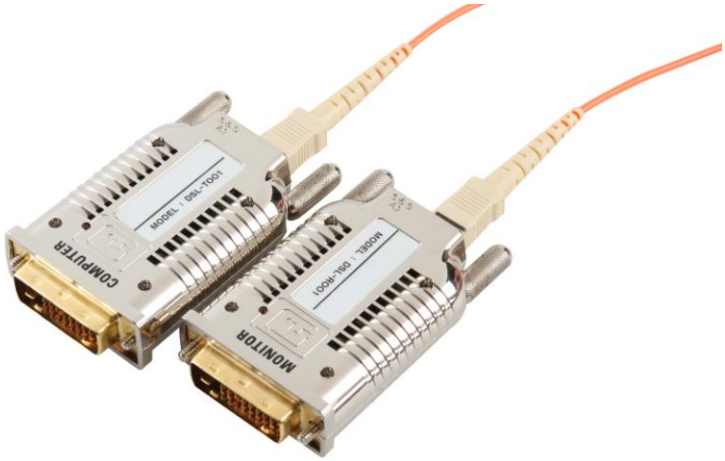
Avenview

USER GUIDE

DVI Extender over Fiber with EMI Shielding



Model #: FO-DVI-1000M-EMI

HD ready 1080p WUXGA 1920x1200 dvi digital visual interface

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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-1000M-EMI, DVI Extender over Fiber Optic has been tested for conformity to safety regulations and requirements, and has been certified for international use. However, like all electronic equipment's, the FO-DVI-1000M-EMI 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-1000M-EMI DVI Extender over Fiber with EMI Shielding lets you extend digital flat panel signal up to 1000 meters (3300 feet) at 1920 x 1200 away from host by TMDS digital signal transmission with only 1 fiber.

- High Speed and long distance transmission by SC type Multi-Mode 1 fiber
- Self-detecting function for EDID information
- Standard DVI plug and SC Fiber connector
- R, G, B, Clock signal is transmitted by 1 Multi-Mode optical Fiber
- Supports up to WUXGA (1920 x 1200) resolution
- Optional external power supply (Automatic Power switch is included)

1.5 Package Contents

Before you start the installation of FO-DVI-1000M-EMI, please check the package contents.

- Transmitter x 1
- Receiver x 1
- Power Adapter (5VDC, 2A) x 1

  User's Manual x 1

1.6 Before Installation

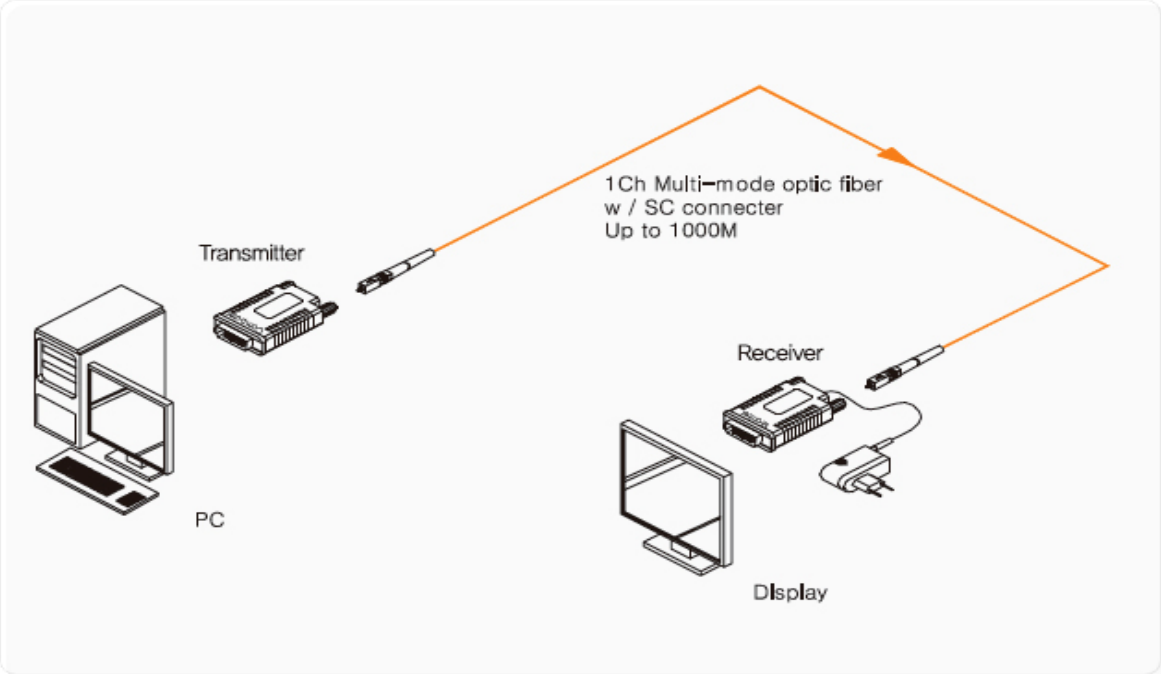
- Put the product in an even and stable location. If the product falls down or drops, it may cause an injury or malfunction.
- Don't place the product in too high temperature (over 50°C), too low temperature (under 0°C) or high humidity.
- Use the DC power adapter with correct specifications. If inappropriate 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 Installation

This product 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-1000M-EMI Transmitter / Receiver is designed to be used with SC type standard optical cable (Multi-Mode optical fiber: 50/125, 62.5/125um).

Avenview FO-DVI-1000M-EMI is can self-detect the EDID of the monitor and change the resolution accordingly. Follow these steps for detecting EDID and connecting to a device:

1. Power on your Display
2. Connect Transmitter to the DVI of display
3. Plug the DC power of Transmitter
4. Check the LED light. If it turns off and then turns back on in a few seconds, it means that it has finished reading the EDID of the display
5. Connect Transmitter to the DVI Source and Receiver to the Display.
6. Connect the optical fiber between Transmitter and Receiver.
7. Connect DC power to the Receiver
8. Restart the computer.



1.8 Troubleshooting

General Troubleshooting	
Problem	**Possible Solution**
No Image	• Check if the PC Power is on • Check if connection to the computer and the monitor are correct. • Turn the PC Power off and on again.
Screen Defects Appear	• This product supports up to WUXGA resolution. • Check the maximum resolution range of the graphics card.

1.9 Caution

1. Do not put heavy object on top of the FO-DVI-1000M-EMI. It may cause product malfunction.
2. Put the product on even and stable location. If the product falls down or dropped, it may get damaged.
3. Keep away from high temperature (over 50°C), low temperature (under 0°C) or high humidity. It may cause a fire and injury by electrical shock.
4. Use DC power adapter with correct specification. Otherwise it may cause fire.
5. Do not twist or pull by force either ends of the optical cable. It can cause malfunction. Minimum bending diameter is 75mm.
6. Use the multimode (50/125um, 62.5/125um) optical fiber.

Section 2: Specifications

Item	Description
Video Bandwidth	1.65Gbps (Single Link)
Connector	DVI 24Pin Plug and SC Connector
Power Consumption	1.0 Watt (max)
Supported Resolution and Distance	WUXGA 1920 x 1200 @ 1000 meters (3300 feet)
Dimensions	2.4" x 1.5" x 0.6"

Optical

Optical Source	850nm VCSEL
O/E Converter	PIN Photo Diode
Fiber Type	50/125 or 62.5/125 SC Multi-Mode Fiber

Environmental

Operation	0˚ to 50˚C Degree
Storage	-30˚ to 70˚C Degree

2.1 Signal Pin Assignment

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	No Connect	14	+5V Power	22	T.M.D.S. Clock Shield
7	No Connect	15	Ground (for +5V)	23	T.M.D.S. Clock+
8	No Connect	16	No Connect	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	No Connect	14	No Connect	22	T.M.D.S. Clock Shield
7	No Connect	15	No Connect	23	T.M.D.S. Clock+

8	No Connect	16	No Connect	24	T.M.D.S. Clock-

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