

Features

- + High Definition analog HD-YPbPr output
- + Resolution up to 1920x1080p @ 30fps
- + Seamless connection to zoom camera blocks with industry standard LVDS interface
- + 1080i50/59.94/60 video format support
- + 1080p25/29.97/30 video format support
- + 720p50/59.94/60/25/29.97/30 video format support
- + RS232 and TTL level serial camera control interface
- + RS485 camera control interface (optional)
- + Supply voltage 9V to 12V DC regulated
- + RoHS and UL/UR compliant
- + TLCK-B5 Cable Kit included

Applications

- + Full HD integrated cameras with analog HD YPbPr output requirements
- + Industrial, medical, security, law enforcement



General Description

SL4655 is a small form factor analog YPbPr FHD video transmitter. Camera LVDS video input signals are demultiplexed, processed, converted to analog and output over 6pin board to wire connector.

Camera control is accomplished by a transparent full duplex communication channel. Physical interface between camera and camera controller / PC is based on RS232, 3.3V TTL or RS485(optional) level. TLCK-B5 cable kit is included and contains 30wire micro coaxial cable for connecting SL4655 to the camera as well as 10wire power supply and serial control cable harness and a 6wire cable harness for the video output.

Video Format Support

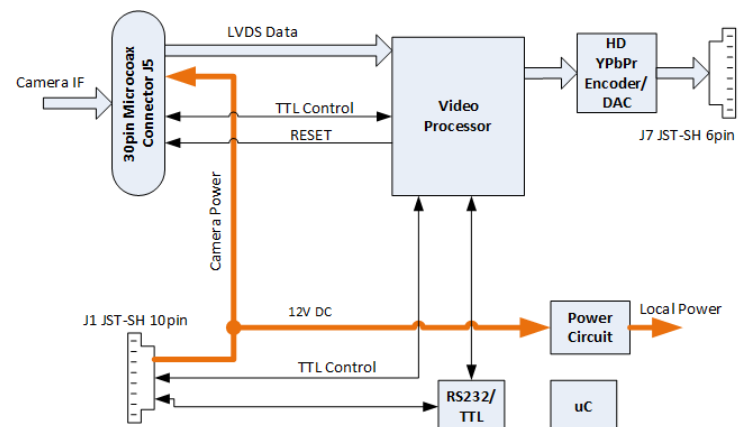
1080i 60Hz, 59.94Hz and 50Hz

1080p 30Hz, 29.97Hz and 25Hz

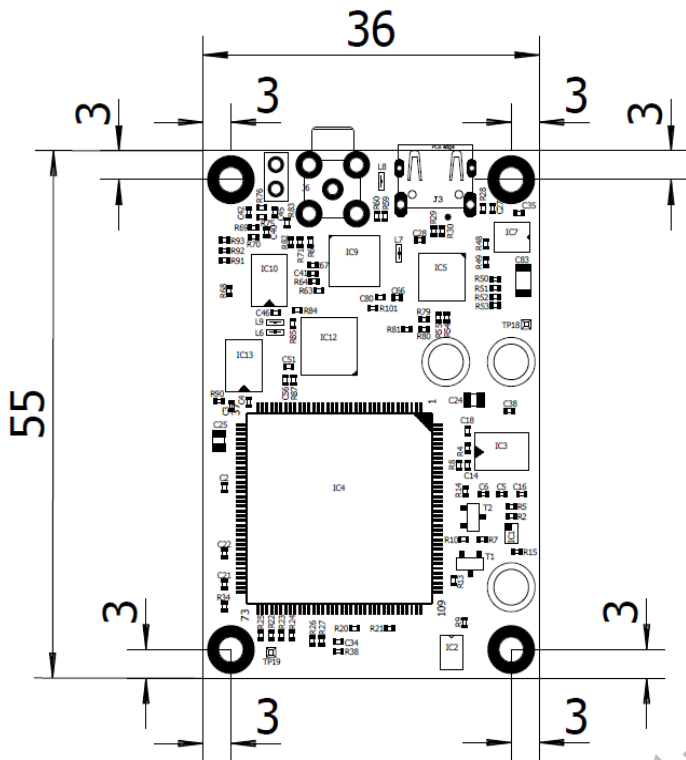
720p 60Hz, 59.94Hz, 60Hz, 25Hz, 29.97Hz and 30Hz

Quick Specification

- LVDS (4CH) interface on 30pin microcoax connector
- Up to 1920x1080@30fps analog HD YPbPr video output
- Supply voltage 12V DC
- Operating ambient temperature range -10°C to +60°C
- Operating humidity range 20% to 80%
- Power consumption 4.56W with 12V DC supply voltage with Sony FCB-EV7520A camera
- Board size (L x W) 55mm x 36mm
- Wire/cable kit for camera and external interconnect
- RoHS compliant (2002/05/EG and 2011/65/EU)
- UL/UR compliant



Board Mechanical (top view)



- + Component height top side = 3.0mm (spacer), 6.5mm (J6)
- + Max. component height bottom side = 3.0mm (J1, J4)
- + PCB thickness 1.44mm
- + Mounting holes drill diameter 2,6mm, land diameter 5,0mm

Onboard Connectors

J1: Power & Control (JST SM10B-SRSS-TB)

- 1 DC Supply voltage input
- 2 DC Supply voltage input
- 3 GND (0V)
- 4 GND (0V)
- 5 Reset*
- 6 GND (0V)
- 7 TXD_TTL (serial IF transmit 3.3V, optional)
- 8 RXD_TTL (serial IF receive 3.3V, optional)
- 9 RXD_232 (serial IF receive RS232 level)
- 10 TXD_232 (serial IF transmit RS232 level)

*Pull pin 5 to GND(0V) for 1ms or longer for reset, leave open for normal operation.

J5: Camera Interface (KEL USL00-30L-A)

30wire microcoax connector for camera IF. Use 30wire micro coaxial cable supplied with cable kit.

J2, J4, J6: Do not connect/not assembled

J7: Video Output (JST SM6B-SRSS-TB)

- 1 Y signal output
- 2 GND (0V)
- 3 Pb signal output
- 4 GND (0V)
- 5 Pr signal output
- 6 GND (0V)

Power and Environment

POWER INPUT:

9V to 12V DC regulated supply input voltage range

CHARACTERISTICS:

$P_D = 4.08W$ (MP1110M-VC camera lens steady +SL4655)

$P_D = 4.56W$ (FCB-EV7520A camera lens steady +SL4655)

$P_{SL4655} = 1.28W$ (typ.)

(12V DC supply, 1920x1080@30fps, $T_A = 25^\circ C$, Humidity = 40%)

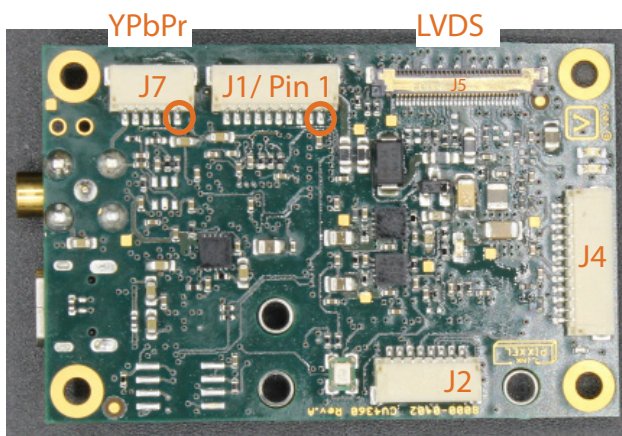
OPERATING AND STORAGE CONDITIONS:

Ambient temperature (min/max) $-10^\circ C/60^\circ C = 14^\circ F/140^\circ F$

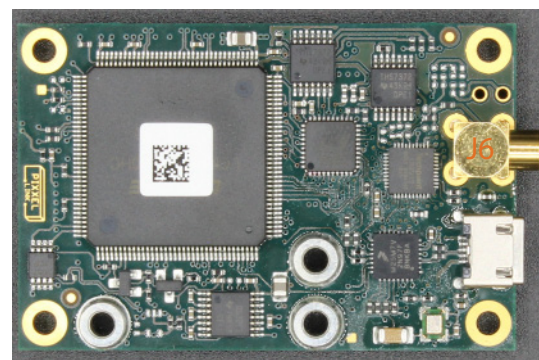
Humidity: 20% - 80%

SL4655 is RoHS compliant (2002/05/EG and 2011/65/EU)

Board Bottom Side



Board Top Side



3D CAD model (Step Format) is available on request.