



DVI Dual Link Extender over 2 Strand Multi-Mode Fiber Optic



Model #: FO-DVI-DL-1000M



WQXGA
2560x1600

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Section 1: Getting Started

1.1 Important Safeguards

Please read all of these instructions carefully before you use the device. Save this manual for future reference.

What the warranty does not cover

- Any product, on which the serial number has been defaced, modified or removed.
- Damage, deterioration or malfunction resulting from:
 - Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
 - Repair or attempted repair by anyone not authorized by us.
 - Any damage of the product due to shipment.
 - Removal or installation of the product.
 - Causes external to the product, such as electric power fluctuation or failure.
 - Use of supplies or parts not meeting our specifications.
 - Normal wear and tear.
 - Any other causes which does not relate to a product defect.
- Removal, installation, and set-up service charges.

1.2 Safety Instructions

The Avenview FO-DVI-DL-10000M, DVI Dual Link Extender over Fiber Optic, has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipment's, the FO-DVI-DL-10000M should be used with care. Read the following safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Do not dismantle the housing or modify the module.
- Dismantling the housing or modifying the module may result in electrical shock or burn.
- Refer all servicing to qualified service personnel.
- Do not attempt to service this product yourself as opening or removing housing may expose you to dangerous voltage or other hazards
- Keep the module away from liquids.
- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on to the housing, unplug the module immediately.
- Have the module checked by a qualified service engineer before using it again.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.

1.3 Regulatory Notices Federal Communications Commission (FCC)

This equipment has been tested and found to comply with Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

Any changes or modifications made to this equipment may void the user's authority to operate this equipment.

1.4 Introduction

Avenview FO-DVI-DL-10000M, Dual Link DVI Extender over two fiber solution lets you extend dual link digital signal up to 300m (1000 feet).

- High Speed and long distance transmission
- Uses 2 strand multi-mode SC type Multi-Mode fiber optic cable
- TMDS video signal and EDID data is transmitted by optical fiber
- Supports up to Dual Link WQXGA (2560 x 1600) resolution and WUXGA (1920x1200) Single link
- Extend 2560x1600 Dual Link or 1920x1200 Single Link video signal up to 300m (1000 feet)
- DVI Specification 1.0 compliant
- Supports HDCP compliant devices with HDCP rev 1.1 specifications

1.5 Package Contents

Before you start the installation of the converter, please check the package contents.

- | | | |
|--------------------------------|-----|-----|
| - FO-DVI-DL-10000M Transmitter | x 1 | |
| - FO-DVI-DL-10000M Receiver | | x 1 |
| - Power Adapter (+5VDC 2A) | x 1 | |
| - User's Manual | x 1 | |

Fiber Optic Cable is not included in the package

1.6 Before Installation

- Put the product in an even and stable location. If the product falls down or drops, it may cause an injury or malfunction.
- Don't place the product in too high temperature (over 50°C), too low temperature (under 0°C) or high humidity.
- Use the DC power adapter with correct specifications. If inappropriate power supply is used then it may cause a fire.
- Do not twist or pull by force ends of the optical cable. It can cause malfunction.

1.7 Panel Description





1.8 Installation

Avenview FO-DVI-DL-10000M is composed of a transmitter and a receiver. The Transmitter should be connected to the computer's DVI Port and the Receiver should be connected the DVI Port of the digital display device.

Avenview FO-DVI-DL-10000M Transmitter is designed to be used with the LC type standard optical cable. Transmitter and Receiver have each of 7 Optical port which are marked on the optical port of the fiber cable connection.

To setup Avenview FO-DVI-DL-10000M follow these steps for connecting to a device:

1. Connect FO-DVI-DL-10000M Transmitter unit to DVI source
2. Connect FO-DVI-DL-10000M Receiver unit to DVI port of display.
3. Connect 2 Strand Fiber Optic LC Type cable to both Transmitter and Receiver.
4. Plug the power to Receiver Unit.
5. Power on DVI Source and DVI Display.

Use the DC adapter (included in the package) for the Receiver. The Transmitter which is connected to a computer uses power from the computer.

If Transmitter power LED doesn't light up after PC is turned on, then use optional external power adapter for Transmitter.

Section 2: Specifications

Item	Description	
Units	FO-DVI-DL-10000M (Transmitter)	FO-DVI-DL-10000M (Receiver)
Unit Description	DVI Dual Link Transmitter	DVI Dual Link Receiver
Input Signal	TMDS Signal (DVI 1.0 Standard)	
Output Signal	TMDS Signal (DVI 1.0 Standard)	
Video Bandwidth	1.65Gbps / Channel	
Supported Resolution & Distance	Single Link: WUXGA 1920 x 1200 @ 300 meters (1000 feet) Dual Link: WQXGA 2560 x 1600 @ 300 meters (1000 feet)	
Optical Converter	850nm, 7 Ch Transmit OSA 911nm, 1 Ch VCSEL 980nm, 1 Ch PIN P/D Diode	850nm, 7 Ch Receive OSA 980nm, 1Ch VCSEL 911nm, 1 Ch PIN P/D Diode
DVI Connector	24 pin DVI-D Plug	
Optical Connector	2 SC Connector	
Fiber Type	50/125 μm Multi-mode glass fiber	
Dimensions (L x W x H)	2.97" x 1.97" x 0.6"	
Power Supply	5V 2A DC	
Power Consumption	1.5W (max)	
Environmental		
Operating Temperature	32° ~ 104°F (0° to 40°C)	
Storage Temperature	-4° ~ 140°F (-20° ~ 60°C)	
Relative Humidity	20~90% RH (no condensation)	

2.1 Signal Pin Assignment (Single Link)

TRANSMITTER

Pin	Signal Assignment	Pin	Signal Assignment	Pin	Signal Assignment
1	T.M.D.S. Data2-	9	T.M.D.S. Data1-	17	T.M.D.S. Data0-
2	T.M.D.S. Data2+	10	T.M.D.S. Data1+	18	T.M.D.S. Data0+
3	T.M.D.S. Data2 Shield	11	T.M.D.S. Data1 Shield	19	T.M.D.S. Data0 Shield
4	No Connect	12	No Connect	20	No Connect
5	No Connect	13	No Connect	21	No Connect
6	DDC Clock (SCL)	14	+5V Power	22	T.M.D.S. Clock Shield
7	DDC Data (SDA)	15	Ground (for +5V)	23	T.M.D.S. Clock+
8	No Connect	16	Hot Plug Detect	24	T.M.D.S. Clock-

RECEIVER

Pin	Signal Assignment	Pin	Signal Assignment	Pin	Signal Assignment
1	T.M.D.S. Data2-	9	T.M.D.S. Data1-	17	T.M.D.S. Data0-
2	T.M.D.S. Data2+	10	T.M.D.S. Data1+	18	T.M.D.S. Data0+
3	T.M.D.S. Data2 Shield	11	T.M.D.S. Data1 Shield	19	T.M.D.S. Data0 Shield
4	No Connect	12	No Connect	20	No Connect
5	No Connect	13	No Connect	21	No Connect
6	DDC Clock (SCL)	14	Out +5V Power	22	T.M.D.S. Clock Shield
7	DDC Data (SDA)	15	Ground (for Out +5V)	23	T.M.D.S. Clock+
8	No Connect	16	Hot Plug Detect	24	T.M.D.S. Clock-

2.2 Signal Pin Assignment (Dual Link)

TRANSMITTER

Pin	Signal Assignment	Pin	Signal Assignment	Pin	Signal Assignment
1	T.M.D.S. Data2-	9	T.M.D.S. Data1-	17	T.M.D.S. Data0-
2	T.M.D.S. Data2+	10	T.M.D.S. Data1+	18	T.M.D.S. Data0+
3	T.M.D.S. Data2/4 Shield	11	T.M.D.S. Data1/3 Shield	19	T.M.D.S. Data0/5 Shield
4	T.M.D.S. Data4-	12	T.M.D.S. Data 3-	20	T.M.D.S. Data5-
5	T.M.D.S. Data4+	13	T.M.D.S. Data3+	21	T.M.D.S. Data5+
6	DDC Clock (SCL)	14	+5V Power	22	T.M.D.S. Clock Shield
7	DDC Data (SDA)	15	Ground (for +5V)	23	T.M.D.S. Clock+
8	No Connect	16	Hot Plug Detect	24	T.M.D.S. Clock-

RECEIVER

Pin	Signal Assignment	Pin	Signal Assignment	Pin	Signal Assignment
1	T.M.D.S. Data2-	9	T.M.D.S. Data1-	17	T.M.D.S. Data0-
2	T.M.D.S. Data2+	10	T.M.D.S. Data1+	18	T.M.D.S. Data0+
3	T.M.D.S. Data2/4 Shield	11	T.M.D.S. Data1/3 Shield	19	T.M.D.S. Data0/5 Shield
4	T.M.D.S. Data4-	12	T.M.D.S. Data 3-	20	T.M.D.S. Data5-
5	T.M.D.S. Data4+	13	T.M.D.S. Data3+	21	T.M.D.S. Data5+
6	DDC Clock (SCL)	14	Out +5V Power	22	T.M.D.S. Clock Shield
7	DDC Data (SDA)	15	Ground (for Out +5V)	23	T.M.D.S. Clock+
8	No Connect	16	No Connect	24	T.M.D.S. Clock-



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