TV10 0051 Preliminary Product brief

HDMI 4K Interface for SONY FCB ER8300



TWIGA offers a compact HDMI 4K interface board for SONY FCB ER8300 cameras.

The board transmits and filters the signal from the 4K camera to provide an optimum quality of image. All camera resolutions and frame rates are supported. You can take advantage of the full range of HD resolutions this camera offers (up to 2160p29.97)







Features

- ☐ Supports new Sony FCB-ER8300
- □ Digital TMDS video input from camera
- 2160p, 1080i, 1080p and 720p output support
- ☐ 25Hz, 29.97Hz, 50Hz and 59.94Hz frame rates
- ☐ HDMI output 1.4b up to 49 ft. (15 m)
- ☐ Internal Micro Coaxial Cable up to 400mm
- Board and Camera management via RS232/TTL
- Mini-USB connector Camera Software Update
- ☐ Push buttons for zoom, freeze and more (optional TV10 0022)
- □ Video format selection by micro switch
- □ Push buttons for Board Management (external)
- □ Power supply for external peripherals 5V, (1.5A max)
- ☐ Supply voltage: Power input 6 to 12V DC
- Low power sleep mode for mobile applications
- ☐ Tiny module size 63mm x 38mm x 7.5mm

Video output from HD to 4K

The HDMI interface board supports a 4K video format in Ultra HD resolution (3840 x 2160) with output flexibility. Depending on your application and configuration, you can select the format you need with up to eight video formats from HD to 4K.

Auxiliary power output

To maximize the integration solutions of the interface board and use different—ways to transmit video (i.e. signal over internet CAT5/CAT6 or fiber optic), our 4K board features an auxiliary 5V/ 1A output. This can also be used to supply any external devices such as a Twiga WHDI TV10 007 wireless video transmission system.

Low power consumption

The board uses components that require very little energy. The internal supply voltages are lowered and the intensity that circulates in components is reduced in order to lower the power consumption. This can be very helpful for your embedded mobile applications.

Compact size

Highly compact, and very easy to connect, the Twiga electronic module can be fixed at the top, bottom or the sides of the 4K cameras without hampering the mechanical integration.

Applications

Medical

Redefining imaging for surgery

4K imaging lets surgeons view delicate procedures in the OR with far greater detail.

Thanks to the 4K technology, fine structures can be identified with greater precision, offering surgeons a clearer picture during open surgery or minimally invasive procedures.

Broadcast / sport

4K broadcast signals new era in live sport

4K picture gives the viewer at home the impression of actually being at the match and offers to the audience an immersive new experience.

CCTV industries

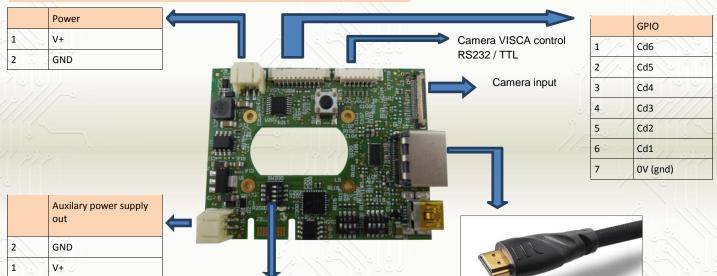
4K surveillance with extra intelligence

The major advantage is the extended picture resolution and the ability to reduce the number of cameras normally used in open spaces (reduced installation costs)

One 4K monitor can display 4x4 scaled D1-size image which is very effective for viewing multiple cameras.

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Onboard Connector



1	2	3	4	Configuration switches
OFF	OFF	OFF	OFF	External
ON	OFF	OFF	OFF	1080p29.97*
OFF	ON	OFF	OFF	1080p25*
ON	ON	OFF	OFF	1080i59.94
OFF	OFF	ON	OFF	1080i50
ON	OFF	ON	OFF	720p59.94
OFF	ON	ON	OFF	720p50
ON	ON	ON	OFF	720p29.97*
OFF	OFF	OFF	ON	720p25*
ON	OFF	OFF	ON	2160p29.97
OFF	ON	OFF	ON	2160p25
ON	ON	OFF	ON	1080p50
OFF	OFF	ON	ON	1080p59.94

Functions	Specifications		
DIGITAL video output	HDMI 1.4b		
Video output standard configuration	Micro switches or with VISCA software		
Camera setting	RS232, RX, TX, VISCA, GPIOs		
Connector	HDMI		
Power	6 to 12 VDC, 6 W (including camera), 0.15 W (sleep mode)		
Environmental	-5°C to 60°C(operating) -20°C to 60°C (storage)		
Regulation	EMC FCC part 15, PCB : UL 94 V0		
Dimensions (mm)	63 (L) x 38 (W) x 17 (H)		
Weight (g)	17		

Product code	4K conversion module for SONY FCB ER8300
Electronic board	TV10 0051
Accessories set	TV50 0002
Camera micro coaxial cable	USL20-30SS-005-C Cable assembly
Power input cable	2 wires harness, 200 mm long for power connector
Visca and GPIO wires	10 wires harness, 200 mm long
GPIO wires	7 wires harness, 200 mm long



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