

VGA Multi-function Fiber Optical Converter, 1080P

➤ Features

- Support resolution 1920*1080P/60Hz;
- Support automatic phase detection (APD);
- Support automatic position calibration (APC);
- Support automatic gain calibration (AGC);
- Support for audio emulation (AFE);
- Support Time-base corrector (TBC);
- Support Chroma sampling : 4:4:4;
- Non-compression;
- Delay < 1ms;
- Single-mode single-fiber,with a transmission distance of 20KM;
- Support VGA video with local loop out;
- Support 1 channel bidirectional 3.5 independent audio;
- Support 1 channel KVM (keyboard and mouse);
- Support 1 channel bidirectional RS232 (RS485) serial port data (optional);
- Support 1 channel reverse contact closure;
- Support 1 channel reverse IR infrared function;
- Support hot swap signal, plug and play, no setting required;
- Support power supply DC12V;
- Wide range of operational temperature (-20°C ~75°C);
- Warranty: 3 years;



➤ Introduction

UPCOM VGA multi-function fiber optical converter can transmit one VGA video with local video loop,1 channel keyboard and mouse,1 channel bidirectional 3.5mm independent audio,1 channel bidirectional RS232 data,1 channel reverse IR,1 channel reverse contact closure.SFP optical module design,more flexible and practical on site,users can upgrade and maintenance by themselves.The device support the highest resolution of 1920*1080P/60Hz and downward compatibility,high image definition,long-distance transmission without distortion,especially for high demand environment transmission.For example,image quality requirements,delay requirements,anti-interference requirements,compatibility,stability, reliability, consistency and other scenarios.

VGA0111-10G-MK VGA fiber optical converter has been in commercial operation for a long time, which proves that the product performance is stable,and there is no compatibility problem with the manufacturer of the major brand signal terminal and display terminal,simple to install and easy to maintain, suitable for large-scale commercial operation.Ideal for high-performance computer remote interactive operations,such as radio and television video recording,medical system,projection fusion,stage rental,video conference,multimedia teaching,municipal/military command applications.Lossless images, real-time high-bandwidth fiber optic transmission gives remote customers the experience of operating locally.

➤ 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

➤ Specification

Fiber Optical	
Wavelength	1310-1550nm
Rate	10Gbps
Tx power	> -5db
Rx sensitivity	> -14db
Fiber connector	LC
Video	
Video specifications	The RGB bands are synchronized with H and V alone
Maximum pixel clock	148.5MHZ
Resolution	480i/p, 576i/p
	720p25/30/50/60
	1080i50/60
	1080p24/25/30/50/60
Effective cable length	10M
Physical interface	HD-15
KVM(USB) index	
Version	1.1
Tx physical interface	USB female type B
Rx physical interface	USB female type A
Audio index	
Sampling frequency	48K
Sampling depth	24bit
Dynamic bandwidth	96db
Total harmonic distortion	-88db
Signal to noise ratio (SNR)	96db
Audio input/output impedance	600Ω
Signal level	VPP 3.5V
Physical interface	3.5mm stereo audio socket

Signal type	Analog stereo channel
IR index	
Infrared interface	Standard 3.5mm interface
Infrared frequency	Standard with 20-60KHz
Signal type	Digit signal
Infrared transmission direction	Reverse transmission
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
Contact closure index	
Input electrical parameters	Dry node, not charged (short or disconnected)
Output electrical parameters	Dry node, not charged (short or disconnected)
Output relay maximum switching voltage	240VAC/30VDC
Output relay maximum switching current	120VAC/0.5A ,240VAC/0.25A ,30VDC/1A ,6VDC/5A
Mechanical durability of output relay	100,000,000times
Maximum output power of relay	30W
Physical interface	2-pin phoenix terminal (transmitter) Switch button (receiver)
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	0.7kg/pair
Product weight	1.05kg/pair
Packing size	167*114*28mm
Package size	340*252*54mm
Relative Humidity	0%~95% (no condensation)
MTBF	100,000 hours
Warranty	3 Years

➤ Dimension

Transmitter panel & Indicator description



Panel Screen	Description	
VGA IN	VGA signal input	
LOOP	VGA signal loop out	
AUDIO IN	3.5mm audio input	
AUDIO OUT	3.5mm audio output	
IR OUT	Infrared receiver	
RS232	1: GND	Ground wire
	2: RS232 IN	Transmit
	3: RS232 OUT	Receive
PC	Computer USB	
FIBER	SFP Fiber Interface	
A CC OUT	A. Signal contact closure is received	
B CC OUT	B. Signal contact closure is received	
DC12V	12V power supply interface	

Indicator	Description
FIBER	Light on: fiber signal
	Light off: no fiber signal
VIDEO	Light on: video signal
	Light off: no video signal
DIP	Dial up off: Audio embedding mode is off
	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

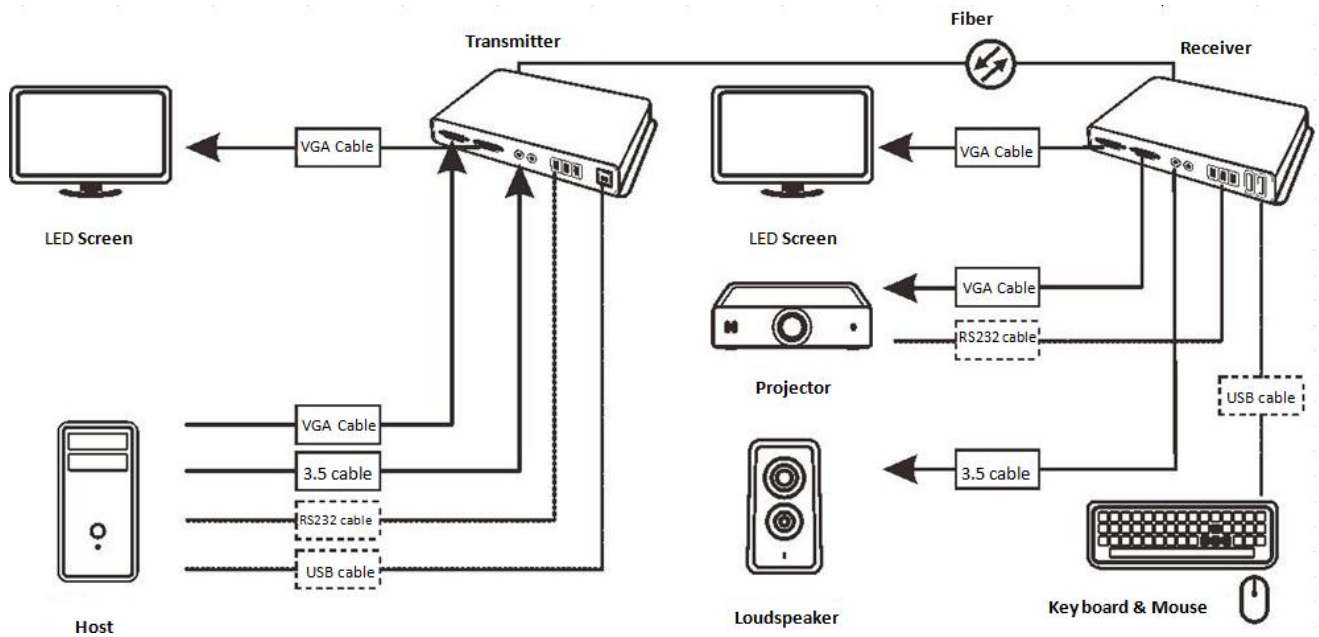
Receiver panel & Indicator description



Panel Screen	Description	
VGA OUT	VGA signal output	
LOOP	VGA signal loop out	
IR IN	Infrared transmitter	
AUDIO IN	3.5mm audio input	
AUDIO OUT	3.5mm audio output	
RS232	1 GND	Ground wire
	2 RS232 IN	Transmit
	3 RS232 OUT	Receive
KEYBOARD	Keyboard input	
MOUSE	Mouse input	
FIBER	SFP Fiber Interface	
CC IN	Contact closure signal transmission	
DC12V	12V power supply interface	

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
VGA0111-10G	1 Channel VGA video with local loop out + 1 channel bidirectional 3.5 audio + 1 channel bidirectional RS232 data + 1 channel reverse IR
VGA0111-10G-MK	1 Channel VGA video with local loop out + 1 channel bidirectional 3.5 audio + 1 channel bidirectional RS232 data + KVM
VGA0111C-10G-MK	1 Channel VGA video with local loop out + 1 channel bidirectional 3.5 audio + 1 channel bidirectional RS232 data + 1 channel reverse contact closure

➤ Packing List

- VGA 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.