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**The Machine Vision and
Imaging Specialists**

Perth: +61 (08) 9242 5411

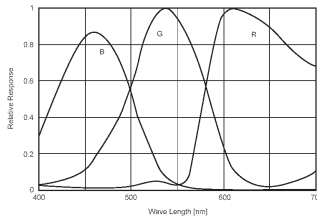
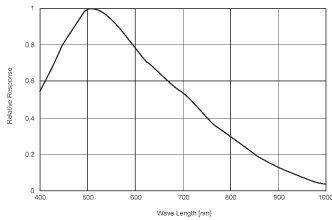
Sydney: +61 (02) 9979 2599

Melbourne: +61 (03) 9555 5621

Email: adept@adept.net.au

Web: <http://www.adept.net.au>

AVT Marlin F-146B / 146C



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

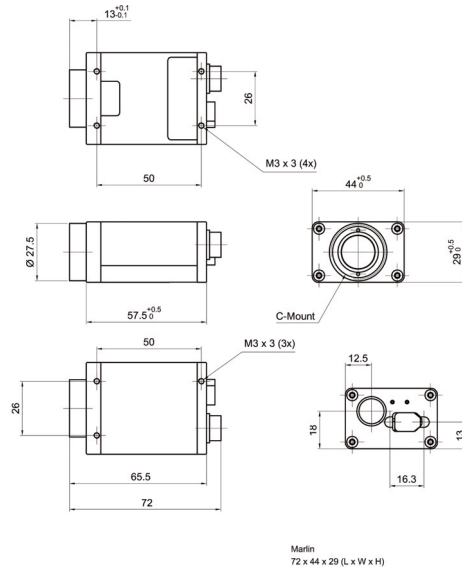
| AOI height / pixel | Frame rate / fps | Preview Mode (by sub-sampling): 696 x 518 : 17.4 fps |
|--------------------|------------------|--|
| 1040 | 17.4 | |
| 960 | 18.5 | |
| 768 | 21.9 | |
| 600 | 26.0 | |
| 480 | 30.0 | |
| 240 | 43.7 | |
| 120 | 56.3 | |
| 60 | 65.5 | |

Format_7 Raw8/Mono8

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



Connections



Dimensions

Camera Specifications

| | MARLIN F-146B (b/w) | MARLIN F-146C (color) |
|----------------------------|--|---|
| Image device | Type 1/2 (diag. 8 mm) progressive scan SONY CCD | |
| Effective picture elements | 1392 (H) x 1040 (V): mono | 1392 (H) x 1040 (V): @ Raw8; 1392 (H) x 1038 (V): @ YUV, RGB |
| Picture size | 1280 x 960 pixels (Format_2); supporting all smaller fixed formats; up to 1392 x 1040 pixels (Format_7 Mode_1) | |
| Cell size | 4.65 μm x 4.65 μm | |
| Resolution depth | 8 bit / 10 bit (b/w only); 12 bit (ADC) | |
| Lens mount | C-Mount | |
| Digital interface | IEEE 1394 IIDC v. 1.3 | |
| Transfer rate | 100 Mbit/s, 200 Mbit/s, 400 Mbit/s | |
| Frame rates | Up to 17.4 Hz (Format_7); 7 Hz (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 3 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 | |