



**NETWORK
TECHNOLOGIES
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VGA-DVI-FOSC

VGA to 1-fiber DVI converter

User's Manual



Manual Contents

Manual Contents	1-0
Welcome! Product Description	1-1
System Requirements for Setup	1-2
Installation	1-3
Self-EDID Programming Procedure	1-5
Troubleshooting, Maintenance, Technical Support	1-6
Product Specifications	1-7
Warranty Information	1-8
Certifications	1-8

Pictorials

Figure 1 – Connection Diagram	1-4
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Welcome!

Congratulations on your purchase of the VGA to 1-fiber DVI converter. This manual contains information that will assist you in installing and operating the product.

Product Description

The VGA-DVI-FOSC, VGA to 1-fiber DVI converter receives VGA up to WUXGA (1920x1200), 60Hz signal and converts to optical signal and transmits up to 500 meters (1,640feet) over one (1) SC multi-mode fibers. A 1-fiber DVI receiver, ST-1FODVI-R-SC500M is used as a pair to convert 1 fiber DVI to electrical DVI. The EDID (Extended Display Identification Data) in a display can be read and restored by just connecting once transmitter to the display. This **Self-EDID programming** feature makes the installation of the unit more easy and flexible with any variable resolution display systems. For your convenience, WUXGA EDID had been stored before shipment as a default.

Shipping Group

- VGA-DVI-FOSC VGA to 1-fiber DVI converter:** One (1) unit
- AC/DC power adapter:** One (1) unit of +5V, 3A (Locking type)
- User's Manual**

System Requirements for Setup

□ Hardware requirements

- You have to have a VGA graphic controller or card having a VGA port in your PC, SUN or Mac systems. It should support the maximum graphic resolution feature of displays to be connected.
- No special requirements for memory size, CPU speed and chipsets, if you've already properly installed your VGA graphic controllers or cards.

□ Software requirements

- No special restrictions, if you've already properly installed your VGA graphic controller in your OS.

Installation

Important: Please keep the installation procedure below. Improper or no operation may result if the start-up sequence is not correctly followed.

Step 1

Carefully unpack the contents of the shipping group.

Step 2

Plug and fasten the 5V power adapters to the **+5V DC** jack on the rear side of converter. Ensure the Power LED ON (Blue).

Step 3

Please, check if the maximum resolution of the display is WUXGA (1920x1200). Otherwise, follow the instructions for **Self-EDID Programming Procedure** on page 1-5.

Step 4

Connect the VGA source to **VGA IN** port over VGA cable. If the VGA source is active, status LED (Blue) will be turned on.

Step 5

Connect the **OPTICAL OUT** to 1-fiber DVI receiver, ST-1FODVI-R-SC500M over multi-mode SC-SC optical fiber.

Step 6

Plug ST-1FODVI-R-SC500M to DVI input port of display.

Step 7

If you need on-site monitoring, connect VGA OUT on the front side to VGA input port of local monitor over VGA cable.

1-3 Installation

Note1: The maximum extension length by multi-mode fiber is 500 meters.

Note2: We recommend NOT to use any intermediate cable or adapter in between to avoid undesirable performance degradation.

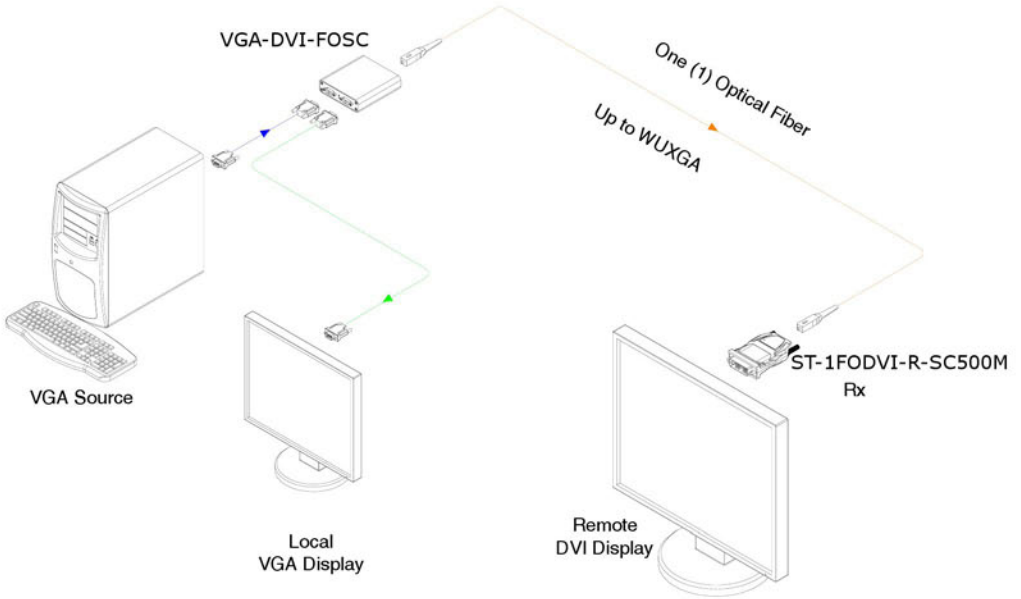


Figure 1 – Connection Diagram

1-4 Installation

Self-EDID Programming Procedure

The graphic source equipment generally requires display information (EDID). It contains resolution and timing information of the display.

VGA-DVI-FOSC supports Self-EDID programming. It is the procedure that reads the EDID from the display and stores it in the EEPROM of the converter. We highly recommend do Self-EDID once when you install your system with VGA-DVI-FOSC for the first time. Follow the steps below to do it correctly.

Note1: If you know that EDID is not required by the user's VGA source, Self-EDID programming is not necessary.

Note2: The default EDID in factory ship-out is programmed in the VESA standard of WUXGA (1920x1200), 60Hz.

Step 1

Connect 5V power adapter to VGA-DVI-FOSC

Step 2

Power LED (Blue) will be turned ON.

Step 3

Push the EDID button on the rear side of converter with a narrow pin. Then, status LED (Blue) will blink 3 times and turn ON.

Step 4

Connect the **VGA OUT** port on the front side of converter to **the VGA input port of display** over VGA cable. Then the status LED will begin to blink rapidly. It indicates reading the EDID from the display and storing it in the EEPROM. After 8~10 sec blinking, the status LED will be turned OFF and it indicates completion of all procedure.

Step 5

Disconnect the converter from the display.

1-5 Self-EDID Programming Procedure

Troubleshooting

The display shows only black screen.

- Ensure that all plugs and jacks used by external power supplies (both Opticis and others) are firmly connected. Ensure that the Power and status LED ON.
- Ensure that the video ports are firmly plugged in to the PC and display.
- Ensure that the converter and receiver modules plugged correctly to the PC and display, respectively.
- Check if the PC and display are powered on and properly booted.
- Re-boot up the system while connecting the optical DVI extension module.

Screen is distorted or displays noises.

- Check if the graphic resolution is properly set. Go to the display properties of Windows and tap the settings.
- Ensure that the resolution sets less than WUXGA (1920x1200) at 60Hz refresh ratio.
- Reset the system. Disconnect and reconnect the optical fiber or 5V power adapters.

Maintenance

No special maintenance is required for the converter and power adapters. Ensure that the converter and power adapters are stored or used in a benign environment free from liquid or dirt contamination.

There are no user serviceable parts.

Technical Support and Service

For technical support and service, contact Network Technologies Inc at 330-562-7070 (worldwide) or 800-742-8324 (US and Canada) or email us at support@ntigo.com.

Product Specifications

VGA to 1-fiber DVI converter

- **Extension limit:** 500 meters (1,640 feet) for WUXGA (1920x1200), 60Hz refresh rate.
- **Graphic transmission bandwidth:** Supports up to WUXGA, 60Hz, or 1.65Gbps bandwidth per graphic channel.
- **Supporting resolution:**
VGA, SVGA, XGA, WXGA, SXGA, WXGA+, UXGA, WSXGA+, WUXGA.
- **Fiber-optic connection:** Converter has one (1) SC receptacle so as to be connected with one (1) SC multi-mode fiber, having 62.5 (50) / 125 μ m core.
- **DDC connection:** Virtual DDC by Self-EDID programming.
- **Dimensions (WDH):** 104 x 112 x 28mm
- **Environmental Specifications**
 - Operating temperature: 0°C to 50°C
 - Storage temperature: - 30°C to 70°C
 - Humidity: 10% to 85%

AC/DC Power Adapter

- **Power Input:** AC 100-240V, 50/60Hz 0.1A
- **Power Output:** +5 V, 3A SMPS DC-power Adapter
- **Cord DC Jack:** Core is 5 V and outer is GND.

Warranty Information

The warranty period on this product (parts and labor) is two (2) years from the date of purchase. Please contact Network Technologies Inc at (800) 742-8324 (800-RGB-TECH) or (330) 562-7070 or visit our website at <http://www.networktechinc.com/return-policy.html> for information regarding repairs and/or returns. A return authorization number is required for all repairs/returns.

Dispose of Old Electrical & Electronic Equipment

(Applicable in the European Union and other European countries with separate systems)



This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product.

The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

Certifications

CE / FCC, Class 1 Laser Eye Safety

Certification of Eye Safety

This laser product is inside implemented by using 1310, 1550nm LD Transceivers, manufactured by Opticis Co., Ltd., which are all certified by CDRH/FDA referred as classified in Laser Class 1 (IEC60825-1).



Caution – Use of controls or adjustments or performances of procedures other than those specified herein may result in hazardous radiation exposure.