HiSpec 5
3 Megapixel High Resolution
High Speed Camera

Key Features

• **High Resolution and High Speed** – The HiSpec 5 provides superb quality images with its 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 & Multi-Sequence Mode** – 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. And the optional Multi-Sequence Mode allows the recording of multiple events by partitioning the memory into 2, 4, 8 or 16 individual recordings.

• **Optional Hi-G Configuration** - The HiSpec 5 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 5’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 5 is designed for easy operation in virtually any industrial or laboratory environment.
Fastec HiSpec 5
Camera Specifications

**Standard Features**

**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**
1600 ISO monochrome, 1000 ISO color

**Spectral Bandwidth**
400 - 900 nm

**Record Rate**
Up to 523 fps at full resolution, up to 298,851 fps at reduced resolution

**Image Memory**
4GB. Optional upgrade to 8GB or 16GB

**Recording Time**
3.2 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)
Multiple cameras can be synchronized to a master camera or to an external source such as optional IRIG-B

**Phase Lock**
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**
69mm H x 93mm W x 92mm D with C-Mount
69mm 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**
HiSpec 2 Director software for Windows 7/Vista/XP
Digital gain from 1 – 4 in 8 steps
GiGE Vision compatible

**Options Available**
8GB or 16GB
ImageBLITZ® Software – Auto Trigger
2, 4, 8 or 16 individual recording partitions
Range timing standard
Certified for shock to 100g for 25ms, vibration to 10g
Convert from C-Mount lenses to F-Mount lenses
Select from rear or side connector positions

**Removable Storage**
16GB SD Card (Not available together with 16GB memory configuration)

### Sample Frame Rates and Resolutions

<table>
<thead>
<tr>
<th>Maximum Frame Rate</th>
<th>Resolution</th>
<th>Recording Time @ Maximum Frame Rate</th>
<th>Total Frames</th>
<th>Recording Time @ Maximum Frame Rate</th>
<th>Total Frames</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>2.8 sec.</td>
<td>1,480</td>
<td>5.7 sec.</td>
<td>2,960</td>
<td>11.4 sec.</td>
<td>5,920</td>
</tr>
<tr>
<td>1,150 fps</td>
<td>1280 x 1024</td>
<td>2.8 sec.</td>
<td>3,277</td>
<td>5.7 sec.</td>
<td>6,555</td>
<td>11.4 sec.</td>
<td>13,110</td>
</tr>
<tr>
<td>1,633 fps</td>
<td>1280 x 720</td>
<td>2.8 sec.</td>
<td>4,654</td>
<td>5.7 sec.</td>
<td>9,324</td>
<td>11.4 sec.</td>
<td>18,648</td>
</tr>
<tr>
<td>1,405 fps</td>
<td>1024 x 1024</td>
<td>2.9 sec.</td>
<td>4,075</td>
<td>5.8 sec.</td>
<td>8,191</td>
<td>11.6 sec.</td>
<td>16,382</td>
</tr>
<tr>
<td>4,453 fps</td>
<td>640 x 480</td>
<td>3.1 sec.</td>
<td>13,982</td>
<td>6.3 sec.</td>
<td>27,965</td>
<td>12.6 sec.</td>
<td>55,930</td>
</tr>
<tr>
<td>5,001 fps</td>
<td>512 x 512</td>
<td>3.3 sec.</td>
<td>16,403</td>
<td>6.6 sec.</td>
<td>33,007</td>
<td>13.2 sec.</td>
<td>66,014</td>
</tr>
<tr>
<td>14,781 fps</td>
<td>320 x 240</td>
<td>3.8 sec.</td>
<td>55,872</td>
<td>7.6 sec.</td>
<td>111,892</td>
<td>15.2 sec.</td>
<td>223,784</td>
</tr>
<tr>
<td>298,851 fps</td>
<td>128 x 2</td>
<td>56.1 sec.</td>
<td>16,777,495</td>
<td>114.0 sec.</td>
<td>34,069,014</td>
<td>228.0 sec.</td>
<td>68,138,028</td>
</tr>
</tbody>
</table>

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