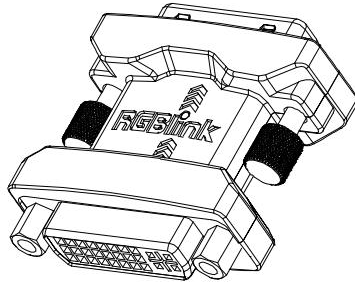
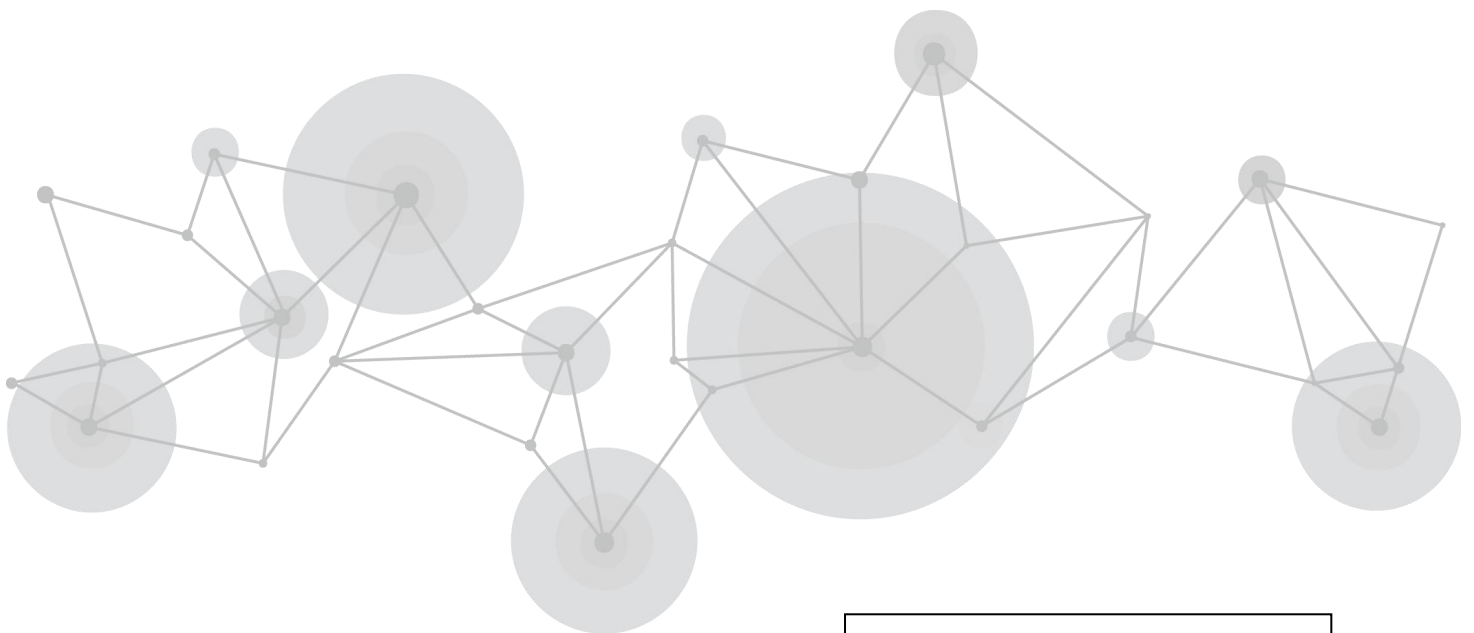

4K DVI Protector



USER MANUAL

RGBlink[®]



Article No: RGB-RD-UM-4K DVI
Protector E000
Revision No: V1.0

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Thank you for choosing our product!

This User Manual is designed to show you how to use this video processor quickly and make use of all the features. Please read all directions and instructions carefully before using this product.

Declarations

FCC/Warranty

Federal Communications Commission (FCC) Statement

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area may cause harmful interference, in which case the user will be responsible for correcting any interference.

Guarantee and Compensation

RGBlink provides a guarantee relating to perfect manufacturing as part of the legally stipulated terms of guarantee. On receipt, the purchaser must immediately inspect all delivered goods for damage incurred during transport, as well as for material and manufacturing faults. RGBlink must be informed immediately in writing of any complains.

The period of guarantee begins on the date of transfer of risks, in the case of special systems and software on the date of commissioning, at latest 30 days after the transfer of risks. In the event of justified notice of compliant, RGBlink can repair the fault or provide a replacement at its own discretion within an appropriate period. If this measure proves to be impossible or unsuccessful, the purchaser can demand a reduction in the purchase price or cancellation of the contract. All other claims, in particular those relating to compensation for direct or indirect damage, and also damage attributed to the operation of software as well as to other service provided by RGBlink, being a component of the system or independent service, will be deemed invalid provided the damage is not proven to be attributed to the absence of properties guaranteed in writing or due to the intent or gross negligence or part of RGBlink.

If the purchaser or a third party carries out modifications or repairs on goods delivered by RGBlink, or if the goods are handled incorrectly, in particular if the systems are commissioned operated incorrectly or if, after the transfer of risks, the goods are subject to influences not agreed upon in the contract, all guarantee claims of the purchaser will be rendered invalid. Not included in the guarantee coverage are system failures which are attributed to programs or special electronic circuitry provided by the purchaser, e.g. interfaces. Normal wear as well as

normal maintenance are not subject to the guarantee provided by RGBlink either. The environmental conditions as well as the servicing and maintenance regulations specified in this manual must be complied with by the customer.

Operators Safety Summary

The general safety information in this summary is for operating personnel.

Do Not Remove Covers or Panels

There are no user-serviceable parts within the unit. Removal of the top cover will expose dangerous voltages. To avoid personal injury, do not remove the top cover. Do not operate the unit without the cover installed.

Power Source

This product is intended to operate from a power source that will not apply more than 230 volts rms between the supply conductors or between both supply conductor and ground. A protective ground connection by way of grounding conductor in the power cord is essential for safe operation.

Grounding the Product

This product is grounded through the grounding conductor of the power cord. To avoid electrical shock, plug the power cord into a properly wired receptacle before connecting to the product input or output terminals. A protective-ground connection by way of the grounding conductor in the power cord is essential for safe operation.

Use the Proper Power Cord

Use only the power cord and connector specified for your product. Use only a power cord that is in good condition. Refer cord and connector changes to qualified service personnel.

Use the Proper Fuse

To avoid fire hazard, use only the fuse having identical type, voltage rating, and current rating characteristics. Refer fuse replacement to qualified service personnel.

Do Not Operate in Explosive Atmospheres

To avoid explosion, do not operate this product in an explosive atmosphere.

Installation Safety Summary

Safety Precautions

For all installation procedures, please observe the following important safety and handling rules to avoid damage to yourself and the equipment.

To protect users from electric shock, ensure that the chassis connects to earth via the ground wire provided in the AC power Cord.

The AC Socket-outlet should be installed near the equipment and be easily accessible.

Unpacking and Inspection

Before opening shipping box, inspect it for damage. If you find any damage, notify the shipping carrier immediately for all claims adjustments. As you open the box, compare its contents against the packing slip. If you find any shortages, contact your sales representative.

Once you have removed all the components from their packaging and checked that all the listed components are present, visually inspect the system to ensure there was no damage during shipping. If there is damage, notify the shipping carrier immediately for all claims adjustments.

Site Preparation

The environment in which you install your product should be clean, properly lit, free from static, and have adequate power, ventilation, and space for all components.

Chapter 1 Your Product

1.1 Packing

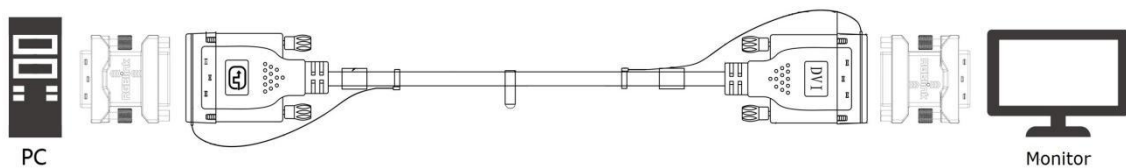


1.2 Product Overview

4K DVI Protector is designed to protect the DVI connectors on source or display devices. It can protect DVI connector against mechanical damage due to frequent plug in and out. While delivering UHD video signal it indicates signal connection by a small embedded blue LED light and offers up to 15KV ESD protection against electric shock and burning.

System Connection

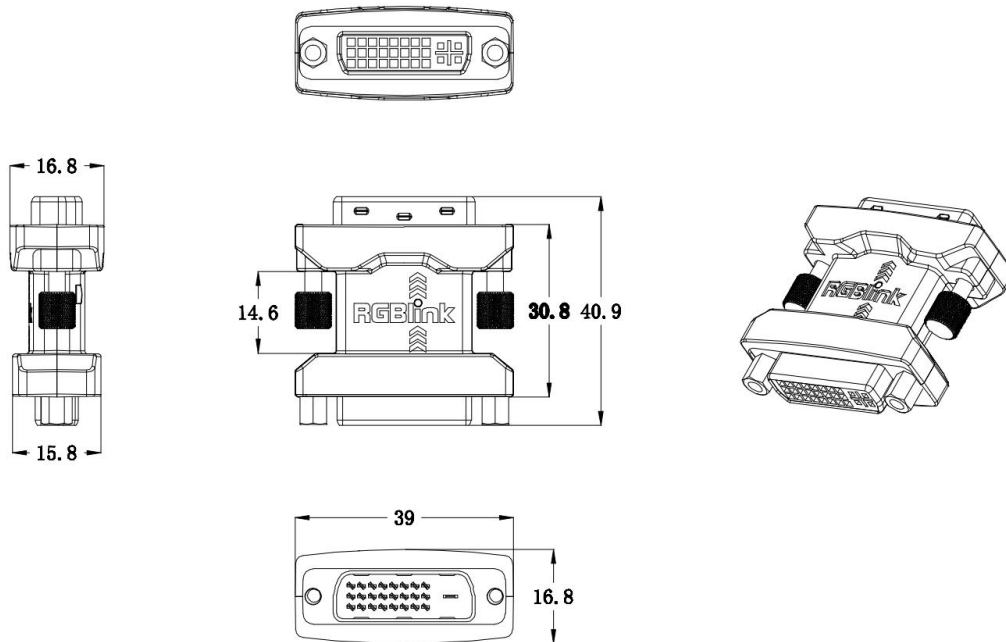
RGBlink video processing solutions provide a range of flexible configuration options for professional applications.



4K DVI Protector System Connection Diagram

1.3 Dimension

Following is the dimension of 4K DVI Protector for your reference:



Chapter 2 Use Your Product

2.1 Structure and Performance

L*W*H:40.9*39*17cm

Input Connector: DVI-FEMALE 24+5 , white rubber core plated with gold

Output Connector: DVI-MALE 24+1, white rubber core plated with gold

Connector plating: 1u" gold

Shell plating: 1u"gold

Body plating: 50 u"nickle

Insertion force: 44.1N(MAX)

Withdrawal force: 39.2N(MAX)---9.8N(MIN)

2.2 Main Features

2.2.1 Mechanical Damage Protection

Connect 4K DVI protector male port to DVI connector on devices and plug digital video cable to female port of 4K protector. In this way, DVI connectors on devices can avoid mechanical damage due to rough or incorrect operation.

DVI protectors can fit connector as follow:

Type	Signal	Pin
DVI-I Single Link	Digital/Analog	18+5
DVI-I Dual Link	Digital/Analog	24+5
DVI-D Single Link	Digital	18+1
DVI-D Dual Link	Digital	24+1

2.2.2 ESD Protection

ESD chip embedded in 4K DVI Protector offers ESD protection to the connectors and mainboard against all static electricity from clock signal ,human body, devices and surrounding environment.

2.2.2 Signal Indication

4K DVI Protector is built with a led indicator light which illuminates when there is video signal pass through, no signal or the connection cable is loose, it doesn't light up.

There are several reasons if the led indicator doesn't light up.

LED indicator Off	LED Indicator On
4K DVI protector plug into source device, but no video cable to connect	4K DVI protector plug into source device and cable connection to Display is right.
4K DVI protector plug into source device, but video cable connection goes wrong	
Correct cable connection but the Display is on Standby mode or Display is off.	

2.3 Questions and Troubleshooting

2.3.1 Yellow Characters

Question:After using 4K DVI Protector, characters or words on 4K@60Hz video gets yellow, why is that?

Solution:First of all, make sure the cable used in the connection can support 4K@60Hz video, then find out if the connector between cable, protector and device are loose, if loose, lock them.

2.3.1 Flashing Points

Question:After using 4K DVI Protector,flashing points occurs, why is that?

Solution: Check the connection between protector and device, if it get loose, tighten the connection, flashing points will disappear.

CHAPTER 3 ORDERING CODES

3.1 Product

Product Code	Item
920-0006-01-0	4K DVI Protector

3.2 Compatibility

DVI protector can be used together with following product:

Product Code	Item
921-0000-50-0	DVI-DVI Digital Video Cable, with Cap, 0.5m
921-0001-50-0	DVI-DVI Digital Video Cable, with Cap,1.5m
921-0002-01-0	DVI-DVI Digital Video Cable, with Cap, 2m
921-0003-01-0	DVI-DVI Digital Video Cable, with Cap, 3m
921-0005-01-0	DVI-DVI Digital Video Cable, with Cap, 5m
922-0001-50-0	HDMI-DVI Digital Video Cable, with Cap, 1.5m
922-0002-01-0	HDMI-DVI Digital Video Cable, with Cap2m, (with steel nail)
922-0002-01-1	HDMI-DVI Digital Video Cable, with Cap2m (without steel nail)
922-0003-01-0	HDMI-DVI Digital Video Cable, with Cap, 3m
922-0005-01-0	HDMI-DVI Digital Video Cable, with Cap, 5m
923-0002-01-0	HDMI-HDMI Digital Video Cable, with Cap, 2m (with steel nail)
923-0002-01-1	HDMI-HDMI Digital Video Cable, with Cap, 2m (without steel nail)
923-0003-01-0	HDMI-HDMI Digital Video Cable, with Cap, 3m
923-0005-01-0	HDMI-HDMI Digital Video Cable, with Cap, 5m
923-0010-01-0	HDMI-HDMI Digital Video Cable, with Cap, 10m
927-0030-00-0	DP-DVI Premium Adapter

CHAPTER 4 Support

4.1 Contact Us

www.rgblink.com



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CHAPTER 5 APPENDIX

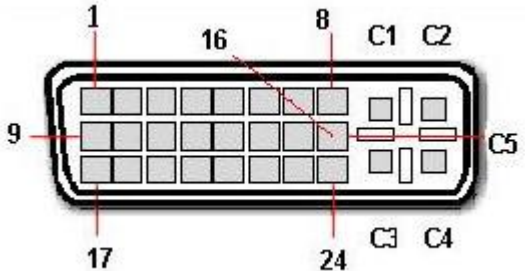
5.1 Specification

Connectors	Input	DVI-D (male)24+1
	Output	DVI-I (female)24+5
Performance	Input Resolution	SMPTE 720p@60 1080p@60 2160p@30/60 VESA 1280×720@60 1360×768@60 1366×768@60 1600×900@60 1920×1080@60 1920×1200@60 2540×1440@60 3840×2160@30/60 7680×1080@60
	Output Resolution	SMPTE 720p@60 1080p@60 2160p@30/60 VESA 1280×720@60 1360×768@60 1366×768@60 1600×900@60 1920×1080@60 1920×1200@60 2540×1440@60 3840×2160@30/60 7680×1080@60
	Supported Standards	DVI Dual Link HDMI 2.0
Power	Source	Male
Environment	Temperature	-10℃~5 0℃
	Humidity	10%~ 85%
Physical	Weight	40.9mm×39mm×17mm
	Dimension	0.048kg

Extras	
Storage Environment	20℃~80℃
Stored Environment	5% to 90%
Product Warranty	3 years parts and labor warranty

5.2 Terms & Definitions

● **DVI** : Digital Visual Interface. The digital video connectivity standard that was developed by DDWG (Digital Display Work Group). This connection standard offers two different connectors: one with 24 pins that handles digital video signals only, and one with 29 pins that handles both digital and analog video.

DVI-I Connector			
Pin	Function	Pin	Function
1	TMDS Data 2-	13	TMDS Data 3+
2	TMDS Data 2+	14	+5V DC power supply
3	TMDS Data 2/4 Shielding	15	Ground(+5 Loop)
4	TMDS Data	16	Hot plug detecting
5	TMDS Data	17	TMDS Data 0-
6	DDC Clock	18	TMDS Data 0+
7	DDC Data	19	TMDS Data 0/5 Shielding
8	Analog Genlock V	20	TMDS Data 5-
9	TMDS Data 1-	21	TMDS Data 5+
10	TMDS Data 1+	22	TMDS Data Clock Shielding
11	TMDS Data 1/3 Shielding	23	TMDS Data Clock+
12	TMDS Data 3-	24	TMDS Data Clock-
C1	Analog Genlock V	C4	Analog Genlock H
C2	Analog Green	C5	Analog ground(RGB Loop)
C3	Analog Blue		

5.3 Revision History

The table below lists the changes to the Video Processor User Manual.

Version	Time	ECO#	Description	Editor
V1.0	20200512	0000	Release	Fanny