RDI TECHNOLOGIES



FASTEC HS5i

Proven 12-bit CMOS sensor on a new high-performance platform with integrated design for unrivaled access to captured images. Achieve 2560x2048 @ 253 fps and up to 29,000 fps at reduced resolutions.

FULLY INTEGRATED DESIGN

The HS5i offers a fully integrated design compared to our split unit version. This allows for more flexibility when collecting data on the go or in the field. The integrated design combines the camera and a full PC controller, letting the user collect, store and and process data from a single unit. High speed data collection has never been so easy. The HS5i offers the same accelerated workflow as our split unit HS Series cameras letting you maximize productivity and minimize file transport time. Plus with an optional Portability Kit, the HS5i is more flexible to use.



- Advanced architecture for enhanced workflow
- Integrated Linux OS and i5 computer is compatible with standard displays and input devices, including Bluetooth and WiFi
- Run your own applications on the camera.
- Attach high-speed high-capacity mass storage via USB3.2 or Thunderbolt 4 interfaces.

Designed with the end user in mind

The HS5i is designed with the end user in mind, whether for performing research in the lab or shooting high speed footage in the field. The optimized workflow gets data to the PC in blazing fast speeds. Combined with the Portability Kit for the HS5i, the universal V-mounted battery offers the highest level of flexibility on the go while the articulating mounted display provides ease of use with multiple viewing angles. Fully detach the display and you can view and control the camera from any angle and at a distance.

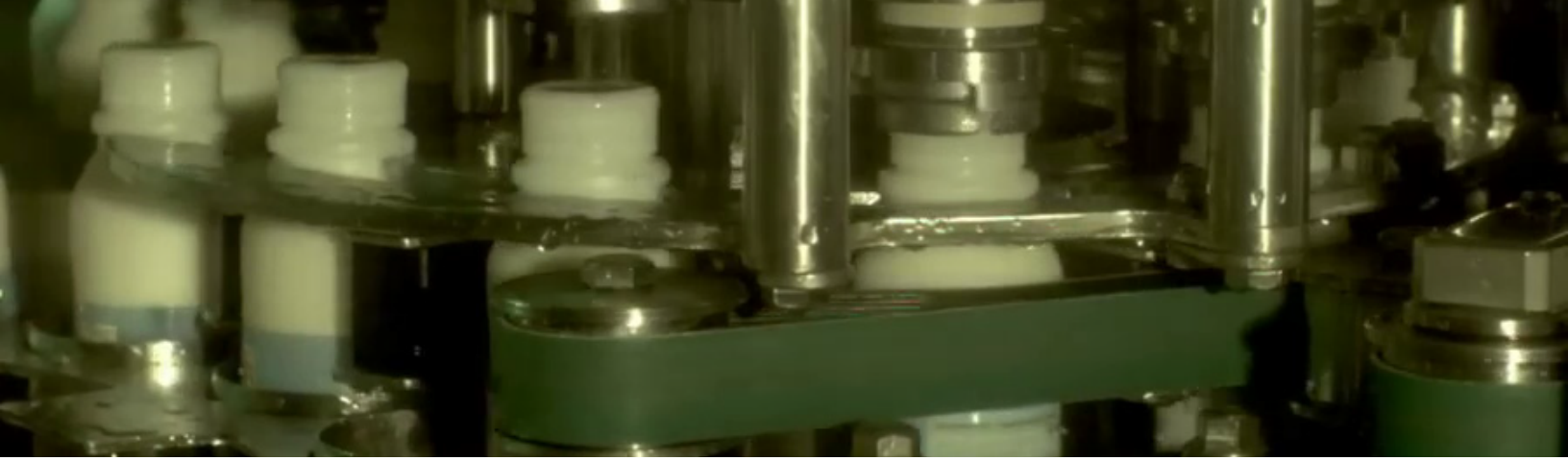


Camera shown with optional Portability Kit



Specifications

Sensor	12-bit 2560 x 2048 CMOS, 5*u*m pixels, supports binning and subsampling
Minimum Exposure	3 microsecond
Light Sensitivity	ISO 1600 to 12,800 (mono), ISO 800 to 6,400 (color)
Calibration Shutter	Optional Built-in mechanical shutter for black-level calibration for remote mounting installations
Camera Image Memory	8GB, 16GB, or 32GB (in camera)
Mass Storage	Up to 1TB NVMe SSD (in camera)*
File Formats	Stacks – BMP, DNG (color), JPEG, TIFF (processed or raw) Video – AVI, CAP (raw), MP4, RDI
Lens Mount	Micro Four Thirds (MFT) Standard; C, F, EF, PL, and more via adapters
Lens Control	Software control: Focus, Aperture, Zoom (on MFT only)
External I/O	3 configurable ports: Trigger In/Out, Sync In/Out, Arm In/Out, or General Purpose In @ 3.3v LVTTL, or 5v TTL, or switch closure
Marker and Metadata	Image window playback time line, FasMotion o-scope mode, XML file
Control Software	FasMotion native on Camera OS, with network support and productivity bundle FasMotion (Windows/MacOS/Linux application) on networked PC, app with Portability Kit
Operating System	Arch Linux with Cinnamon Desktop
Processor	11th Generation Intel i5 @ 2.4GHz base, 4.2 GHz Turbo
OS Memory / Storage	16GB DDR4 / 512GB SATA SSD
Graphics	Intel Iris Xe Graphics
Display	2x DP1.4a via Thunderbolt 4 (USB Type-C port)
USB	3x USB3.2 (10G), 2x USB4 (40G) via Thunderbolt 4 (USB Type-C port)
Ethernet / WiFi	2.5 Gigabit Ethernet / WiFi 6
Bluetooth	Bluetooth 5.1
Construction	Anodized machined aluminum housing
Environment	0°C to +40°C
Power	Camera: 12v-20 VDC, 100W
Size and Weight	Camera: 112mm (4.4") W x 112mm (4.4") H x 120mm (4.7") D, 1.7 kg (3.8 lbs.) Battery: 73mm (2.9") W x 107mm (4.1") H x 53mm (2.1") D, 0.55 kg (1.2 lbs)



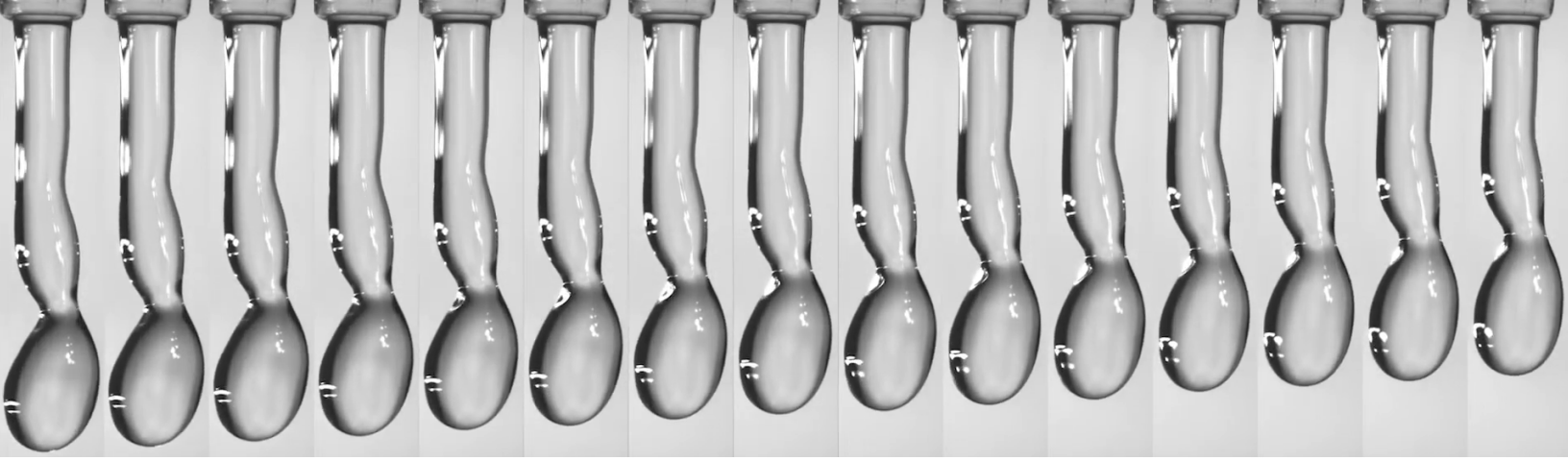
HIGH SPEED WORKFLOW

Accelerate your workflow with the HS Series cameras. The HS Series high speed cameras are designed to maximize productivity and minimize file transport time. Through its unique file transport system the HS Series camera offers up to 40 Gbps throughput, even when saving to external drives. This lets you spend more time working and less time waiting.

Example Frame Rates and Record Times

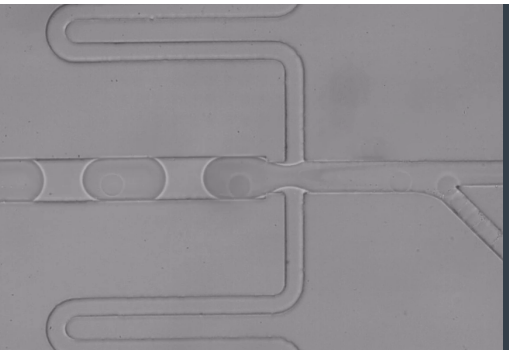
Resolution	Max Frame Rate (8, 10, or 12 bits)	Record Time 8 bits to 32GB memory	Record Time 8 bits streaming to 1TB SSD*
2560 x 2048 (QSXGA)	253 fps	25 sec	12.5 min
2560 x 1440 (QHD)	359 fps	25 sec	12.5 min
1920 x 1080 (HD: 1080p)	634 fps	25 sec	12.6 min
1280 x 1024 (SXGA)	991 fps	25 sec	12.8 min
1280 x 720 (HD: 720p)	1,403 fps	25 sec	12.8 min
1024 x 768 (XGA)	1,316 fps	32 sec	16 min
800 x 600 (SVGA)	1,677 fps	41 sec	20.5 min
768 x 576	2,764 fps	54 sec	13.6 min
640x480 (VGA)	3,289 fps	66 sec	16.4 min
512 x 384	4,061 fps	84 sec	25.7 min

*Streaming mode with “D” option only. ** Maximum frame rate.



Portability Configuration

With the Portability Kit the HS5i can be easily converted to an on-the-go unit that is great for field work. The Portability Kit adds handles for shooting handheld footage and an iPad with articulating mount for viewing and controlling the camera both wirelessly or tethered through our fully featured app. An attachable V-mount battery provides portability while the universal mounting style offers flexiblity in battery options. The HS5i can be configured with the Portability Kit at the time of purchase or retrofitted as an upgrade.



Portability Kit Includes the following

- Removable right and left handles
- V-mount battery with hot swappable option
- Microsoft tablet computer for wireless or tethered display and control options
- FasMotion software installed on tablet computer
- Articulating tablet computer mount

