

## AVT Marlin F-131B / F-131C



### Your Entrance into the World of Digital Cameras.

The AVT MARLIN F-131B (b/w) and AVT MARLIN F-131C (color) are very compact, space-saving IEEE 1394 SXGA C-mount cameras, equipped with a highly-sensitive 2/3" global shutter CMOS sensor. The camera offers an external asynchronous trigger shutter and operates in 8-bit mode. At full image resolution, the AVT MARLIN F-131B/C offers up to 25 fps and is thus particularly suited for use in industrial image processing and product automation.

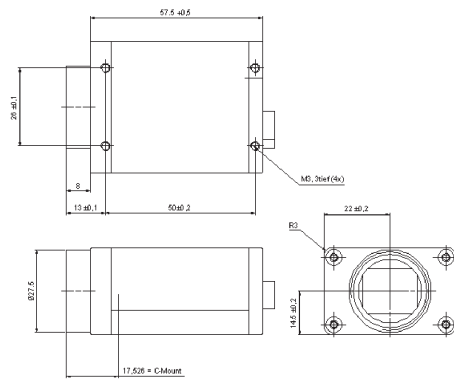
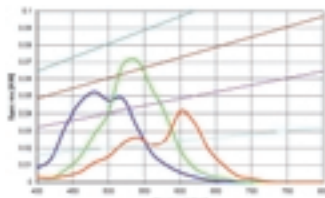
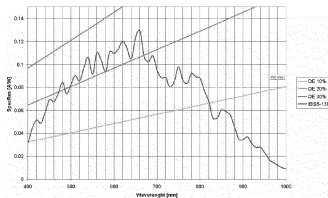
The extensive built-in image processing possibilities (image pre-processing) result in outstanding image quality, reduced retouching, less load on the system and higher performance overall. The integrated Smart Functions take over essential functions of the frame-grabber, which is compensated for by use of the MARLIN.

The MARLIN can be easily integrated into existing applications thanks to its powerful and flexible API.

#### Highlights

- SXGA 1280 x 1024 Global Shutter CMOS
- up to 25 fps
- High Dynamic Range (HDR)-Mode
- AOI speed increase
- Blemish pixel correction
- Subsampling
- Opto-coupled asynchronous image trigger
- Image preprocessing features:
  - Wide Range manual/programmable Gain,
  - Manual/Auto Exposure (Shutter), White Balance
  - Realtime Shading Correction
  - Dark Signal Non Uniformity (DSNU) Correction
  - Programmable LUT
  - and lots more ...
- Smart Framegrabber Features:
  - Image FIFO Memory (4 frames)
  - Image Mirror
  - Single Shot/Multi Shot/Free Run
  - 2 programmable Inputs
  - 2 programmable Outputs
- B/W and Color
- Very good Image Quality
- Very high frame rate
- Super compact size
- C-Mount
- angle head and customised housings

# AVT Marlin F-131B / F-131C



Sensor Specifications b/w; color (extracted from the data sheet of the sensor - excluding lens and filter)

Aoi_HEIGHT	fps
1024	24,42
960	26,01
600	40,97
480	50,69
240	96,46
120	175,84
60	298,78

Format7, raw8, global shutter - 1ms integration time



Pin	Descriptions	Use
1	Ground	
2		
3		
4	Input1/Trigger	TTL, Edge, progr.
5		
6	Output 1 / Flash	Open emitter
7	Input Ground	
8	RxD	
9	TxD	
10	OutVCC	
11	Input 2	TTL
12	Output 2	Open emitter

Connections

Dimensions

## Camera Specifications

	MARLIN F-131B (b/w)	MARLIN F-131C (color)
Image Device	2/3 " (Diag 11 mm) type global shutter CMOS sensor	
Effective Picture Elements	1280 (H) x 1024 (V)	
Picture Size	1280 x 960 pixel (Format_2 ); supporting all smaller fixed formats; 1280 x 1024 pixel (Format_7)	
Cell Size	6,7 µm x 6,7 µm	
Resolution Depth	8 Bit	
Lens Mount	C-Mount	
Digital Interface	IEEE 1394; DCAM V1.30	
Transfer Rate	100, 200, 400 Mb/s	
Frame Rates	up to 25 Hz in Format_7; 30 Hz at SVGA and smaller	up to 25 Hz in Format_7 Raw8; (12 fps YUV4:2:2; 19 fps YUV4:1:1)
Gain Control	Manual	
Shutter Speed	11µs...67s; Auto Shutter; Level Mode_1	
External Trigger Shutter	Trigger_Mode_0, Trigger_Mode_1, Advanced feature: Trigger_Mode_15 (bulk); image transfer by command; Trigger delay	
Smart Features	DSNU correction; Real time shading correction; built in FIFO Memory up to 4 frames; one user programmable Look Up Table; 2 configurable inputs, 2 configurable outputs; high dynamic range (HDR) mode; sequencing; image mirror (L-R / R-L); serial port (IIDC v. 1.31)	
Power Requirements	DC 8V – 36V via IEEE 1394 cable	
Power Consumption	Less than 3 Watt (@ 12V DC)	
Dimensions	58 mm x 44 mm x 29 mm (L x W x H); w/o tripod and lens	
Mass	<120 gr (without lens)	
Operating Temperature	+5 - 45 ° Celsius	
Storage Temperature	-10 - 60 ° Celsius	
Regulations	EN 55022, EN61000, EN 55024, FCC Class A; DIN ISO 9022	
Options	Host Adapter Card, API (FirePackage), TWAIN (WIA)- and WDM driver	