

DFO3301-4301

Fiber Optic Video-Data



Installation and Operations Manual

Model Number: DFO3301iM/R and DFO4301iM/R

Description: Fiber Optic Video-Data Transmission
on 1 MM or SM Optical Fiber
Bi-Directional RS-422 Data

Optical Video Transmitter & Receiver

User's Reference Manual

version number: 1.4

revision date: 2014



Caution

1. This product must be installed in waterproof enclosure and can be affected by humidity. Otherwise units performance may change and even make them inoperable.
2. Before installing this product, please check the parts in the box, including the video transmitter and receiver and power adapters.

Chapter 1 Equipment Description

1.1 Introduction

Optical Video Transmitter and Receiver is a set of digital high-speed fiber transmission equipment. It uses advanced fiber communication technology, digital video technology and data communication technology. Units incorporate reliable special integrated circuits and whole surface mount components. At present, it is the latest development in product for long-distance transmission and standard definition video monitoring.

1.2 Characteristics

- ✧ Robust metal casings
- ✧ Complete digital fiber transmission platform and flexible configuration with different signals
- ✧ Two types to be selected: standalone, which could be installed on desktop or wall; card type which could be installed in video optical rack mount 19" chassis.
- ✧ Independent application specific integrated circuit (ASIC)
- ✧ One fiber or dual fiber versions
- ✧ Supporting PAL/NTSC/SECAM,
- ✧ With auto-negotiation and broadcasting transmission quality
- ✧ Providing bi-directional asynchronous data, with more than 300Kbps transmission speed.
- ✧ Asynchronous data 4 wire RS-422

1.3 Technical Specifications Optic fiber

Connector: ST/FC
Transmission range: 1Video: 0~5Km MM fiber; 20-40Km SM

Note:

Transmission range is affected by loss of optic fiber and other index, so the actual range may be different from the above data.

Video

Format: PAL/NTSC/SECAM
Video Signal: 1.0 VP-P
Video Impedance: 75Ω
Bandwidth: 8MHz
Frequency: 16.5MHz
Encoding: 8 bit
Differential Gain: $< \pm 1\%$ (Typical value)
Differential Phase: $< \pm 1$ (Typical value)
S/N Ratio: 67dB (Typical value)
Color brightness time extension difference: 10ns (Typical value)
Interface: BNC

Asynchronous data

Data Formats: 4 Wire RS-422
Working Mode: full duplex
Bandwidth: 0~300Kbps
Error Code Rate: $< 10^{-9}$
Interface: Phoenix terminal block

Binary Input/output

Input signal: Any active and passive binary input
Output signal: Any active and passive binary output
Interface: Phoenix terminal

1.4 Operating Environment

Operating Voltage: 5VDC 2A (adapter included)

Power Consumption: $\leq 5W$

Operating Temperature: $-35^{\circ}C \sim +75^{\circ}C$

Storage temperature: $-45^{\circ}C \sim +85^{\circ}C$

Humidity: 0~95%, non-condensing

No caustic, solvent and dust free environment

Chapter 2 Installation

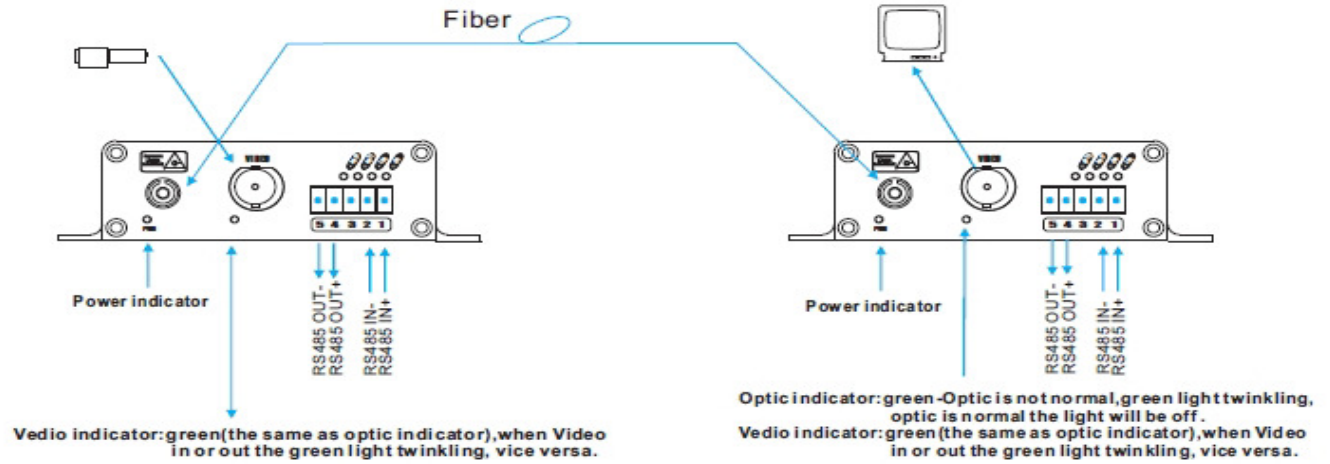
2.1 Indicator

- Power Indicator: green-- light on when power normal
- Fiber Indicator: green-green light flash when fiber transmission normal
- Data Indicator: green-light flash when data transferred
- Video Indicator: green (the same indicator as optical indicator)-light on when video transmitted or received

Installation procedure

- ✧ Unpacking, check the content carefully. Verify that all items are included in your carton. Contact manufacturer or local re-seller if there is any missing or damaged.
- ✧ Check power supply configuration. Care about the value of voltage if use DC input and the power plug differences with different countries.
- ✧ Video connection: connect video signal with video input/output BNC socket (VIDEO) by 75Ω coaxial cable.
- ✧ Data connection: connect output end of the product TX+/TX-) to terminal block (RX+/RX-) of the product; connect input end of external device (RX+/RX-) to terminal block (TX+/TX-) of this product.
- ✧ Fiber connection: use FC/PC or ST/PC connector to connect fiber transmitter/receiver and fiber through OPTIC I/O (IN and OUT) fiber connector.

2.2 Pinout Diagram



1ch forward Video+1ch Bi-directional RS-422 Data

2.3 19" Chassis

