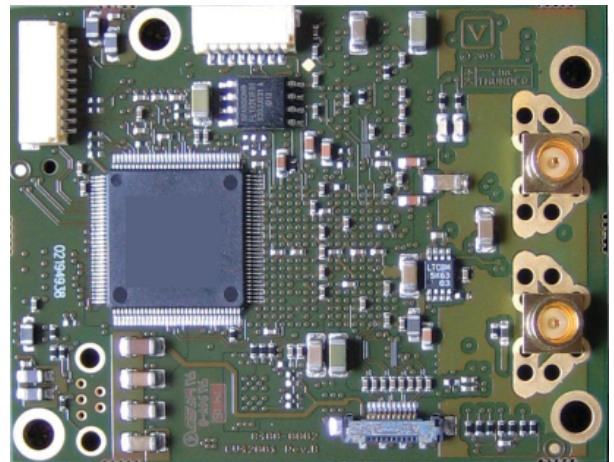


Dual Link 3 Gbps UHD-SDI Transmitter
Dual Out 3/1.5 Gbps FHD-SDI Transmitter

Data Sheet

Features

- + Video output up to Ultra High Definition
- + Resolution up to 3840x2160p @ 30fps
- + Seamless connection to Sony FCB-ER8550, FCB-ER8530 and FCB-ER8300 4K camera blocks
- + Dual Link 3G-SDI output of UHD formats
- + 3G-SDI output of FHD formats
- + 1.5G-SDI output of HD formats
- + Automatic format detection
- + DIN7A (10.23) 75 Ohm straight coaxial connectors
- + RS232 and TTL level serial camera control interface
- + Supply voltage 9V to 12V DC regulated
- + RoHS and UL/UR compliant
- + TLCK-B Cable Kit included



General Description

TL4K1161 is a small form factor serial digital video (SDI) transmitter. Camera video input signals are equalized, processed and output over coaxial connectors. Dual Link 3G-SDI output compliant to SMPTE ST425-3, 2si mapping, FHD output compliant to SMPTE ST425-1 level A.

Camera control is accomplished by a transparent full duplex communication channel. Physical interface between camera and camera controller / PC is based on RS232 or 3.3V TTL level. TLCK-B cable kit is included and contains 30wire micro coaxial cable for connecting TL4K1161 to FCB-ER series camera as well as 10wire power supply and serial control cable harness.

Applications

- + 4K UHD and full HD integrated cameras based on Sony FCB-ER8550, FCB-ER8530 and FCB-ER8300 4K camera blocks
- + Industrial, medical, security, law enforcement, video production

Coaxial Connector Options

TL4K1161-D-ST, Straight DIN7A (standard version)

TL4K1161-D-RA, Right angle DIN7A

TL4K1161-M-ST, Straight MCX

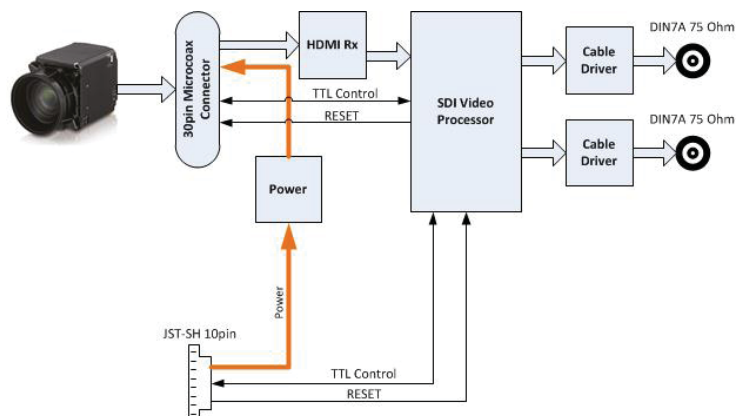
TL4K1161-M-RA, Right angle MCX



Quick Specification

- FCB-ER8300 interface on 30pin microcoax connector
- Up to 4K 3840x2160@30fps SDI video output
- Supply voltage 7V to 12V DC, 8V DC recommended
- Operating ambient temperature range -5°C to +60°C
- Operating humidity range 20% to 80%
- Power consumption 3.62W with 12V DC supply voltage
- Power consumption 6.72W with 12V DC supply voltage incl. FCB-ER series camera block
- Board size (L x W) 46mm x 60mm
- Wire/cable kit for camera and external interconnect
- RoHS compliant (2002/05/EG and 2011/65/EU)
- UL/UR compliant

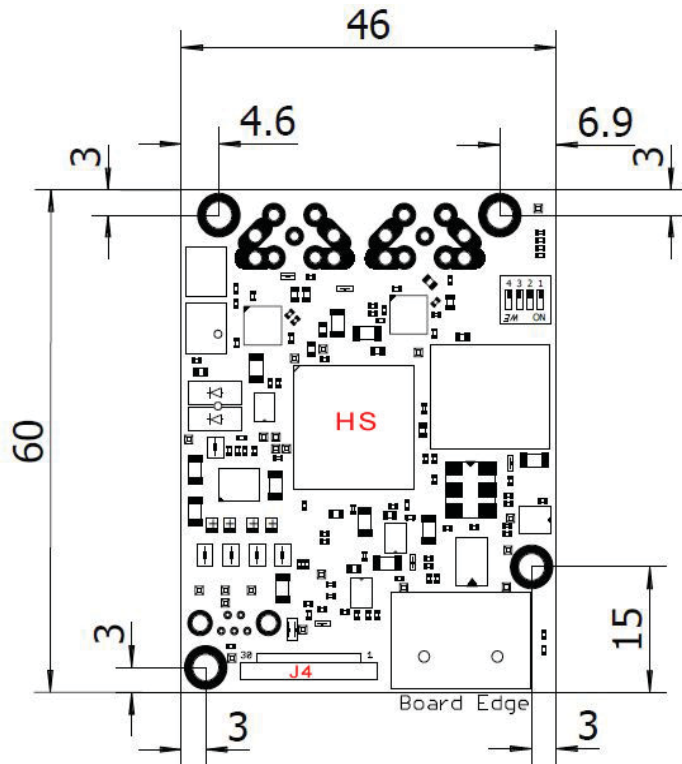
Internet: www.aivion.com
E-Mail: sales@aivion.com



Dual Link 3 Gbps UHD-SDI Transmitter
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Data Sheet

Board Mechanical (top view)



- + Max. component height top side = 4.0mm
 - + Max. component height bottom side = 3.2mm (except J7/J8)
 - + PCB thickness 1.55mm
 - + Mounting holes drill diameter 3,2mm, land diameter 5,2mm
- NOTE:

If ambient temperature is higher than 45°C (113°F), a heat sink should be applied to TL4K1161. Heat sink has to be mounted depending on board installation. It should contact to top or bottom side components marked with **HS**.

Onboard Connectors

- J1: (JST SM10B-SRSS-TB)
- 1 DC Supply voltage input
 - 2 DC Supply voltage input
 - 3 GND (0V)
 - 4 GND (0V)
 - 5 Reset*
 - 6 GND
 - 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.

- J4: (KEL USL00-30L-A)

30wire microcoax connector for FCB-ER8300. Use 30wire micro coaxial cable supplied with cable kit.

J5: Do not connect.

SDI output connectors (Samtec DIN7A-J-P-GF-ST-TH1):

J7: Link 1 of DL-3G SDI output or 3G/1.5G-SDI FHD/HD output

J8: Link 2 of DL-3G SDI output or 3G/1.5G-SDI FHD/HD output

Power and Environment

POWER INPUT:

9V to 12V DC regulated supply input voltage range

CHARACTERISTICS:

$P_D = 6.72W$ typ. (FCB-ER8300 lens steady +TL4K1161)

$P_{TL4K1161} = 3.62W$ (typ.)

(12V DC supply, 3840x2160@29.97fps, $T_A = 25^\circ C$, Humidity = 40%)

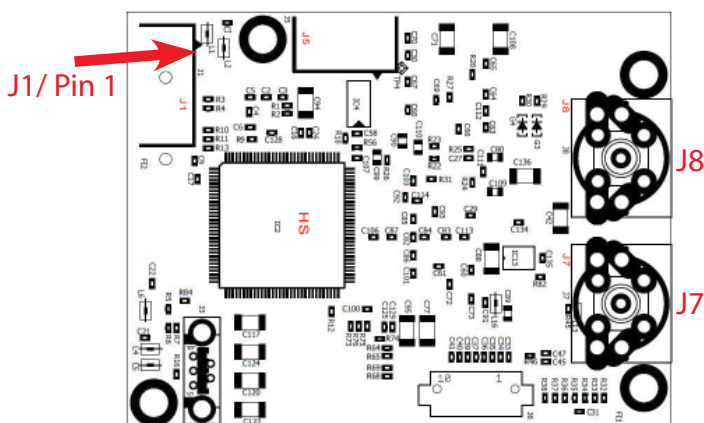
OPERATING AND STORAGE CONDITIONS:

Ambient temperature (min/max) $-5^\circ C/60^\circ C = 23^\circ F/140^\circ F$

Humidity: 20% - 80%

TL4K1161 is RoHS compliant (2002/05/EG and 2011/65/EU)

Board Bottom Side



Board Top Side

