



3G/HD-SDI Video Add-On board

Model: HD-1000P

Part number : P/N 416008100-3

INSTRUCTIONS

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It is essential that these instructions are read and understood before connecting or powering up this whole setup.

Introduction

The HD-1000P is the compact size of accessory add-on board for Digital View LCD controller boards. It converts a standard 3G/HD-SDI video signal to HDMI for the LCD controller board. And supporting 3G/HD-SDI loop-through output.

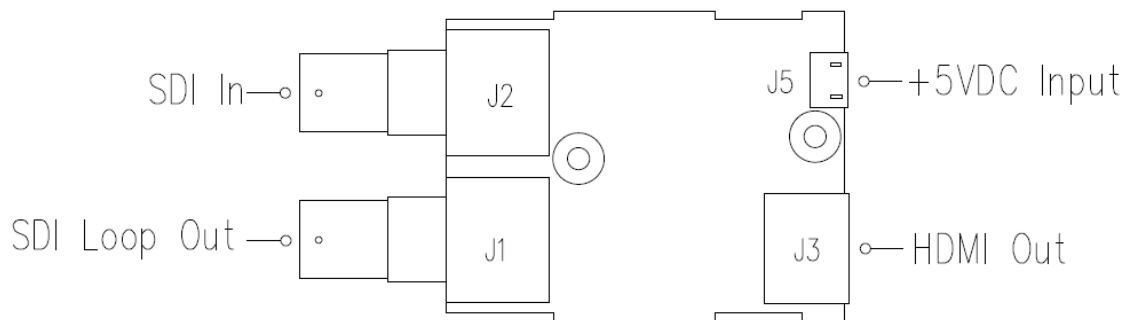
Fully compliant with the SMPTE 259M, SMPTE 292M, SMPTE 296M, SMPTE 372M, SMPTE 424M, SMPTE 425M standards.

Ordering information :

3G/HD-SDI Video Add-On board	Part number	Ordering part number
HD-1000P	P/N 416008100-3	P/N 416008100-3

Key Features

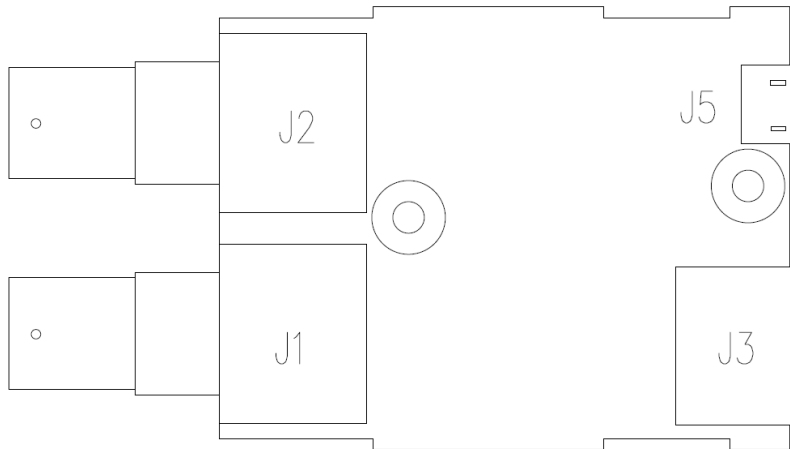
- a) Supports 1.5Gbits & 3Gbits bit rate input signal support.
> The mode support is listed in page 7, auto detection of SD or HD SDI input modes.
- b) Single channels input port supported.
> HD-1000P supports the signal path (SDI input from J2 port convert to HDMI output from J3 port).
See Figure below :



- c) 3G/HD-SDI loop through output.
> J2 SDI input and loop through to J1 SDI output.
- d) HDMI x 1 output port.
> One HDMI output port at J3.
- e) Power source from Micro USB (+5VDC, 1.6W) via J5.

CONNECTORS

The various connectors are:



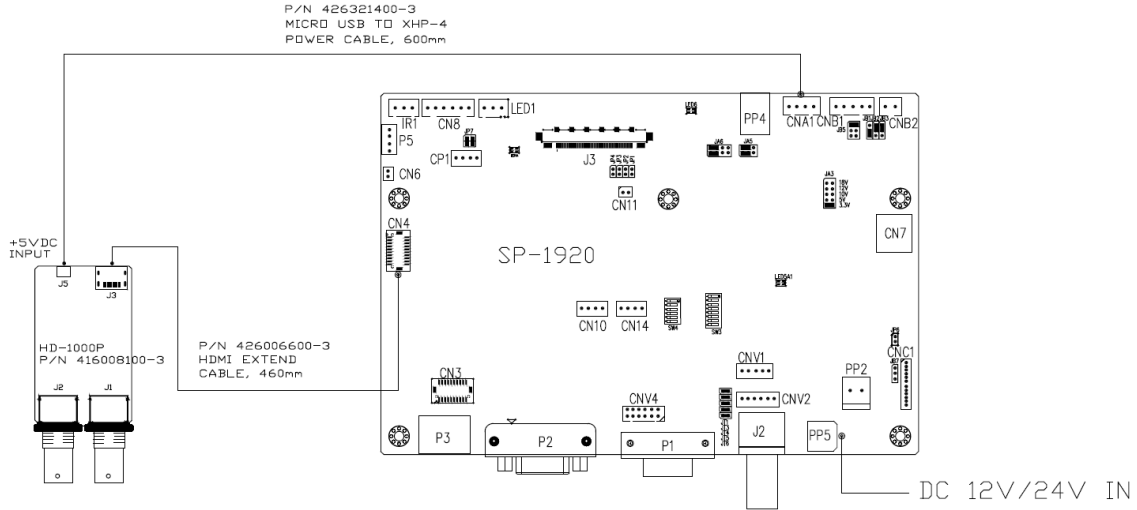
Summary: Connectors

Ref	Description	Type / Use
J1	SDI loop out	BNC connector
J2	SDI in	BNC connector
J3	HDMI out	HDMI Type A connector (matching cable : P/N 426006600-3 (header type) or P/N 420000900-3 (HDMI connector type))
J5	Power input (+5VDC)	Micro USB (matching power cable P/N 426321400-3)

SYSTEM DESIGN

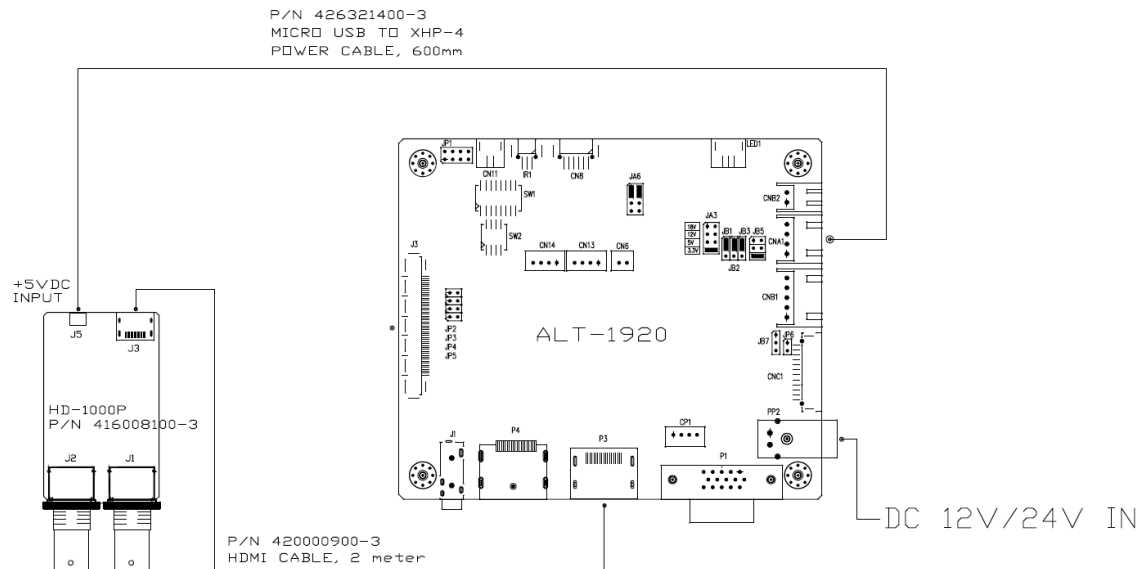
A typical LCD based display system utilising this controller is likely to comprise the following as an example :

Example 1) : Connect HD-1000P with SP-1920 (to HDMI 2 input via CN4)



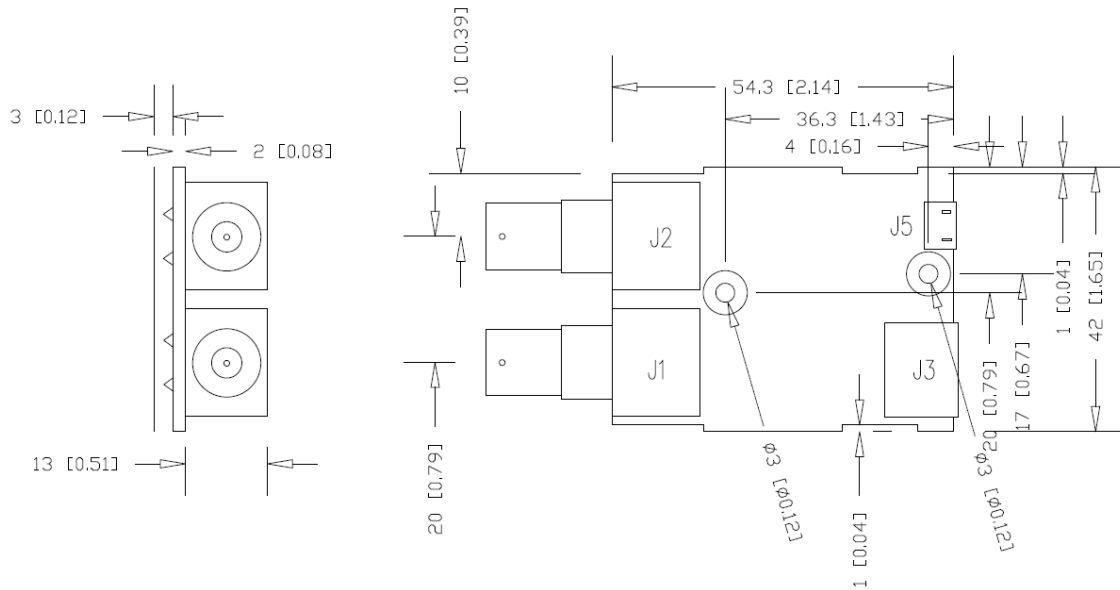
Connection cable used :	P/N 426006600-3	HDMI Extend cable, 460mm
	P/N 426321400-3	Micro USB to XHP-4 Power cable, 600mm

Example 2) : Connect HD-1000P with ALT-1920 (to HDMI input via P3)



Connection cable used :	P/N 420000900-3	HDMI cable, 2 meter
	P/N 426321400-3	Micro USB to XHP-4 Power cable, 600mm

Board Dimensions



Ready-made 3D Pro-E (SLDPRT) drawing files - Save time and effort for your system volumetric analysis design. Includes jpg file previews. Please go to download at <http://www.digitalview.com/accessories/hd-1000p>

The maximum thickness of the adaptor board is 18mm (measured from bottom of PCB to top of components, excluding the BNC connectors). We recommend clearances of:

- 5mm from bottom of PCB - if mounting on a metal plate we also recommend a layer of suitable insulation material is added to the mounting plate surface.
- 10mm above the components
- 3~5mm around the edges

Any of the holes shown above can be used for mounting the PCB, they are 3mm in diameter.

CAUTION: Ensure adequate insulation is provided for all areas of the PCB with special attention to high voltage parts such as the inverter.

Specification

Supported serial interface standard	SMPTE 259M, SMPTE 292M, SMPTE 296M, SMPTE 372M, SMPTE 424M, SMPTE 425M
Supported SDI video standard	525i59.94 NTSC, 625i50 PAL 720p50, 720p59.94, 720p60 1080p23.98, 1080p24, 1080p25, 1080p29.97, 1080p30, 1080p50, 1080p59.94, 1080p60 1080PsF25, 1080PsF29.97, 1080PsF30 1080i50, 1080i59.94, 1080i60
SDI Color Precision	4:2:2
SDI Color Space	YUV
SDI Auto Switching	Automatically detects SD, HD and 3G-SDI
HDMI Video Standards	525i29.97 NTSC, 625i25 PAL 720p50, 720p59.94, 720p60 1080p23.98, 1080p24, 1080p25, 1080p29.97, 1080p30, 1080p50, 1080p59.94, 1080p60 1080i50, 1080i59.94, 1080i60
HDMI Color Precision	4:2:2
HDMI Color Space	YUV
Number of channel input port supported	1 x SDI In
HD-SDI loop through output	1 x SDI Loop Out
Output port	1 x HDMI
Power requirement	Power source from Micro USB
Power consumption	+5VDC , 1.6W Operational Voltage Range : 4.4 to 5.25VDC
Environmental	Operating temperature : 0°C to 40°C Storage temperature : -20° to 60° C Relative humidity : 0%-90% relative humidity (Non-condensing)
RoHS Compliant	Yes
Dimensions	54(W) x 40 (D) x 18(H) mm

Appendix I – Mode Support Table

Mode
625i50 (PAL)
525i59.94 (NTSC)
720p60 (4:2:2)
720p59.94 (4:2:2)
720p50 (4:2:2)
1080i50 (4:2:2)
1080i59.94 (4:2:2)
1080i60 (4:2:2)
1080p23.98 (4:2:2)
1080p24 (4:2:2)
1080p25 (4:2:2)
1080p29.97 (4:2:2)
1080p30 (4:2:2)
1080p50 (4:2:2)
1080p59.94 (4:2:2)
1080p60 (4:2:2)
1080PsF25 (4:2:2)
1080PsF29.97 (4:2:2)
1080PsF30 (4:2:2)

WARRANTY

The products are warranted against defects in workmanship and material for a period of three (3) year from the date of purchase provided no modifications are made to it and it is operated under normal conditions and in compliance with the instruction manual.

The warranty does not apply to:

- Product that has been installed incorrectly, this specifically includes but is not limited to cases where electrical short circuit is caused.
- Product that has been altered or repaired except by the manufacturer (or with the manufacturer's consent).
- Product that has subjected to misuse, accidents, abuse, negligence or unusual stress whether physical or electrical.
- Ordinary wear and tear.

Except for the above express warranties, the manufacturer disclaims all warranties on products furnished hereunder, including all implied warranties of merchantability and fitness for a particular application or purpose. The stated express warranties are in lieu of all obligations or liabilities on the part of the manufacturer for damages, including but not limited to special, indirect consequential damages arising out of or in connection with the use of or performance of the products.

CAUTION

Whilst care has been taken to provide as much detail as possible for use of this product it cannot be relied upon as an exhaustive source of information. This product is for use by suitably qualified persons who understand the nature of the work they are doing and are able to take suitable precautions and design and produce a product that is safe and meets regulatory requirements.

LIMITATION OF LIABILITY

The manufacturer's liability for damages to customer or others resulting from the use of any product supplied hereunder shall in no event exceed the purchase price of said product.

TRADEMARKS

The following are trademarks of Digital View Ltd:

- Digital View
- HD-1000P

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Revision History

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5 June 2020	1.0	All	First issue