

FASTER THAN VISION

The FASTEC HS7

Full high-definition (1920 x 1080) @ 2500fps, the HS7 captures detailed scenes for breathtaking slow-motion playback.

Use lower resolutions for technical work at much higher frame rates.



High-Speed Video Capture!
High-Speed Image Storage!
High-Speed Image Transport!
High-Speed Application Workflow!



- Advanced architecture for enhanced workflow
- Camera with optical interface affords high-bandwidth transport using industry-standard fiber cabling
- Extensible Linux Camera Controller, compatible with standard displays and input devices, including Bluetooth and WiFi
- Run your own applications on the camera controller
- Attach high-speed high-capacity mass storage via USB3.2 or Thunderbolt 4 interfaces



HS7 Specifications

| | |
|------------------------------|--|
| Sensor | 10-bit 1920 x 1080 CMOS with 10µm pixels |
| Minimum Exposure | 1 microsecond |
| Light Sensitivity | ISO 4800 (mono) |
| Interconnect | 12 Channel Type B Fiber Optic patch cable with MPO connectors |
| Calibration Shutter | Built-in mechanical shutter for black-level calibration |
| Image Memory | 8GB, 16GB, or 32GB (in camera) |
| Mass Storage | Up to 2TB NVMe SSD (in camera)* |
| File Formats | Stacks – BMP, DNG (color), JPEG, TIFF (processed or raw) Video – AVI, CAP (raw), MP4 |
| 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) |
| Control Software | FasMotion native on Controller, with network support: FasMotion (Windows/MacOS/Linux application) on networked PC |
| Marker & Metadata | Image window playback time line, FasMotion o-scope mode, XML file |
| External I/O Ports | 3 configurable ports: Trigger In/Out, Sync In/Out, Arm In/Out, or General Purpose In @ 3.3v LVTTTL, or 5v TTL, or switch closure |
| Construction | Anodized machined aluminum housing |
| Power | Camera: 12v 30w; Controller 19v 90w |
| Environment | +5°C to +40°C |
| Size and Weight | 114mm (4.5") W x 114mm (4.5") H x 76mm (3") D. 1 Kg (2.2 lbs.) |

Example Record Rates and Times

| Resolution | Max Frame Rate 8 or 10 bits (Normal mode) | Record Time 8 bits to 32GB memory | Max Frame Rate 8 bits (Streaming to SSD) | Record Time 8 bits streaming to 1TB SSD* |
|-------------------------|---|---|--|--|
| 1920 x 1080 (HD: 1080p) | 2500 fps | 6.6 sec | 723 fps | 11.2 min |
| 1280 x 1024 (SXGA) | 2634 fps | 9.8 sec | 1144 fps | 11.2 min |
| 1280 x 720 (HD: 720p) | 3726fps | 9.8 sec | 1627 fps | 11.2 min |
| 1024 x 768 (XGA) | 3497 fps | 12.4 sec | 1907 fps | 11.2 min |
| 800 x 600 (SVGA) | 4455 fps | 16 sec | 3124 fps | 11.2 min |
| 800 x 450 | 5921 fps | 16 sec | 4184 fps | 11.2 min |
| 640 X 480 (VGA) | 5537 fps | 20.1 sec | 4881 fps | 11.2 min |
| 512 X 384 | 6874fps | 25.2 sec | 5000 fps | 17.3 min |
| 512 x 256 | 10.136 fps | 25.8 sec | 5000 fps | 26 min |
| 412 x 212 | 12.000 fps | 32.6 sec | 5000 fps | 39 min |
| 220 x 64 | 35,168 fps** | 51.3 sec | 5000 fps | 2 hours |

NOTE: Frame rates increase with a decrease in vertical resolution only. All frame rates shown may be achieved at full horizontal resolution (1920).

*Streaming mode with "D" option only.

** Maximum frame rate

All Specifications subject to change.

17150 Via Del Campo, Ste. 301 San Diego, CA 92127 USA
1.858.592.2342

HS Controller Specifications



FASTEC HS Controller

Full-featured mini desktop PC + high-performance fiber interface for HS7.

Fully compatible with HS, TS and IL cameras!



| | |
|----------------------------|---|
| Software | <i>FasMotion Camera Control, rich graphics, communications, and productivity bundle</i> |
| Operating System | <i>Arch Linux with Cinnamon Desktop</i> |
| Processor | <i>11th Generation Intel i5 @ 2.4GHz base, 4.2 GHz Turbo</i> |
| Memory / Storage | <i>16GB DDR4 / 512GB SATA SSD</i> |
| Graphics | <i>Intel Iris Xe Graphics</i> |
| Display | <i>2x HDMI 2.0b , 2x DP1.4a via Thunderbolt 4 (USB Type-C port)</i> |
| Camera Interface | <i>12 channel type B fiber optic patch cable with MPO connectors</i> |
| USB | <i>3x USB3.2 (10G), 2x USB4 (40G) via Thunderbolt 4 (USB Type-C port)</i> |
| Ethernet / WiFi | <i>2.5 Gigabit Ethernet / WiFi 6</i> |
| Bluetooth | <i>Bluetooth 5.1</i> |
| Power | <i>19v 90w</i> |
| Dimensions / Weight | <i>114mm x 114mm x 54mm / 1Kg</i> |