

In series

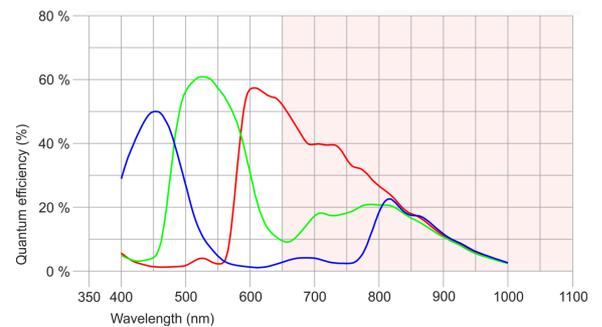
The model is in series and available for the long term.



Specification

Sensor

| | |
|---|-----------------------|
| Sensor type | CMOS Color |
| Shutter | Global Shutter |
| Sensor characteristic | Linear |
| Readout mode | - |
| Pixel Class | 12 MP |
| Resolution | 12.37 Mpix |
| Resolution (h x v) | 4112 x 3008 Pixel |
| Aspect ratio | 4:3 |
| ADC | 12 bit |
| Color depth (camera) | 12 bit |
| Optical sensor class | 1.1" |
| Optical Size | 14.159 mm x 10.371 mm |
| Optical sensor diagonal | 17.55 mm 1.1" |
| Pixel size | 3.45 µm |
| Manufacturer | Sony |
| Sensor Model | IMX253LQR-C |
| Gain (master/RGB) | 25.4x/16x |
| AOI horizontal | same frame rate |
| AOI vertical | increased frame rate |
| AOI image width / step width | 256 / 2 |
| AOI image height / step width | 2 / 2 |
| AOI position grid (horizontal/vertical) | 2 / 2 |
| Binning horizontal | |
| Binning vertical | |
| Binning method | M/C automatic |
| Binning factor | 1x1 |
| Decimation (subsampling) horizontal | increased frame rate |
| Decimation (subsampling) vertical | increased frame rate |
| Decimation (subsampling) method | M/C automatic |
| Decimation (subsampling) factor | 2x2 |



Model

| | |
|-----------------------------------|--------------------|
| Frame rate freerun mode | 44 fps* |
| Frame rate trigger (continuous) | 45 fps |
| Frame rate trigger (maximum) | 45 fps |
| Exposure time (minimum - maximum) | 0.022 ms - 2000 ms |
| Long exposure (maximum) | 44549 ms |
| Power consumption | 10 W - 14 W |
| Image memory | 2032 MB |

* Maximum frame rate achievable with upcoming firmware to be released shortly. For now, the maximum frame rate has to remain at 36 fps.

Ambient conditions

The temperature values given below refer to the outer device temperature of the camera housing.

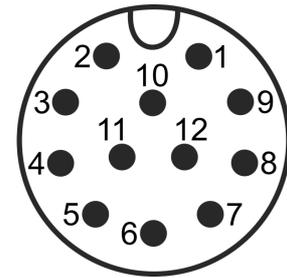
| | |
|---|---------------------------------|
| Allowed device temperature during operation | 0 °C - 55 °C / 32 °F - 131 °F |
| Allowed device temperature during storage | -20 °C - 60 °C / -4 °F - 140 °F |
| Humidity (relative, non-condensing) | 20 % - 80 % |

Connectors

| | |
|---------------------|--|
| Interface connector | GigE RJ45, screwable |
| I/O connector | 12-pin M12 connector (Attend 216A-12MSR) |
| Power supply | 12 V - 24 V or PoE+ |

Pin assignment I/O connector

| | |
|----|---|
| 1 | Power supply, 12-24 V DC |
| 2 | Power supply, ground |
| 3 | (Trigger) input 0 with optocoupler - Line0 |
| 4 | Reference level for all optocoupler outputs |
| 5 | Reference level for all optocoupler inputs |
| 6 | (Trigger) input 1 with optocoupler - Line1 |
| 7 | (Flash) output 1 with optocoupler - Line4 |
| 8 | Fast (flash) output 2 with optocoupler - Line5 |
| 9 | Power supply for fast (flash) outputs, 3-5 V DC |
| 10 | Fast (flash) output 3 with optocoupler - Line6 |
| 11 | (Trigger) input 2 with optocoupler - Line2 |
| 12 | (Flash) output 0 with optocoupler - Line3 |



Design

| | |
|------------------|-----------------------------|
| Lens Mount | C-Mount |
| IP code | IP30 |
| Dimensions H/W/L | 60.0 mm x 75.0 mm x 94.5 mm |
| Mass | 550 g |
| Housing material | Aluminum |

Features

List of on-camera image pre-processing features.

All features of the table are available via our IDS peak software for image pre-processing on the host computer (sensor model dependent).

GV-7000WP-C-HQ (1007804)

| | | |
|---------------------------|--------------------------------|---|
| Image Acquisition | Freerun | ✓ |
| | Software trigger | ✓ |
| | Hardware trigger | ✓ |
| | Trigger controlled exposure | ✓ |
| | Denoisier | ✓ |
| | Long exposure | ✓ |
| | Line scan | ✓ |
| Flashing | Flashing | ✓ |
| | PWM flashing | ✓ |
| Image Adjustments | Auto exposure | ✓ |
| | Auto gain | ✓ |
| | Auto whitebalance | ✓ |
| | Color correction | ✓ |
| | Gamma | ✓ |
| | LUT | ✓ |
| | Mirror/flip | X/Y |
| On-board Image Processing | Pixel formats | Mono8 BayerRG8 BayerRG10 BayerRG10p BayerRG12 BayerRG12p BGR8 RGB8 BGR10p32 RGB10p32 |
| | Region of interest | ✓ |
| | Decimation (FPGA) | ✓ |
| | Decimation (Sensor) | 2x2 |
| | Binning (FPGA) | ✓ |
| | Binning (Sensor) | |
| | | |
| Others | IP settings | ✓ |
| | Bandwidth management | ✓ |
| | Chunks | ✓ |
| | Sequencer | - |
| | PTP | ✓ |
| | Firmware update | ✓ |
| | 1st supported firmware version | 3.0 |