



## **User Guide**

**Active Cable Extender™**

**DVI Single-Link**

**DVI-7171a**



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## 1.0 INTRODUCTION

Thank you for purchasing this DVI Active Cable Extender™ (ACE™) unit from DVI Gear. This unit is designed to extend the usable range of high performance DVI cables up to a maximum of 50 meters (164 ft.). This product will also work with almost any DVI cables, but its performance cannot be guaranteed due to the wide variations in the quality of conventional DVI cables. For best results, always use DVI Gear's line of Super High Resolution™ (SHR™) cables. Our professional video conversion products have been serving the industry for several years. DVI Gear offers a full line of high quality Video Scalers, Scan Converters, Analog-Digital Converters and DVI/HDMI Converters, as well as Signal Switchers and Distribution Amplifiers.

### 1.1 Liability Statement

Every effort has been made to ensure that this product is free of errors. DVI Gear cannot be held liable for the use of this hardware or any direct or indirect consequential damages arising from its use. It is the responsibility of the user of the hardware to check that it is suitable for his/her requirements and that it is installed correctly. All rights are reserved. No parts of this manual may be reproduced or transmitted by any form or means electronic or mechanical, including photocopying, recording or by any information storage or retrieval system without the written consent of the publisher.

DVI Gear reserves the right to revise any of its hardware and software following its policy to modify and/or improve its products where necessary or desirable. This statement does not affect the legal rights of the user in any way.

All third party trademarks and copyrights are recognised. The DVI Gear logo is a registered trademark of DVI Gear, Inc. All other trademarks are the property of their respective holders.

### 1.2 Features

The DVI Active Cable Extender™ (ACE™) unit has many unique features and benefits:

- Rugged, Ultra-compact, metal enclosure
- Supports all HDTV resolutions up to 1080p (8-Bit and 12-Bit color)
- Supports PC resolutions up to 1600 x 1200 and 1920 x 1200
- Supports Digital Bit-rates up to 2.25 GBit/sec.
- Maximum distance from source to ACE™: 50 meters
- Maximum distance from ACE™ to display: 5 meters
- Locking connector for DC Power Supply for added security
- LED Indicates presence of Active DVI signal



## 2.0 SPECIFICATIONS

<b>Video Input/Output</b>	
DVI Input/Output	29 Pin Female DVI-I Connectors
<b>Resolution Supported</b>	
HDTV Resolutions	480p, 720p, 1080i, 1080p (8-Bit and 12-Bit color)
PC Resolutions	Up to 1600 x 1200 and 1920 x 1200
Maximum Clock Rate	225 MHz
Maximum Bit Rate	2.25 GBit/sec.
<b>Maximum Cable Length</b>	
Source to ACE™ unit	50 meters – using DVI Gear 22AWG SHR™ cable <sup>1,2</sup>
ACE™ unit to Display	5 meters – using DVI Gear 22AWG SHR™ cable <sup>1</sup>
<b>Mechanical</b>	
Size (H x W x D)	1.14" x 2.13" X 2.65" (29 x 54 x 67.3mm)
Weight (Net)	4.5 oz. (127.6 g)
<b>Environmental</b>	
Operating Temperature	32° to 104° F (0° to 40° C)
Storage Temperature	-4° to 140° F (-20° to 60° C)
Operating / Storage Humidity	10% to 85%, non-condensing
<b>Power Requirements</b>	
External AC Power Supply	Input: 100-240VAC @50/60Hz Output: 5VDC @2A
<b>Regulatory Approvals</b>	
ACE™ unit	FCC, CE and RoHS
External AC Power Supply	UL, CE, CEC, CSA and RoHS
<b>Warranty</b>	
Limited Warranty	1 Year parts and labor
<b>Accessories Included</b>	
External AC Power Adaptor	USA type plug, UK or Euro type plug is optional
User Guide	
<b>Notes</b>	
1. Max. cable lengths are only possible using DVI Gear's Super High Resolution™ cables.	
2. Max. cable length with 1080p / 12-Bit color input signal (2.25 GBit/sec.) is 40 meters / 131. ft.	



### 3.0 CHECKING PACKAGE CONTENTS

Before attempting to use this unit, please check the packaging and make certain the following items are contained in the shipping carton:

- DVI-7171 DVI Active Cable Extender™ (ACE™) unit
- External AC Power Adapter
- User Guide

**Note:** Please retain the original packing material should the need ever arise to return the unit. If you find any items are missing, contact your reseller or DVI Gear immediately. Please have the Model Number, Serial Number and Invoice Number available for reference when you call.

### 4.0 CONNECTING THE HARDWARE

Please study the images below and become familiar with the signal input, output and power input. See Section 5, “Operating the Unit”, for additional instructions.





## 5.0 OPERATING THE UNIT

1. Turn OFF the DVI source and the DVI display device.
2. Connect a high quality DVI (long) cable between the DVI source and “INPUT” port of the ACE™ unit.
3. Connect a high quality DVI (short) cable between the display device and the “OUTPUT” port of the ACE™ unit.
4. Connect the DC power cord from the External AC Power Adaptor to the ACE™ unit and plug the power adapter into an active AC power socket. The red POWER LED should be illuminated.
5. Turn ON the DVI source and DVI display device. The green ACTIVE LED should be illuminated and there should be a stable image on the DVI display. There should be no artifacts (streaks, sparkles, etc.) visible in the displayed image.

## 6.0 TROUBLESHOOTING

If the DVI ACE™ unit does not appear to be working properly make the following checks:

1. Verify that the External AC Power Adapter is plugged in and delivering power to the DVI ACE™ unit. In this case the red POWER LED should be brightly lit. If the red POWER LED is dim, flickering or OFF altogether, then check the AC power source and/or replace the power adapter.
2. Verify that the cables connected to the Input and Output ports of the DVI ACE™ unit are premium grade cables (such as DVI Gear’s Super High Resolution™ cables) and do not exceed the recommended cable lengths specified in Section 2 of this User Guide.
3. Inspect the DVI connectors on both the cables and on the DVI ACE™ unit for damage, bent pins, loose connections, etc.
4. Turn ON the DVI source and verify that the green ACTIVE LED is illuminated. If it is not, double-check the source to ensure that it is outputting an active DVI signal.
5. As a final check, bypass the DVI ACE™ unit and connect the DVI source directly to the DVI display device using a high quality DVI cable with a length of 3 meters (10 ft.) or less. If the image is visible on the display, then follow the procedure in step 6 below.
6. Turn OFF all system components, as well as the DVI ACE™ unit. Restart the DVI display, then the DVI ACE™ unit and finally the DVI source device. Recheck steps 1-4 above.

After trying the above suggestions should the problem still persist, contact your dealer for additional suggestions. Should the dealer’s technical personnel be unable to assist you, please contact DVI Gear via telephone at (888) 463-9927 (United States and Canada); international callers may dial +1 (770) 421-6699, or contact DVI Gear via e-mail at: [support@dvigear.com](mailto:support@dvigear.com).



## **7.0 LIMITED WARRANTY**

LIMITED WARRANTY – With the exceptions noted in the next paragraph, DVI Gear, Inc. warrants the original purchaser that the equipment it manufactures or sells will be free from defects in materials and workmanship for a period of one year from the date of purchase. Should this product, in DVI Gear's opinion, prove defective within this warranty period, DVI Gear, at its option, will repair or replace this product without charge. Any defective parts replaced become the property of DVI Gear. This warranty does not apply to those products which have been damaged due to accident, unauthorized alterations, improper repair, modifications, inadequate maintenance and care, or use in any manner for which the product was not originally intended.

If repairs are necessary under this warranty policy, the original purchaser must obtain a Return Authorization Number from DVI Gear and return the product freight prepaid to a location designated by DVI Gear. After repairs are complete, the product will be returned, freight prepaid.

LIMITATIONS – All products sold are “as is” and the above Limited Warranty is in lieu of all other warranties for this product, expressed or implied, and is strictly limited to one year from the date of purchase. DVI Gear assumes no liability to distributors, resellers or end-users or any third parties for any loss of use, revenue or profit.

DVI Gear makes no other representation of warranty as to fitness for the purpose or merchantability or otherwise in respect of any of the products sold. The liability of DVI Gear with respect to any defective products will be limited to the repair or replacement of such products. In no event shall DVI Gear be responsible or liable for any damage arising from the use of such defective products whether such damages be direct, indirect, consequential or otherwise, and whether such damages are incurred by the reseller, end-user or any third party.

## **8.0 REGULATORY COMPLIANCE**

The DVI-7171a DVI ACE™ unit has been tested for compliance with appropriate FCC and CE rules and regulations and is also RoHS compliant.

The External AC Power Adaptor has been tested for compliance with UL, CSA, CE, and CEC rules and regulations and is also RoHS compliant.



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