SPEEDCAM
visario g2

In the middle of events - at the moment they happen

*High-speed worlds, explosive sequences, unique incidents – with the introduction of the new **SpeedCam Visario G2** high-speed camera generation, Weinberger has launched a pioneering family of cameras which set a clear course and leave no need unanswered, even under the most demanding conditions.*

A milestone for the high-speed Industry

Based upon the world-wide proven **Speed-Cam Visario** industry standard, the compact and lightweight systems of the second generation (G2) unite to provide a rare wealth of performance features. Designed for high end operation in the fields of automotive, military and research and development, the cameras provide a unique synthesis of:

- The most modern CMOS technology enabling high speed images with resolutions up to 1536 x 1024 pixels (SpeedCam Visario g2 1500)

- High-speed recording up to 10,000 frames per second

- Seamless network integration (Gigabit ethernet interface)

- Independent operation thanks to the optional back-up battery

- Direct control with a standard PC / notebook PC

- Interface panel with various connectors for differing user requirements

- High level of operating comfort - thanks to the Visart camera control software

- Visart software enables integrated operation with a mix-and-match of all SpeedCam cameras

Evolution – a new definition

New perspectives for a high-speed world. This was the credo we set ourselves when developing the **SpeedCam Visario G2** family; and the result has been that we have established completely new standards. The second generation of Weinberger high end systems represent a unique harmony of speed, resolution, modular construction, and ease of use. The minimal weight and extremely compact dimensions are revolutionary in the field of high performance, digital high-speed cameras.

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SPEEDCAM VISARIO G2

Integrative modularity

Regardless of how complex, demanding, or detailed your project may be – with the SpeedCam Visario G2 you will have a level of flexibility, quality and efficiency unknown until now. Take advantage of the many benefits of using the new SpeedCam Visario G2 Camera System!
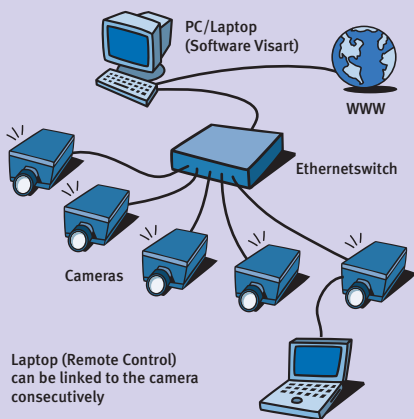
Highlights in a multi-pack

Modular system concept

SpeedCam Visario G2 provides a level of variability which has remained unknown until now. You determine which components, options and accessories are to be fitted to the basic camera system – thereby ensuring that your specific requirements are perfectly catered for. The individual options include:

- Different camera rear panel designed for different needs, such as automotive (BNC, ODU) or military (Mil plug)

- Option: internal 1.8" IDE hard-disk with up to 40 GB storage capacity for direct back-up of image data following recording
- Battery back-up; enables the current recording to be saved in the event of a power failure, as well as storage of the data omit this
- Ethernet fiberoptic interface direct on the camera head for transfer of the Gigabit Ethernet signal over long distances
- Frame synchronized time stamp (IRIG-B input)
- Crash proof Gigabit Ethernet hub for demanding on-board operation

Various types of operation

Network operation:

Local camera integration in 1 GB-Ethernet networks; frame parameters via a second Ethernet interface

PC/Laptop (Software Visart)

WWW

Ethernetswitch

Cameras

Laptop (Remote Control) can be linked to the camera consecutively
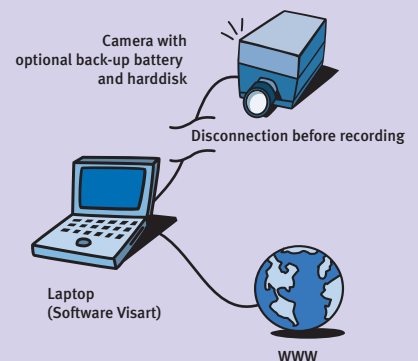
Laptop PC operation:

Camera control and data storage can be performed quickly and easily using a standard laptop PC with Visart control software

Camera

Laptop (Software Visart)

WWW
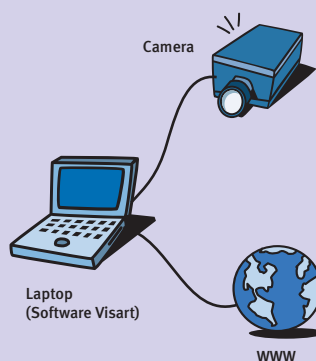
Stand-alone operation:

System configuration is performed with the Visart software; and thanks to the optional battery pack, recording and image archiving become autonomous operations ("Camcorder Mode")

Camera with optional back-up battery and harddisk

Disconnection before recording

Laptop (Software Visart)

WWW

Universal interface panel

As wide as the range of possible uses may be, so wide-ranging are the interface possibilities. The universal interface panel allows you to make configurations according to your individual requirements and includes the following types of plugs:
- Interchangeable rear camera panel, BNC or Mil plug
- IRIG-B (Mil spec.) digital input
- Connections for synchronization and trigger

- All-armed and ready output signal
- Gigabit Ethernet (standard)
- Ethernet fiberoptic interface (standard)

*If you wish, we can configure the interfaces according to your own specific requirements*

S*PEED*C*AM*
visart

Visart camera control Software: pure user-friendliness

Easy, efficient and practical – the Visart camera control software will exceed your most demanding requirements. It will allow you to concentrate upon your core activities, and rely on user friendly software that provides an extensive range of functions for recording images, playing back the images, enhancing them with filters, and storing them in any number of formats.

Comprehensive performance features – for extremely User friendly operation

- Hardware and software support for all cameras belonging to the Weinberger SpeedCam family
- Blend-in of all recording parameters, descriptive information and company logos in AVI files
- Camera configuration and control via an Ethernet interface to a notebook or laptop PC
- Redo/Undo function
- Camera setup wizard: 4 steps to finished AVI file
- Various wizards for astonishingly simple configuration of recording sequences
- Crosshair that can be displayed and blended-in for easy focussing
- Color emphasis of over-exposed and/or under-exposed zones in the live picture
- Replay of original data sequences at variable playback speeds
- Camera setup parameters for specific applications can be stored in templates to make camera setup easier, faster, and more efficient
- Various automatic filters for contrast, white balance, color and saturation can be stored in templates for fast recall and image setup
- Adjustment of contrast, brightness and white balance, can be made and evaluated before saving the images to hard disk
- Various frame processing functions: frame cut-outs, image rotating, mirroring, histogram functions, and automatic exposure warning to aid in correcting over-exposure condition
- Hardware-independent original data player with the possibility of providing AVI sequences
- Fully integrated IRIG-B inclusion (time code)

- Graphic visualization of the experimental test-rig, including memory function and preview image
- Many useful tools for video analysis, such as: magnification, cut-outs, navigation window, lasso-zoom, centre-zoom, information window
- Input formats supported: Weinberger original data, Bayer original data
- Output formats supported: AVI, QuickTime, GIF, PNG, BMP, TIFF, JPEG and JPEG2000
- Toolbar management for user-specific desktop setup
- Drag&drop support, also for MS-Windows Programs (Explorer)
- Language support for English, French and German (other languages available upon request)
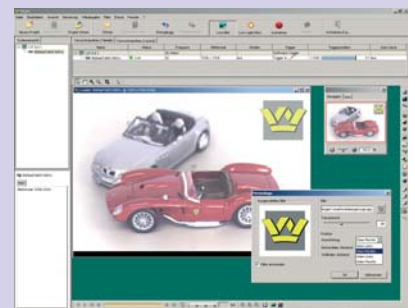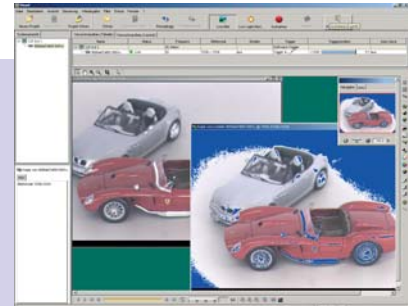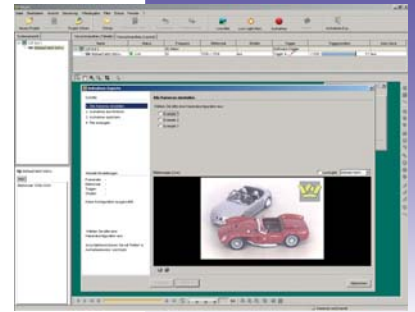
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SPEEDCAM
visario g2 *– convincing arguments*

Video high speed camera with a CMOS sensor

Optical parameters SPEEDCAM visario g2 1500

Sensor	• High-Speed APS-CMOS Sensor
Active sensor area	• 16.89 x 11.26 mm (W x H)
Active pixel size	• 11 µm Square
Image formats	• 1536 x 1024 pixel: up to 1,000 fps (frames per second) • 1024 x 768 pixel: up to 2,000 fps • 768 x 512 pixel: up to 4,000 fps • 512 x 192 pixel: up to 10,000 fps
Shutter	• Electronic shutter down to 10 µsec.
Dynamic range	• Monochrome 10 Bit, color depth to 30 Bit
Recording time	• Default - 1 sec. • Optional - up to 8 sec. Longer recording time at lower resolution and/or speed
Further optical features	• No blooming • No cross talk • Optimized noise reduction on chip

System software and functions

Operating system	• Windows 2000/XP™
Intelligent camera head	• The Linux operating system as an embedded system in the camera head ensures system stability and allows maximum flexibility
System integration	• Open standard interface (CORBA) for seamless integration into existing operating systems
System configuration	• All parameters can be set using software
Trigger	• Various trigger settings are possible on the camera itself
Synchronization	• Either internally or via an external clock generator
System parameters (selection)	• Live frame viewing with a laptop or notebook PC (available as an option)
IRIG-B (Mil Spec)	• Digital input

Mechanical properties

Lens	• Mounting for various standard lenses • F-Mount or C-Mount adapters are included in the standard delivery • Other adapters available upon request
System layout	• Modular, expandable system consisting of camera, Ethernet hub and control unit • Ethernet hub for a network of several cameras
Camera dimensions (H/W/D)	• 113 x 120 x 200 mm /4.4" x 4.4" x 7.9" (not incl. battery) • 138.50 x 120 x 200 mm / 5.5" x 4.4" x 7.9" (incl. battery)
Weight	• 3.55 kg / 7.8 lbs (not incl. battery), 5.2 kg / 11.5 lbs (incl. battery)
Power supply	• 12 - 36 V external
Power consumption	• 25 Watt (1 sec. memory expansion)
Humidity	• 95% non-condensing
Operating temperature	• -10 to +45°C*
Hi-G rated	• 100g /25 ms, tested over 1,000 cycles*
Approval standards	• Conforms to CE and other international standards

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