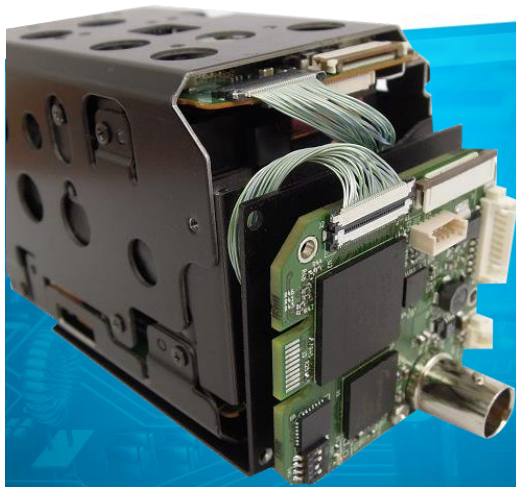


# 3G/HD-SDI INTERFACE BOARD

FOR SONY FCB-EV, EH & SE600



More than a video transmission module, the TWIGA 3G/HD-SDI interface board is the heart of your industrial vision system.

Thanks to the 3G/HD-SDI module, you will be able to transfer HD video in real time to deliver staggering picture quality.

## FEATURES

- Support Sony FCB-EV, EH & SE600
- SMPTE 424M & 292M -3G/HD-SDI video output
- Y, Pb, Pr 75 ohms, 1 V analog video output\*
- VBS analogue SD video output\*
- Ultra-low jitter
- Video mode selection by DIP switches
- TTL or RS232 VISCA dialog level
- Embedded color bar\*\*
- 6 to 12VDC protected and EMC filtered power supply
- BNC 75 ohm connector- SMB or MCX option

\*Refer to camera technical manual for video standard supported

\*\*A command needs to be sent to camera

## ○ Perfect HD-SDI image quality

3G/HD-SDI technology is the first established standard that provides sufficient bandwidth to allow uncompressed transmission of high-definition video signals from camera to screen.

## ○ OEM embedded image processing functions

The Twiga 3G/HD-SDI module is based on a powerful Xilinx FPGA. On request, image processing functions such as colorimetry tests, measurements, reticles, contrast enhancement, ROI extraction, OSD and even more functions can be applied to the image flow in real time.

## ○ Cost effective and easy installation

Upgrading existing SD video systems to HD is a cost-effective way to bring high resolution video without any significant modification of existing coaxial cables.

Only front-end and back-end products need to be replaced.

Hence, the number of cameras needed to capture vivid details such as facial features or license plate is largely reduced. This approach increases time efficiency while also cutting costs.

## TARGET APPLICATIONS



# Onboard Connectors

J4	Analogue HD/SD output + COM	
1	Y	
2	GND	
3	Pb	
4	GND	
5	Pr	
6	GND	
7	TX RS232	
8	RX RS232	
9	GND	
10	VBS	

DIP switches				video format configuration	
1	2	3	4	FCB-EH	FCB-EV
OFF	OFF	OFF	OFF	External	External
ON	ON	ON	ON	-	1080p60
OFF	ON	ON	ON	-	1080p30
OFF	OFF	ON	ON	-	720p560
OFF	OFF	ON	ON	1080p59.94	-
ON	ON	OFF	ON	1080p50	-
ON	OFF	OFF	OFF	1080p29.97	1080p30
OFF	ON	OFF	OFF	1080p25	1080p25
ON	ON	OFF	OFF	1080i59.94	1080i60
OFF	OFF	ON	OFF	1080i50	1080i50
ON	OFF	ON	OFF	720p59/94	720p60
OFF	ON	ON	OFF	720p50	720p50
ON	ON	ON	OFF	-	720p30
OFF	OFF	OFF	ON	-	720p25



J5	Power supply
1	6 to 12V DC
2	GND

LED blink	Status
1	Initialization OK
2	FPGA loading OK
3	VISCA Dialog W/camera OK
4	Camera identification OK
5	Audio ADC configuration OK
6	FPGA video processing OK
7	Video format modification by switches

TTL / RS232 Dialog level	
R29 + R31 Soldered	RS232 level
R30 + R32 Soldered	TTL level

Functions	Specifications
Digital video output	3G-SDI SMPTE 424 M, HD-SDI 292 M
Analogue video output*	Y, Pb, Pr 75 ohms, 1V - VBS
Video output standard configuration	DIP switches*
Camera control	VISCA – Default : RS232 Level – TTL level (Option)
Power supply	6 to 12 VDC, 5 W (including camera)
Operating temperature range	0°C to 60°C
Storage temperature range	-20°C to 60°C
Regulation	EMC FCC part 15, PCB : UL 94 V0
Dimensions (mm)	48 (H) x 45 (W) x 13 (D)

### 3G/HD-SDI interface set for Sony FCB-EV, EH & SE600

P/N	TV80 0033	TV80 0033-L
<b>Content</b>		
3G/HD-SDI interface board - ref. TV10 0027	✓	✓
30 way USL20-30SS-012-C Cable assembly	✓	✓
24 way FCC cable	✓	
2 way cable - power supply (J5)	✓	✓
10 way cable - COM (J4)	✓	
Right angle black anodized aluminum bracket	✓	
Screws + spacers	✓	
Connector Options	BNC 	SMB  MCX  without connector

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