

# DIREKTRONIK

Dataprodukter utöver det vanliga

## *User's Manual*



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## Welcome!

Congratulations on your purchase of the **Miniature Fiber-Optic 3G-SDI Extension module**, SDIX-100, SDIX-100C. This manual contains information that will assist you in installing and operating the product.

## Product Description

### Shipping Group

- **SDIX-100-Tx, Rx Module:** One (1) set of unit, length as your request.
- **Option) SDIX-100-Tx/Rx, SDIX-100C-Tx/Rx** (Including re-clocker)
- **DC 5V 1.5A power adapter :** Two (2) units
- **User's Manual**

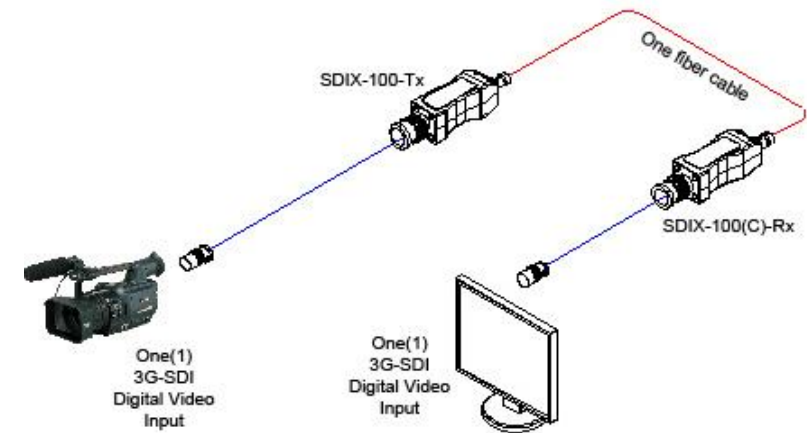
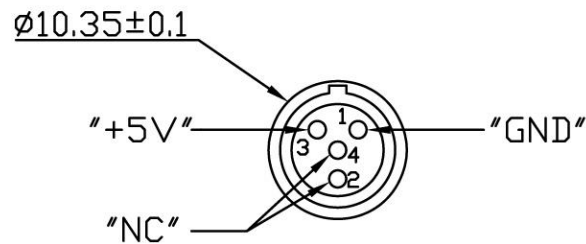


Figure 1 – Fiber-Optic 3G-SDI Extension module, SDIX-100

## System Requirements for Setup

- **Hardware requirements**
  - You have to have a SDI multimedia systems (Camera, OB Van, Broadcasting equipment using SDI signal, SDI Monitor etc.) or it should support the maximum graphic resolution feature of Monitors to be connected.
  - No special requirements of memory size, CPU speed and chipsets, if you've already properly installed your SDI systems.
- **Software requirements**
  - No special restrictions, if you've already properly installed your SDI systems.
- **DC Power Adapter Technical Advisory**
  - The SDIX-100(C) is designed to use only +5V external power.
  - Pin description



## Installation

**Important: Please follow the installation procedure as 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

Connect the plug of the Tx side of SDIX-100 to the receptacle of SDI source (Camera, Broadcasting equipment etc.) directly. Do **NOT** recommend to use any intermediate cable or adapter between them. It may deteriorate the signal transmission performance.



Figure 2 – Tx module of SDIX-100

### Step 3

As shown in Figure 3, plug the +5V power adaptor in the shipping group to the Tx & Rx Module.

Connecting 5V power adaptor to SDIX-100 Cable is indispensable procedure for working.



Figure 3 –SDIX-100 with power adapter

#### Step 4

Connect the Rx side of SDIX-100(C) to the SDI receptacle of a Display directly. Do **NOT** recommend to use any intermediate cable or adapter between them. It may deteriorate the signal transmission performance.



Figure 4 – Rx module of SDIX-100(C)

#### Step 5

Power ON the SDI source and Display.

**Note:** Both of Tx and Rx modules of SDIX-100(C) must be connected by +5V power adaptors.

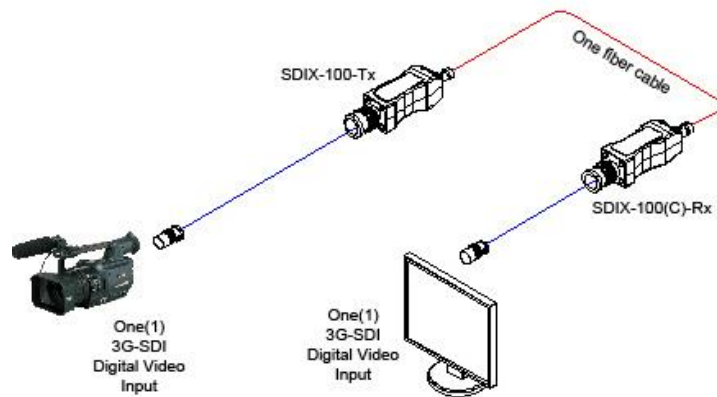


Figure 5 – Whole Connection of SDIX-100(C)

#### Step 7

If the system does not work properly, go to page 1-5, trouble shooting.

## Troubleshooting

### ***The display shows only black screen.***

Ensure that all AC and DC plugs and jacks used by external power supplies are firmly connected.

Ensure that the SDI connector is firmly plugged in to the SDI source and SDI display. Ensure that the Tx and Rx module parts plug correctly to the SDI source and SDI display, respectively.

Check if the SDI source and SDI display are powered on and properly booted. Reset the system by de-plugging and re-plugging the Tx SDI module or Rx SDI module. Re-boot up the system while connecting the SDIX-100(C).

### ***Screen is distorted or displays noises.***

Ensure the quality of SDI source and check the extension length of fiber. SDIX-100 guarantees the length up to 30Km@3G

## Maintenance

No special maintenance is required for the SDIX-100 and power supplies. Ensure that the cables and power modules are stored or used in a benign environment free from liquid or dirt contamination.

There are no user serviceable parts. Refer all service and repair issues to Opticis.

## Technical Support and Service

For commercial or general product support, contact your reseller. For technical service, contact Opticis by email [techsupp@opticis.com](mailto:techsupp@opticis.com) or visit its website at [www.opticis.com](http://www.opticis.com).

## Product Specifications

### SDIX-100(C), Fiber-Optic 3G-SDI Extension module

- **Transmission of multi-rate SDI digital video over one (1) fiber:**  
It converts and transmit one (1) channel of SMPTE-424M (3G-SDI), SMPTE-292M (HD-SDI) or SMPTE-259M (SDI).
- Available both Single-mode and Multi-mode.
- Supports embedded audio (such as embedded AES audio signal).
- Offers **clock recovery circuit included** model, **SDIX-100C** as an option.
- **Extension limit:** 30km @3G, 1080p 3G-SDI format.
- **Recommended Fiber-optic Cable:** Glass Single-mode fiber with 1310, 1550nm of bandwidth and ST terminated connector.
- **General electrical specification**
  - Data Transfer Rate (Graphic Data) : Max. 3Gbps
  - Link Power Budget : Min.11dB
  - Optical Connector : ST Connector
  - Electric Connector Type from Modules : 75 Ohm BNC (Male)
- **Mechanical specifications of Tx and Rx module parts**
  - Dimensions (WDH): 19.5 x 82.7 x 19.5mm
- **Environmental Specifications**
  - Operating temperature: 0°C to 50°C
  - Storage temperature: - 30°C to 70°C
  - Humidity: 10% to 85% RH
- **Certifications: CE / FCC**

### DC Power Adapter

- **Supply Power :** DC 5V, 1.5A
- **Cord DC Jack :** Core is 5V and outer is GND.

## 1-6 Product Specifications

## Warranty Information

### 1 (One) Year Warranty

Opticis warrants this fiber-optic 3G-SDI extension cable to be free from defects in workmanship and materials, under normal use and service, for a period of one (1) year from the date of purchase from Opticis or its authorized resellers.

If a product does not work as warranted during the applicable warranty period, Opticis shall, at its option and expense, repair the defective product or part, deliver to customer an equivalent product or part to replace the defective item, or refund to customer the purchase price paid for the defective product.

All products that are replaced will become the property of Opticis.

Replacement products may be new or reconditioned.

Any replaced or repaired product or part has a ninety (90) day warranty or the remainder of the initial warranty period, whichever is longer.

Opticis shall not be responsible for any software, firmware, information, or memory data of customer contained in, stored on, or integrated with any products returned to Opticis for repair under warranty or not.

### Warranty Limitation and Exclusion

Opticis shall have no further obligation under the foregoing limited warranty if the product has been damaged due to abuse, misuse, neglect, accident, unusual physical or electrical stress, unauthorized modifications, tampering, alterations, or service other than by Opticis or its authorized agents, causes other than from ordinary use or failure to properly use the Product in the application for which said Product is intended.

### 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.

## 1-7 Warranty Information

## Certifications

CE / FCC, Class 1 Laser Eye Safety

## Verification of Eye Safety

This laser product is manufactured by Opticis Co., Ltd., complies with IEC60825-1 standard.



## Caution

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

## Warning

- Do not look directly into the ST receptacle of the Transmitter while it is powered on although this product is regulated strictly enough to operate under the LASER Class I, complies with IEC60825-1 standard.
- Do not disassemble or modify SDIX-100-Tx or SDIX-100-Rx module without authorization of manufacturer.

The logo for DIREKTRONIK, featuring the word "DIREKTRONIK" in a bold, italicized, sans-serif font. The letters are white with a thick red outline, set against a yellow background that curves upwards from the bottom right corner of the page.

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