

# HiSpec 2 Innovative Low-Light High-Speed Camera

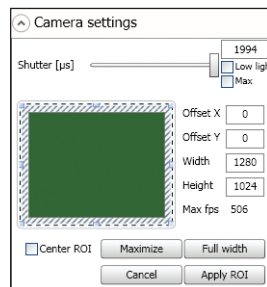


## Fast Facts

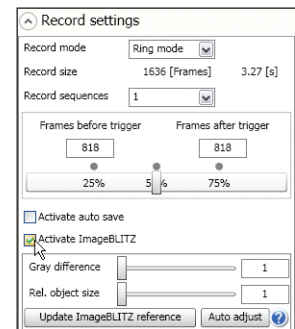
- **Excellent Light Sensitivity:** 3,200 ISO monochrome, 1,600 ISO color
- **Outstanding Image Quality:** Up to 506 frames per second at 1280 x 1024 resolution
- **Extremely Fast:** Adjustable frame rate up to 112,000 frames per second
- **Well Connected:** GiGE compatible for easy remote camera control
- **Fits Anywhere:** Only 69mm H x 93mm W x 92mm D, C-Mount and .9 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 2 enables high speed recordings at 1.3 megapixels under normal lighting conditions.
- **Optional 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.
- **Optional Hi-G Configuration** - The HiSpec 2 has been certified to 100 "G" accelerations making it the ideal combination of ruggedness with small size. Fits into tight spaces for on-board automotive impact testing, military ordinance testing and other harsh environments. The built-in battery operates in three modes:
  - Ensures fail-safe operation in the event of a power loss
  - Allows "untethered" operation for up to 1 hour
  - Has image retention mode of up to 24 hours
- **Use it Everywhere** – The HiSpec 2'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 2 is designed for easy operation in virtually any industrial or laboratory environment.

See what you've been missing

# Fastec HiSpec 2

## Camera Specifications

### Standard Features

#### System Design

Scaleable and network-compatible with standard and/or notebook PCs

Synchronous processing of multiple cameras

#### Sensor

CMOS sensor, 1280 x 1024 pixels, 10-bit monochrome or RGB color with BAYER filter

Active pixel area 22.9mm diagonal

#### Pixel Size

14 x 14  $\mu$ m

#### Light Sensitivity

3,200 ISO monochrome, 1,600 ISO color

#### Spectral Bandwidth

400 - 900 nm

#### Record Rate

Up to 506 fps at full resolution, up to 298,851 fps at reduced resolution

#### Image Memory

4GB standard. Optional upgrade to 8GB

#### Recording Time

6.4 seconds at full resolution

Longer record times with variable resolution and frame rates

Global electronic shutter from 2 $\mu$ sec to 1 second in 2 $\mu$ sec steps

#### Shutter

#### Lens Mount

C-Mount or F-Mount

#### Frame Format

BMP, TIF, DNG, JPG or AVI file format

#### Camera / PC Interface

1000/100 Ethernet interface (Gigabit Ethernet)

#### Phase Lock

Multiple cameras can be synchronized to a master camera or to an external source such as optional IRIG-B

#### Trigger

Contact closure, external TTL signal or software trigger (ImageBLITZ® Auto Trigger)

#### Multi-Sequence Record Mode

2, 4, 8 or 16 individual recording partitions

#### Camera Size

69mm H x 93mm W x 93mm D with C-Mount

63mm H x 93mm W x 128mm D with F-Mount

#### Camera Weight

.9 kg. without lens

#### Operating Environment

+ 5° to + 45°C

#### Power Supply

10 - 30V DC external power supply

#### Power Consumption

15W maximum

### Software Specifications


#### Camera Control Software

HiSpec 2 Director software for Windows 2000/XP/Vista

#### Image Amplification

Digital gain from 1 to 4 in 8 steps

#### Optional SDK

GiGE Vision compatible 

### Options Available

#### Memory

8GB

#### Auto Trigger

ImageBLITZ® Software – Auto Trigger

#### Multi-Sequence Mode

2, 4, 8 or 16 individual recording partitions

#### IRIG-B

Range timing standard

#### Hi-G Certified

Certified for shock to 100g for 20ms, vibration to 10g

#### F-Mount Adapter

Convert from C-Mount lenses to F-Mount lenses

### Sample Frame Rates and Resolutions

Maximum Frame Rate	Resolution	4GB Standard		8GB Option	
		Recording Time @ Maximum Frame Rate	Total Frames	Recording Time @ Maximum Frame Rate	Total Frames
506 fps	1280 x 1024	6.5 sec	3,274	12.9 sec	6,550
718 fps	1280 x 720	6.5 sec	4,656	13.0 sec	9,317
1,008 fps	1280 x 512	6.5 sec	6,548	13.0 sec	13,103
1,319 fps	768 x 600	7.1 sec	9,313	14.1 sec	18,635
2,312 fps	480 x 480	8.1 sec	18,627	16.1 sec	37,271
5,672 fps	320 x 240	9.9 sec	55,879	19.7 sec	111,813
13,540 fps	144 x 144	15.3 sec	206,967	30.6 sec	414,125
112,183 fps	128 x 2	149.4 sec	16,877,450	298.8 sec	33,542,717

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