

AVT Dolphin F-145B



A new standard in the world of digital cameras.

The AVT Dolphin F-145B is a black and white IEEE 1394 SXGA+ C-Mount camera, equipped with a Megapixel SONY 2/3" type progressive CCD-array. It operates both in 8-bit or 12-bit mode, ensuring extremely high quality images.

The camera is equipped with 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 preprocessing.

With frame rates up to 15 fps (full resolution) the AVT Dolphin F-145B is ideal for demanding image processing and factory automation tasks. Easy to integrate due to powerful and flexible API (option).

Highlights

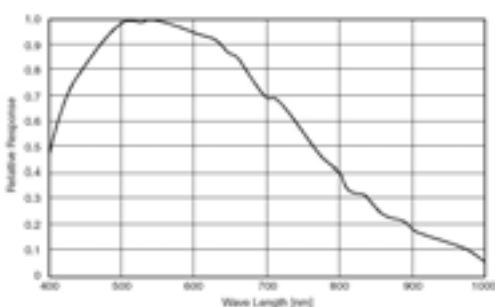
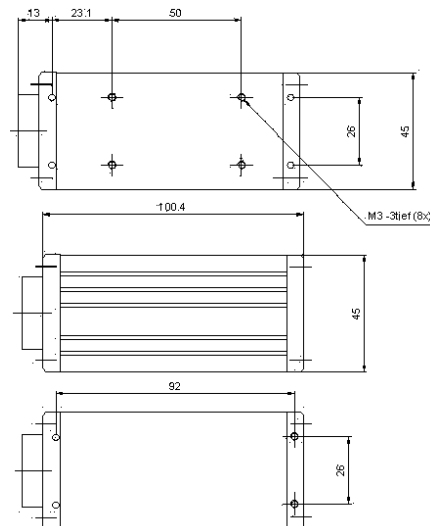
- SXGA+ 1392 x 1040 pixel progressive 2/3" CCD
- ext. async. trigger/shutter
- manual gain up to +30 dB
- manual shutter (20µs to 4s)
- 8 bit output
- 16 bit output (12 bit data)
- true partial scan (frame rate increasing)
- 16 frame buffers FIFO
- real time shading correction
- up to 63 progr. Lookup Tables
- industrial IEEE 1394 connector
- C-Mount
- Hirose 12-pin
- 3 inputs, 3 outputs; configurable
- incl. 4,5m cable

AVT Dolphin F-145B



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	

Connections



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

Image Device	2/3 Type progressive scan b/w SONY IT CCD
Effective Picture Elements	1392 (H) x 1040 (V)
Lens Mount	C-Mount
Picture Sizes	640 x 480 pixel (Format 0; Mode 5 and 6) 800 x 600 pixel (Format 1; Mode 2 and 6) 1024 x 768 ((Format 1; Mode 5 and 7) 1280 x 960 (Format 2; Mode 2 and 6) 1392 x 1040 (Format 7; Mode 0)
Cell Size	6,45 µm x 6,45 µm
ADC	12 Bit
Data Path	8 Bit or 12 Bit
Frame Rates	1,875 fps - 15 fps; External Trigger
Gain Control	Manual 0 – 30 dB (0,035 dB/step)
Shutter Speed	1-4095 x Timebase (20µs default) Advanced feature: Timebase 1, 2, 5, 20, 50, 100, 200, 500, 1000µs
External Trigger	Trigger (Format 1; Mode 0) Advanced feature: Image Transfer by command
Internal Memory	16 frames
# Look Up Tables	up to 63, user programmable (12Bit -> 8 Bit); Gamma (0,45)
Smart Functions	Real Time Shading Correction; Image Sequencing, three configurable inputs and 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)