



User Guide

DVI to HDTV Converter

DVI-3130a

HDTV to DVI Converter

DVI-3310a



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1.0 INTRODUCTION

Thank you for purchasing this Format Converter from DVI Gear. The model DVI-3130a converts HDTV component analog inputs (YPbPr) to digital DVI format signals enabling display on digital HDTV monitors, or as an input to DVI distribution devices. The model DVI-3310a converts a digital DVI signal (non-HDCP) to HDTV component analog format (YPbPr) allowing the viewing or switching of a DVI input signal on an analog system. 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 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-3130a DVI to HDTV Converter and DVI-3310a HDTV to DVI Converter offering several unique features:

- Improved Video picture quality via DVI interface
- Format may be digital RGB or analog YPbPr
- Plug and Play for easy installation and use
- Supports Single-Link DVI data rates up to 1.65 GBit/sec.
- Supports pixel clock rates up to 165 MHz



1.3 Getting the Best Results

There are many factors affecting the quality of results when converting video signals. Some basic precautions will ensure the best possible performance from this product.

Output Display Device – The quality of the output signal will depend largely upon the type and quality of display device used. For instance, some video projectors just look better than others.

Distance between the Video Converter and the Display Device – This plays a major role in the final result. Long distances are possible, but special measures should be taken in order to avoid cable losses. These include using high quality (coax-type) VGA cables and premium DVI Cables such as DVI Gear's Super High Resolution™ cables. In some applications the use of digital repeaters or extenders may also be necessary.

Output Connection Cables – Low quality cables are susceptible to interference. They degrade signal quality due to poor impedance matching and cause elevated noise levels. Therefore, cables should be of the best quality. Coax-type computer cables are recommended because of their superior internal shielding characteristics.

Interference from Nearby Electrical Devices – These can have an adverse effect on signal quality. For example, an older computer monitor often emits very high electromagnetic fields that can interfere with the performance of video equipment in its proximity.



2.0 SPECIFICATIONS

Video Input/Output	
YPbPr Analog Component	3x RCA Female connectors Y: 1V p-p@75Ω Pb/Pr: 0.7V p-p@75Ω
DVI Digital RGB	1x 29-pin DVI-I Female connector 8-bit RGB 4:4:4, or 12-bit Component 4:2:2 DVI Rev 1.0 compliant
Bandwidth / Bit Rates	
Maximum Pixel Clock Frequency	up to 165 MHz
Data Rate (Single-Link DVI)	up to 1.65 GBit/sec.
Supported Resolutions	
Interlaced (50, 60Hz)	480i, 576i, 1080i
Progressive (50, 60Hz)	480p, 576p, 720p, 1080p
Special (24, 30Hz)	1080p@24, 1080p@25, 1080p@30
Scaling Engine	none
Mechanical	
Size (H x W x D)	1.2" x 3.0" x 4.1" (30 x 76 x 105 mm)
Weight (Net)	11.0 lbs. (2.2 kg)
Environmental	
Operating Temperature	0° to +48° C (+32° to +120° F)
Operating Humidity	10% to 85% Non-condensing
Storage Temperature	-10° to +70° C (+14° to +158° F)
Storage Humidity	10% to 85% Non-condensing
Power Requirements	
External AC Power Adaptor	Input: 100-240 VAC @50-60Hz Output: +5 VDC / 2A
Regulatory Approvals	
Converter Unit	FCC, CE
Power Adaptor	UL, CE, CSA

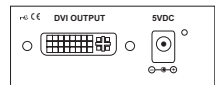
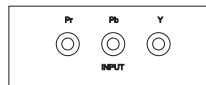
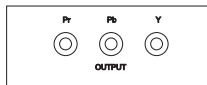
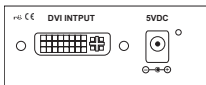
3.0 CHECKING PACKAGE CONTENTS

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

- DVI-3130a DVI to HDTV Converter, or DVI-3310a HDTV to DVI Converter
- 1x External AC Power Adapter
- 1x 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 DVIGear immediately. Please have the Model Number, Serial Number and Invoice Number available for reference when you call.

4.0 CONNECTING THE HARDWARE



DVI-3130a DVI to HDTV Converter

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To begin, connect the External AC Power Adapter to the unit's DC Power Input Jack input. Then connect the appropriate cables from the source device to the unit's input panel. Finally, connect the output cables from the unit's output panel to the destination device. Once the cables have been connected, apply power to the source and destination devices, then plug the converter's power adapter into an AC power source. The converter will function as soon as it has power and you should immediately see an image on the output device.

5.0 OPERATING THE UNIT

Neither the DVI-3310a nor the DVI-3130a has any controls that require adjustment. Simply connect the cables and power as explained in Section 4 above and the device will convert whatever signal is present on its input to the complementary signal on its output. For example, if you provide a digital 1080i resolution signal to the input of the DVI-3310a, an analog 1080i signal will appear on its output. The DVI-3130a would perform the same conversion in reverse, changing a 1080i resolution analog signal into a 1080i Digital signal.

Note: DVI signals that are HDCP encrypted will NOT be converted by these devices due to licensing and legal issues. This does not constitute a failure of the units.



6.0 TROUBLESHOOTING

Other than problems with power or cabling, there is little in the way of troubleshooting required for either of the products. If neither the cabling nor the power is at fault and you still have faulty operation, make certain that both the source and destination devices are working properly.

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 DVIGear via telephone at (888) 463-9927 (United States and Canada); international callers may dial (770) 421-6699, or use e-mail at support@dvigear.com

7.0 LIMITED WARRANTY

LIMITED WARRANTY – With the exceptions noted in the next paragraph, DVIGear, 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 DVIGear's opinion, prove defective within this warranty period, DVIGear, at its option, will repair or replace this product without charge. Any defective parts replaced become the property of DVIGear. 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 DVIGear and return the product freight prepaid to a location designated by DVIGear. 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 two years from the date of purchase. DVIGear assumes no liability to distributors, resellers or end-users or any third parties for any loss of use, revenue or profit.

DVIGear 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 DVIGear with respect to any defective products will be limited to the repair or replacement of such products. In no event shall DVIGear 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

This product has been tested for compliance with: FCC Class B and CE. The External AC Power Adapter supplied with this product has been tested for compliance with: UL, CSA and CE. This product is RoHS compliant.



Your Digital Connectivity Experts

Toll Free 888.463.9927
Phone 770.421.6699
Fax 770.234.4207

DVIGear, Inc.
1059 Triad Court, Suite 8
Marietta, Georgia 30062-2258

www.dvigeart.com