



Tauri3.1

Rugged Full HD CMOS Camera with 3G-SDI / HD-SDI output

The product group offers a large selection of output formats, 1080p25, 1080p30, 1080p50 and 1080p60 (3G-SDI, HD-SDI). The 3 Gbit data from the camera goes directly to the monitor in real time and high resolution. With 60, 50, 30 und 25 images per second, nothing is lost, without compression or image lag! Equipped with CMOS sensors with high light sensitivity and Global Shutter, it's particularly interesting for dynamic scenes and critical lighting situations.

Sensor

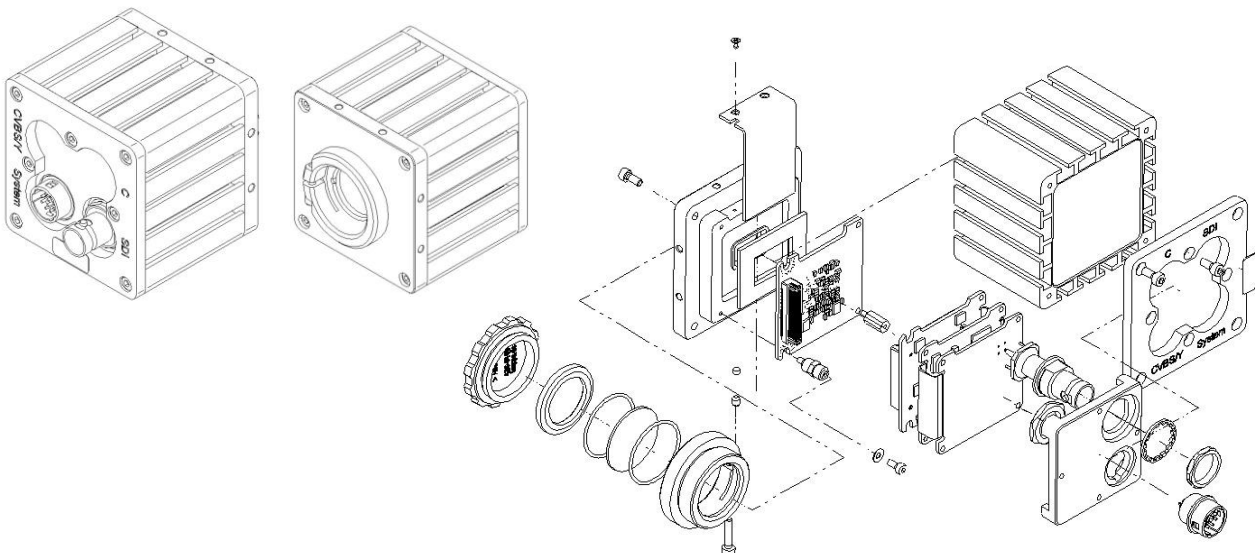
Sensor	IMX252 (Sony)
Type	CMOS
Shutter	global
Color	RGB
Optical format	1/2.35" (HD-SDI output)
Number of pixels (H x V)	1920 x 1080 pixels (2.1 MP)
Pixel size (H x V)	3.45 µm x 3.45 µm
Image size (H x V)	6.6 mm x 3.7 mm; diagonal 7.6 mm (HD-SDI output)

Expected performance (EMVA1288)

Quantum efficiency	45 % (465 nm); 56 % (530 nm); 49 % (630 nm)
Dynamic range	71 dB
Saturation	10000 e-
Maximum SNR	40 dB
Temporal dark noise	2 e-
DSNU	1 e-
PRNU	0.7 %
Sensitivity threshold	6 p (530 nm)
Nonlinearity	0.25 %

Interface

Data interface	3G-SDI (SMPTE ST424:2012) / HD-SDI (SMPTE292M-2008), Included SDI ancillary data (SMPT E 291M-2006) with camera status
Control interface	Factory preset to RS485, RS422 or RS232 full duplex, 115200 baud
Protocol	Kappa Extended GenCP Protocol 1.2
Output format	1080p25, 1080p30, 1080p50, 1080p60
Image resolution	1920 x 1080 pixel
Frame rate	25p / 30p / 50p / 60p
Latency	< 1 ms for HD-SDI and 3G-SDI
Software	KDC-A GenICam





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Function

Exposure	manual/ automatic 25fps: 49 µs to 39.8 ms in steps of 36 µs 30fps: 43 µs to 33.2 ms in steps of 30 µs 50fps: 31 µs to 19.9 ms in steps of 18 µs 60fps: 28 µs to 16.6 ms in steps of 15 µs
Gain	manual/ automatic 0 dB to 24 dB (analog gain) in steps of 0.1 dB; 24.1 dB to 48 dB (digital gain) in steps of 0.1 dB
Measuring window	position and size adjustable for automatic exposure and gain control, automatic white balance
Synchronization	internal / external with TriLevel Sync
Image flip	vertical (up-down), horizontal (left-right)
Corrections	correction of up to 1020 defect pixels (factory preset, not changeable)
Color processing	white balance (automatic / manual / illuminant A / illuminant D55 / illuminant D65), manual color saturation adjustment
Enhancement	sharpening (level manual adjustable); automatic histogram stretching (can be switched on/off)
Gamma	adjustable between 0.3 to 1.0 (linear); predefined gamma (ITU-R.BT709/ SMPTE-240M/ sRGB)
Diagnostics	integrated self-test (power supply, temperature, sensor output, internal communication)
Test pattern	color bar/ gray bar/ resolution/ pathological test pattern
Overlay	two reticles; position and color adjustable
Update	firmware upload

General Data

Dimensions	55 mm x 55 mm x 60 mm
Weight	<400 g
Power supply	9 - 36 V DC, 6 W
Connectors	Hirose HR10A-10R-10PB (71) connector, BNC connector 75Ω
Lens mount	C-mount
Filter	NIR-cut filter
Sensor position	lateral accuracy < 50 µm; tilt accuracy < 1°
Temperature	Low temperature -25°C according to DIN EN 60068-2-1; High temperature +70°C according to DIN EN 60068-2-2
Relative humidity	Humidity cycles = 6 cycles x-24h with humidity ≤ 60%, during temperature range 25°C to 55°C according to DIN EN 60068-2-30
Altitude	not specified
Shock	Shock according to DIN EN 60068-2-27 (Pulse-shape = half sinus 6g – 11ms)
Vibration	Vibration according to DIN EN 60068-2-6 (10 Hz to 2000Hz)
Compliance	ROHS, REACH (certified at time of product completion)
Acceptability (for electronic assemblies)	IPC-A610 Class 3
EMI (emissions)	Radiated emissions: Electromagnetic compatibility (EMC) -Part 6-4: Generic standards -Emission standard for industrial environments (IEC 61000-6-4:2006 + A1:2010), Conducted emissions: Electromagnetic compatibility (EMC) -Part 6-4: Generic standards -Emission standard for industrial environments (IEC 61000-6-4:2006 + A1:2010)
EMI (susceptibility)	Radiated Susceptibility (RS): Immunity Requirements regarding to EN 61000-6-2: 2007-10 61000-4-3 RF; Surge: Immunity Requirements regarding to EN 61000-6-2: 2007-10 61000-4-5; Common mode RF fields: Immunity Requirements regarding to EN 61000-6-2: 2007-10 61000-4-6
EMI (burst)	Immunity Requirements regarding EN 61000-6-2: 61000-4-2 ESD 4KV/8KV
Order-no.	963-1125 Tauri3.1 HD-SDI 25fps (framerate configurable to 30fps) 963-1123 Tauri3.1 HD-SDI 30fps (framerate configurable to 25fps) 963-1126 Tauri3.1 3G-SDI 50fps (framerate configurable to 60fps) 963-1124 Tauri3.1 3G-SDI 60fps (framerate configurable to 50fps)

We are constantly checking the accuracy of the technical data. We are prepared to provide more detailed information on request. Technical data are subject to change without notice!