



3G / HD-SDI  
VIDEO DISTRIBUTION AMPLIFIER

## SC-HD1VDA

## User's Manual

SC-HD1VDA



## **Precaution and Safety Guidelines**

**Please read this user's manual thoroughly prior to use the unit for its easy and convenient use.**

- Do not install the product in the following places: extremely low or high temperature conditions; places exposed to rain, snow, or high humidity; places containing or exposed to oil and gas; places exposed to vibration and shock; places under direct sunlight or exposed to outdoor weather conditions; places exposed to radio waves (RF) or near to power lines. It may cause low performance or malfunction of the unit.
- Do not disassemble the product or insert foreign objects.
- The unit is subject to electric shock hazard. Be careful not to get an electric shock while using the device.
- Please use only electrical safety approved power supply unit (power adapter) with electromagnetic compatibility.
- Do not use and/or connect any devices inappropriate to the unit. It may cause malfunction of the unit or fire.
- Use this product under temperature conditions only between -10°C and +50°C.
- Should be careful not to have the lines changed when connecting them.
- Prior to turn on the device, check the cable insulation condition of the data cable, connected with external devices.
- Before installing the product, check its voltage rate and then turn on the power.
- Make sure to turn off the product prior to installation.
- Do not subject the product to physical shock or exert excessive force to operate the product.
- Do not use the device when any smoke or smell is produced from the unit. It may be subject to fire or electric shock. If any smoke or smell is produced, please turn off the unit and remove the power cable immediately, and contact your distributor to check the device properly.
- If the power does not turn ON, please check whether the power cable is connected correctly or not.
- If the device does not work properly, please contact your distributor.

# 1. Introduction

## 1.1 Overview

The SC-HD1VDA is a 1 channel HD-SDI signal distribution amplifier. Using these devices, you can split the HD-SDI signal or into two or more signals. This device provides stable signal distribution and clear video image as each channel has a separated video chips. Also, it is easy to extend the transmission distance for the video output by using SeeEyes HD-SDI products.

## 1.2 Features

- 1 input / 4 outputs
- No artifacts or other signal degradation/distortion
- Durable aluminum case body with optimum shielding
- Possible to send the HD signal with this device over COAX  
Max. 200m(RG-6) [Transmitting → Distributing → Receiving]





## 1.3 HD Signals Standards

- SeeEyes HD-SDI transmission solutions are conformed with the SDI signals standards of the SMPTE(Society of Motion Picture and Television Engineers)
- The SDI (Serial Digital Interface) signals transmission system is the innovative transmission system with which it can transmit incompressible video signals over one single cable. As the SDI signals are digital signals, it is possible to transmit limitless distance without modification by equalizing and re-clocking at each certain distance. Also, since the signals are incompressible signals, there is no aging or delay of video signals caused by the compression.

SMPTE292M-HD-SDI	1.485 Gbps
SMPTE372M-Dual link - HD-SDI	2.97 Gbps
SMPTE424M-Dual speed - HD-SDI	2.97 Gbps

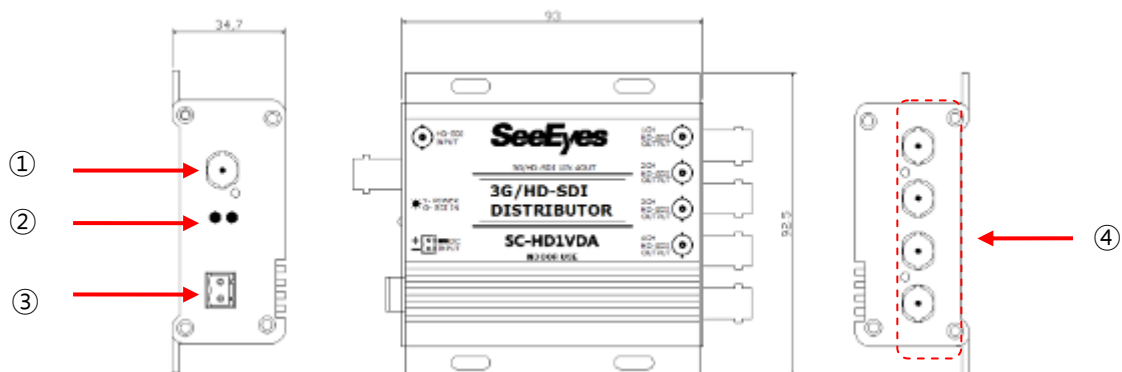
# 2. Components

Please find enclosed the following components in the package

Model	Main Unit	DC power cord	Power Adapter	User's Manual
SC-HD1VDA				

### 3. Product Parts & Peripheral Device Connection

#### 3.1 Product Parts and Function (1 in/4 out Distributor)



① **HD-SDI IN** : HD-SDI signal input port

② **LED indicator**

LED Indicator	Description
Yellow ON	Normal power supply
Green ON	Normal Operation (Inputting HD-SDI signal)

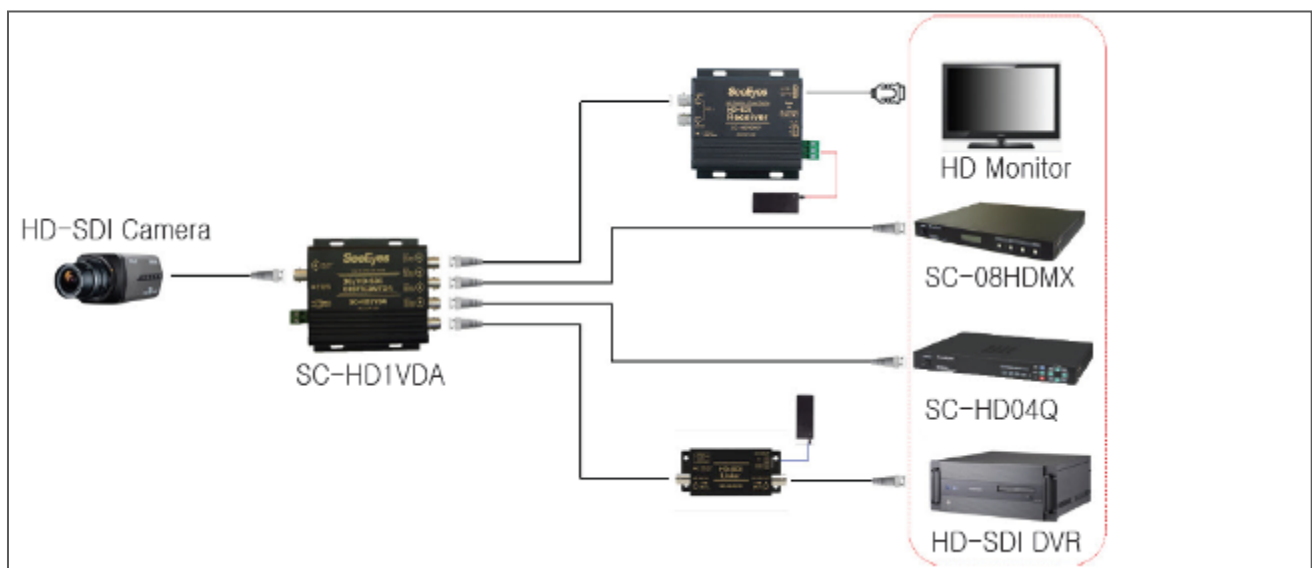
③ **DC INPUT** : DC 12V~48V [DC12V/0.167A (2W)]

④ **HD-SDI OUT (1ch ~ 4ch)** : HD-SDI Output port  
(Connecting with HD-SDI Receiver)

### 4. Connection Diagram

#### 4.1 Example #1:

- Connect HD-SDI CAMERA with SC-HD1VDA using coaxial cable(RG-6 / Max.200m) and connect SC-HD1VDA output port with HD devices such as HD monitor(with a Converter), HD Matrix, HD Splitter and HD DVR.
- Recommended transmission distance between the distributor and other HD devices is Max.200m(RG-6) (Transmission distance varies depending on the DVR/Monitor Spec or models)



## 5. Transmission Distance

### 5.1 Transmission Distance between two HD-SDI transmission solutions per coaxial cable type

Cable	Transmission Distance (m)	
	1.485Gb/s(HD)	2.97Gb/s(FULL HD)
L-5CFB(Canare)	200	120
5C-HFBT(Kumkang)	200	120
L-3C-2V(Canare)	90	50
Belden 1694A 18AWG	200	120

- Please note the distance may reduce in the actual field due to any possible video loss. Therefore, we recommend you to connect the cable under 70% of the maximum distance stated above.
- We recommend you to use BNC connectors with low connection resistance when connecting the coaxial cables.
- Please be careful not to make deformation of the cable when wiring the cable.
- Please avoid pulling the cable by force when wiring the cable.
- Please avoid bending the coaxial cable too tightly when wiring the cable. It may make deformation of the cable.

## 6. Specifications

\* SMPTE292M, SMPTE424M

MODEL		SC-1VDA
Video IN / OUT		HD-SDI
Input Power		DC 12V~48V
Power consumption		DC 12V 165mA(DC48V 45mA)
Max. trans distance		Belden 1694A, Max. 100m(Full HD), Max. 200m(HD) with RG-6
BAUDRATE		270Mbps ~ 3Gbps
Connect Port	HD-SDI IN/OUT	BNC-F (75Ω)
	Video IN	1 IN
	Video OUT	4 OUT
LED	HD-SDI (Green)	ON : Receiving the signal
	POWER (Yellow)	ON : Working
Temperature / Humidity		-10℃ ~ +50℃ / 0 ~ 80%
Case Body / Weight		Aluminum / 240g
Dimension (mm)		93(W) × 92.5(H) × 34.7(D)

## 7. Warranty Certificate

This product has passed thorough quality control and test, and if this gets broken during normal use, we provide 12 months warranty service.

<b>Model No.</b>		
<b>Serial No.</b>		
<b>Distributor</b>		
<b>Date you purchased</b>		
<b>Place you purchased</b>		
<b>Warranty Period</b>		One (1) year from the date of purchase
<b>Purchaser</b>	<b>Name</b>	
	<b>Address</b>	

- Please check this warranty indication first.
- Please contact your distributor after checking out any defect in the products.
- The standard for repairing, replacement or reimbursement follows Customer.
- Warranty content any defect under normal use within the warranty service period we give you free repair service according to the warranty certificate.
- We charge you with the fee of parts and service despite of free warranty service period. Any breakage made without care such as:
  - Breakage or trouble made by natural disaster.
  - Breakage or trouble made by breaking the product guide or manual.
  - Breakage or trouble made by wrong power voltage or frequency.
  - When you want to reassemble for full system or replace parts within warranty service period.
  - When unauthorized person modified or made damage on the product trying to repair it.
- Please note that we don't support the breakage after warranty service period is expired. If the customer wants to get it repaired, we charge them with the fee.
- The specification is subject to change without prior notice for quality improvement.

**[MEMO]**

 **SeeEyes Co.,Ltd** is the New Corporate Name of Samsung CCTV Service Co.,Ltd

**SeeEyes<sup>®</sup>**

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