

AVT Marlin F-080B / F-080C

**optional: Marlin F-080B-30fps
Marlin F-080C-30fps**



Your entrance into the world of digital cameras.

The AVT MARLIN F-080B (b/w) and AVT MARLIN F-080C (color) are very compact, space saving IEEE 1394 XGA C(CS)-Mount cameras, equipped with a highly sensitive SONY type 1/3 progressive CCD sensor. The camera offers an external asynchronous trigger shutter and operates in 8-bit or 10-bit mode. At full image resolution, the AVT MARLIN F-080B/C offers up to 20 fps (**optional 30 fps**) and is thus particularly suited for use in industrial image processing and product automation.

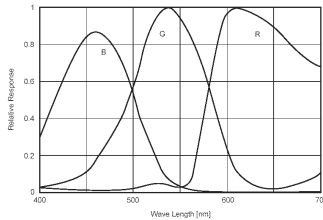
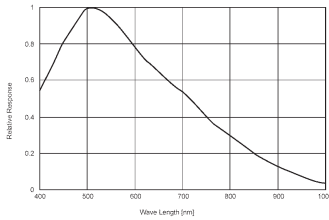
The extensive built-in image processing possibilities (image pre-processing) result in outstanding image quality, reduced retouching, less load on the system and higher performance overall. The integrated smart functions take over essential functions of the frame grabber, which is compensated by use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

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

Highlights

- XGA 1032 x 778 progressive CCD
- Up to 20 fps / **optional with up to 30 fps**
- True partial scan (higher frame rates by smaller AOI)
- Format_7 support (flexible AOI, flexible speed)
- Optocoupled asynchronous image trigger
- Image preprocessing features:
 - Auto controlled gain, exposure, white balance
 - Color correction, hue, saturation
 - Real-time shading correction
 - Programmable LUT
 - And lots more ...
- Smart frame grabber features:
 - Image FIFO memory (7 full frames)
 - Image mirror
 - Single-shot, multi-shot, free-run
 - 2 programmable inputs
 - 2 programmable outputs
 - And lots more ...
- B/w and color
- Very good image quality, natural color response
- Very high frame rate
- Super compact size
- C-Mount, CS-Mount
- Angled head and customized housings

AVT Marlin F-080B / F-080C

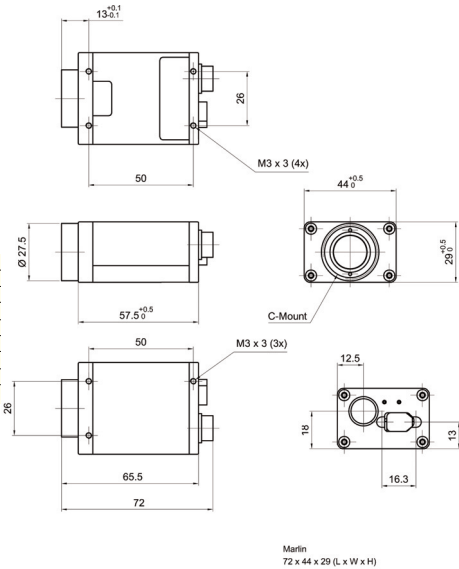


Sensor specifications b/w; color (extracted from the data sheet of the sensor - excluding lens and filter)

Marlin F-080B/C		Marlin F-080B/C-30fps	
AOI height / pixel	Frame rate / fps	AOI height / pixel	Frame rate / fps
778	20.0	778	30.2
768	20.3	768	30.5
600	25.0	600	37.7
480	30.0	480	45.2
240	46.8	240	75.4
120	73.3	120	113.1
60	99.2	60	150.8



Pin	Descriptions	Use
1	Ground	
2	Power In (CCD only)	GND for RS232 and ext. power
3		
4	Input1/Trigger	TTL, Edge, progr.
5		
6	Output 1 /IntEna	Open emitter
7	Input Ground	
8	RS232 RxD	common ground for inputs
9	RS232 TxD	
10	OutVCC	
11	Input 2	Common VCC for outputs
12	Output 2	Open emitter



Connections

Dimensions

Camera Specifications

	MARLIN F-080B (b/w)	MARLIN F-080 C (color)
Image device	Type 1/3 (diag. 6 mm) progressive scan SONY CCD	
Effective picture elements	1032 (H) x 778 (V): mono	1032 (H) x 778 (V) @ Raw8; 1032 (H) x 776 (V) @ YUV
Picture size	1024 x 768 pixels (Format_1); supporting all smaller fixed formats; up to 1032 x 778 pixels (Format_7 Mode_1)	
Cell size	4.65 µm x 4.65 µm	
Resolution depth	8 bit / 10 bit (b/w only) up to 12 bit (ADC)	
Lens mount	C-Mount; CS-Mount on demand	
Digital interface	IEEE 1394 IIDC v. 1.3	
Transfer rate	100 Mbit/s, 200 Mbit/s, 400 Mbit/s	
Frame rates	Up to 20 Hz in Format_7 optional: up to 30 Hz (Format_7)	up to 20/30 Hz in Format_7 Raw8; 20/27 Hz (YUV 4:1:1); 20/20 Hz (YUV 4:2:2); 13Hz (RGB8)
Gain control	Manual: 0-24 dB (0.035 dB/step); auto gain (select. AOI)	
Shutter speed	20 ...67.108.864 µs (67 s); auto shutter (select. AOI)	
External trigger shutter	Trigger_Mode_0, Trigger_Mode_1, advanced feature: Trigger_Mode_15 (bulk); image transfer by command; trigger delay	
Smart features	Real-time shading correction; image sequencing; built in FIFO memory up to 7 frames; one user programmable look-up table; 2 configurable inputs, 2 configurable outputs; image mirror (L-R<->R-L), binning, secure image signature (SIS), user profiles, serial port (IIDC V1.3)	
Power requirements	DC 8 V - 36 V via IEEE 1394 cable or 12-pin HIROSE	
Power consumption	Less than 3 watt (@ 12 V DC)	
Dimensions	72 mm x 44 mm x 29 mm (L x W x H); w/o tripod and lens	
Mass	<120 g (without lens)	
Operating temperature	+5...+ 45 °Celsius	
Storage temperature	-10...+ 60 °Celsius	
Regulations	EN 55022, EN 61000, EN 55024, FCC Class B; DIN ISO 9022, RoHS (2002/95/EC)	
Options	Removable IR cut filter, host adapter card, locking IEEE 1394 cable, AVT FirePackage /Direct FirePackage / Fire4Linux	