

# HiSpec 1 Innovative Low-Light High-Speed Camera



## Fast Facts

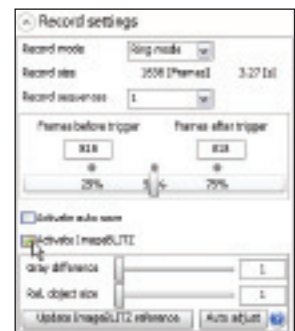
- **Excellent Light Sensitivity:** 3,200 ISO monochrome, 1,600 ISO color
- **Outstanding Image Quality:** Up to 506 frames per second at 1280 x 1024 resolution
- **Extremely Fast:** Adjustable frame rate up to 112,000 frames per second
- **Well Connected:** GiGE compatible for easy remote camera control
- **Fits Anywhere:** Only 63mm H x 63mm W x 65mm D and .28 kg
- **GiGE Vision:** Industry standard control interface



Easy to use  
Camera Control  
Software



ImageBLITZ® Auto  
Trigger feature  
based on selectable  
region of interest



## Key Features

- **Forget About Bright Lights** – Until now, lighting has sometimes been a challenge with high-speed imaging. No more! The photo-sensitivity of the HiSpec 1 enables high speed recordings at 1.3 megapixels under normal lighting conditions.
- **ImageBLITZ® Auto Trigger** – Now it's easy to capture those elusive random events. Simply define a "region of interest" in the field of view and let the ImageBLITZ® trigger take over. Any change in the pre-set image area will stop the recording and save the event sequence. No special hardware or intrusive wiring is required.
- **Multi-Sequence Record Mode** - The Multi-Sequence Record Mode allows the recording of multiple events by partitioning the memory into 2, 4, 8 or 16 individual recordings. And with the HiSpec 1's unique Burst Trigger Mode, you can capture hundreds of separate image sequences in the memory without downloading.
- **Use it Everywhere** – The HiSpec 1's Gigabit Ethernet interface allows the user to operate multiple cameras from any standard Notebook / PC up to a distance of 100 meters. The HiSpec 1 is designed for easy operation in virtually any industrial or laboratory environment.

See what you've been missing


# Fastec HiSpec 1

## Camera Specifications

### Standard Features

<b>System Design</b>	Scaleable and network-compatible with standard and/or notebook PCs Synchronous processing of multiple cameras
<b>Sensor</b>	CMOS sensor, 1280 x 1024 pixels, 10-bit monochrome or RGB color with BAYER filter Active pixel area 22.9mm diagonal
<b>Pixel Size</b>	14 x 14 $\mu\text{m}$
<b>Light Sensitivity</b>	3,200 ISO monochrome, 1,600 ISO color
<b>Spectral Bandwidth</b>	400 - 900 nm
<b>Record Rate</b>	Up to 506 fps at full resolution, up to 112,183 fps at reduced resolution
<b>Image Memory</b>	2GB, Optional upgrade to 4GB.
<b>Recording Time</b>	3.2 seconds at full resolution Longer record times with variable resolution and frame rates
<b>Shutter</b>	Global electronic shutter from 2 $\mu\text{sec}$ to 1second
<b>Lens Mount</b>	C-Mount or F-Mount
<b>Frame Format</b>	BMP, TIF, DNG, JPG or AVI file format
<b>Camera / PC Interface</b>	1000/100 Ethernet interface (Gigabit Ethernet)
<b>Phase Lock</b>	Multiple cameras can be synchronized to a master camera or to an external source
<b>Trigger</b>	Contact closure, external TTL signal or software trigger (ImageBLITZ® Auto Trigger)
<b>Multi-Sequence Record Mode</b>	2, 4, 8 or 16 individual recording partitions
<b>Camera Size</b>	63mm H x 63mm W x 65mm D with C-Mount lens. 63mm H x 63mm W x 92.5mm D with F-Mount lens
<b>Camera Weight</b>	.28 kg. without lens
<b>Operating Environment</b>	+5° to +35°C (to +45° with cooling option)
<b>Power Supply</b>	10 - 30V DC external power supply
<b>Power Consumption</b>	7.5W maximum

### Software Specifications


<b>Camera Control Software</b>	HiSpec Director 2 Software for Windows 7/ Vista / XP
<b>Image Amplification</b>	Digital gain from 1 to 4 in 8 steps
<b>Optional SDK</b>	GiGE Vision compatible 

### Options Available

<b>Memory</b>	4GB
---------------	-----

## Sample Frame Rates and Resolutions

Maximum Frame Rate	Resolution	2GB Standard		4GB Option	
		Recording Time @ Maximum Frame Rate	Total Frames	Recording Time @ Maximum Frame Rate	Total Frames
506 fps	1280 x 1024	3.2 sec.	1,636	6.5 sec	3,274
718 fps	1280 x 720	3.2 sec.	2,327	6.5 sec	4,656
1,008 fps	1280 x 512	3.2 sec.	3,272	6.5 sec	6,548
1,319 fps	768 x 600	3.5 sec.	4,654	7.1 sec	9,313
2,312 fps	480 x 480	4.0 sec.	9,309	8.1 sec	18,627
5,672 fps	320 x 240	4.9 sec.	27,926	9.9 sec	55,879
13,540 fps	144 x 144	7.6 sec.	103,436	15.3 sec	206,967
112,183 fps	128 x 2	74.7 sec	8,378,368	149.4 sec	16,756,736

 **FASTEC IMAGING** 17150 Via Del Campo, Ste. 301 • San Diego • CA 92127 • CA USA

1.858.592.2342 • [www.fastecimaging.com](http://www.fastecimaging.com)

Specifications subject to change without notice. ImageBLITZ® is a trademark of Mikrotrotron GmbH.

R1-HiSpec1-04/12

Canadian Distributor:  
High Speed Imaging Inc.  
520 Allbright Road Uxbridge  
Ontario Canada L9P 1R4  
Phone: (905) 649-5445 E-mail:  
[info@hsi.ca](mailto:info@hsi.ca) Web: [www.hsi.ca](http://www.hsi.ca)