



# Instruction Manual

**1T-CT-570 Series  
Fiber Optic DVI Extender**



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## **1.0 INTRODUCTION**

Thanks for purchasing this DVI Fiber Optic Extender Product from TV One. This Product line is designed to transport DVI-D signals over long distances using Fiber Optic cables. Our professional video conversion products have been serving the industry for over twenty years. TV One offers a full line of high quality Seamless Switchers, Video Scalers, Up/Down/Cross Converters, Analog-Digital Converters (SD/HD-SDI, HDMI, DVI), Format Converters, Standards Converters, TBC/Frame Synchronizers, Matrix Routing Switchers, Signal Distribution Amplifiers and Cat.5 Transmission Systems.

### **1.1 Liability Statement**

Every effort has been made to ensure that this product is free of errors. TV One 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.

TV One 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 recognized. The TV One logo, TV One-task and CORIO are the registered Trademarks of TV One. All other trademarks are the property of their respective holders.

### **1.2 Features**

The 1T-CT-570 Series 4 Channel Fiber Optic DVI Extender product line has many features that enable it to perform in a superior manner. Among those features you will find:

- Transmit PC and Video content via Fiber Optic Cables
- PC Resolutions to WUXGA (1920x1200 @ 16:10)
- HDTV Resolutions to 1080p (1920x1080p @ 16:9)
- Transmission Ranges to 500 Meters (1,640 Feet)
- Small Footprint and light weight

## 2.0 SPECIFICATIONS

<b>Video Inputs</b>	
1T-CT-571	1x DVI via DVI-D
<b>Video Outputs</b>	
1T-CT-572	1x DVI via DVI-D
<b>Fiber Optic I/O</b>	
1T-CT-571, 572	1x 4-LC Fiber Optic connectors
<b>Video Performance</b>	
Maximum PC Resolution	WUXGA (1920x1200)
Maximum Video Resolution	1080p (1920x1080p)
Video Bandwidth	1.65 Gpbs per channel
<b>Fiber Optic System</b>	
Class 1 Laser	EN 60825-1
Optical Property	4 Ch., 850nm@-6dBm
<b>Maximum Range</b>	
1T-CT-571, 572 System	500 Meters (1,640')
<b>Mechanical (H-W-D)</b>	
1T-CT-571, 572	19.6x40x90mm (0.77"x1.6"x3.5") Ea.
<b>Weight</b>	
1T-CT-571, 572	65g (0.14 Lbs) Ea.
<b>Power Requirement</b>	
Each Unit	Ext. PS, +5 VDC@1A
<b>Environmental</b>	
Operating Temperature	-10° to +50° C (+14° to +122° F)
Operating Humidity	10% to 90%, Non-condensing
Storage Temperature	-20° to +75° C (-4° to +167° F)
Storage Humidity	10% to 90%, Non-condensing
<b>Warranty</b>	
Limited Warranty	3 Years Parts and Labor
<b>Regulatory Approvals</b>	
Encoder/Decoder Unit	FCC, CE, RoHS
Power Supply	UL, CUL, CE, PSE, GS, RoHS
<b>Model Numbers</b>	
1T-CT-571	DVI-D Fiber Optic Transmitter
1T-CT-572	DVI-D Fiber Optic Receiver
<b>Accessories Included</b>	
2x Power Adapter	US, UK or Euro
1x User Manual	1T-CT-570 DVI Extender Series

## 2.1 RESOLUTION AND DISTANCE REFERENCE

Resolution Mode	Resolution	Max Distance
WUXGA	1920x1200 (16:10)	300m (62.5/125) / 500M (50/125)
UXGA	1600x1200 (4:3)	300m (62.5/125) / 500M (50/125)
TV 1080p	1920x1080p (16:9)	300m (62.5/125) / 500M (50/125)
SXGA	1280x1024 (5:4)	400m (62.5/125) / 500M (50/125)
XGA	1024x768 (4:3)	500m (62.5/125) / 500M (50/125)
TV 1080i	1920x1080i (16:9)	500m (62.5/125) / 500M (50/125)
TV 720p	1280x720p (16:9)	500m (62.5/125) / 500M (50/125)
SVGA	800x600 (4:3)	500m (62.5/125) / 500M (50/125)

## 2.2 PSEUDO EDID SUPPORT

There is a virtual EDID data structure in the 1T-CT-571 Transmitter module which provides monitor information derived from the host input signal. There is however no handshaking to inform the host of the full capabilities of the display. Standard PC output modes (VGA, SVGA, XGA etc., are supported.)

## 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:

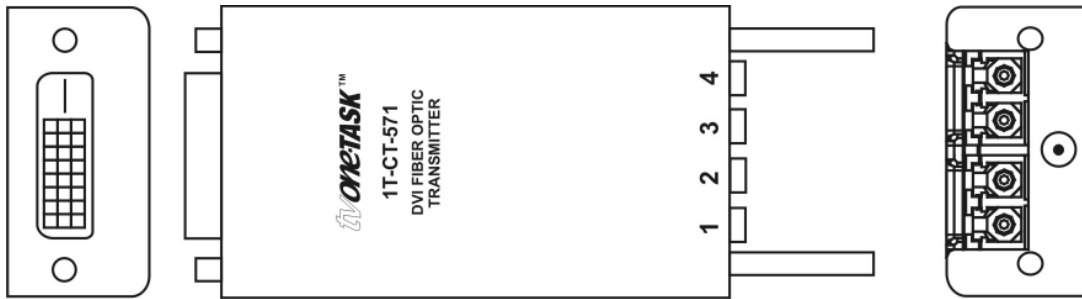
- 1x Transmitter, 1x Receiver unit
- 2x Power Adapters
- 1x Operations Manual

**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 TV One immediately. Have the Model and Serial Number and Invoice available for reference when you call.

## 4.0 CONNECTING THE HARDWARE

Please study the panel drawings on the following page and become familiar with the signal input, outputs, power requirements/inputs plus any controls present. *Note: The resolution capability of the remotely located display devices must be capable of displaying the output of the source device. Before connecting the DVI extender system, verify that the display device on the receiving end can support the output resolution and signal format by connecting it directly to the source device.*

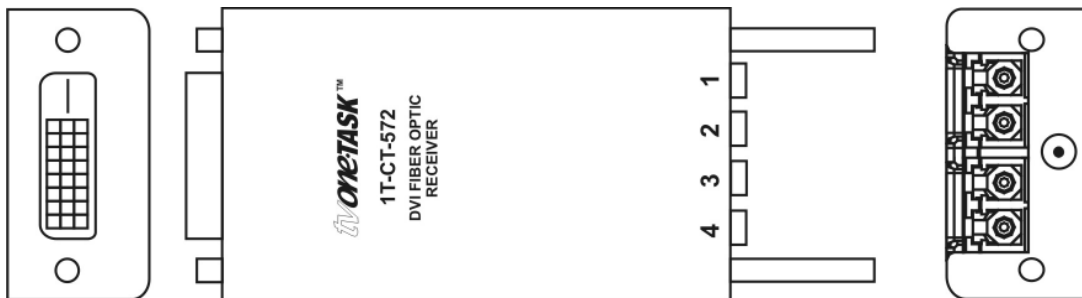
## 4.2 1T-CT-571 Transmitter



1. Connect the source device's video output directly and securely to the DVI IN connector of the Transmitter. DO NOT use an intermediate cable.
2. Connect 4 ea. Fiber Optic cables to the type 4-LC connectors on the Transmitter.\*

*\* It is recommended that you label each Fiber Optic cable at both ends so that you can be certain of connecting them correctly.*

## 4.2 1T-CT-572 Receiver



1. At the remote location, connect the other end of the Fiber Optic cables to the type 4-LC connectors on the Receiver. (Make certain that cable 1 is attached to the cable 1 connector on both ends and each of the remaining cables is attached to the same numerical connector on both ends,)
2. Connect the DVI OUT connector of the Receiver directly and securely to the video input of the remote display or other device. DO NOT use an intermediate cable.
3. Connect the DC power supply to the Receiver and then to the AC outlet.\*
4. Turn on the source device and remote display. The source signal should now appear on the remotely located display. If not, consult the Troubleshooting section of this manual.

*\*The PC should be capable of supplying power to the Transmitter via the DVI-D connector. For this reason, do not connect the Transmitter's DC power supply initially. If the system does not function properly, you should connect an external power supply to the Transmitter as explained in the next section.*

## 5.0 OPERATING THE UNITS

There are no adjustments required for the system to function correctly. The power on sequence is to apply power to the 1T-CT-572 Receiver and then turn on the PC and the display device. If there is no output, attach the second external power supply to the 1T-CT-571 Transmitter and then plug it into the AC outlet. Leave the PC, display device and 1T-CT-572 Receiver powered up as you connect the second external power supply.

## 6.0 TROUBLESHOOTING

Other than faulty cables or attempting to use the product over too great of a distance, there are seldom problems with these products.

If there is no image present at the remote location, connect the display device directly to the source to make certain that the problem is not in the display or that the PC's output resolution is set to a value that the display cannot reproduce. If an image is present under those circumstances, make certain the transmitter and receiver(s) are receiving power. Next make certain the Fiber Optic cables are defect free, the cables are connected numerically correctly and are securely attached at both ends.

After trying the above suggestions should the problem still persist, contact your dealer for additional suggestions before contacting TV One. Should the dealer's technical personnel be unable to assist you, contact TV One via our support website: **<http://tvone.crmdesk.com>**. Create a technical support request on the site and our support team will respond within a short period of time.

## 7.0 LIMITED WARRANTY

TV One warrants the original purchaser that the equipment it manufactures or sells will be free from defects in materials and workmanship for a fixed term from the date of purchase. The warranty term for specific product lines is defined below.

1. TV One branded products based on TV One's CORIO technology are warranted for a period of five years from the date of purchase. This includes products with the model number prefix of C2, 1T-C2, CX, A2 or S2.
2. TV One-task branded products, other than those based on TV One's CORIO technology mentioned above, are warranted for a period of three years from the date of purchase. This includes products with the model number prefix of 1T, with the exception of 1T-C2.
3. LCD Monitors are warranted for a period of three years from the date of purchase, with the exception of the LCD panels integrated into the monitors that are supplied by third parties. LCD panels are limited to the term and conditions of the warranty offered by the respective LCD panel manufacturer. Such specific LCD panel warranties are available upon request to TV One.



Should a product, in TV One's opinion, prove defective within this warranty period, TV One, at its option, will repair or replace this product without charge. Any defective parts replaced become the property of TV One. 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 TV One and return the product to a location designated by TV One, freight prepaid. 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. TV One assumes no liability to distributors, resellers or end-users or any third parties for any loss of use, revenue or profit.

TV One 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 TV One with respect to any defective products will be limited to the repair or replacement of such products. In no event shall TV One 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 1T-CT-570 Series has been tested for compliance with appropriate FCC and CE rules and regulations. The Power Adaptor/Supplies have been tested for compliance with appropriate UL, CUL, CE, PSE, GS Rules, Regulations and/or Guidelines. These Products and Power Adapters are RoHS Compliant.

## **9.0 CONTACT INFORMATION**

Should you have questions or require assistance with this product in areas not covered by this manual, please contact TV One at the appropriate location.

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End of Manual