



HD-SDI 1080P 23.98 / 24

Cube2 HD-SDI camera

HD Resolution
1920(H) x 1080(V)

Key Features-

- CCD sensor 2/3" Interline Transfer
- 23.98 and 24 FPS
- 1920 x 1080P HD-SDI output
- SMPTE-274M and SMPTE-292M, 10 bit YUV 4:2:2
- 64 db Dynamic Range
- 350nm to 1050nm spectral response
- Exposure 1/25 to 1/100,000 sec
- C-mount lens mount
- 9-13 VDC power supply
- RS23 communication for camera setup
- -25C to +70C operation Temperature
- Weight 235g
- Dimension 55 (D) x 55 (W) x 55 (H)



Specifications

Sensor-specific data

CCD sensor	2/3" Interline Transfer CCD Progressive Scan with micro lenses (Kodak KAI 02150)
Pixel size (H x V)	5.5 μm x 5.5 μm
Photosensitive area (H x V)	10.56 mm x 5.94 mm (16:9)
Number of pixels (H x V)	1920 x 1080 active, 2004 x 1144 total
Spectral sensitivity (without IR blocking filter)	350 nm – 1050 nm
Full well capacity	20 000 e ⁻
A/D conversion factor	1,2 e ⁻ / increment
Filter	RGB Bayer filter / IR blocking filter
Dynamic	64 dB (measured in dark image, at 40 ms exposure time and 0 dB gain)

Interface-specific data

HD interface	HD-SDI, Digital Video high-resolution (HDTV), SMPTE-274M and SMPTE-292M, 10 bit YUV 4:2:2 1920 x 1080p/23.98 1920 x 1080p/24 1920 x 1080p/25 1920 x 1080i/25 (1080i50) 1920 x 1080p/29.97 1920 x 1080i/29.97 (1080i59.94) 1920 x 1080p/30 1920 x 1080i/30 (1080i60)
Full HD multiformat	switchable by software command
Communication interface	RS 485 (half, full duplex), RS 232
Exposure time	1/25 to 1/100.000 sec (1/30 – 1/100.000 sec), 1/50 to 100.000 sec (1/60 – 100.000 sec)

Signal processing

System	14-bit digital
Gain	manual/automatic (AGC): 0 to 18 dB
Color processing	14-bit color DSP
Gamma	0.3 – 2.2 loadable
Diagnostics	integrated self test
Line generator	2 reticles: position, color and style adjustable
Measurement window	position and size adjustable
Mirror	horizontal, vertical (optional)
Synchronization	internal/external, tri level sync
Upgrade	firmware upload

General technical data

Compliance	CE, ROHS
Reliability	MIL-HDBK-217: MTBF GB -25°C: > 884.000 h; 25°C: > 406.000 h; 65°C: > 89.000 h
Altitude	-
Interfaces	BNC (HD-SDI), HR10 (power, communication, sync)
Switch	white balance (push)
Lens mount	C-mount, focal length adjustable (optional PL mount)
Filter	infrared blocking filter, removable
Temperature	EN60068-2-1, EN60068-2-2, EN60068-2-14: Operational: -25°C .. +65°C, Storage: -30°C .. +70°C
Relative humidity	EN60068-2-30:10-90%, Non-Condensing
Power supply	9 - 36 V DC, <6 W
Dimensions / weight	55 x 55 x 55 [mm], 235g
EMI (emissions)	EN55011, Class B Group 1
EMI (susceptibility)	EN61000-6-2, EN 61000-4-3, EN 61000-4-6 Criterium A
EMI (ESD)	EN61000-4-2, Criterium B
EMI (burst)	EN61000-4-4, Criterium B
Shock	EN60068-2-27: 6g/11ms, 3 Shocks pos/neg 3 Axis (Sawtooth)
Vibration	EN60068-2-6: Sinus 10-2000Hz mit 10m/g ² , 30 min/Achse
Acceptability for electronic assemblies	IPC-A-610 Class 2
Power Connector	

1	EXT SYNC	Input	transparent
2	EXT SYNC GND	GND	shield
3	EXT-TX-	RS232	brown
4	NC	-	-
5	NC	-	-
6	EXT-RX+	RS232	red
7	GND	GND	black, black comm.-cable
8	V _{in}	Power Supply 9..36V / 4W	red
9	MOTOR+	Output for motor control	-
10	MOTOR-	Output for motor control	-

Al Sabeh

Phone: 714-296-5768, Fax: 858-613-1815



Visions Connection

11409 West Bernardo Court, San Diego, Ca. 92127

Al@visionsconnection.com

www.Visionsconnection.com