TL4K1152 AIVION ®

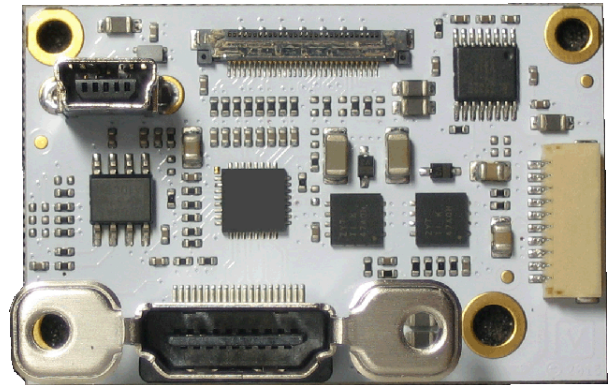## 3.4Gbps HDMI1.4b Transmitter   UHD   Data Sheet

Features

+ **Ultra High Definition video output**

+ **Seamless connection to Sony FCB-ER8300 4K camera block**

+ **Integrated input signal equalizer**

+ **Ultra high speed 3.4Gbps cable driver**

+ **Up to 3840x2160p @ 30fps HDMI 1.4b video output**

+ **UHD, FHD, HD video format support**

+ **RS232 level serial camera control IF (TL4K1152)**

+ **3.3V TTL level serial camera control IF (TL4K1152-T)**

+ **Supply voltage 7V to 12V DC regulated**

+ **Ultra low power - 150mW@8V supply voltage only**

General Description

TL4K1152 is a small form factor digital serial video transmitter. Camera video input signals are equalized, processed and output over an HDMI connector.

Camera control is accomplished by a transparent full duplex communication channel. Physical interface between camera and camera controller / PC is based on RS232 level (3.3V TTL level for TL4K1152-T).
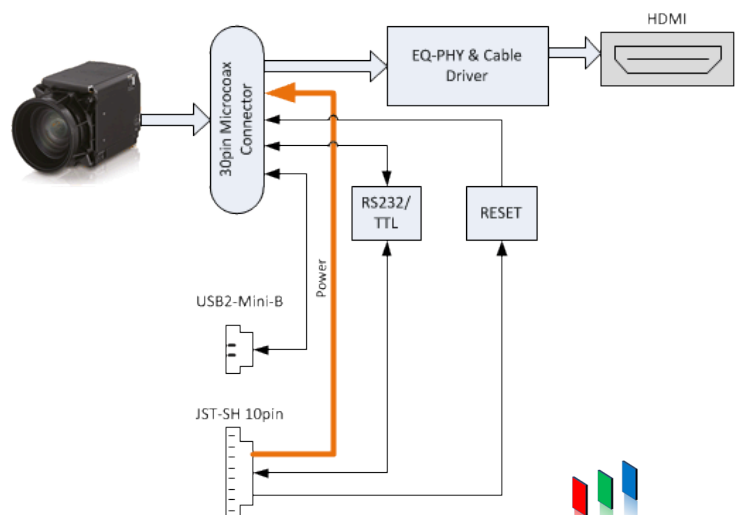
Applications

+ **4K UHD, Full HD and HD integrated cameras based on Sony FCB-ER8300 4K camera block**

+ **Industrial, medical, security, law enforcement, video production**
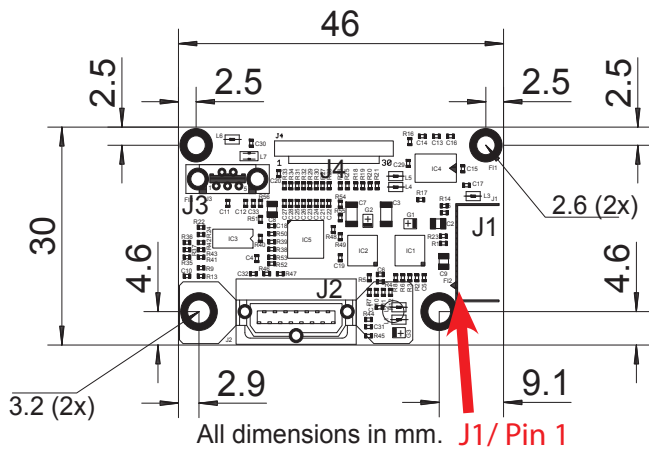
Quick Specification

• FCB-ER8300 interface on 30pin microcoax connector
• Up to 4K 3840x2160@30fps HDMI 1.4b video output
• Supply voltage 7V to 12V DC, 8V DC recommended
• Operating ambient temperature range -10°C to +60°C
• Operating humidity range 20% to 80%
• Power consumption only 0.15W with 8V DC supply voltage
• Board size (L x W) 46mm x 30mm
• 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**

3.4Gbps HDMI1.4b Transmitter   UHD   Data Sheet

Board Mechanical

46
2.5
2.5   2.5   2.5
30
4.6   2.6 (2x)
J3
J1
J2
4.6
3.2 (2x)   2.9   9.1
All dimensions in mm. J1/ Pin 1

+ Max. component height = 10.5mm (HDMI connector, J2)

+ PCB thickness 1.53mm

Power and Environment

POWER INPUT:

7V to 12V DC regulated supply input voltage range

CHARACTERISTICS:

P_D = 3.05W (FCB-ER8300 lens steady +TL4K1152)

$P_{TL4K1152}$ = 150mW (typ.)
(8V DC supply, 3840x2160@29.97fps, T_A = 25°C, Humididty = 40%)

OPERATING AND STORAGE CONDITIONS:

Ambient temperature (min/max) -5°C/60°C = 23°F/140°F

Humidity: 20% - 80%

TL4K1152 is RoHS compliant (2002/05/EG and 2011/65/EU)

Onboard Connectors

J1:

Power, RS232, Shutdown

Pin assignment:
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, TL4K1152-T only)
8   RXD_TTL (serial IF receive 3.3V, TL4K1152-T only)
9   RXD_232 (serial IF receive RS232, TL4K1152 only)
10   TXD_232 (serial IF transmit RS232, TL4K1152 only)

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

J4:

30wire microcoax connector for FCB-ER8300

Use 30wire micro coaxial cable supplied with cable kit.

J3:

USB connector - do not connect (for FCB-ER8300 firmware updates only)

Ordering Information

TL4K1152, 4K-UHD HDMI 1.4b output, RS232 control IF
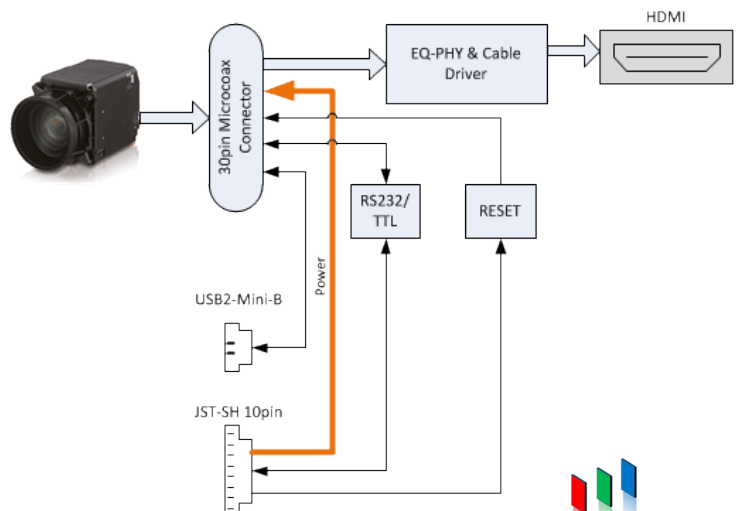
TL4K1152-T, 4K-UHD HDMI 1.4b output, 3.3V TTL control IF

TL4K1152CK, Cable kit (included)

   1 pcs. 30 wire micro coaxial cable

   1 pcs. 10 wire cable for J1, (open wires on 2nd end)

Cable Connections

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