

# 4K to USB3 interface board

SONY FCB-ER series, FCB-ES8230 and  
latest FCB-EW9500H



The new compact TWIGA 4K to USB3 interface board is a high-performance USB3 SuperSpeed video capture module.

It allows you to capture uncompressed video stream from Sony 4K camera blocks and transmit it over a single USB3 cable. A simultaneous HDMI output is also available to display the 4K video on a monitor.

TWIGA 4K to USB3 supports up to 3840×2160p@30fps video resolution.



## Plug & Play 4K to USB3 solution



Twiga 4K to USB3 interface board provides uncompressed UVC compliant video stream. A simple USB3 cable is enough to power, to control and to stream 4K on most devices equipped with a USB3 port (single board computers, NVidia platforms or PC using Windows or Linux OS).

## Simultaneous HDMI video output

Twiga 4K to USB3 interface board enables to get a simultaneous USB & HDMI 4k video stream. Ideal for digital inspection, UAVs or medical applications that require simultaneously video display and image processing.

## Camera control

You can control your camera settings remotely from your computer via the single USB3 cable or using the local UART. GPIOs for basic camera commands are also available.

## FEATURES

- Uncompressed 4K video stream
- Video resolution up to 2160p30
- USB Video Class (UVC) compliant
- Communication
  - USB CDC (COM port / tty)
  - VISCA camera control via local UART
  - GPIOs for keypad connection
- Supports Windows and Linux OS
- HDMI 2.0 output
- Camera external power supply 6V-12VDC \*

\*Refer to camera technical manual for max power supply input

## TARGET APPLICATIONS



Medical imaging



ANPR  
Traffic control



UAVs  
Surveillance



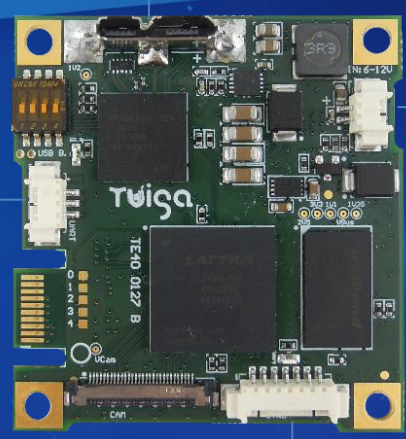
Low vision  
Inspection

# Onboard Connectors

**J204**      **USB3.2**



J202		UART TTL	
1	GND		
2	Rx		
3	Tx		



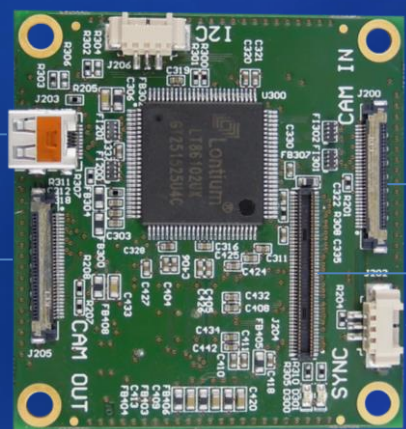
J300		External Power supply	
2	V+		
1	GND		

J200		GPIOs	
1	GND		
2	Zoom +		
3	Zoom -		
4	Focus Auto/Manual		
5	Focus Near		
6	Focus Far		
7	Freeze On/Off		

**J203**      **HDMI 4k output**



**J205**      **HDMI loop-through**



**J200**      **Sony FCB-ER /ES/ EW HDMI Input**



**J204**      **Board to Board connector**

Extended functionalities

J202		External sync	
3	VID SYNC		
2	SYNC LOCK		
1	GND		

Functions	Specifications
Digital video output	USB3.2 Gen 1 – UVC compliant
Camera settings and control	VISCA protocol via USB CDC or UART TTL
GPIOs	Camera commands
Digital video output connector	USB3 micro B-type
Camera power supply	USB3 cable or external 6 to 12 VDC
HDMI output	HDMI 2.0 type D
Operating temperature range	0°C to 60°C
Storage temperature range	-20°C to 60°C
Regulation	CE EMC compliant, PCB : UL 94 V0
Dimensions (mm)	48 (H) x 45 (W) x 18 (D)
Weight (g)	24

P/N Electronic Board:	TV20 0008 4K to USB3	
P/N Accessory kit:	TV50 0027 Mounting kit	TV50 0026 Cable kit
30 way USL20-30SS-012-C Cable assembly	✓	✓
2 way cable (External power supply)	✓	✓
7 way cable (GPIOs)	✓	
3 way cable (COM – UART TTL)	✓	
Right angle black anodized bracket	✓	
Screws + spacers	✓	



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