



**NTI**® NETWORK  
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# ST-FOVARS-LCV2

## VGA Extender via One LC Singlemode/ Multimode Fiber Optic Cable

### User Manual



Front and Rear View of ST-FOVARS-LCV2 Transmitter

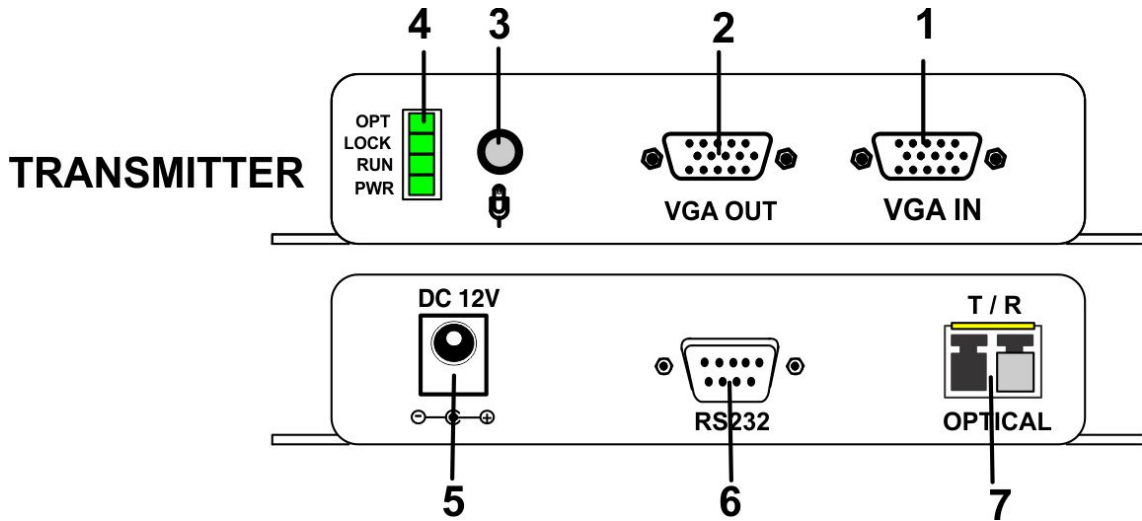
# 1. Description

The XTENDEX® VGA Extender via Fiber Optic Cable locates a VGA display, stereo audio speakers and RS232 up to 6.2 miles (10 kilometers) away from a computer using a single LC singlemode fiber optic strand and 1,640 feet (500 meters) using multimode fiber optic cable. Each extender consists of a transmitter that connects to a computer and also supplies video to a local monitor, and a receiver that connects to a monitor.

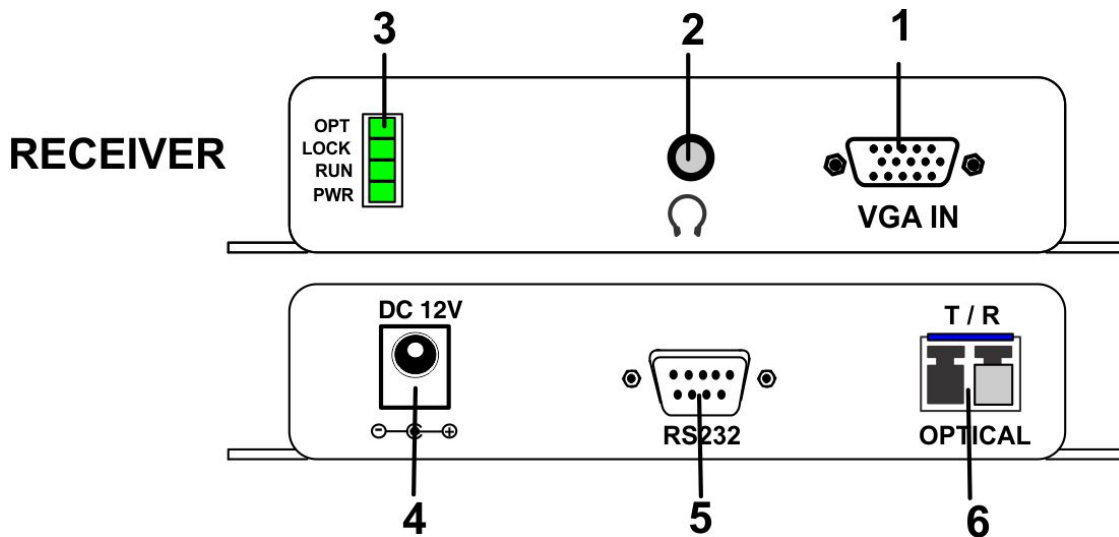
# 2. Features

- Transmits VGA video signals up to 6.2 miles (10km) over one simplex 9-micron single-mode LC fiber optic cable or up to 1640 feet (500 meters) over one simplex 50 or 62.5-micron multimode LC fiber optic cable
- Supports video resolution up to 1920\*1080@60Hz
- Supports external stereo audio unidirectional transmission
- Supports local and remote VGA monitors
- Support RS232 signal unidirectional transmission, baud rate self-adaptive
- Supports the DDC2B protocol
- Built-in default EDID table
- Low RFI/EMI for sensitive applications
- Plug-and-play functionality- no software needed

### 3. Panel



| No. | Label      | Port            | Function                                                                                                                                      |
|-----|------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | VGA IN     | 15HD Female     | Connect VGA from Source                                                                                                                       |
| 2   | VGA OUT    | 15HD Female     | Connect VGA to local monitor                                                                                                                  |
| 3   | MICROPHONE | 3.5mm Jack      | Connect Audio Input                                                                                                                           |
| 4   | LEDS       | LEDs            | OPT- Video signal connection indication<br>LOCK- Video signal lock indicator<br>RUN- System status indicator<br>POWER- System power indicator |
| 5   | PWR        | 5.5x2.1 Jack    | Connect power supply                                                                                                                          |
| 6   | RS232      | DB9 Female      | Connect RS232 communication cable                                                                                                             |
| 7   | OPTICAL    | SFP Transceiver | Connect Simplex Fiber cable going to Receiver                                                                                                 |



| No. | Label      | Port            | Function                                                                                                                                      |
|-----|------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | VGA OUT    | 15HD Female     | Connect VGA to local monitor                                                                                                                  |
| 2   | HEADPHONES | 3.5mm Jack      | Connect Audio Output to self-powered speakers                                                                                                 |
| 3   | LEDS       | LEDs            | OPT- Video signal connection indication<br>LOCK- Video signal lock indicator<br>RUN- System status indicator<br>POWER- System power indicator |
| 4   | PWR        | 5.5x2.1 Jack    | Connect power supply                                                                                                                          |
| 5   | RS232      | DB9 Female      | Connect RS232 communication cable                                                                                                             |
| 6   | OPTICAL    | SFP Transceiver | Connect Simplex Fiber cable going to Transmitter                                                                                              |

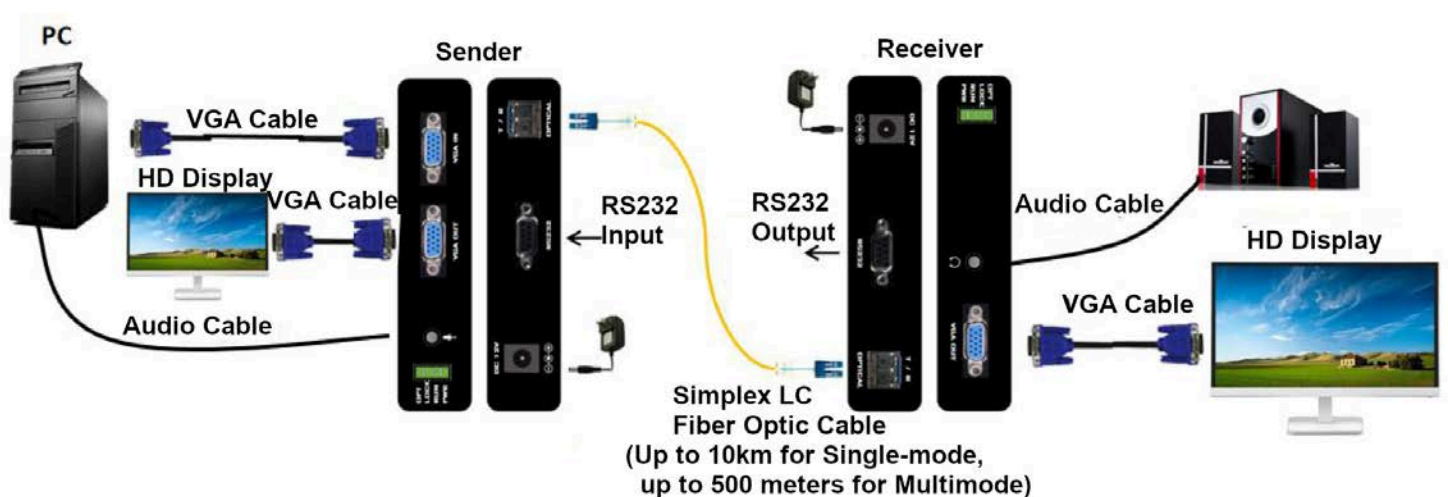
## 4. Package list

- VGA optical fiber transmitter ..... 1 pc
- VGA optical fiber receiver ..... 1 pc
- Fiber optic module TX/RX ..... 1 set
- Power adapter .....2 pcs
- User manual location slip ..... 1 pc

## 5. Installation

1. Connect the provided DC/12V power supplies to the power socket of the Transmitter and the Receiver.
2. Connect a VGA cable between the VGA input port of the Transmitter and the VGA output port of the video source.
3. Connect the VGA output port of Receiver to the display device with VGA cable.
4. Connect the Transmitter optical port to the Receiver optical port using one simplex LC fiber optic cable.

## 6. Diagram



## 7. Specifications

| Parameter                            |                       | Description                                                                                                                                                                                                                                                                                           |
|--------------------------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Video                                | Standard              | VGA                                                                                                                                                                                                                                                                                                   |
|                                      | Max. pixel clock      | 380MHz                                                                                                                                                                                                                                                                                                |
|                                      | Resolution            | 1920x1080@60Hz / 1600x1200@60Hz / 1600x1024@ 60Hz<br>1680x1050@60Hz /1600x900@60Hz / 1366x768@60Hz<br>1360x768@60Hz /1280x1024@60Hz / 1280x1024@75Hz<br>1280x960@60Hz / 1280x800@60Hz / 1280x768@60Hz<br>1280x720@60Hz / 1152x864@60Hz / 1024x768@60Hz<br>1024x768@75Hz / 800x600@60Hz / 800x600@75Hz |
|                                      | Impedance             | 75 Ohm                                                                                                                                                                                                                                                                                                |
| Audio                                | Interface             | 3.5mm stereo audio jack                                                                                                                                                                                                                                                                               |
|                                      | Format                | 44.1K,48K,96K,176K,192K                                                                                                                                                                                                                                                                               |
|                                      | Signal type           | Stereo                                                                                                                                                                                                                                                                                                |
| RS232                                | Interface             | DB9 Female                                                                                                                                                                                                                                                                                            |
|                                      | Signal Direction      | Unidirectional (Tx to Rx)                                                                                                                                                                                                                                                                             |
|                                      | Baud Rate             | Self-adaptive, Max : 115200bps                                                                                                                                                                                                                                                                        |
|                                      | Data bits             | 8                                                                                                                                                                                                                                                                                                     |
| Optical Fiber                        | Interface             | LC connector                                                                                                                                                                                                                                                                                          |
|                                      | Fiber type            | Simplex LC Single-mode                                                                                                                                                                                                                                                                                |
|                                      |                       | Simplex LC Multimode                                                                                                                                                                                                                                                                                  |
|                                      | Transmission          | 10km (single-mode) (9-micron)                                                                                                                                                                                                                                                                         |
| 500m (multimode (50 or 62.5 micron)) |                       |                                                                                                                                                                                                                                                                                                       |
| Other                                | Power supply          | 12V/ 1A                                                                                                                                                                                                                                                                                               |
|                                      | Power dissipation     | Tx: 3.6W Rx: 3.0W                                                                                                                                                                                                                                                                                     |
|                                      | Operating Temperature | -5°C to 70°C                                                                                                                                                                                                                                                                                          |
|                                      | Humidity              | 5% to 90% Non-condensing                                                                                                                                                                                                                                                                              |
|                                      | Dimensions (WxDxH)    | 5.24x4.17x1.05 In. (133.2x106x26.5mm)                                                                                                                                                                                                                                                                 |

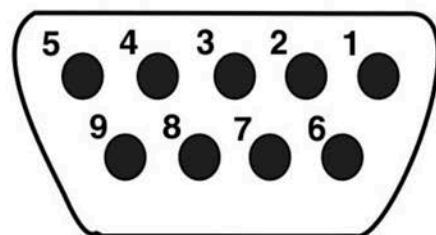
## 8. RS232

### DB9 Pinout

| Pin | Transmitter<br>DCE Signals | Receiver<br>DCE Signals |
|-----|----------------------------|-------------------------|
| 1   | NC                         | NC                      |
| 2   | NC                         | TxD                     |
| 3   | RxD                        | NC                      |
| 4   | NC                         | NC                      |
| 5   | GND                        | GND                     |
| 6   | NC                         | NC                      |
| 7   | NC                         | NC                      |
| 8   | NC                         | NC                      |
| 9   | NC                         | NC                      |

NC = No Connect

### Pinout of DB9 on ST-FOVARS-LCV2



**Mating Face  
of DB9 Female**