

DVI Video to Fiber Optical Converter

Features

- DVI video support maximum resolution 1920*1200@60Hz and downward compatibility;
- Support international standard DVI1.0 HDCP1.4;
- EDID transparent transmission mode;
- Support RGB&YCBCR4:4:4 YUV4:4:4 /4:2:2/4:2:0;
- Support DDC/CEC/HPD signal;
- Support 1 channel bidirectional full-duplex RS232 (half-duplex RS485 optional);
- Support 1 channel reverse contact closure function (optional);
- Support Single-fiber or dual-fiber (optional);
- Support multi-mode transmission distance 1KM, single-mode transmission 10KM;
- Support hot swap signal, plug and play, no setting required;
- Delay < 2 ms;
- Support power supply DC12V;
- Wide range of operational temperature (-20°C ~75°C);
- Warranty: 3 years;

> Introduction

UPCOM DVI video to fiber optical converter DVI0101-10G is composed of the transmitter and the receiver. The video, audio and data output from the computer host (HD video signal source, HD DVD/DVR and other devices) are extended to the remote user through one core optical fiber, and the image and sound of the computer host are played in real time at the remote end.

DVI0101-10G DVI video fiber optical converter support 1920*1200@60Hz resolution and downward compatibility, 1 channel bidirectional full-duplex RS232 (half-duplex RS485 optional), 1 channel reverse contact closure function (optional), multi-mode transmission distance 1KM, single-mode transmission 10KM, plug and play, no setting required, Single-fiber or dual-fiber (optional).

1

> Application

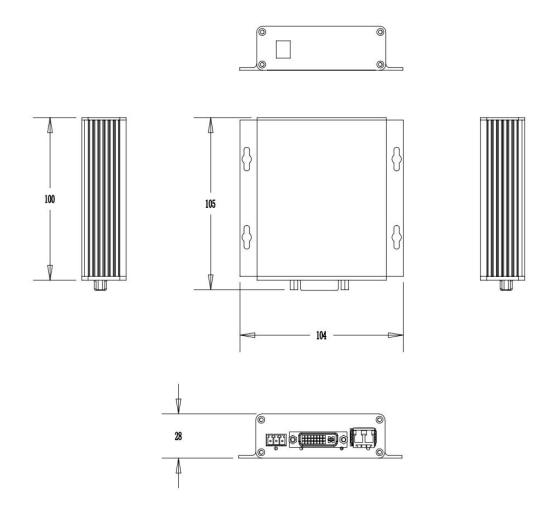
- HD monitor transmission and power supply
- LED splicing screen, projection fusion program, video conference system
- LCD splicing large screen, LED splicing screen, projection fusion scheme, video conferencing system
- Municipal command center, substation control room, steel plant control room
- Cement plant control room, mine control room, coal mine, cement plant, thermal power station
- Fine chemical control room and digital machine room management
- High-building Security Protection, Military Tele-Com project



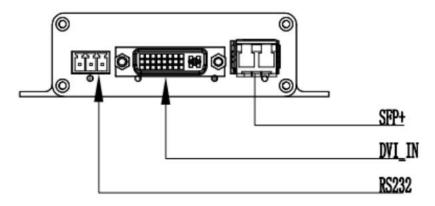
> Specification

Fiber Optical Wavelength 1310-1550nm Rate 10Gbps Tx power >-5db Rx sensitivity >-14db Fiber connector tC Video Video Video bandwidth 10GHz Gbps Resolution 1920*1200@60Hz downward compatibility Maximum pixel clock 297MHZ Effective cable length 10M Physical interface DVI female RS232 data index (3-wire system,full duptw/ standard Baud rate 256000Hz downward compatibility Baud rate 256000Hz downward compatibility Data bits 8 digits Physical interface 3-pin phoenix terminal RS485 data index (2-wire system,half duptw/ Error rate \$10^-9 Bit rate 0-400Kbps Physical interface 3-pin phoenix terminal Colspan="2">Colspan=			
Rate 10Gbps Tx power >-5db Rx sensitivity >-14db Fiber connector LC Video Video Video bandwidth 10GHz Gbps Resolution 1920*1200@60Hz downward compatibility Maximum pixel clock 297MHZ Effective cable length 10M Physical interface DVI female RS232 data index (3-wire system,full duplex) standard Baud rate 256000Hz downward compatibility Bat ate 256000Hz downward compatibility Bat ate 3-pin phoenix terminal RS485 data index (2-wire system,half duplex) Error rate <10^-9 Bit rate 0-400kbps Physical interface 3-pin phoenix terminal Other Operating temperature -20°C ~ +75°C Storage temperature -40°C ~ +85°C Power supply 12V1A Power dissipation <1.5W Case Aluminium alloy Product net weight 0.2kg/pcs Product weight 0.75kg/pair Packing size 275*220*55mm Relative Humidity 0%~95% (no condensation) MTBF	Fiber Optical		
Tx power >-5db Rx sensitivity >-14db Fiber connector LC Video Video bandwidth 10GHz Gbps Resolution 1920*1200@60Hz downward compatibility Maximum pixel clock 297MHZ Effective cable length 10M Physical interface DVI female RS232 data index (3-wire system,full duplex) standard Baud rate 256000Hz downward compatibility Bata bits 8 digits Physical interface 3-pin phoenix terminal RS485 data index (2-wire system,half duplex) Error rate <10^-9	Wavelength	1310-1550nm	
Rx sensitivity >-14db Fiber connector	Rate	10Gbps	
IC Video bandwidth 10GHz Gbps Resolution 1920*1200@60Hz downward compatibility Maximum pixel clock 297MHZ Effective cable length 10M Physical interface DVI female RS232 data index (3-wire system,full duplex) standard Baud rate 256000Hz downward compatibility Data bits 8 digits Physical interface 3-pin phoenix terminal RS485 data Index (2-wire system,half duplex) Error rate <10^-9 Bit rate 0-400Kbps Physical interface 0-400Kbps Physical interface 0-400Kbps Operating temperature -20°C ~ +75°C Storage temperature -20°C ~ +75°C Storage temperature -40°C ~ +85°C Power supply 12V1A Power dissipation <1.5W Case Aluminium alloy Product net weight 0.75kg/pair Product weight 0.75kg/pair Product weight 0.75kg/pair <td>Tx power</td> <td>>-5db</td>	Tx power	>-5db	
Video bandwidth 10GHz Gbps Resolution 1920*1200@60Hz downward compatibility Maximum pixel clock 297MHZ Effective cable length 10M Physical interface DVI female RS232 data index (3-wire system,full duplex) standard Baud rate 256000Hz downward compatibility Data bits 8 digits Physical interface 3-pin phoenix terminal RS485 data index (2-wire system,half duplex) Error rate <10^-9	Rx sensitivity	>-14db	
Video bandwidth 10GHz Gbps Resolution 1920*1200@60Hz downward compatibility Maximum pixel clock 297MHZ Effective cable length 10M Physical interface DVI female RS232 data index (3-wire system,full duplex) standard Baud rate 256000Hz downward compatibility Data bits 8 digits Physical interface RS485 data index (2-wire system,half duplex) Error rate <10^-9	Fiber connector	LC	
Resolution 1920*1200@60Hz downward compatibility Maximum pixel clock 297MHZ Effective cable length 10M Physical interface DVI female RS232 data index (3-wire system,full duplex) standard Baud rate 256000Hz downward compatibility Data bits 8 digits Physical interface 3-pin phoenix terminal RS485 data index (2-wire system,half duplex) Error rate <10^-9 Bit rate 0-400Kbps Physical interface 3-pin phoenix terminal Other Operating temperature -20°C ~ +75°C Storage temperature -40°C ~ +85°C Power supply 12V1A Power dissipation <1.5W Case Aluminium alloy Product net weight 0.2kg/pcs Product weight 0.75kg/pair Packing size 275*220*55mm Relative Humidity 0%*95% (no condensation) MTBF 100.000 hours	Video		
Maximum pixel clock 297MHZ Effective cable length 10M Physical interface DVI female RS232 data index (3-wire system,full duplex) standard Baud rate 256000Hz downward compatibility Data bits 8 digits Physical interface 3-pin phoenix terminal RS485 data index (2-wire system,half duplex) Error rate <10^-9 Bit rate 0-400Kbps Physical interface 3-pin phoenix terminal Other Operating temperature -20°C ~ +75°C Storage temperature -40°C ~ +85°C Power supply 12V1A Power dissipation <1.5W Case Aluminium alloy Product net weight 0.75kg/pair Packing size 275*220*55mm Relative Humidity 0%~95% (no condensation) MTBF 100.000 hours	Video bandwidth	10GHz Gbps	
Effective cable length Physical interface BX323 data index (3-wire system,full duplex) standard Baud rate 256000Hz downward compatibility Data bits 8 digits Physical interface 3-pin phoenix terminal RX485 data index (2-wire system,half duplex) Error rate <10^9 Bit rate 0-400Kbps Physical interface 3-pin phoenix terminal Other Other Operating temperature -20°C ~ +75°C Storage temperature -40°C ~ +85°C Power supply 12V1A Power dissipation <1.5W Case Aluminium alloy Product net weight 0.75kg/pair Packing size 275*220*55mm Relative Humidity 0%~95% (no condensation) MTBF 100,000 hours	Resolution	1920*1200@60Hz downward compatibility	
Physical interface DVI female RS232 data index (3-wire system,full duplex) standard Baud rate 256000Hz downward compatibility Data bits 8 digits Physical interface 3-pin phoenix terminal RS485 data index (2-wire system,half duplex) Error rate <10^-9 Bit rate 0-400Kbps Physical interface 3-pin phoenix terminal Other Operating temperature -20°C ~ +75°C Storage temperature -40°C ~ +85°C Power supply 12V1A Power dissipation <1.5W Case Aluminium alloy Product net weight 0.2kg/pcs Product weight 0.75kg/pair Packing size 275*220*55mm Relative Humidity 0%~95% (no condensation) MTBF 100,000 hours	Maximum pixel clock	297MHZ	
RS232 data index (3-wire system,full duplex) standard Baud rate 256000Hz downward compatibility Data bits 8 digits Physical interface 3-pin phoenix terminal RS485 data index (2-wire system,half duplex) Error rate <10^-9 Bit rate 0-400Kbps Physical interface 3-pin phoenix terminal Other Operating temperature -20°C ~ +75°C Storage temperature -40°C ~ +85°C Power supply 12V1A Power dissipation <1.5W Case Aluminium alloy Product net weight 0.2kg/pcs Product weight 0.75kg/pair Packing size 275*20*55mm Relative Humidity 0%~95% (no condensation) MTBF 100,000 hours	Effective cable length	10M	
Baud rate 256000Hz downward compatibility Data bits 8 digits Physical interface 3-pin phoenix terminal RS485 data index (2-wire system,half duplex) Error rate <10^-9 Bit rate 0-400Kbps Physical interface 3-pin phoenix terminal Other Operating temperature -20°C ~ +75°C Storage temperature -40°C ~ +85°C Power supply 12V1A Power dissipation <1.5W Case Aluminium alloy Product net weight 0.2kg/pcs Product weight 0.75kg/pair Packing size 275*220*55mm Relative Humidity 0%°95% (no condensation) MTBF 100.000 hours	Physical interface	DVI female	
Data bits 8 digits Physical interface 3-pin phoenix terminal RS485 data index (2-wire system,half duplex) Error rate <10^-9 Bit rate 0-400Kbps Physical interface 3-pin phoenix terminal Other Operating temperature -20°C ~ +75°C Storage temperature -40°C ~ +85°C Power supply 12V1A Power dissipation <1.5W Case Aluminium alloy Product net weight 0.2kg/pcs Product weight 0.75kg/pair Packing size 275*220*55mm Relative Humidity 0%~95% (no condensation) MTBF 100,000 hours	RS232 data index (3-wire system,full duplex) standard		
Physical interface 3-pin phoenix terminal RS485 data index (2-wire system,half duplex) Error rate <10^-9 Bit rate 0-400Kbps Physical interface 3-pin phoenix terminal Other Other Operating temperature -20°C ~ +75°C Storage temperature -40°C ~ +85°C Power supply 12V1A Power dissipation <1.5W Case Aluminium alloy Product net weight 0.2kg/pcs Product weight 0.75kg/pair Packing size 275*220*55mm Relative Humidity 0%~95% (no condensation) MTBF 10.400Kbps 100,000 hours	Baud rate	256000Hz downward compatibility	
RS485 data index (2-wire system,half duplex) Error rate <10^-9 Bit rate 0-400Kbps Physical interface 3-pin phoenix terminal Other Operating temperature -20°C ~ +75°C Storage temperature -40°C ~ +85°C Power supply 12V1A Power dissipation <1.5W Case Aluminium alloy Product net weight 0.2kg/pcs Product weight 0.75kg/pair Packing size 275*220*55mm Relative Humidity 0%~95% (no condensation) MTBF 10.400Kbps O-400Kbps -40°C ~ +85°C Aluminium alloy O.2kg/pcs O.2kg/pcs O.2kg/pcs O.75kg/pair	Data bits	8 digits	
Error rate <10^-9 Bit rate 0-400Kbps Physical interface 3-pin phoenix terminal Other Operating temperature -20°C ~ +75°C Storage temperature -40°C ~ +85°C Power supply 12V1A Power dissipation <1.5W Case Aluminium alloy Product net weight 0.2kg/pcs Product weight 0.75kg/pair Packing size 275*220*55mm Relative Humidity 0%~95% (no condensation) MTBF 100,000 hours	Physical interface	3-pin phoenix terminal	
Bit rate 0-400Kbps Physical interface 3-pin phoenix terminal Other Operating temperature -20°C ~ +75°C Storage temperature -40°C ~ +85°C Power supply 12V1A Power dissipation <1.5W Case Aluminium alloy Product net weight 0.2kg/pcs Product weight 0.75kg/pair Packing size 275*220*55mm Relative Humidity 0%~95% (no condensation) MTBF 100,000 hours	RS485 data index (2-wire system,half dup	lex)	
Physical interface 3-pin phoenix terminal Other Operating temperature -20°C ~ +75°C Storage temperature -40°C ~ +85°C Power supply 12V1A Power dissipation <1.5W Case Aluminium alloy Product net weight 0.2kg/pcs Product weight 0.75kg/pair Packing size 275*220*55mm Relative Humidity 0%~95% (no condensation) MTBF 100,000 hours	Error rate	<10^-9	
Other Operating temperature -20°C ~ +75°C Storage temperature -40°C ~ +85°C Power supply 12V1A Power dissipation <1.5W Case Aluminium alloy Product net weight 0.2kg/pcs Product weight 0.75kg/pair Packing size 275*220*55mm Relative Humidity 0%~95% (no condensation) MTBF 100,000 hours	Bit rate	0-400Kbps	
Operating temperature -20°C ~ +75°C Storage temperature -40°C ~ +85°C Power supply 12V1A Power dissipation Case Aluminium alloy Product net weight 0.2kg/pcs Product weight 0.75kg/pair Packing size 275*220*55mm Relative Humidity 0%~95% (no condensation) MTBF 100,000 hours	Physical interface	3-pin phoenix terminal	
Storage temperature -40°C ~ +85°C Power supply 12V1A Power dissipation <1.5W Case Aluminium alloy Product net weight 0.2kg/pcs Product weight 0.75kg/pair Packing size 275*220*55mm Relative Humidity 0%~95% (no condensation) MTBF 100,000 hours	Other		
Power supply 12V1A Power dissipation <1.5W Case Aluminium alloy Product net weight 0.2kg/pcs Product weight 0.75kg/pair Packing size 275*220*55mm Relative Humidity 0%~95% (no condensation) MTBF 100,000 hours	Operating temperature	-20°C ~ +75°C	
Power dissipation <1.5W Case Aluminium alloy Product net weight 0.2kg/pcs Product weight 0.75kg/pair Packing size 275*220*55mm Relative Humidity 0%~95% (no condensation) MTBF 100,000 hours	Storage temperature	-40°C ~ +85°C	
Case Aluminium alloy Product net weight 0.2kg/pcs Product weight 0.75kg/pair Packing size 275*220*55mm Relative Humidity 0%~95% (no condensation) MTBF 100,000 hours	Power supply	12V1A	
Product net weight O.2kg/pcs O.75kg/pair Packing size 275*220*55mm Relative Humidity 0%~95% (no condensation) MTBF 100,000 hours	Power dissipation	<1.5W	
Product weight 0.75kg/pair Packing size 275*220*55mm Relative Humidity 0%~95% (no condensation) MTBF 100,000 hours	Case	Aluminium alloy	
Packing size 275*220*55mm Relative Humidity 0%~95% (no condensation) MTBF 100,000 hours	Product net weight	0.2kg/pcs	
Relative Humidity 0%~95% (no condensation) MTBF 100,000 hours	Product weight	0.75kg/pair	
MTBF 100,000 hours	Packing size	275*220*55mm	
	Relative Humidity	0%~95% (no condensation)	
Warranty 3 Years	MTBF	100,000 hours	
· · · · · · · · · · · · · · · · · · ·	Warranty	3 Years	

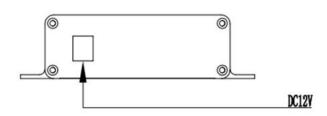
Dimension



Transmitter panel & Indicator description

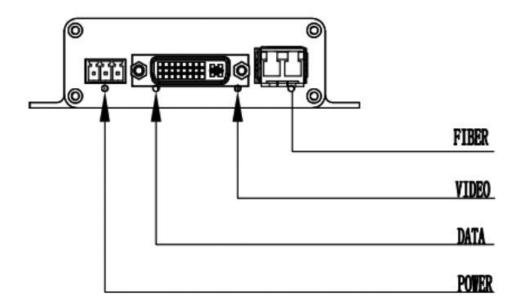


Transmitter Front Panel



Transmitter Back Panel

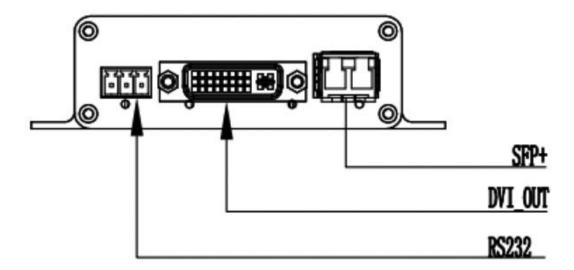
Panel Screen	Description	
SFP+	10G SFP fiber module	
DVI IN	DVI signal input	
RS232	1: GND	Ground wire
	2: RS232 IN	Transmit
	3: RS232 OUT	Receive
DC12V	12V power supply interface	



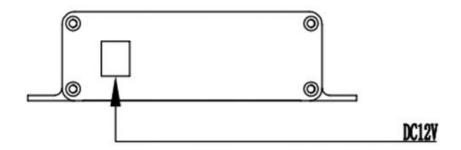
Transmitter Indicator

Indicator	Description	
FIBER	Light on: fiber signal	
	Light off: no fiber signal	
VIDEO	Light on: video signal	
	Light off: no video signal	
	Dial down on: Audio embedding mode is on	
DATA	Blinking: data signal	
	Off: no data signal	
POWER	On: the device is powered on	
	Off: the device is powered off	

Receiver panel & Indicator description

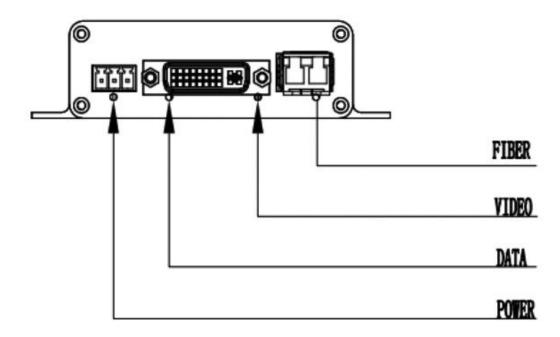


Receiver Front Panel



Receiver Back Panel

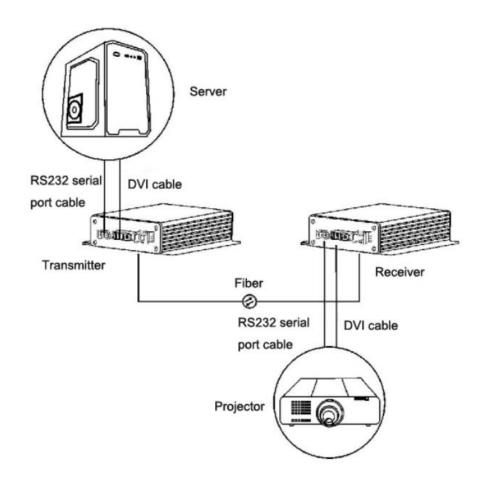
Panel Screen	Description	
SFP+	10G SFP fiber mod	dule
DVI OUT	DVI signal output	
RS232	1 GND	Ground wire
	2 RS232 IN	Transmit
	3 RS232 OUT	Receive
DC12V	12V power supply	ı interface



Receiver Indicator

Indicator	Description
FIBER	Light on: fiber signal
	Light off: no fiber signal
VIDEO	Light on: video signal
	Light off : no video signal
DATA	Blinking: data signal
	Off: no data signal
POWER	On: the device is power on
	Off: the device is power off

> Application



> Ordering Information

Model NO.	Description	
DVI0101-10G	1 channel DVI video + 1 channel bidirectional RS232 to fiber optical converter	
DVI0102-10G	1 channel DVI video + 1 channel bidirectional RS485 to fiber optical converter	
MN-DVI0100-10G	Mini DVI 1.0 Video Optical Converter, Single mode single fiber	

Packing List

- DVI Video Over Fiber Converter *1
- Power adapter:DC12V
- User manual * 1
- Certificate of quality * 1
- Warranty card * 1

Attention

Lightning protection, static electricity and grounding:

It is recommended that when install the device, consideration should be given to the impact of grounding by lightning, and take prevention measures. Strong static electricity will damage the optical device and data chip in the equipment. It is recommended that when plug/unplug the data port of the optical converter, please disconnect the power supply of the optical converter first. Equipment housing is not waterproof, equipment installation box should be fully considered waterproof.

Fiber and optical components:

Be careful when plugging the optical fiber as optical components of the optical converter is very fragile, and it should avoid causing damage to the optical components. It should be noted that the light source produced by the optical components of the optical converter will be harmful to eyes, so do not have direct eye contact with the optical components of optical converter. If you need to detect the optical power of the optical converter, please use the optical power meter.

Equipment and installation procedures:

- Optical fiber installation:please carefully insert the optical fiber into the optical fiber interface
 of the optical terminal after confirming that the optical fiber link meets the installation
 requirements.
- Power amplifier audio signal cannot be directly sent to the transmitter, which will cause burn-in.
- Equipment installation: The equipment is used in pairs, which include a transmitter and a receiver, this information is clearly stated on the label and printed on the chassis of the equipment.