT CABLE](#)
  - [CAB-CAT5S-025](#)    [SHIELDED CAT-5E 25 FT CABLE](#)
  - [CAB-CAT5S-030](#)    [SHIELDED CAT-5E 30 FT CABLE](#)
  - [CAB-CAT5S-050](#)    [SHIELDED CAT-5E 50 FT CABLE](#)
  - [CAB-CAT5S-075](#)    [SHIELDED CAT-5E 75 FT CABLE](#)
  - [CAB-CAT5S-100](#)    [SHIELDED CAT-5E 100 FT CABLE](#)
  - [CAB-CAT5S-150](#)    [SHIELDED CAT-5E 150 FT CABLE](#)
  - [CAB-CAT5S-200](#)    [SHIELDED CAT-5E 200 FT CABLE](#)
  - [CAB-CAT5S-250](#)    [SHIELDED CAT-5E 250 FT CABLE](#)
  - [CAB-CAT5S-300](#)    [SHIELDED CAT-5E 300 FT CABLE](#)
- Gefen recommends shielded CAT-5e Cables in applications where RF Interference is a concern.



**CAT-6A Cables**

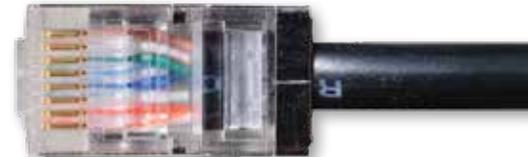
- [CAB-CAT6AS-010](#)    [SHIELDED CAT6A 10 FOOT CABLE](#)
- [CAB-CAT6AS-025](#)    [SHIELDED CAT6A 25 FOOT CABLE](#)
- [CAB-CAT6AS-030](#)    [SHIELDED CAT6A 30 FOOT CABLE](#)
- [CAB-CAT6AS-075](#)    [SHIELDED CAT6A 75 FOOT CABLE](#)
- [CAB-CAT6AS-100](#)    [SHIELDED CAT6A 100 FOOT CABLE](#)
- [CAB-CAT6AS-150](#)    [SHIELDED CAT6A 150 FOOT CABLE](#)
- [CAB-CAT6AS-200](#)    [SHIELDED CAT6A 200 FOOT CABLE](#)
- [CAB-CAT6AS-250](#)    [SHIELDED CAT6A 250 FOOT CABLE](#)

Gefen recommends shielded CAT-6A Cables in applications where RF Interference is a concern

**CAT-6A+ Cables (Unshielded)**

- [CAB-CAT6AB-050](#)    [CAT-6A+ 50 FOOT CABLE](#)
- [CAB-CAT6AB-075](#)    [CAT-6A+ 75 FOOT CABLE](#)
- [CAB-CAT6AB-100](#)    [CAT-6A+ 100 FOOT CABLE](#)
- [CAB-CAT6AB-125](#)    [CAT-6A+ 125 FOOT CABLE](#)
- [CAB-CAT6AB-150](#)    [CAT-6A+ 150 FOOT CABLE](#)
- [CAB-CAT6AB-200](#)    [CAT-6A+ 200 FOOT CABLE](#)
- [CAB-CAT6AB-250](#)    [CAT-6A+ 250 FOOT CABLE](#)
- [CAB-CAT6AB-300](#)    [CAT-6A+ 300 FOOT CABLE](#)

These cables use Belden 10GX12 Premium Cable for over 625 MHz of guaranteed bandwidth



**Length Conversions (Approximate)**

- (10 FT = 3 METERS)
- (25 FT = 7.5 METERS)
- (30 FT = 9 METERS)
- (50 FT = 15 METERS)
- (75 FT = 23 METERS)
- (100 FT = 30 METERS)
- (150 FT = 45 METERS)
- (200 FT = 60 METERS)
- (250 FT = 76 METERS)
- (300 FT = 90 METERS)

**Gefen offers many other Video, Audio, and connection cables. Please check our Web site ([www.gefen.com](http://www.gefen.com)) for additional selections**

**CAT-7 Cables**

- [CAB-CAT7AS-050](#)    [SHIELDED CAT-7A CABLE - 50 FEET](#)
- [CAB-CAT7AS-100](#)    [SHIELDED CAT-7A CABLE - 100 FEET](#)

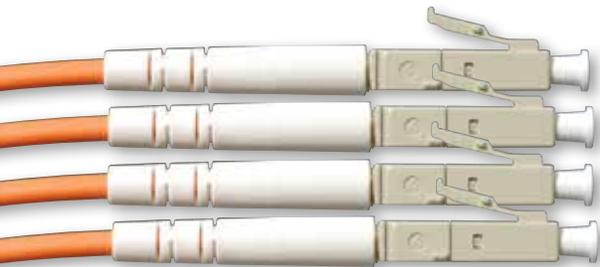




## 4 Strand ST-ST (62.5/125μ Multi-Mode)

CAB-ST-0030	4 STRAND ST FIBER OPTIC LINK - 33FT CABLE
CAB-ST-0060	4 STRAND ST FIBER OPTIC LINK - 66 FT CABLE
CAB-ST-0150	4 STRAND ST FIBER OPTIC LINK - 150 FT CABLE
CAB-ST-0200	4 STRAND ST FIBER OPTIC LINK - 200 FT CABLE
CAB-ST-0300	4 STRAND ST FIBER OPTIC LINK - 300 FT CABLE
CAB-ST-0600	4 STRAND ST FIBER OPTIC LINK - 600 FT CABLE
CAB-ST-1000	4 STRAND ST FIBER OPTIC LINK - 1000 FT CABLE

Use With: GEF-3GSDI-FO-141 (Connects 4)  
EXT-3GSDI-FO-141 (Connects 4)



## 4 Strand LC-LC (62.5/125μ Multi-Mode)

CAB-LC-30	4 STRAND LC-LC FIBER OPTIC LINK - 30 FT CABLE
CAB-LC-60	4 STRAND LC-LC FIBER OPTIC LINK - 60 FT CABLE
CAB-LC-100	4 STRAND LC-LC FIBER OPTIC LINK - 100 FT CABLE
CAB-LC-150	4 STRAND LC-LC FIBER OPTIC LINK - 150 FT CABLE
CAB-LC-200	4 STRAND LC-LC FIBER OPTIC LINK - 200 FT CABLE
CAB-LC-300	4 STRAND LC-LC FIBER OPTIC LINK - 300 FT CABLE
CAB-LC-500	4 STRAND LC-LC FIBER OPTIC LINK - 500 FT CABLE
CAB-LC-600	4 STRAND LC-LC FIBER OPTIC LINK - 600 FT CABLE
CAB-LC-1000	4 STRAND LC-LC FIBER OPTIC LINK - 1000 FT CABLE

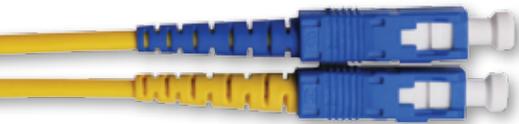
Use With: EXT-HD-1000 EXT-DVI-1600HD EXT-DVI-2500HD  
EXT-DVI-FMP EXT-DVI-1500HD EXT-DVI-3500HD



## 2 Strand LC-LC (62.5/125μ Multi-Mode)

CAB-2LC-30	2 STRAND LC-LC FIBER OPTIC LINK - 30 FT CABLE
CAB-2LC-60	2 STRAND LC-LC FIBER OPTIC LINK - 60 FT CABLE
CAB-2LC-100	2 STRAND LC-LC FIBER OPTIC LINK - 100 FT CABLE
CAB-2LC-150	2 STRAND LC-LC FIBER OPTIC LINK - 150 FT CABLE
CAB-2LC-300	2 STRAND LC-LC FIBER OPTIC LINK - 330 FT CABLE

Use With: EXT-USB-400FON  
EXT-DVI-FM500



## 2 Strand SC-SC (9/125μ Single-Mode)

CAB-2SC-30	2 STRAND SC-SC FIBER OPTIC LINK - 30 FT CABLE
CAB-2SC-60	2 STRAND SC-SC FIBER OPTIC LINK - 60 FT CABLE
CAB-2SC-100	2 STRAND SC-SC FIBER OPTIC LINK - 100 FT CABLE
CAB-2SC-150	2 STRAND SC-SC FIBER OPTIC LINK - 166 FT CABLE
CAB-2SC-300	2 STRAND SC-SC FIBER OPTIC LINK - 330 FT CABLE



## 2 Strand SC-SC (50/125μ Multi-Mode)

CAB-2SC-150-M	2 STRAND 50/125μ MULTI-MODE
CAB-2SC-060-M	2 STRAND SC-SC MULTIMODE FIBER OPTIC LINK
CAB-2SC-100-M	2 STRAND SC-SC MULTIMODE FIBER OPTIC LINK
CAB-2SC-300-M	2 STRAND SC-SC MULTIMODE FIBER OPTIC LINK



## 1 Strand SC-SC (62.5/125μ Multi-Mode)

CAB-1SC-0030	1 STRAND SC-SC FIBER OPTIC LINK - 30 FT CABLE
CAB-1SC-0060	1 STRAND SC-SC FIBER OPTIC LINK - 60 FT CABLE
CAB-1SC-0100	1 STRAND SC-SC FIBER OPTIC LINK - 100 FT CABLE
CAB-1SC-0150	1 STRAND SC-SC FIBER OPTIC LINK - 150 FT CABLE
CAB-1SC-0300	1 STRAND SC-SC FIBER OPTIC LINK - 300 FT CABLE

Use With: EXT-HDMI1.3-1FO  
EXT-DVI-FM1000



**VGA Female to Female**  
Provides simple, economical conversion from a VGA male cable end to a female end (Gender Changer)

**ADA-VGA-FF**



**VGA Male to Male Adapter**  
Provides simple, economical conversion from a VGA female cable end to a male end (Gender Changer)

**ADA-VGA-MM**



**VGA Male to Female Adapter**  
This port saver adapter helps your system withstand the stress of plugging and unplugging cables, and extends the life of equipment connectors.

**ADA-VGA-MF**



DVI to DVI and VGA  
DVI-I Male to DVI-I Female and VGA Female

**ADA-DVI-2-DVIVGA**



# Adapters



DVI-A to VGA Adapter  
HD-15 Female to DVI-A Male

**ADA-DVI-2-VGA**



HDMI to DVI Adapter  
HDMI female to DVI female

HDMI to DVI Adapter  
HDMI Male to DVI Female

**ADA-HDMIM-2-DVIFN**



DVI Mate with Power  
DVI (Female - Female) Adapter

**FEATURES**

- Connects two DVI cables together
- Adds 5V DC Power to Pin #14

**SPECIFICATIONS**

- DVI Connectors: (2) DVI-I 29 pin female
- Power Supply: 5V DC, 1.3 mm
- Dimensions (WxHxD): 1.7" W x 1" H x .7" D
- Shipping Weight: 1 lb

**ADA-DVI-FFWPN**



DVI Mate DVI (female-female) Adapter

**FEATURES**

- Connects two DVI cables together

**SPECIFICATIONS**

- DVI Connector: DVI-I 29 pin female
- Dimensions (WxHxD): 1.7" W x 0.7" D x 1"
- Shipping Weight: 1 lb

**ADA-DVI-FFN**



HDMI Mate  
HDMI female to female adapter

**FEATURES**

- Connects two HDMI cables

**SPECIFICATIONS**

- HDMI Connector: HDMI type A 19-pin female
- Dimensions (WxHxD): 1.6" W x 1" H x 1.3" D
- Shipping Weight: 1 lb

**ADA-HDMI-FF**



DVI to HDMI Adapter  
DVI Male to HDMI Female

**ADA-DVIM-2-HDMIFN**



### 1080p60

1080p60 is the common standard for HDTV displays and equipment, allowing resolutions up to 1920 x 1080 with non-interlaced progressive scan, with a frame rate of 60Hz. It is also called "Full HD". Some cinema formats use 1080p24 or 1080p30, which have the same resolution, but lower frame rates to match film. Alternatively some films are experimenting with 48p which gives a similar fluid motion effect like that of a 120 Hz. and above TV

### 2K

2K is a high-definition video resolution standard that allows roughly twice the resolution of 1080p signals- up to 2048 x 1080.

### 3DTV

"3D" describes a variety of technologies used to create realistic three-dimensional or stereoscopic images on a display. 3D displays can be either "active"- requiring viewers to wear special glasses that are electronically synchronized to the display, "passive"- requiring viewers to wear special glasses that use polarizing technology and do not require electronics, or "glasses-free" (Auto-stereoscopic) displays that do not require glasses. HDMI uses several different methods to encode the 3D images into the video signals- "top-and-bottom", "side-by-side" and "frame-packing". 3D signals generally require higher bandwidth than 2D signals.

### 3G-SDI

Serial Digital Interface is an uncompressed digital standard that is transmitted over a 75 Ohm coax cable, using a type BNC connector. The 3G variation allows for 3 Gbps bandwidth needed for a 1080p signal. Used primarily for Broadcast applications, as it does not support HDCP.

### 4K

4K is a new high-definition video resolution standard allowing about four times the resolution of 1080p signals- up to 4096 x 2160 at 24Hz. Formerly only used for digital projection in theaters, it is becoming a new standard for home theater displays as well.

### 8K (4320p)

A digital video format specified in the Ultra high definition standard and allows for 7680 x 4320 resolution and up to 120 fps.

### AES/EBU

AES/EBU is a digital audio standard created jointly by the Audio Engineering Society and the European Broadcasting Union. It is similar to S/PDIF, but uses XLR connectors rather than RCA connectors and has different signal levels.

### "Analog Sunset"

"Analog Sunset" refers to video licensing agreements that limit analog video outputs of copy-protected content to 480i Component Video. This means that although Component Video can technically support 1080p 60Hz video, only 480i signals are generally available from Blu-ray players and some DVD players and set-top boxes. Devices that convert HDMI to high-resolution Component Video are legally prohibited. These agreements are forcing many customers to upgrade from analog video systems to HDMI digital video in order to watch Hi-Def content.

### ARC

Audio Return Channel (ARC) is a new HDMI feature that allows audio from a TV display device to be transmitted over the HDMI cable back to the AV receiver. This allows the TV's internal tuner and/or Network receivers to feed audio to the home theater system, without requiring an additional cable. It also allows the selection of audio from the TV between the home theater system and the TV's built-in speakers. This does not require a special cable, but it does require support by the AV receiver and any other devices in the signal path. Since it is a reverse-path signal, it requires special treatment in extenders, switchers, and splitters.

### Aspect Ratio

The aspect ratio of an image is the proportion of its width to its height. HDTV images are generally 16:9, while Standard Definition signals are usually 4:3. For example, the actual image on a 50" (measured diagonally) HDTV should measure about 43.5" wide by 24.5" high.

### Bandwidth

Bandwidth is the data rate measured in bits per second (bps). For example: 1000 million bits per second is 1000 Mbps or 1Gbps.

### Blu-ray

Blu-ray is a recent optical disc format that provides much higher video and audio resolution and capacity than DVD. Although similar in appearance, Blu-ray discs can only be played back on Blu-ray players (although most Blue-ray players can play back DVDs and CDs). Blu-ray players offer higher-resolution video and un-compressed multi-channel audio over HDMI, but do not support high-definition analog video output. The latest offerings include players that support features such as 3D and support for 4k resolutions.

### CAT-5

Category 5 cable, commonly known as Cat-5, is an unshielded twisted pair type cable designed for high signal integrity. CAT-5e is an improved version that supports higher data rates than CAT5 cable, but less than CAT-6A cable. CAT-5 Shielded cable includes a foil shield for better protection from radio-frequency interference (RFI), but the shield does not improve performance.

### CAT-6A

Backwards compatible with CAT-5e, Category 6 cable features more stringent specifications for crosstalk and system noise. CAT-6 provides performance up to 250 MHz. CAT-6A (Augmented) cable is rated up to 500 MHz. CAT-6A+ (Belden 10GX) cable provides performance up to 625 MHz. Shielded CAT-6A cables provide additional RFI immunity for locations where RF interference is an issue.

## CAT-7

A higher performance cable than its predecessors, CAT-5, CAT-6, and CAT-6a, this cable can be utilized on high bandwidth networks such as 10GBASE-T (10 Gigabit Ethernet). This performance gain is due in part to each twisted pair wire to be individually shielded. This is known as Screen Shielded Twisted Pair or Screened Foiled Twisted Pair.

## CEC

Consumer Electronics Control (CEC) is a serial protocol embedded into HDMI signals to allow devices to communicate over the HDMI cable. Although CEC specifies some standards for commands, it allows for variations in implementation by manufacturers, so devices from one manufacturer may or may not communicate properly with devices from another. Most major consumer electronics manufacturers have branded their own interpretations of CEC, adding to the confusion. Many Gefen HDMI devices pass CEC signals, but do not interpret them. Devices such as splitters and matrix switchers usually do not pass CEC signals, as that would cause erratic responses, since CEC is defined as a one-to-one protocol.

## Component Video

Component video is an analog video format that uses three coaxial cables to carry a complete video signal- Y, Pb, and Pr. It generally uses three RCA connectors colored green (Y), blue (Pb), and red (Pr). Audio is carried separately, using either a pair of analog cables colored red (Right) and white (Left), or a single S/PDIF digital cable. Although it is capable of carrying 1080p signals, HDCP rules forbid most newer devices, such as Blu-ray players, from offering resolutions over 480i over component video, as the signals can be easily copied, recorder, or distributed (see "Analog Sunset").

## Composite Video

Composite video is an analog video format that contains the entire video signal on a single coaxial cable. It is commonly used for low-definition video formats up to 480i. Higher-resolution video requires S-Video, Component video, VGA, DVI, or HDMI. It uses a single RCA connector, usually colored yellow. Audio is generally carried over a pair of RCA connectors, usually colored red and white.

## DDC

Short form for Display Data Channel: It is a VESA standard for communication between a monitor and a video adapter. The DDC channel also contains the EDID data. Since the communication is in a reverse direction from the actual data signal, many fiber devices cannot support it, unless they contain bi-directional optical transceivers.

## DDWG

Digital Display Working Group (DDWG) are the creators of the DVI specification.

## Deep Color

Deep Color is an HDMI feature that increases the precision of brightness and color information sent to the display. It may use 10, 12, or 16-bit precision values per color (Red, Green, and Blue)- up from 8-bits per color used in older systems. It allows over a billion colors to be specified in an image. Along with x.v.Color, both the range and precision of colors encoded into a video signal can match the abilities of the human eye (see x.v.Color).

## DisplayPort

DisplayPort is a royalty-free digital display connection standardized by the Video Electronics Standards Association (VESA). It is designed to connect a computer to its display monitor, or to a home-theater system. It uses either a DisplayPort connector or a Mini DisplayPort connector.

## Distribution Amplifier

A device that takes one input and amplifies and transmits the video signal to multiple outputs (also called a Splitter).

## Dolby® Digital

This is a digital surround sound technology used in movie theaters and upscale home theater systems that enhances audio. It allows compression of up to 7.1 channels of audio into a 2-channel signal. Dolby® AC-3 is a method for a compression method for encoding up to 5.1 channels of audio into a digital audio signal using a minimum of bandwidth. Dolby® Digital Plus is an enhanced AC-3 format for encoding up to 7.1 channels of audio at a higher quality into a video stream. Dolby® TrueHD is a 100% lossless ("uncompressed") audio stream, supporting multiple channels over HDMI. The choices of encoding methods are made when the content is mastered at the studio, so home theater systems need to be able to support those choices, or audio will default to a lower-resolution audio format that the system can support.

## DTS

Digital Theater Systems sound: Discrete 5.1 channel surround system that is similar but not the same as Dolby Digital. Dolby Digital is the DTV standard, but DTS competes with it on DVD and in movie theaters. DTS-HD® Master Audio™ is a "lossless" multi-channel audio encoding method similar to Dolby® TrueHD. It is used on many Blu-ray discs, since it can default to standard DTS on systems that cannot support DTS-HD® Master Audio™.

## Dual-link DVI

A version of the DVI (Digital Visual Interface) standard that uses additional cable pairs to increase bandwidth and support higher resolutions. Dual-link offers twice the bandwidth of Single-link DVI- up to 3840 x 2400. Dual-link DVI cables are required.

## DVI

Digital Visual Interface: A digital video standard established by the Digital Display Working Group which was designed to carry uncompressed digital video signals to a display. DVI-D is digital only, for both Single-link and Dual-link configurations. DVI-I contains both analog and digital, for Single and Dual-link configurations. DVI-A is analog only, and is similar to VGA. Single-link supports 1920 x 1200. HDMI uses a similar format to DVI-D for video, but adds audio and many other features.

**EDID**

Extended Display Identification Data: A VESA (Video Electronics Standards Association) standard data structure provided by the monitor or display to the source. Some of the EDID data format includes display monitor ID, model, date of manufacture, serial number, max display size, max resolution, and more. EDID also includes audio data, and can be used to control the format of audio signals transmitted by the source device. EDIDs are generally sent from a display each time it is connected to a source, but many Gefen devices allow the EDIDs to be stored, so there is no delay when sources are disconnected or switched.

**ELR**

ELR is Gefen's trademark for "Extra Long Range" extension devices, which use HDBaseT technology.

**EMI**

Electromagnetic Interference (EMI) is disturbances in electrical signals induced through magnetic induction from other nearby electrical signals. EMI can generally be reduced by separating cables containing other signals, or by twisting balanced cable pairs, so the induced signals are cancelled out. Shielding is generally not effective against EMI, unless specialized metallic shields are used (See RFI).

**FireWire**

Serial Bus Interface standard commonly used for computers and digital video. Commonly available as FireWire 400 (400 Mbit/s) and FireWire 800 (3200 Mbit/s). Formerly a standardized connection on Apple computers, also known as i.LINK and IEEE 1394.

**FST**

FST is a Gefen software implementation for HDMI products, including all matrixes, switchers, splitters, distribution amplifiers, etc. It was created and implemented to improve an inherited lengthy HDMI authentication process based on HDMI and HDCP specifications. Simply put, FST provides a quicker switch when selecting different audio/video sources. In addition to fast switching, it improves overall audio/video system behavior and performance when more than one HDTV display is used in the system. FST allows users to connect/disconnect and turn on/off HDTV displays without affecting other hi-def sources routed to other HDTV displays in the same system.

**Full HD**

Refers to HDTV resolution of 1080p at 60 Hz (see 1080p60).

**HDBaseT**

HDBaseT is a new standard released in 2010 for transmitting HDMI video, audio, Ethernet, control signals, and power over a single CAT-5/CAT-6A cable. It supports Full HD uncompressed video, 100BaseT Ethernet, and control signals including IR, CEC, and RS-232. Up to 100W of power can be extended over HDBaseT, to power remote devices. Gefen's ELR and PoL devices use HDBaseT technology, as well as the Modular Matrix units.

**HDCP**

High-Bandwidth Digital Content Protection: Created by Intel, HDCP is used with HDTV signals over DVI and HDMI connections. HDCP is embedded into most commercial digital video content, so all transport and display devices must support it in order to display the video. Analog video cannot support HDCP, so most HDCP-encrypted video signals can only be displayed at lower resolutions on analog displays (see Analog Sunset). HDCP "Key System Vectors" (KSV) or "keys" control the number of display devices that can display a single HDCP-encrypted video stream.

**HDMI**

HDMI specification version released on June 2006 that features increased Single-link bandwidth to 340MHz (10.2Gbps), Deep Color billion color support, Dolby TrueHD and DTS-HD<sup>®</sup> Master Audio<sup>™</sup> lossless audio formats, improved lip sync correction, and broader xVCC color space support (enables 1.8 times as many colors as existing HDTV signals). The HDMI 1.4 Specification was released in June 2009, and added major enhancements to the HDMI features, including HDMI Ethernet Channel (HEC), Audio Return Channel (ARC), and additional support for 3D and 4K display technologies. It is fully-compatible with all previous HDMI releases. HDMI Licensing, LLC forbids manufacturers from designating Release Numbers in product descriptions, and requires that specific features supported be listed instead; therefore Gefen products list the features, rather than the release version.

**HD-SDI**

High Definition Serial Digital Interface: This standard transmits audio and video over a single coaxial cable with a data rate of 1.485 Gbit/s.

**HDTV**

High-Definition Television. It is the high-resolution subset of the Digital Television (DTV) system. It offers a 16:9 image with twice the horizontal and vertical resolution of our previous system, accompanied by 5.1 channels of digital audio.

**HEC**

HDMI Ethernet Channel (HEC) is a new feature that allows a 100BaseT Ethernet connection over an HDMI cable. This eliminates the need for a separate Ethernet connection to each networked device in a home theater system (HD Display, Blu-ray player, AV receiver, media player, set-top box, etc.) from a router or switch, and simplifies wiring and system installation. HEC support requires a new cable design, which is designated as a "High Speed HDMI Cable with Ethernet".

**IEEE 1394a**

Cabling technology for transferring data to and from digital devices at high speed. Also known as FireWire.

## IP

Internet Protocol (IP) is a format used to transport digital data over Ethernet. It can support a wide variety of content, including data, video signals, audio signals, telephone signals (VoIP), and control signals.

## IR

Infrared (IR) signaling is a common method of remotely controlling consumer electronic devices. IR remote controls contain one or more infrared LEDs that flash in a specific pattern, depending on the button pressed. The light beam can be detected up to 100 feet away, and decoded to operate the selected function. IR requires a direct line-of-sight between the remote control LED and the controlled device's IR receiver. However, separate IR receivers can be located in a more convenient location to pick up the signal, and transmit it to another IR LED ("emitter", "blaster", or "flasher") that is located near the controlled device's IR receiver (or "eye"). Some devices can also store a sequence of commands for several different devices (called "macros"), and play them back from a single button press. IR is usually one-way communication from the remote control to the controlled device, so any feedback or confirmation usually relies on the user's ability to directly see or hear the result. This is acceptable for simple control, but creates difficulties in controlling complex systems. For this reason, more complex systems generally use either RS-232 or IP control, allowing them to confirm proper operation.

## KVM

Short for "keyboard, video, and mouse." Most current KVM devices use USB technology for keyboard and mouse connections, and can support audio and external memory devices as well.

## LC

A standard type of optical fiber connector termination. The small form factor LC connector was originally developed by Lucent ("Lucent Connector") for telecommunications networks.

## Lip Sync

Lip Sync is an HDMI feature that automatically synchronizes audio and video signals between the display and speaker outputs.

## LPCM

Linear Pulse-Code Modulation (LPCM) is a method of encoding up to 8 channels (7.1) of uncompressed audio into a digital video signal.

## Matrix Switcher

A matrix switcher is a device that allows selection from multiple video and audio sources to multiple outputs (display devices). "True" matrix switchers allow a source to feed multiple displays simultaneously, or for each display to show a different source, although there are devices on the market with significant restrictions on source and/or display selection.

## Mono-Lok

Mono-Lok is a proprietary Gefen innovation that provides a secure way to attach HDMI cables to devices that support it, preventing cables from becoming loose or falling out. Most Gefen HDMI devices are compatible with Mono-Lok cables, and many other devices are compatible or may be adapted to fit, using hardware provided with each Mono-Lok HDMI cable.

## Multi-mode Fiber

Multi-mode fiber is designed for high-bandwidth connections over long distances. It is commonly available in both 62.5/125µ and 50/125µ types, with the 50µ fiber supporting longer cable runs. Multi-mode transmitters generally use an LED or VCSEL laser as the optical source. It can use a variety of connectors, including SC, ST, LC, and MTRJ types. Fiber offers immunity from Electromagnetic Interference (EMI) and Radio-Frequency Interference (RFI), but does not support power connections. Most fiber devices have an optical transmitter (LED or laser) at one end and a photo-detector at the other, so they only support communications in one direction, although some contain bi-directional optical transceivers. Single-mode fiber supports even longer cables, but is generally more expensive, as it requires a more precise optical source (see Single-Mode Fiber).

## NTSC

NTSC is the acronym that stands for "National Television System Committee" and the name of the current analog transmission standard used in the US.

## PAL

Phase Alternating Line (PAL) is the analog television display standard that is used in Europe and certain other parts of the world.

## Pixel

A single illuminated point on a display. A 1080p display is 1920 pixels wide and 1080 pixels high, so it has 1920 x 1080 = 2,073,600 total pixels (2 Megapixels). The size of each pixel depends on the display size (for a 50" display, each pixel is approximately 0.023" square).

## POL

Power over Line (PoL) is a Gefen proprietary technology that provides 10W of 5 Volt DC power to the Receiver Unit over the single CAT-5 signal cable, and allows the Receiver Unit to power additional Gefen devices. It is based on the HDBaseT Power over Ethernet (PoE) Standards, but is specifically tailored to Gefen's Hi-Def video products.

## Repeater

A device to boost original signals transmitted over long copper cable. For digital signals, this usually means cleaning up timing and delay issues (re-clocking) that have degraded, in addition to amplification.

**Resolution**

The number of picture elements (“pixels”) the display can support. A higher resolution results in a much sharper and clearer video image.

**RFI**

Radio-Frequency Interference (RFI) is disturbance caused by high-frequency coupling of external electrical signals. RFI can usually be minimized by electrical shielding of devices, connectors, and cables (See EMI).

**RS-232**

EIA “Recommended Standard” 232 is the standard for communications through PC serial ports, and is often used to control and automate devices. RS-232 usually uses a DB-9 connector, although only 3 wires are required.

**SC**

A fiber connector (“Square Connector”) with a snap coupling that is used for most fiber formats. It is available in single or duplex forms.

**Scaler**

A device that takes an input signal at one resolution and scales it to another resolution. Scalers are generally used to “up-scale”, or convert a low-resolution signal to a higher resolution, but they can also be used to “down-scale” a high-resolution signal so it can be displayed on a lower-resolution display, while still allowing the higher-definition signal to be distributed to other displays that can support it.

**SDTV**

Standard Definition Television: SDTV sets receive a broadcast signal resolution of 480 interlaced lines (480i), as opposed to HDTV (720p, 1080i, and 1080p). SDTV signals are generally in a 4:3 aspect ratio, while HDTV signals are 16:9 aspect ratio. Enhanced-definition television (EDTV) is a format superior to SD video but does not have the detail and quality of HD video. Typically this standard refers to devices that support 480p and is connected by SCART, component and S-Video connections.

**Simplay HD**

Simplay Labs LLC is an independent testing center that tests HDMI performance and interoperability using the Simplay HD test specifications. The Simplay HD testing specification includes real-world usability plug testing of multiple device types.

**Single-mode Fiber**

Single-mode fiber is designed for high-bandwidth connections over long distances. It is commonly available in both 8/125 $\mu$  and 9/125 $\mu$  types. Single-mode fiber supports longer cables than multi-mode fiber, but is generally more expensive, as it requires a more precise laser optical source. It can use LC, SC, ST, MTRJ, and other connectors. Some devices designed for single-mode fiber can also support multi-mode fiber, but over shorter distances (See Multi-Mode Fiber).

**Set-Top Box**

A “Set-top box” is a generic term for a video receiver, such as a cable, broadband, or satellite receiver, that was originally intended to sit on top of and connect to a TV set (although today’s flat-screen TV’s make this a misnomer). Set-top boxes convert proprietary digital video signals into conventional video (often high-definition) and audio. Since the set-top box tuner replaces the TV set’s built-in tuner, it often requires a separate remote control.

**Sink**

An industry term used to describe devices which receive electrical signals and output these signals as video, audio, or both. For example: computer monitors, HDTV, audio receivers.

**Source**

An industry term used to describe devices where the electrical signals are being transmitted from; for example, Blu-ray players, video game consoles, MP3 players.

**SMIL**

Synchronized Multimedia Integration Language (SMIL) is a language similar to HTML for describing and developing multimedia presentations. It is often used for digital signage applications. SMIL presentations can be played back on most Gefen Digital Signage players or on a PC using QuickTime or Windows Media Player.

**SMPTE**

Society of Motion Picture and Television Engineers. Based in the United States, the association has over 400 standards, Recommended Practices and Engineering Guidelines for television, motion pictures, digital cinema, audio and medical imaging.

**S/PDIF**

SPDIF is a digital interface designed to enable digital equipment to transfer digital information with minimal loss. Acronym for Sony/Philips Digital Interconnect Format. Usually describes a Coaxial connection that uses an RCA (phono) connector.

**Splitter**

A device that takes one input and splits it to multiple outputs. Also called a “Distribution Amplifier” or “hub.”

## ST

A type of fiber connector (“Straight Tip”) that uses a round bayonet-type coupling generally used for multi-mode fiber connections. The SC and LC connectors are now more prevalent.

## S-Video

S-video (originally called “Super Video” or “S-VHS Video”) is an analog video format that separates a video signal into “luminance” and “chrominance” signals, and transports them over two coaxial cables terminated on a 4-pin mini-DIN connector. It is limited to 480i resolution, does not carry audio, and has generally been replaced by component video, or by digital video such as DVI and HDMI.

## Switcher

A device that selects between multiple input sources to one output display. To support multiple displays, a Matrix Switcher is used.

## TMDS

TMDS (“Transition-Minimized Differential Signaling”) is a method for transmitting high-speed data over twisted-pair cabling that minimizes interference and allows longer cable runs. TMDS is used to encode the digital video portion of an HDMI signal. Other pairs are used for DDC and control signaling (see DDC).

## TOSLINK

Toshiba Optical Link is commonly used to refer to optical digital audio ports and cables (TOSLINK technically also uses S/PDIF format, but S/PDIF usually refers to the Coaxial connections).

## Ultra High Definition (UltraHD)

Television standard defined by ITU and the Consumer Electronics Association. The next step beyond High Definition, requiring a minimum resolution of 3,840 x 2,160, and an aspect ratio of at least 16 x 9.

## USB

Universal Serial Bus is an industry standard for high-speed serial connections between computers and other electronic devices. USB 1.1 supports up to 12 Megabits per second (12 Mbps). USB 2.0 offers speeds up to 480 Mbps, using the same physical connector. USB 3.0, released in 2010, supports up to 5 Gbps. USB Type A connectors are used for device connections, and USB Type B connectors are used for Host (computer) connections. A Mini-B type is also used- often for power or firmware updates. Most USB sources can provide 5V DC at up to 500ma to power external devices, although some (such as Apple iPad chargers) can provide up to 2A.

## UWB (Ultra Wide Band)

A wireless transmission technology engineered for high bandwidth and short distances. The information (data) is modulated / demodulated via pulses in the signal.

## VESA

The Video Electronics Standards Association (VESA) is a consortium of manufacturers formed to establish and maintain industry wide standards for video displays and cards .

## VGA

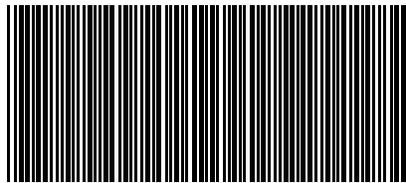
Video Graphics Array (VGA) is a standard for computer graphics displays, originally implying a resolution of 640x480 pixels, commonly used to describe VESA standard resolutions. Current variations of VGA (SVGA, WXGA, WUXGA, etc.) can resolve up to 1920 x 1200. The term VGA is commonly used to refer to any analog computer display standard. VGA uses a 15-pin HD-15 connector, with 5 coaxial cables for red, green, blue, horizontal sync, and vertical sync signals. DVI-A and DVI-I connections can also be used to support VGA signals.

## x.v.Color

x.v.Color is an HDMI feature that extends the range of colors that a Hi-Def TV can display. It is also known as “xvYCC” or “Extended-gamut color.” X.v.Color allows newer displays to show colors that could not be specified in older systems (see Deep Color).







C A T A 2 0 1 4 - P R O

PROFESSIONAL SOLUTIONS 2014  
REV A