
HD-SDI Interface board (lvhd1) for Sony FCB-H10 / FCB-H11

Ponca Technologies



This information is provided without warranty.

HD-SDI I/F BOARD (LVHD1)



Top View



Side View



Bottom View



Connected to FCBH10



Connected to FCBH10

SPECIFICATION

INPUTS:

- DATA: 4 Link LVDS (*from Sony FCB-H10*)
- CLOCK: LVDS (*from Sony FCB-H10*)
- CAMERA RESET: LVTTL
- CONTROL Rx: RS232

OUTPUTS:

- CONTROL Tx: RS232
- VIDEO (HD MODE): HD-SDI, 1080i or 720p, 59.94Hz or 50Hz (*analog Y/Pb/Pr direct from the camera*)
- VIDEO (SD MODE): CVBS (*direct from the camera*)

POWER INPUT:

- 7V to 12V regulated, 8V recommended
- 6Watts (for both, camera and module, camera in HD mode)

OPERATING CONDITIONS:

- Ambient Temperature (min/max):
+5°C/+45°C=41°F/113°F
- HUMIDITY: 20% - 70%

STORAGE CONDITIONS:

- Temperature (min/max):
0°C/+50°C=32°F/122°F
- Humidity: 20%-80%

BOARD MECHANICAL:

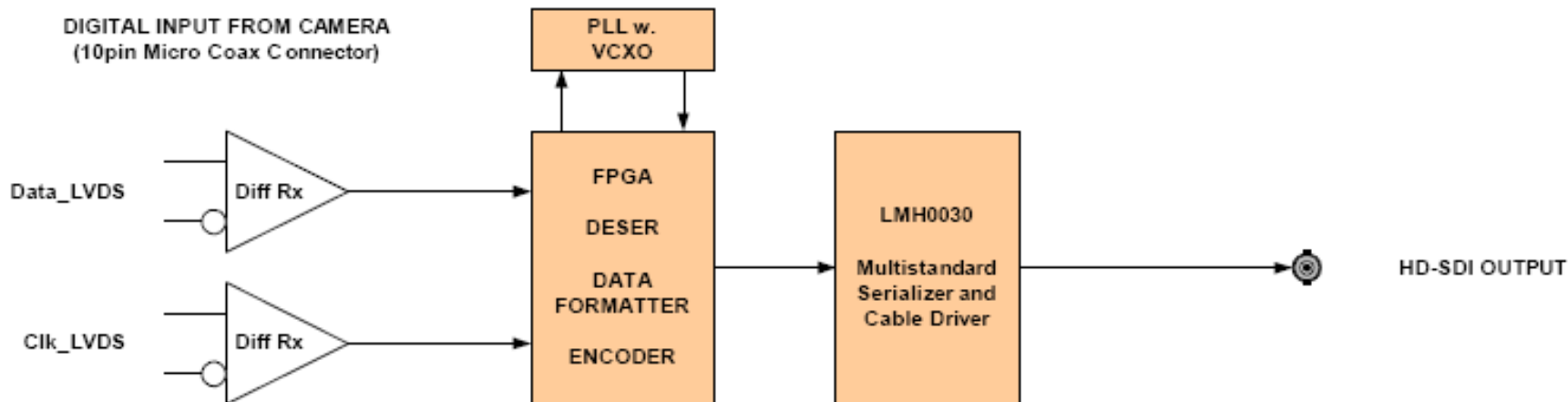
- WIDTH: 44mm
- HEIGHT = 42mm
- THICKNESS = 1.59mm



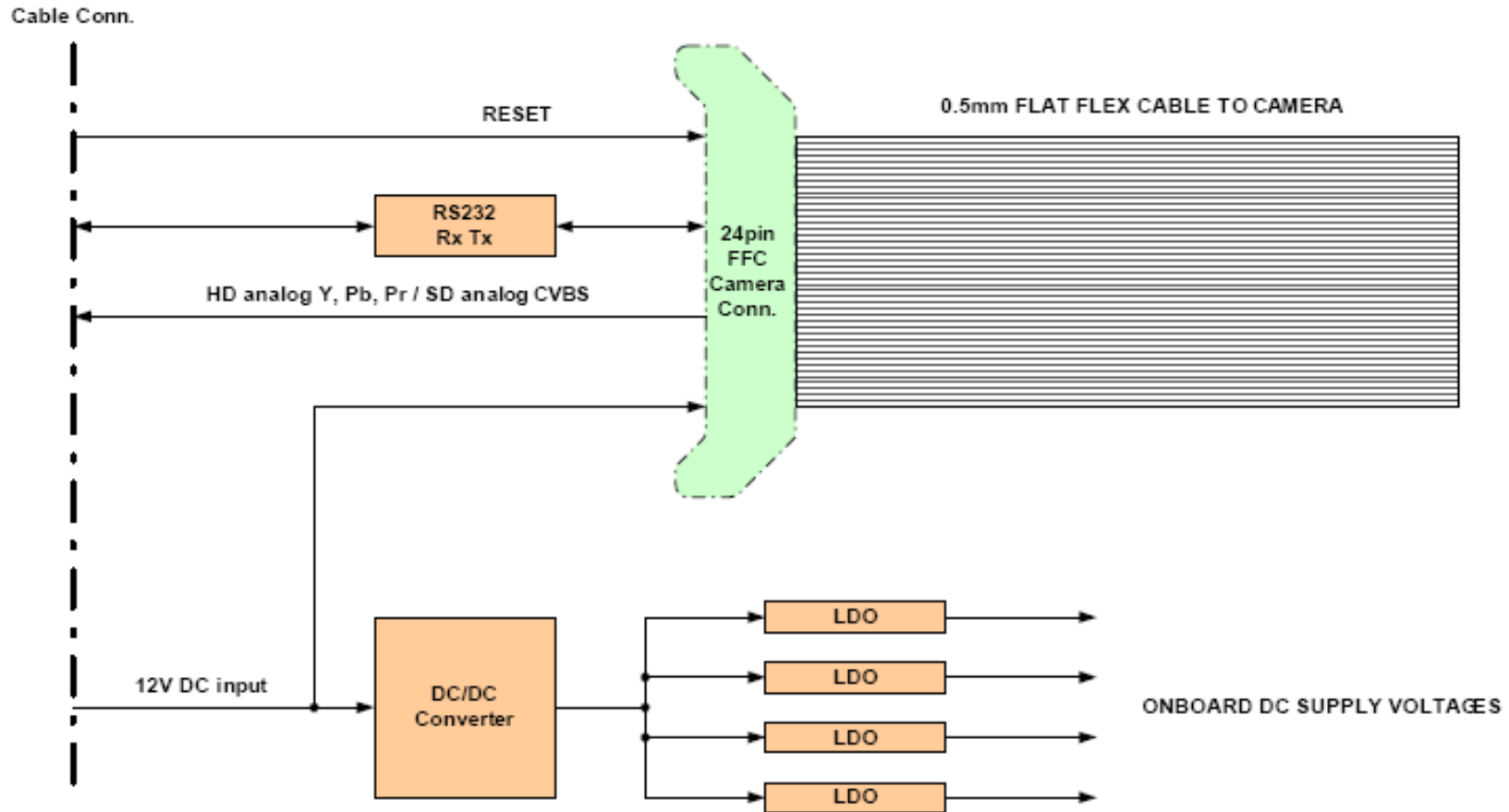
This information is provided without warranty.

BLOCK DIAGRAM

Block Diagram



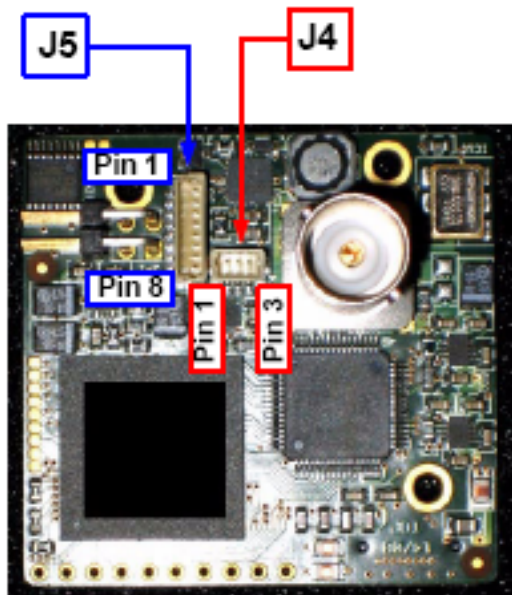
BLOCK DIAGRAM



CONNECTOR PIN ASSIGNMENT

J4 Power Input Connector

- Pin 1 = +8V DC typ. (7V to 12V range allowed); regulated
- Pin 2 = NC (open)
- Pin 3 = GND

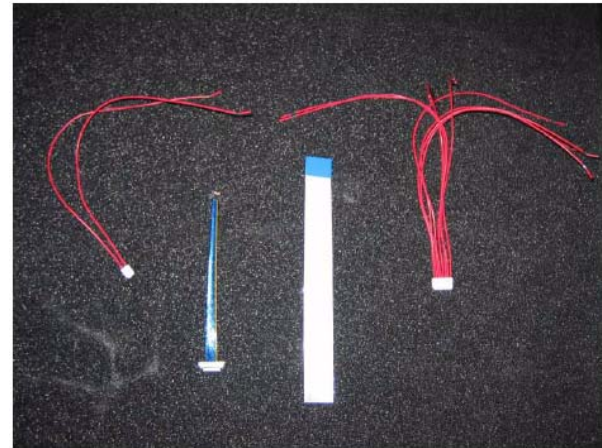


J5 Signal and Control connector:

- Pin 1 = RXD (serial data from host to camera)
- Pin 2 = TXD (serial data from camera to host)
- Pin 3 = RESET IN (Reset to camera)
- Pin 4 = CVBS OUT (available only in SD camera mode)
- Pin 5 = GND
- Pin 6 = Y component OUT (*available only in HD camera mode*)
- Pin 7 = CB component OUT (*available only in HD camera mode*)
- Pin 8 = CR component OUT (*available only in HD camera mode*)

CABLES

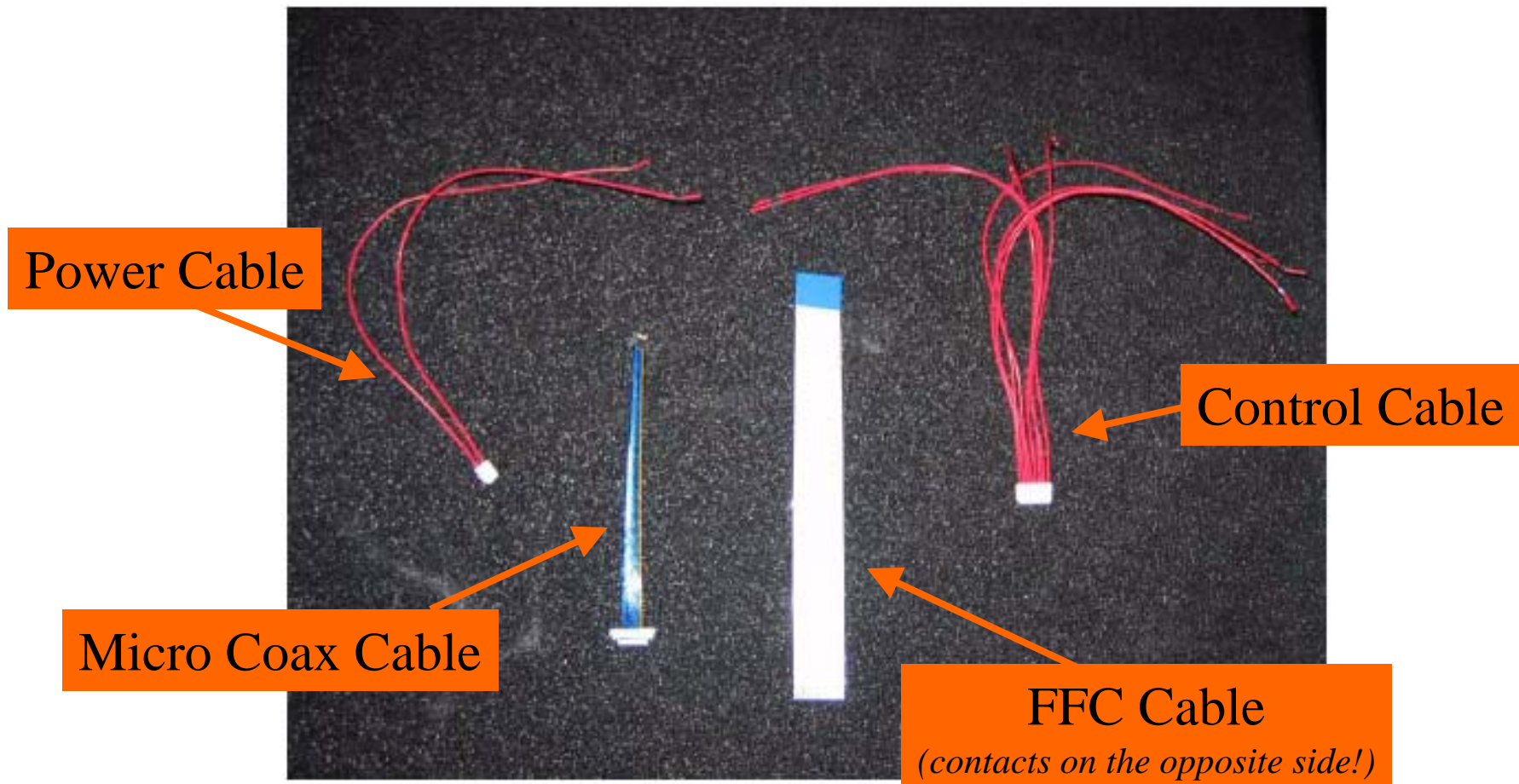
- FFC flex cable, 0.5mm spacing, 24wires, length=102mm or 108mm
 - **Opposite side contacts! (*)**
 - MOLEX Premo-Flex™ type numbers (for reference):
 - 21020-0256 (America type D jumpers)
 - 98266-0256 (Europe type D jumpers)
- Micro coaxial cable is KEL SSL20-10SSB-0 10-B type, length = 100mm
- Power connector housing is JST SHR-03V-S with 2x SSH-003T-P0.2-H (crimp contact) and AWG#28-AWG#32 cable
- Signal connector housing is JST SHR-08V-S with 8x SSH-003T-P0.2-H (crimp contact) and AWG#28-AWG#32 cable



From left to right: Power cable, micro coax cable, **FFC (*)** cable and control cable

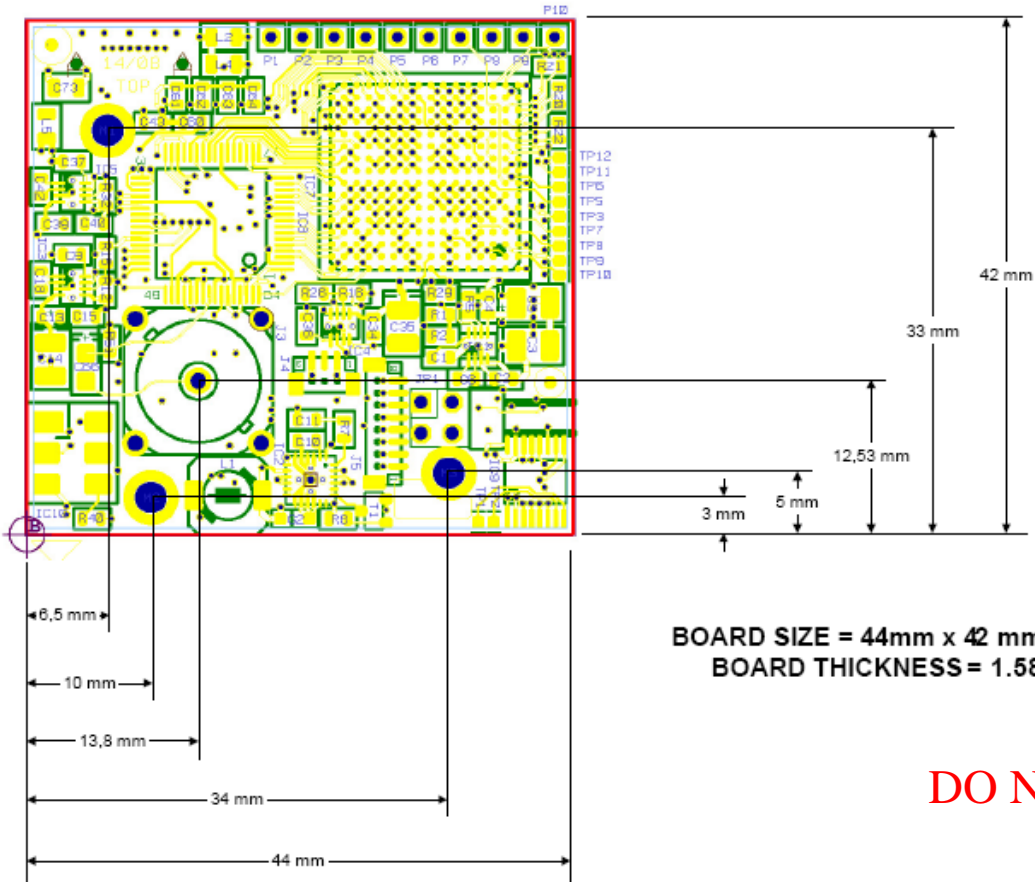
() Do not use the Flex cable provided by Sony with this card. The Flex cable provided by Sony has the contacts on the same side. Using this cable may damage the board.*

CABLES

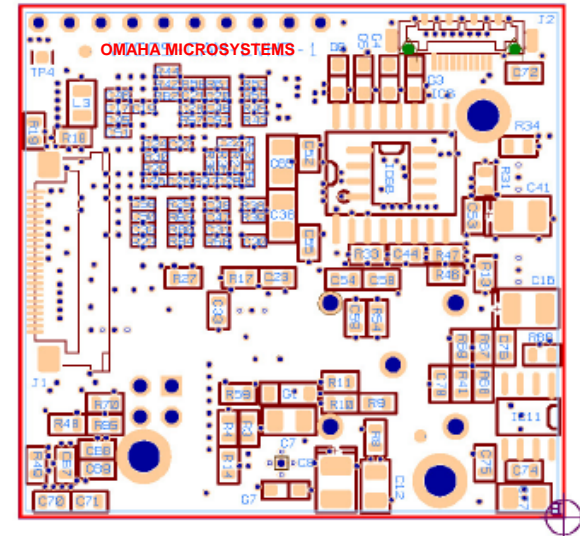


MECHANICAL

TOP VIEW



BOTTOM VIEW
(MIRRORED)



BOARD SIZE = 44mm x 42 mm (W x H)
BOARD THICKNESS = 1.585mm

DO NOT SCALE DRAWING

MECHANICAL

DO NOT SCALE DRAWING

