

6G-SDI 4K External Sync

Sony FCB-ER series/ FCB-ES8230 and
latest FCB-EW9500H



TWIGA has designed the first 6G-SDI External Sync interface board for NEW SONY 4K camera blocks.

Introducing the latest edition to our 4K module range: the 6G-SDI External Sync brings in a convenient and compatible form factor 4k possibility to a variety of applications where quality and performance is a premium.



4K
ULTRA HD

External Sync capabilities

Twiga 6G-SDI Ext Sync supports External Synchronization input. It provides benefits to users in a multi-camera environment: broadcast application, image stitching, pulsed lighting sync or thermal/visible image overlapping.

Custom capabilities

Twiga 6G-SDI Ext Sync is based on a powerful Kintex-7 FPGA that allows real time scaling and enables you to implement your custom image processing algorithms.

Depending on your application, a board-to-board connector available at the back side of the board will allow you to develop additional custom functionalities.

Compact & sustainable solution

Highly compact the 6G-SDI Ext Sync module can be rear-mounted on new Sony 4K range of cameras without hampering the mechanical integration.

Twiga 6G-SDI Ext Sync interface board has been designed to be offer industrial and sustainable solution for applications in critical areas that require a long-life cycle.

FEATURES

- o 6G-SDI (SMPTE ST-2081) digital video output
- o Supports 4k resolution – up to 2160p25/29.97Hz
- o Support External Sync Input
- o Support External Sync Output (optional)
- o Board and camera control via RS232/TTL
- o BNC connector- MCX connector option
- o Add-on connector for custom functions
- o Compact & sustainable

TARGET APPLICATIONS



J301 Sony 4k Camera input

Pin #	J1701 - COM
3	UART RX (RS232)
2	UART TX (RS232)
1	GND

Pin #	J300 - Power IN
2	0V
1	+6V to +12V



J1703 Sync Input

J1700 SDI output



DIP Switches				Video format configuration
1	2	3	4	Sony FCB-ER range & ES8230
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	ePT29.97
OFF	OFF	OFF	ON	ePT 25*
ON	OFF	OFF	ON	2160p29.97
OFF	ON	OFF	ON	2160p25
ON	ON	OFF	ON	1080p50
OFF	OFF	ON	ON	1080p59.94
OFF	ON	ON	ON	ePT23.98
ON	ON	ON	ON	2160p23.98

*output indicates that the image is output 2 times

Functions	Specifications
Digital video output	6G-SDI SMPTE-ST2081
SDI output Connector	BNC by default - MCX (option)
Sync input	Molex connector BNC by default – SMB or MCX (option)
Video format	Up to 2160p29.97
Video format configuration	DIP switches
Camera communication & settings	VISCA – Default: RS232 level – TTL level (Option)
Power supply	6 to 12 VDC, 6 W (including camera *)
Operating temperature range	0°C to 60°C
Regulation	EMC FCC part 15, PCB : UL 94 V0
Dimensions (mm)	50 (H) x 57.5 (W) **

* Sony ER8550 Camera and video format set to 2160p29.97

** The overall height of the board depends of the height of the connector used (BNC, MCX)

P/N Electronic Board:	TV10 0080 6G-SDI		
P/N Accessory kit:	TV50 0023 Mounting kit		TV50 0008 Cable kit
30 way USL20-30SS-012-C Cable assembly	✓		✓
2 way cable - power supply	✓		✓
3 way cable - COM	✓		✓
4 way cable – external sync option	✓		
Right angle black anodized aluminum bracket	✓		
Screws + spacers	✓		
Digital video output connector options	BNC (Standard)	MCX (Option P/N VOPTM02)	without connector (Option P/N VOPTM04)

