



DP-801S
User Manual

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Company Information

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Introduction

This manual describes the hardware operation of the DP-801S product from dPict Imaging. The DP-801S is an interface board designed to convert video data from Sony 4K block cameras to SDI. It supports all video resolutions of Sony 4K block cameras and provides camera power and VISCA support for complete camera integration. A full list of features and specifications can be found below.

DP-801S Board Specifications

Below are the features and specifications of the DP-801S interface board.

DP-801S Board Features

- 12G SDI interface board for Sony 4K block cameras
- Converts camera HDMI to SDI
- Supports FCB-ER and FCB-EW cameras
- Automatic camera resolution detection
- Provides SDI output up to 4K60p resolution
- Power and VISCA interface to camera
- Direct connection to 30-pin Sony connector
- Extended operating temperature
- Inframe, PID, and ANC insertion support
- Available Integration Kit for each Sony block

DP-801S Board Specifications

HDMI Resolution Support

QFHD

- 3840 x 2160 60p
- 3840 x 2160 59.94p
- 3850 x 2160 50p
- 3850 x 2160 30p
- 3840 x 2160 29.97p
- 3840 x 2160 25p
- 3840 x 2160 23.98p

FHD

- 1920 x 1080 60p
- 1920 x 1080 59.94p
- 1920 x 1080 50p
- 1920 x 1080 30p
- 1920 x 1080 25p
- 1280 x 720 60p
- 1280 x 720 59.94p
- 1280 x 720 50p

Physical and Environmental

- 63 mm (length) x 54 mm (width)
- Operating Temperature: -45°C -85°C
- Operating Power Usage: 3.5 W
- Relative Humidity: 5% up to 95% non-condensing
- KEL USL00-30L-A 30-pin IDC Connector (Sony interface)
- BNC or Optional MCX Connector (SDI)
- Wurth 5 POS 3.5 mm (VISCA)
- Wurth 2 POS 3.5 mm Connector (Power)

Integration Kit

An Integration Kit (part number 90105) is available for Sony FCB-EW9500H and FCB-ER9500 blocks. The integration kit comes with a KEL USL20-30-SS-011.0-C cable, serial (VISCA) cable, screws and bracket.

Installation Procedure

The following is the installation procedures for the DP-801S interface card and appropriate models of the Sony block cameras.



Warning: The components on the DP-801S are sensitive to static electricity and power surges. Improper handling and operation can damage the circuitry and therefore result in devices that no longer function. Discharge any static electricity from your body by touching a metal or grounded object before handling electronics.

FCB-EW9500H and FCB-ER9500 Installation

- Connect the KEL cable to the Sony block camera. Connect the cable with the gold side of the cable connector facing up.
- Attach the FCB EW/ER-9500 Bracket to the Sony block through the camera holes using the supplied black M2 screws. Note the bracket orientation as shown in Figure 1 below.

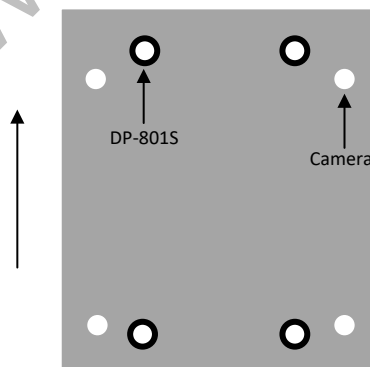


Figure 1. FCB EW/ER-9500 Bracket Orientation

- Thread the KEL cable between the Sony block and FCB EW/ER-9500 Bracket and connect it to the DP-801S with the gold side of the cable up.
- Attach the DP-801S to FCB EW/ER-9500 using the 2-56 stainless screws. Figure 2 shows the alignment of the bracket and DP-801S board.

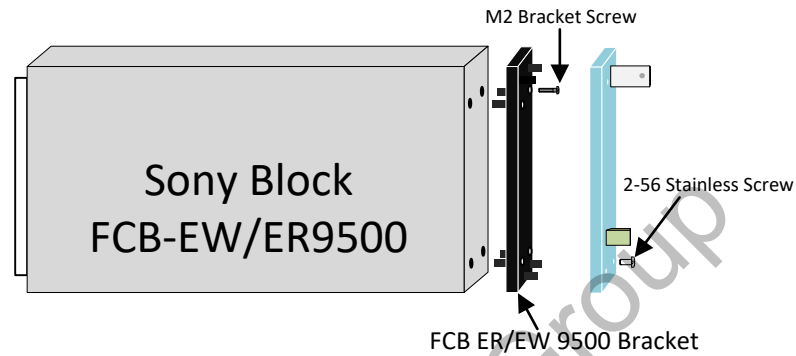


Figure 2. FCB-EW/ER9500 Installation

Connector Information

Figure 3 shows the various connectors on the DP-800H board. The following is a description of the connectors and their functions.

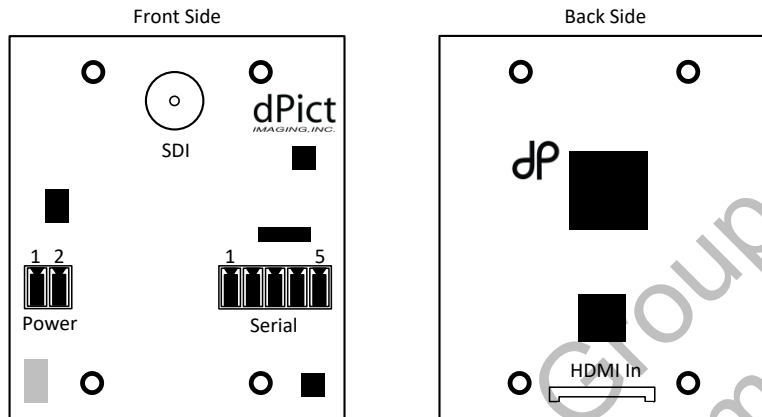


Figure 3. DP-801S Connectors

Serial – The serial connector is used for VISCA communications to the Sony block camera. Camera configuration settings can be accomplished by using the Sony configuration application. Table 1 below shows the pinout of the serial connector.

Part: Wurth 69132110005
 Mating Connector: Wurth 691361100005

Pin	Description
1	VISCA Tx
2	VISCA Rx
3	GND
4, 5	Reserved

Table 1. Serial Connector Pinout

SDI Out – The HDMI output connector is a BNC connector that supports 12G SDI. The DP-801S can also be configured with an MCX connector.

HDMI In – HDMI from the Sony block camera is input to the DP-801S on the KEL USL00-30L-A connector using the KEL USL20-30SS-011.0-C cable assembly.

Power – 12V power to the DP-801S and Sony block camera is supplied through the Wurth power jack connector. Power supplies are available for order separately or with a DP-801S Integration Kit. Table 2 shows the pinout of the power connector.

Part: Wurth 691321100002
Mating Connector: Wurth 691361100002

Label	Description
1	+12V DV Power
2	Ground

Table 2. Power Connector Pinout

Note: The power LED on the DP-801S will light RED and the module will not start if the power supplied has the wrong polarity. The LED will light GREEN for normal operating conditions.

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Startup

The following is the startup procedure for the DP-801S interface card after being installed to the Sony block camera.

Note: Depending on the Sony block model and resolution being used, there may be a few seconds of delay after power is applied before video is seen on the SDI monitor.

- Connect a 12G capable SDI cable (not supplied) to the SDI monitor.
- Connect the DP-801S Serial Cable to the serial connector for VISCA communication. If your source does not have a 9-pin serial connector, a USB to serial adapter cable will be needed (not supplied).
- Connect 12V DC power to the DP-801S power connector. After initialization, the DP-801S will determine the block camera resolution and automatically configure to the same resolution.

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Customer Support

Contact Information

The dPict Imaging Customer Support Team can be contacted using the following methods:

- Phone: 317-436-8411 x2
- Email: dpictsupport@dpictimaging.com
- Website support form: <http://dpictimaging.com/Support/TechSupport.html>

Additional Support

The dPict Imaging website, located at <http://www.dpictimaging.com>, has a wide variety of resources to assist you in using our products. They include:

- Descriptions of the entire product line of dPict Imaging products
- Software/driver installers for all dPict Imaging products
- Specification sheets
- Cable diagrams
- Connector diagrams

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