

a complex process made easy our control software

- Easy to understand and industry proven user interface.
- Selectable cross hair for focusing
- Waveform monitor: Histogram display and Zebra mode allow precise image adjustments and avoid over-and under-exposure conditions.
- Zoom mode for precise focusing.
- Position markers: During recording or during playback position markers can be set by pressing one button. This allows marking special events for quick review. During playback these markers can be renamed.
- Integrated footage browser with preview thumbnails.
- Playback module with zoomable timeline and immediate access to any part of the recorded footage.
- Zoom mode during playback allows detailed evaluation of each frame.
- Integrated rendering module to output selected sequences as AVI or single frame pictures. Every installed AVI codec (e.g. DivX) can be used for compression.
- Batch rendering mode: Selects various parts of the recording(s) and renders them in unattended mode.
- **(Option) A** second monitor allows **PXI™** data view during recording.
- **(Option) B** second monitor allows frame synchronous **PXI™** data playback. Other modules like FFT and vibration analysis can be integrated upon request.

camera

- Based on very light sensitive CL600 area camera

- Colour- or B/W-sensor
- Sensor size (H x V pixels): 1280 x 1024
- 500 frames per second in full resolution
- By reducing the resolution (AOI) higher frame rates up to 16.000 fps are possible
- Progressive scan CMOS
- Pixel size: 14.0 µm x 14.0 µm
- Lens mount: F-Mount or c-mount

recording unit

ultra2

- 6 TB HDD capacity
- 16 Server HDD with 500 GB
- Sustained data rate of more than 700 MB/sec
- Maximum recording time more than 2h 30min

ultra9

- 22 TB HDD capacity
- 24 Server HDD with 1 TB
- Sustained data rate of more than 700 MB/sec
- Maximum recording time more than 9 h

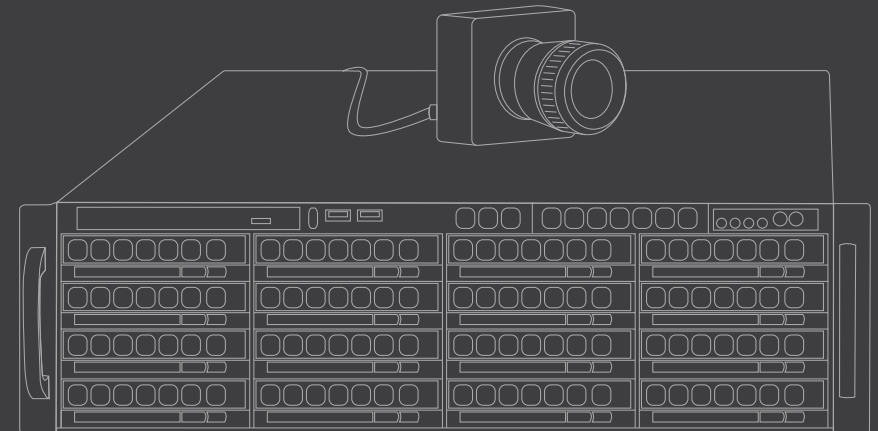
general specification

- RAID 5 system for increased reliability
- Continuous recording (over several days) through intelligent ring buffer solution
- 19" slot, 4HE, 680 mm depth
- Weight approx. 33 kg

optional features

- Frame synchronous data collection based on National Instruments™ **PXI™** hardware. For each frame one to n samples per data channel can be acquired and stored together with the image information. The oversampling ratio is selectable within the capabilities of the attached **PXI™** hardware. The **PXI™** data is displayed on a second monitor. The main monitor shows the image data and the main user interface
- Body with flightcase

MARATHON ULTRA



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the revolution of high speed video

500 fps for 9 hours

only 1 click to start

image synchronous data acquisition

long-term high speed video recording

marathon ultra is the ultimate camera system for long-term high speed video recording, where high frame rates and high resolution must combine with very long recording times.

This system serves applications such as manufacturing test, military and aerospace, machine monitoring, automotive, R&D and industrial test. It blends the most important attributes for industry purposes:

usability

We designed the intuitive user interface and easy workflow not only to relieve your work with the **marathon ultra** system, but to ease all tasks connected to this system.

reliability

The system is based on industry proven data center server technology. RAID 5 and high reliability server hard disks guarantee maximum data availability and safety.

interconnectivity

Connect **PXI™** hardware using a **National Instruments™** PCIe-**PXI™** bridge. Watch your recordings in the integrated viewer or export them to AVI files or bitmap sequences on internal or external storage media. Use Gigabit Ethernet connectivity to quickly connect to data storage in your company network.

comfort

marathon ultra comes with the highly appreciated "plug & perform" system. You simply use the default parameters or easily adjust them to your needs and start working.

endurance is the key

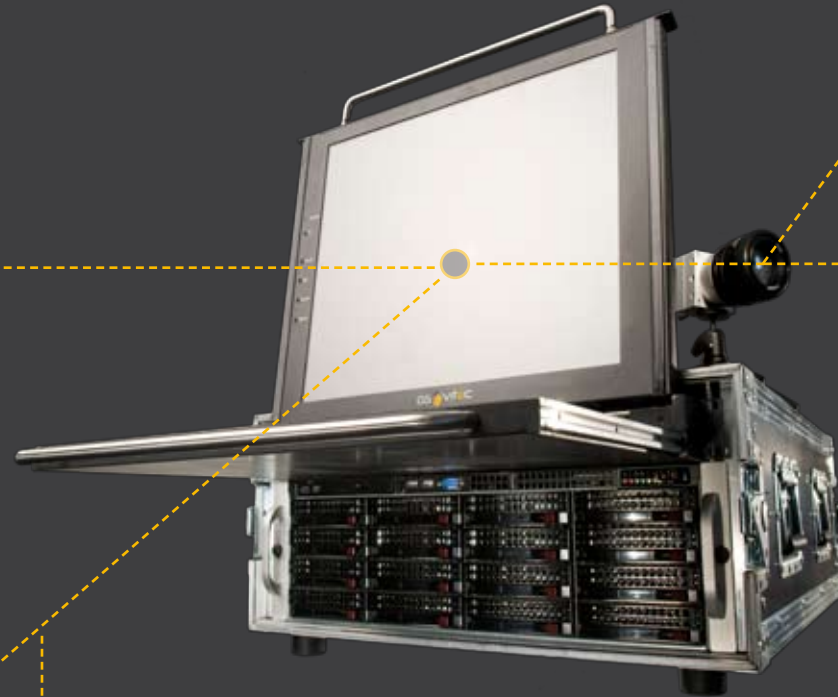
The system offers extremely long recording times of more than 9 hours.

- In full resolution (1280x1024) and 500 frames per second
- In reduced resolution up to

stop losing money no more searching errors for days shorten your downtime

16,000 frames per second

Even the most complex, challenging and extensive projects can be mastered with the **marathon ultra**. Combined with **National Instruments PXI™** system for synchronous data acquisition this system offers to you all the



MARATHON ULTRA

flexibility, quality and efficiency you want and it provides you with a crucial advantage over your competitors. **marathon ultra** comes in several versions. Recording time ranges from **ULTRA2** which records more than two hours up to **ULTRA9** with nine hours of footage.

24/7 recording

To push limits even further this ground-breaking system offers the possibility to record in ring buffer mode, enabling nearly unlimited recording.

In this way, even time consuming test bench situations or seldom occurring incidents can be completely documented. The ring buffer depth depends on the purchased system. **ULTRA2** allows buffering the last 1.5 hours, **ULTRA9** stores the last 8.5 hours.

work with the leader - PXI™

By using the **PXI™**-system from **National Instruments™** a frame synchronous data acquisition can be realized over the whole recording period.

gsvitec presents the industry's leading highest performance timing and synchronization capabilities:

For each frame one to n samples per data channel can be acquired and stored together with the image information.

By using a second monitor you can view the **PXI™** data during recording. The system allows frame synchronous **PXI™** data playback during evaluation.

PXI™ delivers significant performance improvements and has been successfully used for years in industrial environments.

The combination of the **marathon ultra** system with the **PXI™**-system offers revolutionary new possibilities in process monitoring and for test & measurement applications.

innovative technology

Unprecedented data storage bandwidth combined with innovative high performance **National Instruments™** hardware.

a new dimension in high speed... the marathon ultra

