Fastec HiSpec 1-HR

3 Megapixel High Resolution High-Speed Camera

Fast Facts

- Outstanding Image Quality: Up to 523 frames per second at 1696 x 1710 resolution.
- Extremely Fast: 1150 fps at 1280 x 1024 resolution.
- Well Connected: GiGE compatible for easy remote camera control.
- Fits Anywhere: Only 63mm H x 63mm W x 65mm D and .28 kg.

High Resolution and High Speed

The HiSpec 1-HR provides superb quality images with it’s 1696 x 1710 pixel resolution. And it is a perfect fit for a wide variety of high-speed motion applications with the capability to capture megapixel images at more than 1400 fps.

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 software 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 Multi-Sequence Record Mode

The optional 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-HR’s unique Burst Trigger Mode, you can capture hundreds of separate image sequences in the memory without downloading.

Use it Everywhere

The HiSpec 1-HR’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-HR is designed for easy operation in virtually any industrial or laboratory environment.

See what you’ve been missing
Fastec HiSpec 1-HR

3 Megapixel High Resolution High-Speed Camera

CAMERA SPECIFICATIONS

SYSTEM DESIGN
Scaleable and network-compatible with standard and/or notebook PCs. Synchronous processing of multiple cameras

SENSOR
CMOS sensor, 1696 x 1710 pixels, 8-bit monochrome or RGB color with BAYER filter. Active pixel area 19.27mm diagonal

PIXEL SIZE
8 x 8 µm

LIGHT SENSITIVITY
1200 ISO monochrome, 400 ISO color

SPECTRAL BANDWIDTH
400 - 900 nm

RECORDING RATE
Up to 523 fps at full resolution, up to 298,851 fps at reduced resolution

MEMORY
2GB

RECORDING TIME
1.5 seconds at full resolution. Longer record times with variable resolution and frame rates

SHUTTER
Global electronic shutter from 2µsec to 1 second in 2µsec steps

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

TRIGGER
Contact closure, external TTL signal or software trigger with optional ImageBLITZ® Auto Trigger

MULTI-SEQUENCE RECORD MODE
2, 4, 8 or 16 individual recording partitions (optional)

CAMERA SIZE
63mm H x 63mm W x 65mm D with C-Mount. 63mm H x 63mm W x 92.5mm D with F-Mount

CAMERA WEIGHT
.28 kg. without lens

OPERATING ENVIRONMENT
+5° to +35°C (to 45°C with cooling option)

POWER SUPPLY
10 - 30V DC external power supply

POWER CONSUMPTION
7.5W maximum

CONNECTOR POSITION
Select from rear or side connector positions

SOFTWARE SPECIFICATIONS

CAMERA CONTROL SOFTWARE
HiSpec 2 Director software for Windows 2000/XP/Vista

IMAGE AMPLIFICATION
Digital gain 1, 1.5 or 2

OPTIONAL SDK
GiGE Vision compatible

TYPICAL RESOLUTIONS & FRAME RATES

<table>
<thead>
<tr>
<th>Maximum Frame Rate</th>
<th>Resolution</th>
<th>Recording Time @ Maximum Frame Rate</th>
<th>Total Frames</th>
</tr>
</thead>
<tbody>
<tr>
<td>523 fps</td>
<td>1696 x 1710</td>
<td>1.4 sec.</td>
<td>743</td>
</tr>
<tr>
<td>1,150 fps</td>
<td>1280 x 1024</td>
<td>1.4 sec.</td>
<td>1,833</td>
</tr>
<tr>
<td>1,633 fps</td>
<td>1280 x 720</td>
<td>1.4 sec.</td>
<td>2,335</td>
</tr>
<tr>
<td>1,405 fps</td>
<td>1024 x 1024</td>
<td>1.4 sec.</td>
<td>2,051</td>
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<tr>
<td>4,453 fps</td>
<td>640 x 480</td>
<td>1.6 sec.</td>
<td>6,591</td>
</tr>
<tr>
<td>5,001 fps</td>
<td>512 x 512</td>
<td>1.6 sec.</td>
<td>8,282</td>
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<td>14,781 fps</td>
<td>320 x 240</td>
<td>1.9 sec.</td>
<td>27,936</td>
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<tr>
<td>298,851 fps</td>
<td>128 x 2</td>
<td>28.1 sec.</td>
<td>8,388,747</td>
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