

SPEEDCAM visario g2

The first intelligent high speed camera

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
- An intelligent camera head with embedded LINUX as the operating system automates predefined procedures, such as the camera booting up in record mode or saving images instantly to the internal flash disk after a test is finished

Evolution – a new definition

New perspectives for a high-speed world. This was the philosophy we believed in 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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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!

Versatility without compromise

Modular system concept

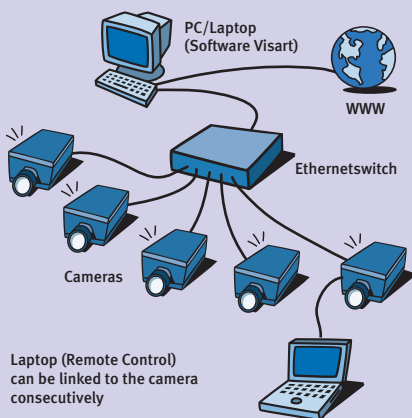
SpeedCam Visario G2 provides a level of variability which has remained unknown until now. You determine which components, options and accessories are to be fitted to the basic camera system – thereby ensuring that your specific requirements are perfectly catered for. The individual options include:

- Different camera rear panel designed for different needs, such as automotive (BNC, ODU) or military (Mil plug)
- Optional: Non-Volatile Flash Memory, up to 4 gigabytes 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 operating the camera independent of any external power source
- Ethernet fiber optic 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

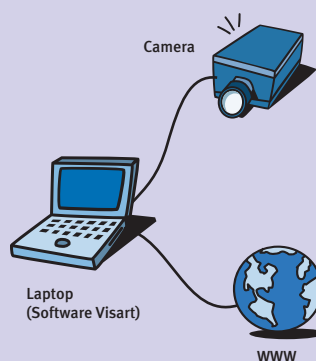
Network operation:

Local camera integration in Gigabit Ethernet networks



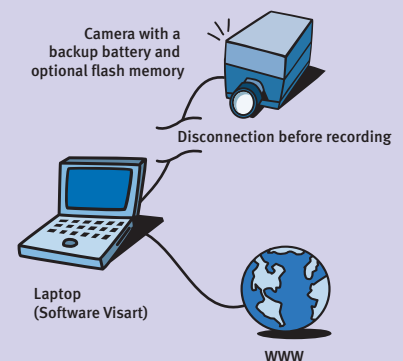
Laptop PC operation:

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



Stand-alone operation:

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



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

SPEEDCAM visart

Visart, the premier camera control Software: The standard for functionality and flexibility

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

Camera Setup and Control

- Camera configuration and control via standard Ethernet interface (1000/100/10BT) with a desktop or laptop PC
- Camera setup wizard: 4 quick and easy steps take you from a live image to a finished AVI file
- Embedded crosshair that can be changed in size and color for accurately positioning the camera view
- Pixel saturation indicator displays over/under exposed areas with a color overlay (see middle picture)
- Camera setup parameters for specific applications can be stored in templates to make camera setup easier, faster, and more efficient
- Toolbar management for user-specific desktop setup
- Drag-&-drop support, also for MS-Windows Programs (Explorer)

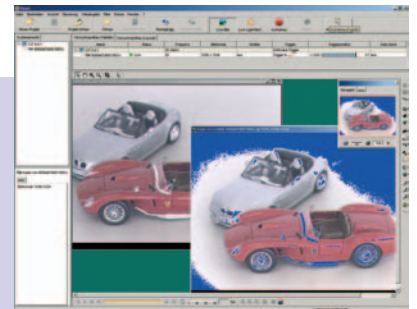
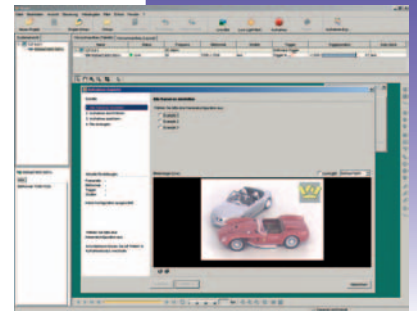
Image Analysis and Post Processing

- “Burn-in” recording parameters, descriptive information and company logos into AVI files and other formats (see bottom picture of semi-transparent logo insertion)
- Redo/Undo function
- Replay video sequences from 1-40fps (dependent on file size and CPU speed) with an adjustable replay dial
- Various filters for contrast, white balance, color balance, saturation and many more can be stored in templates for fast recall and image setup
- Distributable Visart media player for Image analysis with the possibility of creating AVI sequences on any Windows 2000/XP™ desktop or laptop

- Many useful tools for video analysis, such as image cropping, magnification, navigation window, lasso-zoom, center-zoom, pixel information window
- Input formats supported: Visario and Bayer raw data
- Output formats supported: AVI, QuickTime, GIF, PNG, BMP, TIFF, JPEG and JPEG2000

Software Compatibility and Integration

- Visart 2.0 supports control of all cameras belonging to the Weinberger SpeedCam family (G2, G1, and MiniVis) under one platform
- Fully integrated IRIG-B inclusion (time code stamp)
- Language support for English, French and German (other languages available upon request)



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visario g2 - convincing arguments

High speed video camera with a CMOS sensor

Optical parameters SPEEDCAM Visario g2 1500

Sensor	<ul style="list-style-type: none">• High-Speed APS-CMOS Sensor
Active sensor area	<ul style="list-style-type: none">• 16.89 x 11.26 mm (W x H)
Active pixel size	<ul style="list-style-type: none">• 11 µm Square
Image formats	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• Electronic shutter down to 10 µsec.
Dynamic range	<ul style="list-style-type: none">• Monochrome 10 Bit, color depth to 30 Bit
Recording time	<ul style="list-style-type: none">• Default - 1 sec.• Optional - up to 8 sec. Longer recording time at lower resolution and/or speed
Further optical features	<ul style="list-style-type: none">• No blooming• No cross talk• Optimized noise reduction on chip

System software and functions

Operating system	<ul style="list-style-type: none">• Windows 2000/XP™
Intelligent camera head	<ul style="list-style-type: none">• With an embedded Linux as the operating system, the camera's stability and expandability is unmatched in the high speed industry
System integration	<ul style="list-style-type: none">• Open standard interface (CORBA) for seamless integration into existing operating systems
System configuration	<ul style="list-style-type: none">• Visart control software makes camera setup a simple and effortless task
Trigger	<ul style="list-style-type: none">• Various trigger settings are possible on the camera itself or via Visart control software
Synchronization	<ul style="list-style-type: none">• Either internally or via an external clock generator
System parameters (selection)	<ul style="list-style-type: none">• Laptop or tablet PC can be used as a viewfinder and can be connected concurrently with the Gigabit Ethernet connection
IRIG-B (Mil Spec)	<ul style="list-style-type: none">• Digital input

Mechanical properties

Lens	<ul style="list-style-type: none">• Mounting for various standard lenses• F-Mount or C-Mount adapters are included in the standard delivery• Other adapters available upon request
System layout	<ul style="list-style-type: none">• Modular, expandable system consisting of camera, Ethernet hub and control unit• Ethernet hub (1000/100/10BT) for a network of several cameras
Camera dimensions (H/W/D)	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 3.55 kg / 7.8 lbs (not incl. battery), 5.2 kg / 11.5 lbs (incl. battery)
Power supply	<ul style="list-style-type: none">• 12 - 36 Vdc external
Power consumption	<ul style="list-style-type: none">• 25 Watt (with standard 1GB of memory)
Humidity	<ul style="list-style-type: none">• 95% non-condensing
Operating temperature	<ul style="list-style-type: none">• -10 to +45°C*
Hi-G rated	<ul style="list-style-type: none">• 100g / 25 ms, tested over 1,000 cycles*
Approval standards	<ul style="list-style-type: none">• Conforms to CE and other international standards

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