User Manual

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

NOTE: The casing design is subject to change without notice.

Our SD/HD/3G-SDI to HDMI & VGA & AV Converter is designed to convert one channel HD-SDI video source to HDMI &VGA & AV displays simultaneously. It integrates SDI Cable equalizer and re-clocker and cable driver to enhance video performance and stability.

It supports multiple resolution up to 1920x1080@60HZ and supports the most popular resolutions to ensure high compatibility with wide brands of PC and HDTV. It provides cheaper solution to connect HD-SDI to HDTV and VGA terminal.

Features :

- Support all type SDI resolution:
- SMPTE424M, SMPTE292M, SMPTE259M-C.
- Carry 1 channel SDI signal loop out.
- Automatically detect the HDMI EDID information adaptive HDMI best mode
- Support all formats asymmetric conversion
- The signal lost blue screen warning
- VGA output support 10 main resolutions
- Automatically embed SDI audio signal to HDMI signal.
- User selectable output format (HDMI and VGA and AV)
- Intelligent adaptation of PAL / NTSC
- Support independent stereo audio output

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⚠ 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.
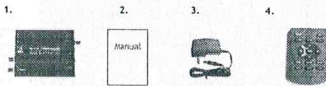
6. Servicing

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.

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Package Contents

1. One (1) SDI to HDMI Converter
2. One (1) User Manual
3. One (1) AC Adapter
4. One (1) IR remote control

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

120 18

100

3G-SDI to HDMI&VGA&CVBS
Converter

Top

Left 100
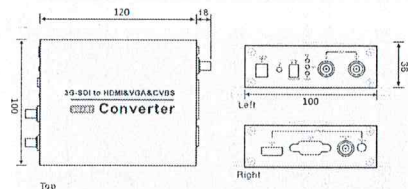
Right

Left Panel:

1. 5-24V DC : Suggest DC 12V,1A Plug in
2. IR : Ir control
3. K1/k2: Dip swtich
4. Led indicatgor : PWR /lock/RUN
5. SDI In, SDI loopback

Right Panel:

6. HDMI out
7. VGA out
8. AV out
9. Audio output (Audio speaker)

Led indicatgor :

Name	Color	Status	Description
LOCK	Green	ON	SDI signal in
		OFF	Do not detect SDI signal in
Run	Green	Flicking	Device is normal
		OFF	Device is not normal
POWER	RED	Flickering	Power on
		OFF	Power off

K1/k2 Dip Switch

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SDI To HDMI & VGA & CVBS Smart Converter			
DIP switching tutorial			
ON = UP		**OFF = DOWN**	
DIP 1&2: Output port selection (By menu setting)			
1 2		1 2	
OFF OFF	Auto resolution	OFF OFF	Auto Resolution
OFF ON	720p60	OFF ON	720P60
ON OFF	1080P30	ON OFF	1080P60
ON ON	1080p60	ON ON	800X600@60HZ
HDMI		VGA	
Please use the remote controller to set more resolutions and others.			
Just press the "MENU"button!			

Application Diagram

Audio Out

AV(CVBS)

COAX

3G-SDI to HDMI&VGA&CVBS
Converter

VGA VGA LCD

1080P

HDMI HDMI LCD
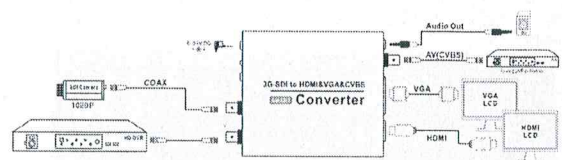
Hardware Installation

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

Note: This device only support to output two kind signals simultaneously nor Three kinds of HDMI signal and AV signal or HDMI signal and VGA signal ect.

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Model	SD/HD/3G-SDI to HDMI &VGA& AV converter
Input Interface	1x 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. Input Coax Length	Belden 1694A SD-SDI 400m / 1300ft ; HD-SDI 200m / 600ft ; 3G-SDI 140m / 450ft
SDI Loop Out	1x BNC SDI
HDMI/DVI Output	1x HDMI 1.3
HDMI format	480i/p,576i/p,720p50/60,1080p25/30,1080i50/60, 1080p50/60
Frequency Bandwidth	standard with HDCP :HDMI 1.3
VGA Output	1x VGA
VGA format	640*480@60Hz、800*600@60Hz、1024*768@60Hz、 1280*720@60Hz、1280*1024@60Hz、1360*768@60Hz、 1440*900@60Hz、1600*1200@60Hz、1680*1050@60Hz、 1920*1080@60Hz
AV (CVBS) output	1 x BNC –F
AV format	PAL and NTSC
Audio output	1x3.5mm audio socket
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	156 x 100x 36 mm
Weight	300g

Key Components

Components Made in USA for this product:

Name of Component	Manufacturer
Multi-Rate SDI Adaptive Cable Equalizer	Gennum
Multi-Rate SDI Automatic Reclocker	Gennum
Multi-Rate Dual Slew-Rate Cable Driver	Mindspeed & Gennum
SDI SPD	Bourns
HDMI ESD Protection	Semtech

Components Made in Taiwan for this product:

Name of Component	Manufacturer
DC/DC Converter	Richtek

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

IR Remote Control

IR remote controller is used to control output format
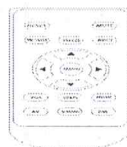
A. Firstly press red button ' Power' to start management interface

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

B . Then press 'Menu'to show main OSD menu on monitor

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 ◄ight ▶ntrol the menu direction.

And press the key of 'Menu' to enter or ensure

C : PICTURE : Menu to select output
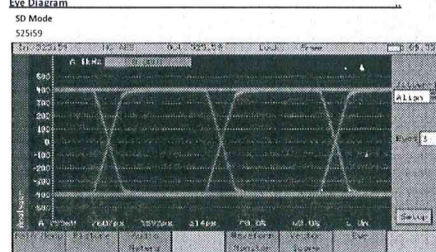
D : FREEZE : Display current input signal

E:INPUT : Show input source

F:HDMI : Select HDMI signal as input source

G:VGA : Select VGA signal as input source
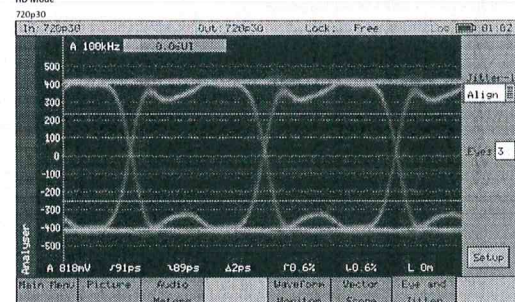
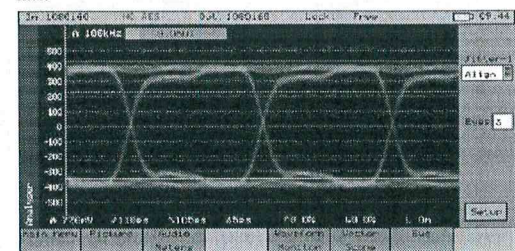H: AV : Select AV signal as input source
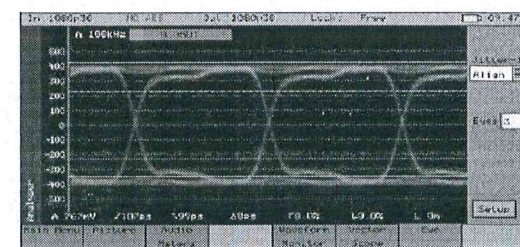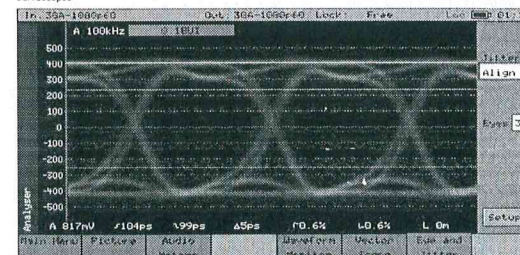
Eye Diagram

SD Mode

525i59

HD Mode

720p30

1080i60

1080p 30

3GA-1080p60