



# 4K-6GSDI-Sync

**New** SONY FCB-ER8350 / FCB-ER8550  
& FCB-ES8230



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



# Onboard Connectors

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(Optional)<br>P/N VOPTM02  | Without Connector (Option)<br>P/N VOPTM04 |   |
|   |  |  |   |   |