HCC-1000(F)BGE

High-Speed CMOS Camera
with Image Correction and Gigabit Ethernet

Features

- 1024 (H) x 1024 (V) square pixels
- Up to 462 frames/sec. at full resolution
- Up to 1 GByte internal memory
- Internal dark image correction for high quality images
- Considerably increased light sensitivity
- Digital output with up to 30 frames/sec. via Gigabit Ethernet
- C-mount compatible sensor size (2/3")

The **HCC-1000BGE** camera offers a number of improvements in comparison with the predecessor model. Through the new Gigabit Ethernet interface a smooth application is guaranteed even in case of larger distances between notebook and camera. Due to the Gigabit Ethernet interface also a higher download speed is achieved.

By means of the new dark image correction in the camera, the quality of images as well as the light sensitivity have been improved considerably.

At a resolution of **1024 x 1024** effective pixels and an image rate up to approx. **462 frames/sec.** at full resolution, the camera corresponds to the latest standard of high-speed cameras. Even higher frame rates (**1825 frames/sec.**) can be achieved with the **HCC-1000FBGE** with reduced resolution (**256 x 256**).

In order to acquire the data at that high speed, a RAM memory of **up to 1 GByte** has been integrated directly into the **HCC-1000BGE**. Due to the **1 GByte** 1024 images can be stored at a full resolution - accordingly more at a lower resolution.

The camera naturally offers the possibility of reacting to a trigger event by e. g. storing 50 % before and 50 % after the trigger event. The choice of different operating modes and adjustments is effected via the Gigabit Ethernet interface.

Adjustments are e. g. the resolution, image rate, exposure time, number of frames during record, pre/post trigger and parameters for the image output. All parameters can be stored in an EEPROM and therefore are again available after switching-on.

The Gigabit Ethernet digital output supplies the recorded images with an image rate up to 30 fps for further processing and storage on a PC.

Technical Data

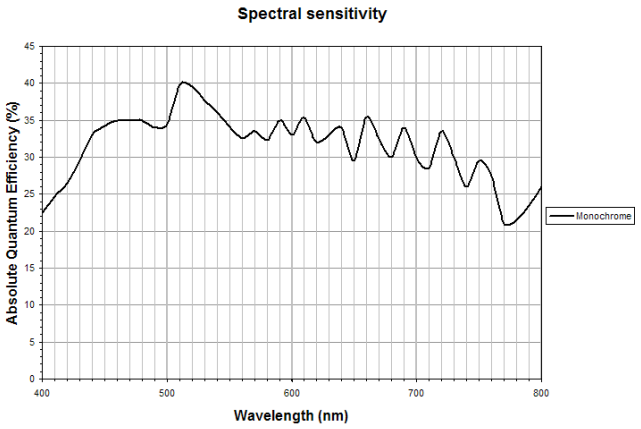
- Resolution (standard): 1024 (H) x 1024 (V) pixels
  1024 (H) x 512 (V) pixels
  1024 (H) x 256 (V) pixels
- Resolution (F model): 256 (H) x 256 (V) pixels
  256 (H) x 128 (V) pixels
  256 (H) x 64 (V) pixels
- Progressive scan
- Pixel size: 10 µm x 10 µm
- Active sensor size: 10.24 (H) mm x 10.24 (V) mm
- CMOS-sensor
- Image rate (standard): 1024 x 1024 up to 462 fps
  1024 x 512 up to 923 fps
  1024 x 256 up to 1825 fps
- Image rate (F model): 256 x 256 up to 1825 fps
  256 x 128 up to 3570 fps
  256 x 64 up to 6832 fps
- Memory (standard): 512 MByte or 1 GByte
- Memory (F model): 512 MByte
- Sensor saturation: 80000 e
- Sensitivity: ~ 255 counts at 200 LUX (2 ms exp.)
  ~ 255 counts at 50 LUX @ Gain 4 (2 ms exp.)
- Internal dark image correction & adjustable gain
- Digital output: 8-bit,Gigabit Ethernet (1000Base-T)
- Frame system: 1035 lines (standard), 262 (F model)
- Output frame rate: approx. 30 fps (200fps for F model)
- Output pixel clock: 33 MHz
- Power supply: + 12 V, approx. 0.8 A
- Ambient air temperature: 0° to 40° C
- Lens mount: C-mount
- CE standard
- Made in Germany

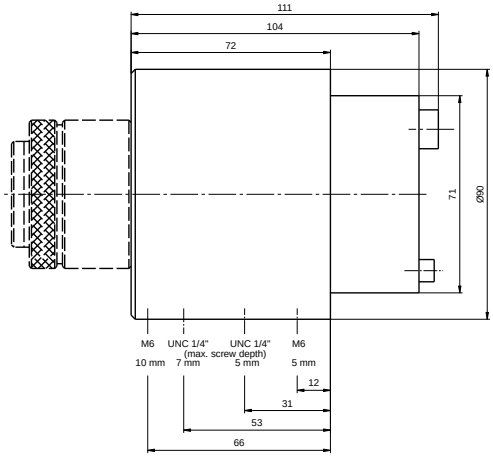
Power and Control Input (15-pin D-SUB Jack)

Pin	Function	
1	+12V DC	
2		
3	GND	
4		
5		
6		
7	RXD (RS232)	
8	TXD (RS232)	
9		
10	-	Trigger Input (Opto Coupler)
11	+	
12	-	Reset Input (Opto Coupler)
13	+	
14	Strobe Out	
15		

Gigabit Ethernet Connector (RJ-45 Jack)

Pin	Function	Pin	Function
1	D1+	5	D3-
2	D1-	6	D2-
3	D2+	7	D4+
4	D3+	8	D4-





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