AVT Dolphin F-201B

A new standard in the world of digital cameras.

The AVT Dolphin F-201B is a black and white IEEE 1394 UXGA C-Mount camera, equipped with a Megapixel SONY 1/1,8" type progressive CCD- array.

It operates in 8-Bit mode, ensuring extremely high resolution images. The camera is equipped with up to 16 internal frame buffers to decouple frame grabbing from transmission. A real time shading correction and up to 63 user definable Lookup Tables are used for smart pre-processing.

With full frame rates up to 12,75 fps, the AVT Dolphin F-201B is ideal for demanding image processing and factory automation tasks.

Easy to integrate due to powerful and flexible API (option).

Highlights

- UXGA 1628 x 1236 pixel progressive 1/1,8"~~color~~ CCD
- ext. async. trigger/shutter
- manual gain up to +30 dB
- manual shutter (20µs to 4s)
- 8 bit output
- true partial scan (frame rate increasing)
- 2 x 2 Binning for SVGA Format
- up to 16 frame buffers FIFO
- up to 63 progr. Lookup Tables
- realtime shading correction
- industrial IEEE 1394 connector
- C-Mount
- Hirose 12-pin
- 3 inputs, 3 outputs; configurable
- incl. 4,5m cable

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ALLIED Vision Technologies

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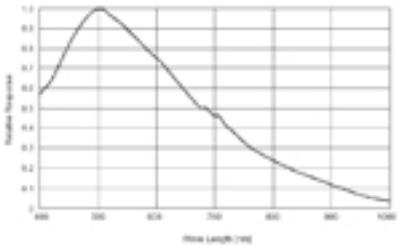
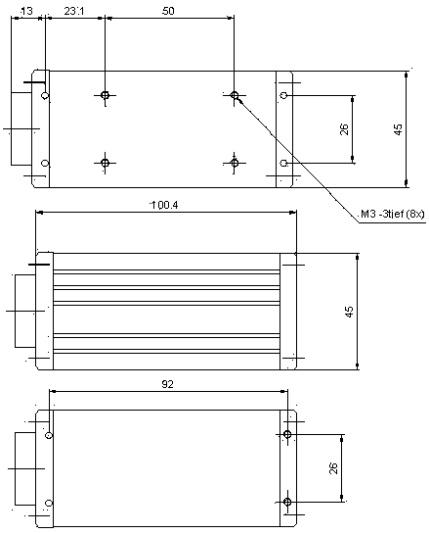
Connections



Sensor Specifications (extracted from the data sheet of the sensor - excluding lens and filter)



Pin	Descriptions	Use
1	Ground	
2	Power	8-30 V DC
3	Input 3	TTL-compatible
4	Input1/Trigger	TTL-comp., Edge, progr.
5	Output 3	
6	Output 1 / Flash	TTl-compatible, level
7	Input Ground	
8	RxD	
9	TxD	
10	Output Ground	
11	Input 2	TTl-compatible
12	Output 2	

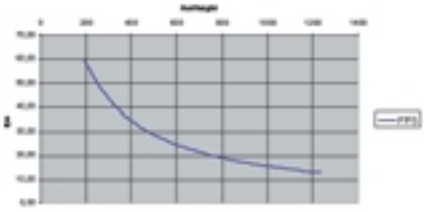


Image Device	1/1,8" Type progressive scan b/w SONY IT CCD
Effective Picture Elements	1628 (H) x 1236 (V)
Lens Mount	C-Mount
Picture Sizes	640 x 480 pixel (Format 0; Mode 5) - 800 x 600 pixel (Format 1; Mode 2)
	1024 x 768 ((Format 1; Mode 5)
	1280 x 960 (Format 2; Mode 2) - 1600 x 1200 (Format 2; Mode 5)
	1628 x 1236 (Format 7; Mode 0) - 1628 x 618 (Format 7 ; Mode 1), vertical binning
	814x1236(Format 7; Mode 2), horiz.binning - 814x618 (Format 7; Mode 5) h + v binning
Cell Size	4,4 µm x 4,4 µm; (8,8 µm x 8,8 µm in h + v bining)
ADC	12 Bit
Data Path	8 Bit
Frame Rates	1,875 Hz; 3,75 Hz; 7,5 Hz; 15 Hz (Format 2 Mode 2); External Trigger Shutter
Gain Control	Manual 0 – 30 dB (0,035 dB/step)
Shutter Speed	1-4095 x Timebase
	Timebase 1, 2, 5, 20, 50, 100, 200, 500, 1000µs
External Trigger	Trigger Mode 0
	Advanced feature: Image Transfer by command
Internal Memory	up to 16 frames
# Look Up Tables	up to 63, user programmable (12Bit -> 8 Bit); Gamma (0,45)
Smart Functions	2x2 Binning; real time shading correction; image sequencing, 3 config. inputs/outputs
Transfer Rate	400 Mb/s
Digital Interface	IEEE 1394; DCAM V1.3
Power Requirements	DC 8V – 30V via IEEE 1394 cable or 12-pin HIROSE
Power Consumption	Less than 3,5 Watt (at 12V DC)
Dimensions	115mm x 45mm x 45mm (L x W x H); w/o tripod and lens
Mass	230 gr (without lens)
Operating Temperature	+5 - 45 ° Celsius
Storage Temperature	-10 – 60 ° Celsius
Regulations	EN 55022; EN 61000-6-2; FCC Class A
Options	Removable IR-cut-filter, Host Adapter Card, API (FirePackage)

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