



# Remotely control your computer

## Optional Accessories



CAT-5 Cables

## CAT5-1500

### Computer Extension : the CAT5-1000/CAT5-1500 Operate Your Computer Equipment Far Away From The Computer

#### Long Distance CAT5 Cabling Connects Remote Keyboard/Video/Mouse to the Computer

This, our flagship KVM extender, comes in two high-performance versions that each extend a computer's analog video, audio and control signals any distance up to 330-feet (100-meters) from the computer. What differentiates the two is the video extension technique used and the amount of cabling needed for extension.

#### CAT5-1000 - Simple and Effective

The CAT5-1000 requires just one CAT5 cable to transmit video, audio and control signals to the remote workstation. It essentially bundles the signals together before, during and after transmission so that cabling is reduced while reliable signal transmission is achieved. This is the ideal solution for anyone who desires an effective method to extend their workstation anywhere within 330-feet from the computer.

#### CAT5-1500 - Additional Video Refinement

The CAT5-1500 works just like the CAT5-1000, but it uses two CAT5 cables to transmit its signals to the remote workstation because the video is sent separately from the control and audio signals. The key benefit here is that the video can be tweaked or refined on the receiving end. Another benefit is that the video can actually be extended a few hundred feet further (up to 600-feet) if needed. The CAT5-1500 is perfect for anyone who needs to extend the computer workstation and has more demanding video requirements.

#### Compatibility

The CAT5-1000 and the CAT5-1500 work with all CRT and LCD computer monitors as well as USB-equipped keyboards and mice (Mac or PC).

#### How it Works

How it works Both the CAT5-1000 and the CAT5-1500 utilize a sender and receiver methodology to connect the extended workstation to the computer. Simply connect the sender unit to your computer using the cables provided. Then connect the receiver unit to the computer's keyboard, monitor and mouse at the remote location. CAT5 cable(s), sold separately, then connect the sender unit to the receiver unit. Both the sender and the receiver units must be connected to a power supply. When fully powered and operational, the units efficiently extend video, audio and control signals.

#### Features:

- Extends any VGA display up to 330 feet
- Maintains 1920 x 1200 resolution video
- Extends USB 1.1 compliant devices up to 330 feet
- Additional focus trimpot for higher resolutions
- Eliminates computer noise where you work
- Uses two CAT-5e cables
- Rackmountable

#### Specifications:

- Video Amplifier Bandwidth: 350 MHz
- Input Video Signal: 1.2 volts p-p
- Input Sync Signal: 5 volts p-p (TTL)
- Horizontal Frequency Range: 15 - 70 KHz
- Vertical Frequency Range: 30 - 170 Hz
- Video In: HD-15 male
- Video out: HD-15 female
- Audio Connector: mini-phone Stereo 3.5mm
- Focus/Brightness Control: 25 to 330 ft
- Link Connector: RJ-45 Shielded
- USB Input/Output Connectors: type B / type A
- Power Supply: 5V DC
- Power Consumption per unit: 20 watts
- Dimensions: 8.5" W x 1.75" H x 4.6" D
- Shipping Weight: 8 lbs.

#### Package Includes:

- Sender Unit
- Receiver Unit
- One 6ft VGA cable (PC/Black)
- One 6ft USB cable
- One 6ft Audio cable
- Two 5VDC Transformer



EXT-CAT5-1500



**CAT5•1500**  
USER MANUAL

[www.gefen.com](http://www.gefen.com)

## ASKING FOR ASSISTANCE

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### Technical Support:

Telephone (818) 772-9100  
(800) 545-6900

Fax (818) 772-9120

### Technical Support Hours:

8:00 AM to 5:00 PM Monday thru Friday.

### Write To:

Gefen Inc.  
C/O Customer Service  
20600 Nordhoff St.  
Chatsworth, CA 91311

[www.gefen.com](http://www.gefen.com)  
[support@gefen.com](mailto:support@gefen.com)

### Notice

Gefen Inc. reserves the right to make changes in the hardware, packaging and any accompanying documentation without prior written notice.

**CAT5•1500** is a trademark of Gefen Inc.

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# INTRODUCTION

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Thank you for purchasing the new ex•tend•it CAT5•1500 series.

The ex•tend•it CAT5•1500 allows users the benefits of extending VGA, USB, and audio signals beyond the desktop. In a growing number of applications, broadcast stations and production facilities there is a need to control a computer remotely. The keyboard, mouse, and video monitor are relocated to the remote side. A CPU may need to be shared between several users or moved to another room because of annoying fan noise.

The CAT5•1500 can be used to extend computers with printers, hard drives, scanners, cameras, keyboards, mouse, and any other USB-type devices. The CAT5•1500 has the potential to extend the distance of 330 feet over industry standard Category 5 (CAT-5) cable. One can connect multiple CAT5•1500 units to the same computer, allowing access to the same computer from different locations up to 330 feet apart.

## BOX CONTENTS

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The CAT5•1500 system consists of:

- (1) CAT5•1500S sender unit
- (1) CAT5•1500R receiver unit
- (2) 5 VDC power supply
- (1) Video cable (6 FT)
- (1) USB cable (6 FT)
- (1) Audio cable (6 FT)
- (1) User Manual

## HOW IT WORKS

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In its most basic application, the CAT5•1500S sender unit resides next to the computer. With the supplied VGA, USB, and audio cables, they connect the computer to the CAT5•1500S sender unit.

The CAT5•1500R receiver unit and USB peripherals are placed next to the monitor. The monitor and USB devices are connected to the CAT5•1500R in the same way they are connected to the back of the computer (PC or Macintosh).

Industry standard Category 5 (CAT-5) cables are used to link CAT5•1500S sender and CAT5•1500R receiver units together. The VGA signals are extended by one CAT-5 cable. While USB and audio signals are extended with a second CAT5-cable.

## OPERATION NOTES

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### **READ THESE NOTES BEFORE INSTALLING OR OPERATING THE CAT5•1500 SYSTEM**

- \* Industry standard Category-5 (CAT-5) cables are used to link the CAT5•1500 sender and receiver boxes together.
- \* When two monitors are used in the local and remote locations, the video monitors must be a multi-resolution type. This pertains to monitors placed remotely, and those divided between local and remote locations. The video monitors will not initialize correctly at start-up if they are different types.
- \* The CAT5•1500 units are housed in a metal box for better RF shielding.

## CAT5•1500S FRONT PANEL LAYOUT

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### Front Panel Function Descriptions

- 1 **POWER ON INDICATOR** - Indicates that the unit is plugged in and powered on

## CAT5•1500R FRONT PANEL LAYOUT

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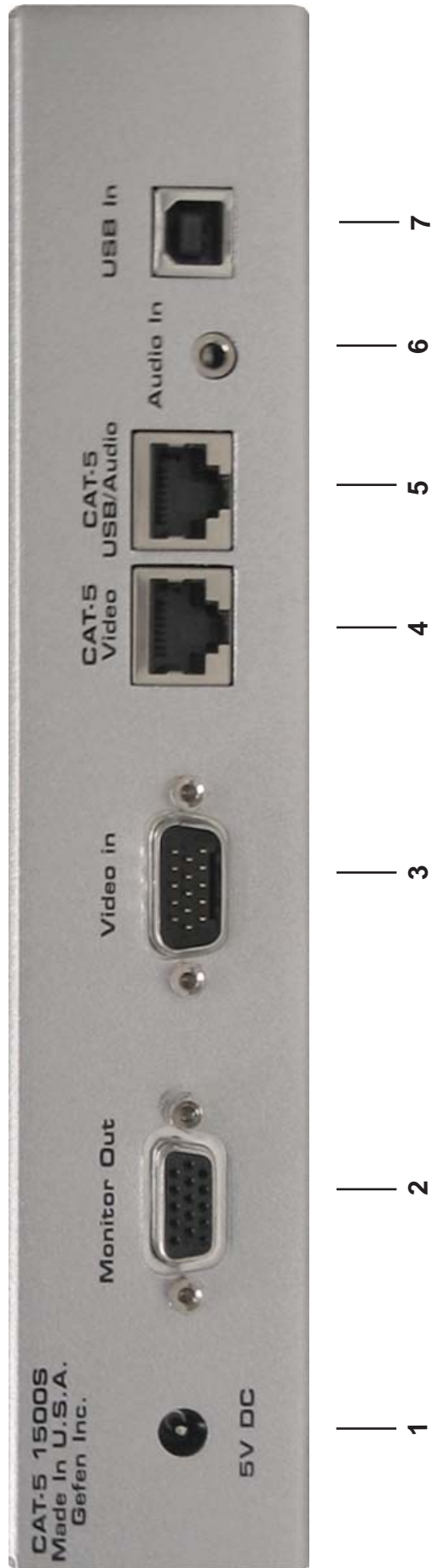


1 2 3

### Front Panel Function Descriptions

- 1 **Focus** - Fine focus adjustment for video
- 2 **BRIGHTNESS** - Adjusts the video brightness
- 3 **POWER ON INDICATOR** - The red LED indicates that the unit is powered on

# CAT5•1500S SEND UNIT BACK PANEL

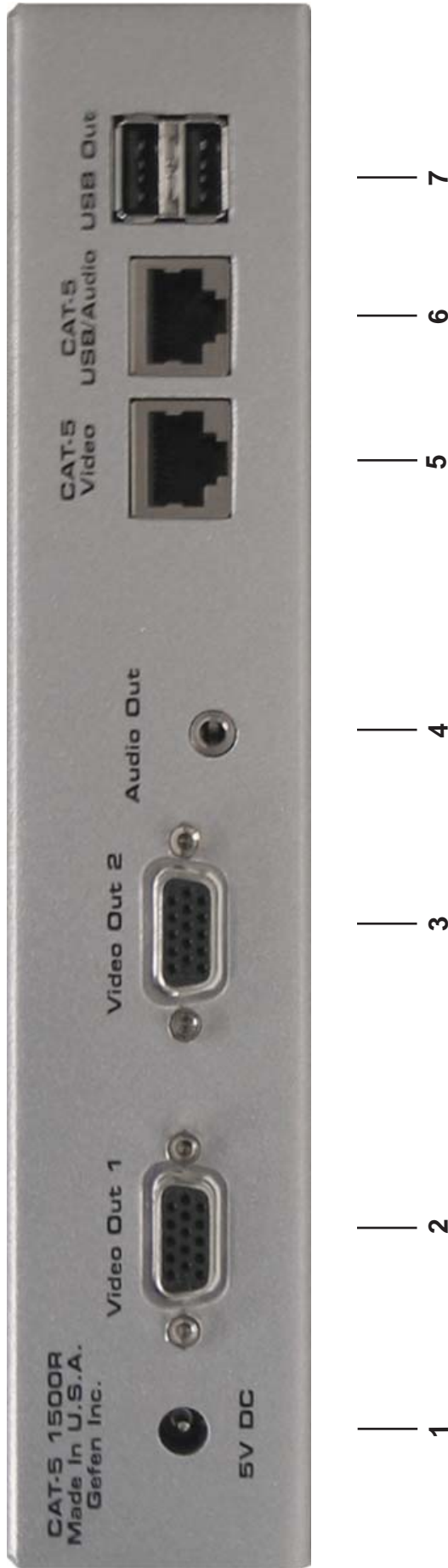


## **CAT5•1500S BACK PANEL FUNCTIONS**

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- 1    **POWER** - 5 VDC external power supply
- 2    **MONITOR OUT** - HD15 output connects to the monitor for local video
- 3    **VIDEO IN** - HD15 input from computer
- 4    **CAT-5 VIDEO** - RJ-45 input extends VGA signals with CAT-5 cable
- 5    **CAT-5 USB/AUD** - RJ-45 input extends USB, and audio signals with CAT-5 cable
- 6    **AUDIO** - Audio mini Jack input from computer
- 7    **USB IN** - USB Input from computer

# CAT5•1500R BACK PANEL LAYOUT



## **CAT5•1500R BACK PANEL FUNCTIONS**

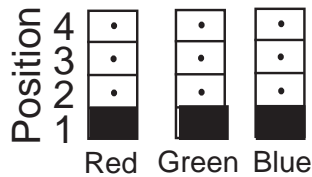
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- 1 **POWER** - 5 VDC external power supply
- 2 **VIDEO OUT 1** - HD15 output connecting to the video monitor
- 3 **VIDEO OUT 2** - HD15 output connecting to the video monitor (mirrored video)
- 4 **AUDIO** - Audio Mini Jack
- 5 **CAT-5 VIDEO** - RJ-45 input connects CAT-5 cable to receive extended VGA signals
- 6 **CAT-5 USB/AUD** - RJ-45 input connects CAT-5 cable to receive extended USB, and audio signals
- 7 **2 USB OUT** - USB Outputs (Type A) - Connects to USB devices

# CAT5 CABLE LENGTH SETUP

Jumper settings are used to set the focus of the picture and characters to the best possible sharpness. The jumpers in the CAT5•1500R are set at the factory as shown in the diagram below. The first step to adjusting the video is to have the CAT5•1500S and CAT5•1500R connected together with the CAT-5 cable that is going to be used in the installation. Then set your computer to the resolution and refresh rate that you will be using most frequently be using. Then open up the CAT5•1500R by unscrewing the bottom three screws on back end of the box. Then two screws on each side of the box and the top. That is 9 screws in total that need to be removed. Lastly the 4 hex bolts around the Monitor Out port and the Video In port need to also be removed. After that look at some text on the monitor and set the jumpers to the recommended jumper setting based on the length of your CAT-5 cable. If you still see some smearing try moving all the jumpers up or down one from the recommended setting. If you see smearing of just one color adjust an individual jumper for the color that is smearing (it can be two colors). Repeat the same steps for monitor 2

## Jumper Settings



## Recommended Jumper Settings

Cable length

0-132 feet



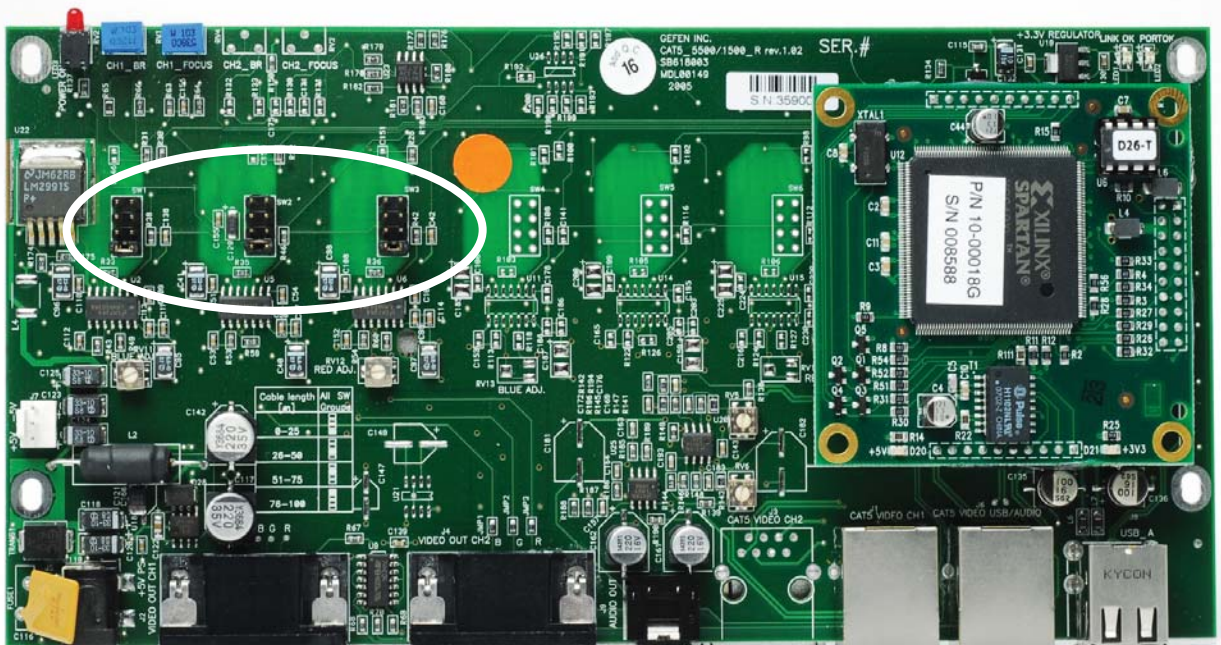
133-198



199-264 feet



265-330 feet



# LINK CABLE - WIRING DIAGRAM

**RJ-45 Jack**



**White/Orange**

**Orange**

**White/Green**

**Blue**

**White/Blue**

**Green**

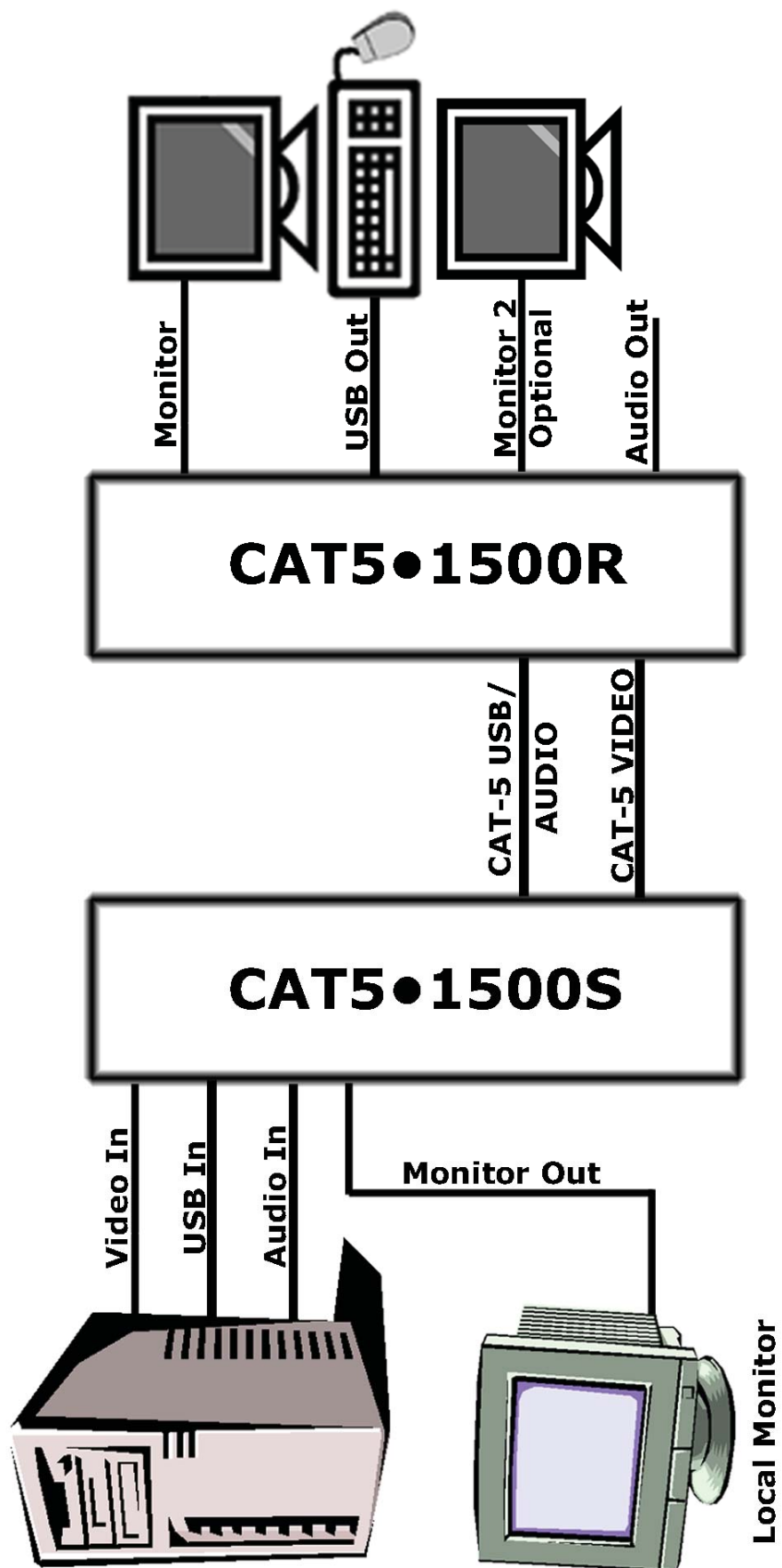
**White/Brown**

**Brown**

**RJ-45 Jack**



# CAT5•1500 WIRING DIAGRAM



## SPECIFICATIONS

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Video Amplifier Bandwidth .....	350 MHz
Actual Bandwidth .....	120 MHz
Input Video Signal .....	1.2 Volts p-p
Input Sync Signal .....	5 Volts p-p (TTL)
Horizontal Frequency Range .....	15-70 KHz
Vertical Frequency Range .....	30 - 170 Hz
Video In.....	HD-15
Focus/Brightness Control .....	25 to 450 FT
Video out .....	HD-15
Link Connector .....	RJ-45
USB - "A" Connector .....	USB Input
USB - "B" Connector .....	USB Device Input
Power Consumption .....	15 Watts (max.)
Power Supply .....	5 VDC (External)
Dimensions .....	1.75"H x 8.4"W x 4.6"D
Rack Mountable .....	1 Rack Spaces
Shipping Weight .....	8 Lbs

## WARRANTY

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Gefen Inc. warrants the equipment it manufactures to be free from defects in material and workmanship.

If equipment fails because of such defects and Gefen Inc. is notified within two (2) year from the date of shipment, Gefen Inc. will, at its option, repair or replace the equipment, provided that the equipment has not been subjected to mechanical, electrical, or other abuse or modifications.

Equipment that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for ninety (90) days from the day of reshipment to the Buyer.

This warranty is in lieu of all other warranties expressed or implied, including without limitation, any implied warranty or merchantability or fitness for any particular purpose, all of which are expressly disclaimed.

1. Proof of sale may be required in order to claim warranty.
2. Customers outside the US are responsible for shipping charges to and from Gefen.
3. Copper cables are limited to a 30 day warranty and cable must be free from any scratches, markings, and neatly coiled.

The information in this manual has been carefully checked and is believed to be accurate. However, Gefen Inc. assumes no responsibility for any inaccuracies that may be contained in this manual. In no event will Gefen Inc., be liable for direct, indirect, special, incidental, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages. The technical information contained herein regarding CAT5•1500 features and specifications is subject to change without notice.

- One 6ft USB cable
- One 6ft Audio cable
- Two 5VDC Transformer



**Price:** \$795.00

**SKU:** EXT-CAT5-1500

**UPC:** 845344000046