User's Manual

for

SDI Converter DIY Kit

PMS Video Ltd.
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1. Warning:

It is assumed that you have already fully understood the pin assignments of the MPEG decoder in your DVD player / set-top box and have the skill to do the modification. PMS Video Ltd. is not responsible for any damage caused during the modification.

2. Introduction:

The SDI Converter DIY Kit converts the standard parallel BT656 digital video signal generated by the MPEG decoders of DVD players or set-top boxes to SDI (Serial Digital Interface) signal for video signal transmission in order to avoid unnecessary digital-to-analog and analog-to-digital conversions which will cause video quality loss. SDI can keep digital signal digital, from the source to the video processor / scaler then to the digital displays, i.e. the highest video picture quality.

2. Features:

- Standard compliant SDI output, compatible with major SDI capture devices
- Supports major DVD players and set-top boxes with ITU BT656 video output
- Provides 1 SDI output, 2nd SDI output will be available if the user installs the 2nd BNC connector
- One BNC connector is pre-installed for easy installation, 2nd BNC connector is shipped with the DIY kit
- Provides fully digital output directly from a MPEG decoder to SDI capture card/video processor
- Status LED turns on when 27MHz clock signal is detected
- 30AWG wire wrap wires and power cable are included to facilitate the installation

3. System Requirements:

-The video signal from the MPEG decoder must be ITU BT656 compliant (8-bit video data with embedded sync + 27MHz video clock).
-DC 5V (usually provided by the DVD player or the set-top box) is required to power the SDI converter.

4. Specifications:

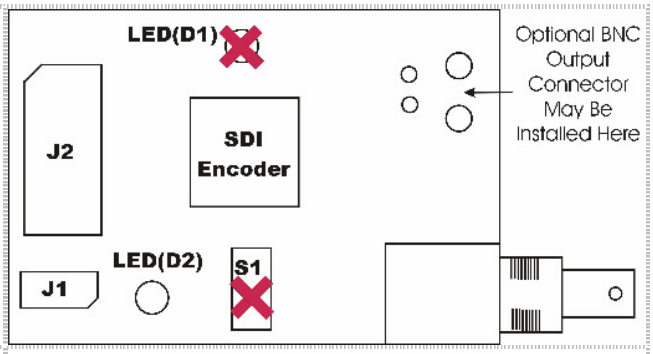
-Dimensions (H x W x D): 1.5cm x 5cm x 4cm, 1.5cm x 7cm x 4cm including the BNC connectors

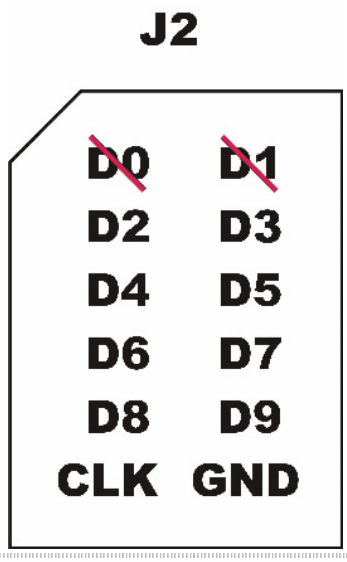
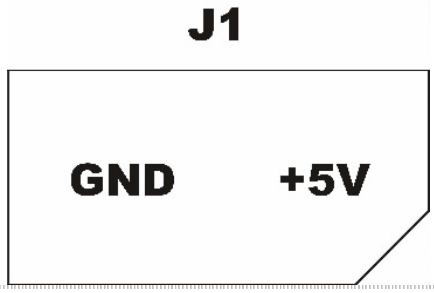
-Power consumption: 0.3W

-Two Serial Digital Interface (SDI) Output

-One BT656 Input LED Indicator

-PIN assignments:

<table>
<tr>
<td>- User may install the 2nd BNC connector which has provided if additional SDI output is needed.
- LED (D2) lights up when 27MHz clock signal is detected.</td>
<td> 
</td>
</tr>
<tr>
<td>- D0 & D1 are for 10-bits SDI applications, they are not used for DVD/set top box SDI modification.
- 8bits (D2-D9).
- D2 is the less significant bit.
- D9 is the most significant bit.
- Clock
- Ground

(Twisted clock and ground cable may lower the noise of the clock signal)</td>
<td> 
</td>
</tr>
<tr>
<td>- +5 V.
- Ground</td>
<td> 
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6. Installation:

1. Connect all D2-D9 pins to the appropriate MPEG decoder output pins of your DVD player or set-top box. The D0 and D1 pins are not used because the digital video output of the MPEG decoders in the DVD players and set-top boxes is 8-bit data only.
2. Connect the 5 volt and ground to the appropriate location on the circuit board of the DVD player or set-top box.

7. Finish:

1. After the modification, power up the DVD player or set-top box and the LED (D2) on the SDI converter DIY kit should light up indicating that it is receiving a 27MHz clock signal from the MPEG decoder of the DVD player or set-top box.
2. Connect BNC cables from the SDI output of this SDI converter DIY kit to your SDI capture device.

Example: An SDI converter DIY kit installed on a Panasonic RP82 DVD player is shown in the following picture.

Example: the pin assignment of RP82's MPEG2 decoder