

User Manual

HDMI & VGA & AV to SD/HD/3G-SDI Converter

1. Overview

Our HDMI & VGA & AV to SD/HD/3G-SDI Converts a single channel HDMI signals or VGA signals or AV(CVBS) signal to SD/HD/3G-SDI signals. It integrates SDI Cable equalizer and re-clocker to enhance video performance and stability. Simultaneously, it also Integrates and converts the audio signals of CABS or VGA, then embed it to SDI signal .It supports multiple resolution up to 1920x1080@60HZ. It is without scaler, while it supports the most popular resolutions to ensure high compatibility with wide brands of PC and HDTV. It provides cheaper solution of connecting HDTV and PC and AV(CVBS) to SDI devices.

2. Features



- Support all type SDI resolution
- SMPTE 425M (A level and B level), SMPTE424M, SMPTE292M, SMPTE259M-C.
- Carry 2 channel SDI signal out.
- Automatically detect the HDMI EDID information adaptive HDMI best mode
- Support all formats asymmetric conversion
- The signal lost blue screen warning
- VGA output format can be specified 720p/1080p
- Automatically embed SDI audio signal to HDMI signal.
- User selectable one signal source as output signal (HDMI and VGA and AV)
- Support independent stereo audio output



Please read the Manual before attempting to use this product. *Specifications and appearance are subject to change without notice.*



CAUTION

**RISK OF ELECTRIC SHOCK
DO NOT OPEN!**



**TO REDUCE THE RISK OF ELECTRICAL SHOCK,
DO NOT OPEN COVERS (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED
SERVICE PERSONNEL.**



Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection 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.

Caution

1. Handle this product with care

Avoid any shock or bumping of the product. Improper handling could damage the product. Do not handle the unit with wet hands. Provide proper ventilation and air circulation and do not use near water.

2. Requires a proper operating environment

This product is not waterproof and is designed for indoor use. The allowable temperature range for operation of this product is between -0°C~40°C / 32°F~104°F.

3. Check the power source voltage

The power source voltage should be within the specified range. (Product must meet the specifications).

4. Objects and liquid entry

Never push objects of any kind into this product as this may touch dangerous voltage points of short out parts that could result in a fire or electric shock. Never spill any kind of liquid on the product.

5. Cleaning

Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.

6. Servicing

Do not attempt to service this product by yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all service to qualified servicing personnel.

Package Contents

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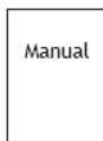
- 1. One (1) HDMI & VGA & AV to SD/HD/3G-SDI Converter**
- 2. One (1) User Manual**
- 3. One (1) AC Adapter**
- 4. One(1) IR remote controller**

1.

2.

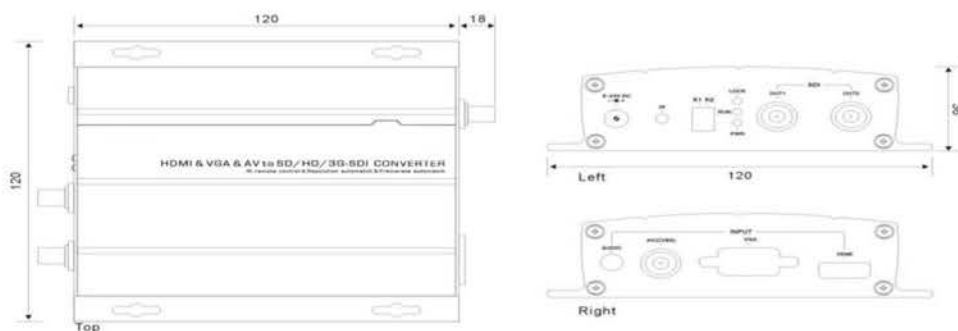
3.

4.



For any returns, please include all components listed above with original packaging in **Resalable Condition**. Absolutely No Returns will be accepted if any component is missing/damaged.

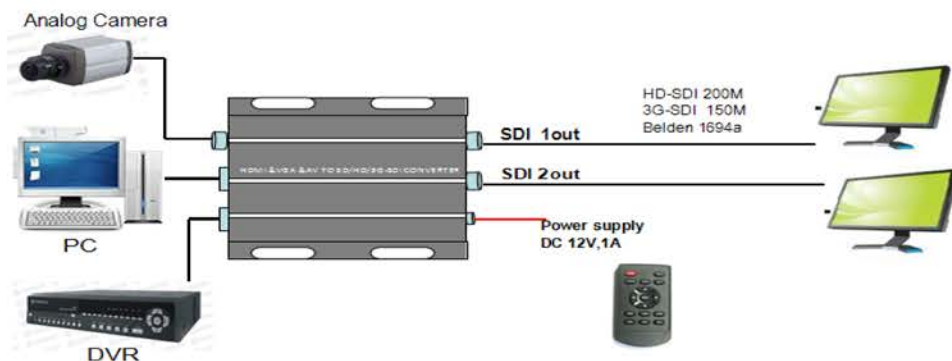
Parts & Functions



Name	Color	Status	Description
3G	Green	ON	SDI signal for 3G
		OFF	Not the 3G signal
HD	Green	ON	SDI signal for HD
		OFF	Not the 3G signal
SD	Green	ON	SDI signal for 3G
		OFF	Not the SD signal
POWER	Green	Flickering	Power on
		OFF	Power off

3. Application Diagram

* The distance depends on the quality of the SDI signal from the HD camera source and also the Coax Cable & Connector



Hardware Installation

- 1.Check the power supply configuration and connect the correct voltage according to the power supply input requirements.
- 2.Use the standard VGA,HDMI ,AV coaxial cable and connect the AV, VGA,HDMI source to inputted ports.
- 3.Use SDI coaxial cable and connect the SDI output port with the display equipment.
- 4.Turn on the power switch.

Note: This device only support to output one kind signals nor three kinds even if it could input three kinds signals and choiced from three kinds input signal

5. Specifications

Model	HDMI &VGA& AV to SD/HD/3G-SDI Converter
HDMI Input	1x HDMI
VGA Input	1x VGA
AV (CVBS) Input	1 x BNC –F
Audio input	1X3.5mm audio socket
SDI Out Interface	2x BNC SDI
Input Signal Type	SD-SDI (270Mbps), HD-SDI (1.485Gbps), 3G-SDI (2.97Gbps)
Support Input Format	SD: 525i @ 59.94Hz, 625i @ 50Hz HD: 720p @ 23.98Hz / 24Hz / 25Hz / 29.97Hz / 30Hz 720p @ 50Hz / 59.94Hz / 60Hz 1080i @ 50Hz / 59.94Hz / 60Hz 1080p @ 23.98Hz / 24Hz / 25Hz / 29.97Hz / 30Hz
SDI Signal Range	0.8V p-p
SDI Impedance	75 ohms
SDI Coupling Type	AC Coupling
Max. Output Coax Length	Belden 1694A SD-SDI 400m / 1300ft ; HD-SDI 200m / 600ft ; 3G-SDI 140m / 450ft
Frequency Bandwidth	340 MHz/ up to standard with HDCP :HDMI 1.3
Power Supply	5V~24V DC
Power Consumption	3~6 Watts
Operating Temperature	-10°C ~ 60°C / 14°F ~ 140°F
Storage Temperature	-30°C ~ 70°C / -22°F ~158°F
Relative Humidity	20~90% RH (Non-condensation)
Dimension	158 x 120x 36 mm / 6.22 x 4.72 x 1.42 inches
Weight	300g

Key Components

Components Made in USA for this product:

Name of Component
Multi-Rate SDI Adaptive Cable Equalizer
Multi-Rate SDI Automatic Reclocker
Multi-Rate Dual Slew-Rate Cable Driver
SDI SPD
HDMI ESD Protection

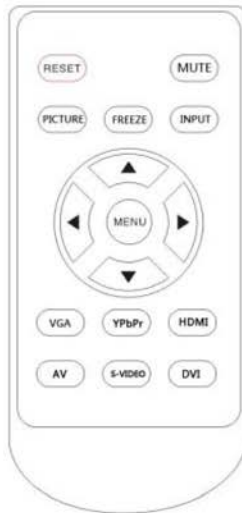
Components Made in Taiwan for this product:

Name of Component
DC/DC Converter

*Key components are listed by the manufacturer and are subject to change without notice

IR Remote Control

IR remote controller is used to control input format



A. Firstly press red button 'Power' to start management interface as bellow



B.

B .Press 'Menu' to show management interface on monitor as bellow



It will show manual functions e.f I/P scan method , VGA format, HDMI format and AV Format, Language ect

Like HDMI format :

480i/50

576i/60

480p/60

576p/50

720p@50/60

1080i @50/60

1080p @ 25/30/50/60

To execute by UP  , Down  , Left  ,right  to control the menu direction.

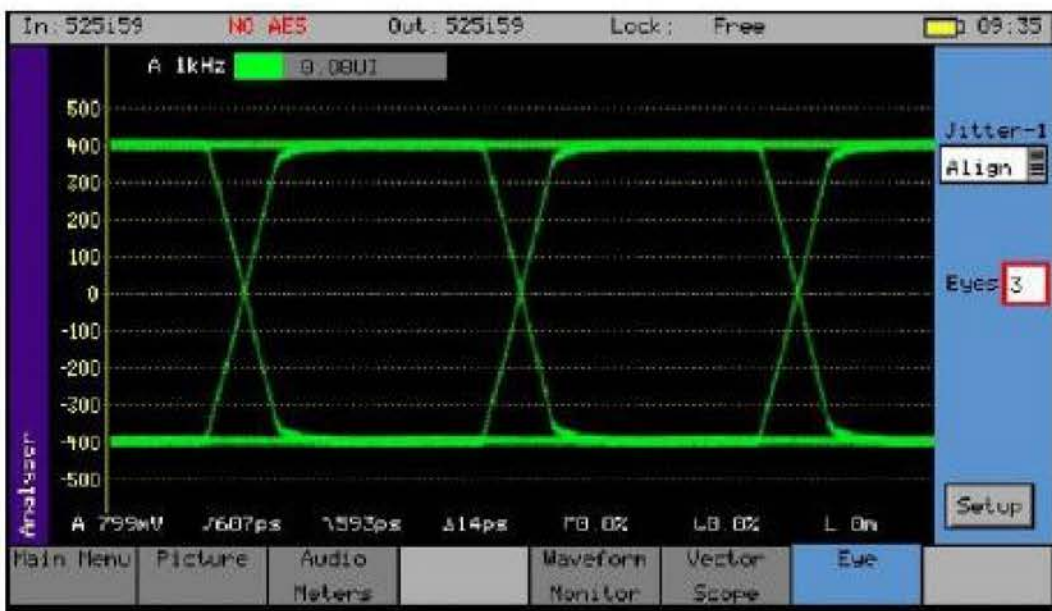
C : As Secondly press ' power' to restore default set of our device

Eye Diagram

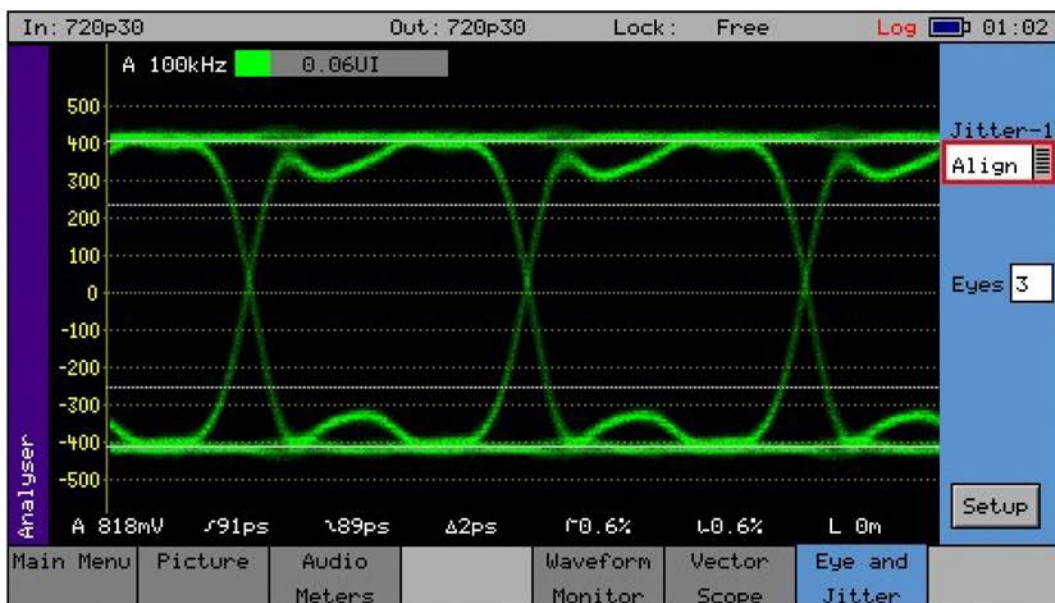
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SD Mode

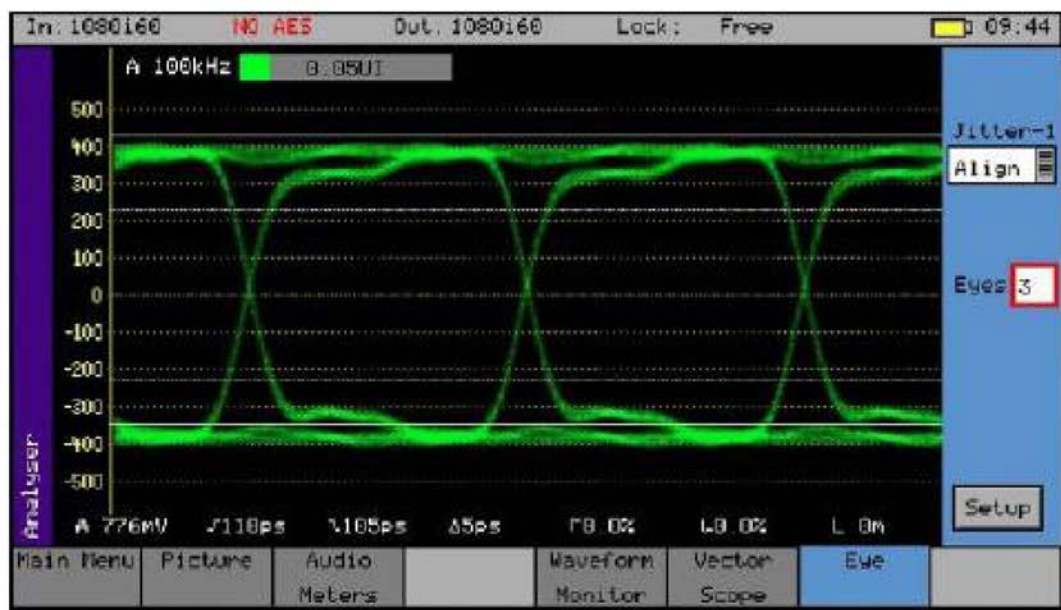
525i59



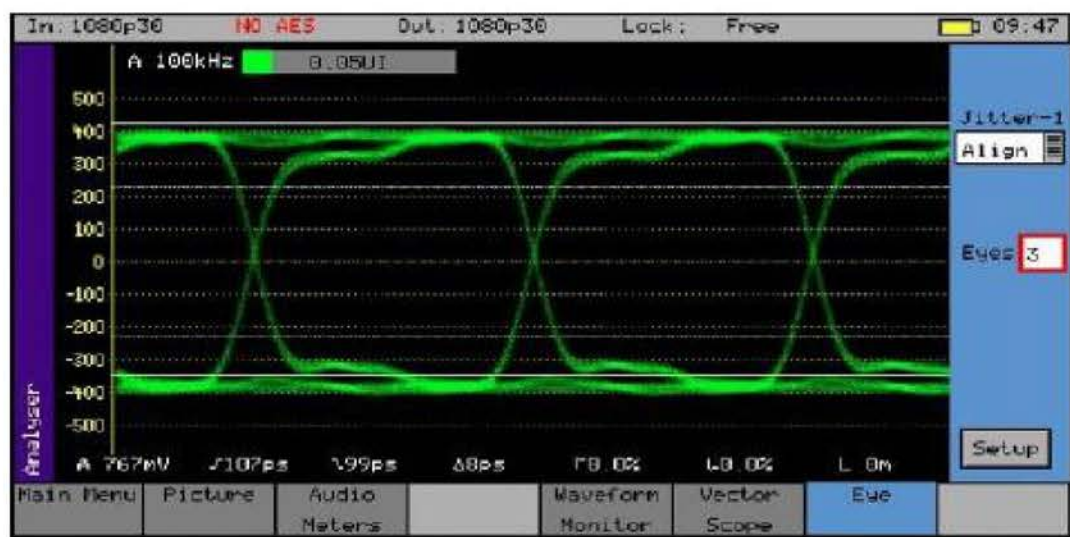
HD Mode
720p30



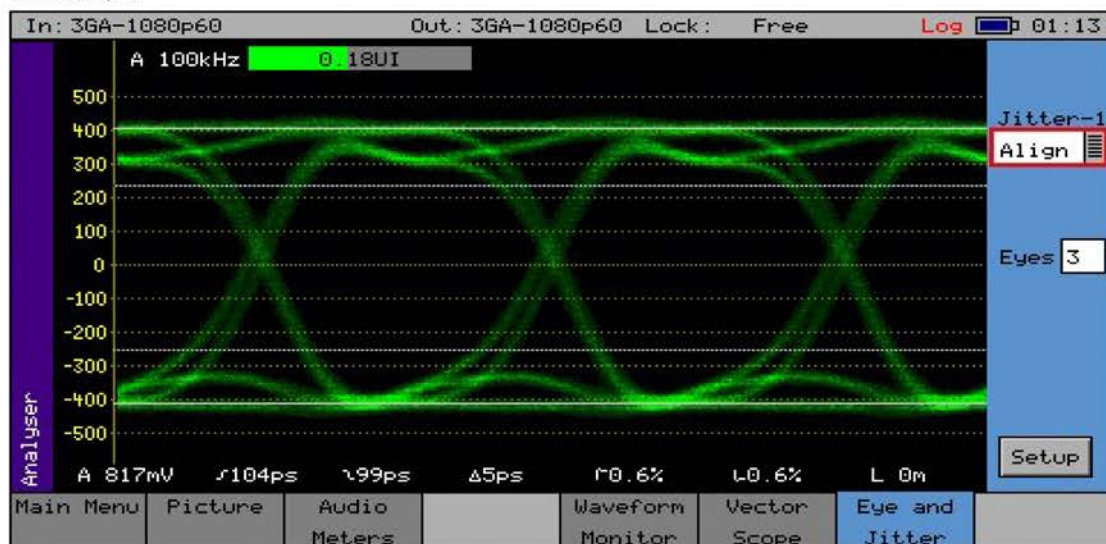
1080i60



1080p 30



3GA-1080p60

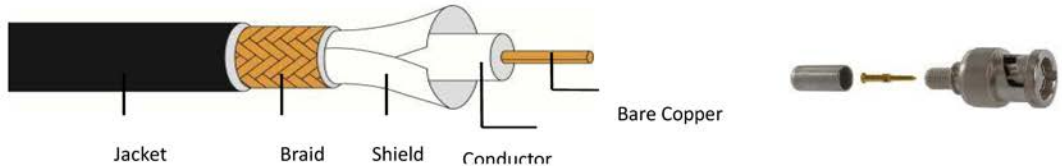




Important Note : Cable & Connector for HD-SDI camera

In order to achieve the Best Quality and Long Range coax cable run of up to 200m / 600ft, you will need:

1. **Good Quality Cable:** We suggest using RG6 Belden 1694A Low Loss Serial Digital coax cable because RG6 cables have better grounding than RG59 cables. RG6 is for Digital Signal and RG59 is for Analog Signal.
2. **Good Quality BNC Connectors:** Contact Plating Gold plated pins provide exceptional conductivity.
3. **Good Quality Installation:** Do not over cut the braid because it will affect the grounding. The image will have lines and noise.



Limited Warranty

LIMITED ONE (1) YEAR WARRANTY AND EXCLUSIONS

Manufacturer warrants to the original consumer purchaser and not for the benefit of anyone else that this product at the time of its sale by Manufacturer is free of defects in materials and workmanship under normal and proper use for one (1) year from the purchase date. Manufacturer's only obligation is to correct such defects by repair or replacement, at its option, if within such one (1) year period the product is returned prepaid, with proof of purchase date, and a description of the problem. This warrant excludes and there is disclaimed liability for labor for removal of this product or reinstallation. **This warranty is voided if this product is installed improperly or in an improper environment, overloaded, misused, opened, abused, or altered in any manner, or is not used under normal operating conditions or not in accordance with any labels or instructions. There are no other implied warranties of any kind, including merchantability and fitness or a particular purpose**, but if any implied warranty is required by the applicable jurisdiction, the duration of any such implied warranty, including merchantability and fitness of or a particular purpose, is limited to one (1) year.

Manufacturer is not liable for incidental, indirect, special, or consequential damages, including without limitation, damage to, or loss of use of, any equipment, loss sales or profits or delay or failure to perform this warranty obligation. The remedies, provided therein are the exclusive remedies under this warranty, whether based on contract, tort or others.



MADE IN CHINA