

SDI-CVBS-S 3G/HD/SD-SDI to CVBS Converter



USER MANUAL

Package Contents

- 1 CVBS-SDI-S
- 1 User manual
- 1 Power adapter DC 12V
- 1 Mounting plate

Introduction

This converter is intended for monitoring use only, not for transmission or on-air use

Features

- Auto-detect 3G/HD/SD-SDI input
- Looping SDI output
- RCA Stereo analog audio output
- Coaxial audio output

SPECIFICATIONS	
SDI Input	1 x BNC
SDI Loop Out (non-re-clocked)	1 x BNC
CVBS Output	1 x RCA
Serial Digital	SMPTE 424M, 292M, 259M
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A
Return Loss	> 15db up to 1.485 Gbps > 10db up to 3G
Embedded Audio	SMPTE-272M-A
Composite	NTSC (SMPTE-170M), PAL (ITU624-2)
Signal Level	1V nominal
DC Offset	0V, + - 0.1V
Impedence	75 ohm for BNC, 100 ohm for DVI-I
Return Loss	40db up to 5MHz
Analog Audio Out	2 x RCA
Coaxial (SPDIF) Out	1 x RCA
Analog Audio sample rate	48 KHz
Digital Audio sample rate	48 KHz
Power	12 DC
Weight	3 lbs (1.5 kg)
Dimension (LxWxH)	171 x 119 x 25 mm

FRONT VIEW



1. RS-232 Control Port
Rx pin: connect to the RxD pin of the RS232 from PC
Tx pin: connect to the TxD pin of the RS232 from PC
GND pin: connect to the GND pin of the RS232 from PC
2. S-Video out Port
3. CVBS (composite video) out Port
4. OSD "Menu" Button (on/off OSD)
5. OSD "Down" Button
6. OSD "Up" Button
7. OSD "Enter" Button
8. Power LED

REAR VIEW



1. Auto-detect 3G/HD/SD-SDI input
2. Non-reclocked SDI output
3. Coaxial audio output
4. Stereo analog audio output
5. Power Indicator

INPUT VIDEO SUPPORT	
Input	Frequency
480i	59.94 Hz
576i	50 Hz
720P	50/59.94/60 Hz
1080i	50/59.94/60 Hz
1080P	23.97/24/25/29.97/30/50/59.94/60 Hz

OSD Operations

Press the "Menu" button, the OSD menu will appear, press it again to close the OSD and saves all the settings



"Enter" button, this will enter the "EDIT" mode. Change the values by "up" or "down" buttons, go back by press the "menu" button

"UP" or "DOWN" button:

The user can select various functions by pressing "up" or "down" button in the front panel to move the selection bar

RS232 Control Protocol

Baud Rate: 4800bps, 8-bit data, 1 stop bit

The unit will respond following receiving the command from the server

Command byte	Data byte	Checksum byte
Byte#0	Byte#1	Byte#2

Command byte	Data byte	ACK type (from SDI-CVBS-S)	Funtion
0xa0	0x00	B	Get Model Name
	0x01	B	Get possible output resolution number
	0x02	B	Get adjustable video parameter number
	0x03	B	Get supported audio control
0xa1	0x00~0xff	A	Brightness Default: 0x80
0xa2	0x00~0xff	A	Contrast Default: 0x80
0xa3	0x00~0xff	A	Saturation Default:0x80
	0x00/0x01	A	Output resolution 0: NTSC 1: PAL Default: 0x00
0xb0			
0xb1	0x00/0x01	A	Audio enable 0:off / 1:On Default: 0x01

Example:

To set the brightness to be the value 0x02

Server sends: 0xa1, 0x02, 0x5d

SDI-CVBS-S replies: 0xa5, 0x96

SDI-CVBS-S => Server command

Type "A" format

Ack byte	Checksum byte	Note
0xa5	0x5b	Means "ACK", the unit received a valid command
0x6a	0x96	Means "NAK", the unit received an unknown command or data byte that is out of range

Type "A" ACK format

Ack byte	Checksum byte	Note
0xa5	0x5b	Means "ACK", the unit received a valid command
0x6a	0x96	Means "NAK", the unit received an unknown command or data-byte that is out of range

Type "B" ACK format

	ACK byte	Length byte	Data byte	checksum byte
Order	Byte#0	Byte#1	Byte#2~Byte#N	Byte#N+1
Value	0x5a	N+2	0x00~0xff	0x00~0xff

*checksum byte: check sum from Byte#0~Byte#N+1

Example:

To get model of the unit

Server sends: 0xa0, 0x00, 0x60

The unit will respond 0x5a, 0x0a, '3', 'S', 'C', '-', '0', '2', 'M', 'W', 0xa0

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