

High performance compact recording unit

This class of hardware-software complex allows to record high-framerate and high-resolution clips from machine vision or scientific cameras with high reliability.

Hardware

- XIMEA xiCX compact PC based on Intel Core i7 CPU
- XIMEA CB120CG-CM-X8G3 camera with optical PCIe cable
- 4x Samsung 970 PRO 1TB NVMe SSD configured as software RAID0
- 10Gb Ethernet for data offload

Other configurations are possible, defined by the task at hand.

Software

- Linux operating system
- MRTech DepthGazer application

Software package is adjusted for each case and tested on target hardware before delivery. Application can be customized for particular customer needs.

Features

- up to 6GB/s write speed during acquisition with no losses
- monitoring of the recording process and hardware status
- main camera parameters are controlled through the menu
- conversion of the recorded data to TIFF/DNG format
- optional dark frame and flat field corrections
- bad pixel correction
- both color and monochrome cameras are supported
- live view from the camera including digital zoom
- raw histogram with high refresh rate
- replay of last recorded clip
- user interface easily customized using QML language
- flexible configuration of application parameters through JSON file

Example operation performance

- 12 MP (4096x3072) 8-bit image at 330 FPS
or
- 12 MP (4096x3072) 12-bit image at 130 FPS
- up to 4.7 GB/s write speed
- 60 FPS full or cropped preview