6G-SDI 4K External Sync

For Sony FCB-ER8300, New SONY FCB-ER8530 / FCB-ER8550 / FCB-ES8230

Twiga
Vision & Innovation

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

FEATURES

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

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.

TARGET APPLICATIONS

Medical — Entertainment Broadcast — Visual inspection / Low vision — Sport

Onboard
Connectors

TWIGA Vision & Innovation

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

P/N – TV10 0080	6G-SDI Ext Sync Interface board for Sony FCB-ER range & FCB-ES8230

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 - TV50 0008	Accessory set for TV10 0080		
Content			
USL20-30SS-012-C Cable assembly	✓		
2 way harness, 200mm long for power	✓		
3 way harness, 200mm long for communication	✓		
4 way harness, 200mm long for Ext Sync Option	✓		
6G-SDI output connector Options	BNC (Standard)	MCX(Option) P/N VOPTEM02	Without Connector (Option) P/N VOPTEM04

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