SpeedCam visario g3

Ruggedized high-speed camera with the latest 1.536 x 1.024 CMOS sensor technology

The **SpeedCam Visario g3** combines the latest CMOS technology, high photosensitivity, outstanding image quality and fast recording speeds in an extremely compact enclosure for this product category.

The highly photosensitive and noise-optimized CMOS sensor of the **SpeedCam Visario g3**, one of Weinberger's own developments, offers true-to-life image quality with a format of 1.536 x 1.024 pixels maximum. With full resolution, a recording frequency of up to 1.000 fps is reached; in the highest resolution level, recordings with up to 100.000 fps are possible. The ruggedized enclosure of the **SpeedCam Visario g3** is resistant to static acceleration up to 100g in three axes and thus ideally equipped for crash and sled tests in the automotive industry.

A particular highlight of the camera is the high-dynamic mode that can be optionally switched on. With this standard 12-bit option, recordings can be obtained with optimized image dynamics. Perfect for uses in film and television, where it's a matter of the best image quality.

The **SpeedCam Visario g3** is connected to a standard PC or a laptop by means of a Gigabit Ethernet interface. An additional processor is not required, since all primary image processing takes place in the camera head. With the optional available battery pack, the camera can be operated independently of a power supply network for up to 45 minutes.

With the intuitive **SpeedCam Visart** control software, setting up networks of several cameras becomes a simple process. All connected cameras can be operated with Visart on a common user interface.

Highlights

- **1.536 x 1.024 CMOS-Sensor**
  max. 1.000 fps in full resolution
  up to 100.000 fps in partial resolution
  6 different resolution levels
- **High light sensitivity**
  800 ASA color, 2.400 ASA monochrome
  Noise-optimized Weinberger sensor for true-to-life representations
- **Electronic shutter down to 5 µs**
  Fast shutter speeds prevent motion blur
- **12-bit mode for broadcasting applications**
  Optimized image dynamics in High-Dynamic Mode that can be switched on
- **Gigabit Ethernet Interface**
  1000/100 Ethernet guarantees extremely short download times
  Simple connection to existing Windows computer systems
- **Mechanical stability up to 100g in 3 axes**
  Robust system for applications under extreme conditions

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SpeedCam visario g3

Technical Data

Specifications

CMOS-SENSOR

Sensor Array:	1.536 x 1.024 image format, 11 x 11 µm, color or monochrome
Sensor Architecture:	Checkerboard pattern with octagonal pixels
Sensor Resolution:	1.536 x 1.024 image format up to 1.000 fps
Active Sensor Area:	16,89 x 11,23 mm (B x H)
Dynamic Range:	Max. 12 Bit / 72 dB
Light Sensitivity:	Color 800 ISO/ASA, Monochrome 2400 ISO/ASA

MEMORY AND RECORD RATES

On-Board Storage:	Ring memory 3, 6 or 12 GB (24 GB available Q1 2008)
Recording Rates:	25 to 100.000 fps

CAMERA CONTROL

Shutter:	Global electronic shutter down to 5 µs
Resolution/Image Format:	6 resolution steps
Recording Time:	From 2,7 to 10,8 seconds depending on ring memory size at full resolution and 1.000 fps
Trigger:	Selectable pre- and post trigger

INPUTS/OUTPUTS

Inputs:	1 x digital, IRIG (optional)
Trigger:	External TTL Trigger
Sync-Output:	TTL-Sync-Output, Strobe Signal
Video-Out:	PAL/NTSC (optional)
Ethernet:	1000 / 100 Ethernet (Gigabit Ethernet) to RJ45
All-Armed:	Signals REC-Mode
Batt-Off:	Remote de-energization

SOFTWARE

Control Software:	SpeedCam Visart
Operating System:	Windows 2000 and Windows XP Professional
Functions:	Camera control, image processing and file storage
Camera Systems:	SpeedCam Visario, Visario g2, Visario g3, MiniVis
Image File Formats:	AVI, BMP, TIFF, JPEG, JPEG 2000
System Integration:	Open CORBA interface

MECHANICAL DESCRIPTION

Camera Dimensions:	113 x 120 x 200 mm / 4.4"x 4.7"x7.9" (WxHxD), 4.5 kg / 9.9 lbs
Lens Mount:	C-Mount, F-Mount, Voigtlaender, Kinoptik
Mechanical Stability:	Up to 100g peak @ 25 msec in any axis

ENVIRONMENTAL

Power Supply:	12 - 36 V external
Battery-Pack:	Capacity: 45 min recording (optional)
Power Consumption:	35 W max (with 3 GB ring memory)
Operating Temperature:	-10 to +45°C / 14 to 113°F (with hard disk option 32 to 104°F)

AVAILABLE OPTIONS

Video-Out (PAL/NTSC), IRIG-B Input, Fibre Optic Interface, Battery-Pack, Internal Hard Disk, Non Volatile Flash Memory

Recording rates

RESOLUTION	MAX FRAME RATE
1.536 x 1.024	1.000 fps
1.024 x 768	2.000 fps
768 x 512	4.000 fps
512 x 192	10.000 fps
256 x 96	40.000 fps
256 x 16	100.000 fps

Recording time at full resolution

FRAME RATE	MEMORY*	TIME
1.000 fps	3 GB	2,7 s
1.000 fps	6 GB	5,4 s
1.000 fps	12 GB	10,8 s
500 fps	3 GB	5,4 s
500 fps	6 GB	10,8 s
500 fps	12 GB	21,6 s
125 fps	3 GB	21,6 s
125 fps	6 GB	43,2 s
125 fps	12 GB	86,4 s

*24 GB presumably available from Q1 2008

SpeedCam Visario g3 interface with optional Battery-Pack

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