



## NAC's *new* HotShot 512 sc—a low cost, self-contained Digital High-Speed Video Camera

**NAC Image Technology, the most experienced name in high-speed video, presents the HotShot 512 sc—a low cost camera that combines ultra fast framing rates with optimal light sensitivity...**



NAC's **HotShot 512 sc** is a low cost, fully self-contained, digital, high-speed video system that records brilliant color, or crisp monochrome images, with resolutions up to 512 X 512 pixels and full frame rates (5:4) up to 5,000 fps. Using an advanced CMOS sensor, the **HotShot 512 sc** captures images at frame rates in excess of 200,000 fps.

The low cost **HotShot 512 sc** can be operated locally without a control PC or can be controlled remotely. Available with onboard memory of up to 16GB, the **HotShot 512 sc** provides ultra-long recording times—over 10 minutes at full resolution with reduced frame rates! The

**HotShot 512 sc** provides the user with an excellent low cost, easy-to-use solution for a variety of applications requiring a combination of ultra high speeds, ultra high light sensitivity and ultra long record times.

- ◆ **Laptop Friendly Interface for Control and Acquisition**
- ◆ **Low Cost**
- ◆ **Self-Contained**
- ◆ **Ultra High Framing Rates up to 200,000 fps.**
- ◆ **Up to 16 GB Onboard Memory**
- ◆ **Live NTSC / PAL Output**
- ◆ **Ultra High Light Sensitivity**



Choose NAC to help address your high-speed imaging needs and you'll see *The Visible Difference*.

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## HotShot 512 sc Features

- **High Resolution, High-Speed Sensor:** The HotShot 512 sc cameras use state-of-the-art CMOS sensors available in monochrome or color.
- **Electronic Shutter:** Full Frame sequential, OPEN to 1/500,000 seconds and customer programmable. Full frame simultaneous (double exposure) - multiple exposures can be obtained in one frame period with sub-micro second intervals.
- **Bit Density:** 10 Bits
- **Standard Lens Mount:** C-Mount
- **Live Image:** A live image is available in NTSC or PAL formats—before, during and after recording.
- **Standalone Operation:** Once set-up, no PC is required.
- **Weight:** 2.9 Kg. (6.3 lbs.)
- **Operation and Control:** All functions from the camera setup to the recording and slow playback can be controlled using a PC-based control system.
- **Trigger Mode:** The HotShot 512 sc cameras use a START, CENTER, END or CUSTOM trigger. In the CUSTOM mode, the trigger point can be programmed and positioned by the customer (i.e. 0% to 100%).
- **Synchronous Data Recording:** Scene number, date and time of trigger, shutter speed, video process data, comments. The camera can be synchronized to a variety of external test and measurement devices.
- **Image Playback:** Recorded images can be played back and viewed, immediately after image capture on the PC. The video playback unit allows for “step” fashion image review, allows the user to set the start and end points for image review, allows the user to “jump” to the trigger point, the START point or the END point of the image area. Image playback can be in a single segment or in a loop.
- **Memory Configuration:** 1GB, 2GB, 4GB, 8GB and 16GB  
Memory can be partitioned, each partition can be independently programmed.
- **Recorded File Format:** Images can be saved to a variety of computer recognizable file formats (AVI, TIF, JPG, BMP, etc.)
- **Control and Acquisition:** USB 2.0 Interface **Control Software:** Control software is provided with each camera system. Alternatively, the customer can develop his own control software. NAC will provide the customer with a Software Development Kit (based upon an ActiveX component). The SDK will support C++, Visual C++ and Visual Basic.

### Future Optional Features:

- **Multi-Channel Wave Inserter (MCWI):** The optional MCWI operates through a high-speed I/O Port on the camera. This allows for the capture of synchronized digital and/or analog data. (coming soon)
- **IRIG-B:** Optional Feature (coming soon)
- **On Board Battery System:** Optional feature (coming soon)



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# HotShot 512 sc Resolution Chart

FPS	Resolution	Record Time Seconds				
		1GB	2GB	4GB	8GB	16GB
100	512 x 512	41.0	82.0	163.0	326.0	652.0
250	512 x 512	16.4	32.8	65.2	130.4	260.8
500	512 x 512	8.2	16.4	32.6	65.2	130.4
1000	512 x 512	4.1	8.2	16.3	32.6	65.2
2000	512 x 512	2.0	4.1	8.1	16.2	32.4
3000	512 x 512	1.4	2.7	5.4	10.8	21.6
4000	512 x 512	1.0	2.0	4.0	8.0	16.0
5000	512 x 408	1.0	2.0	4.0	8.0	16.0
6000	512 x 336	1.0	2.1	4.1	8.2	16.4
8000	512 x 256	1.0	2.0	4.0	8.0	16.0
10,000	512 x 200	1.0	2.1	4.1	8.2	16.4
20,000	512 x 96	1.1	2.2	4.3	8.6	17.2
30,000	512 x 64	1.1	2.2	4.3	8.6	17.2
40,000	512 x 48	1.1	2.2	4.3	8.6	17.2
60,000	512 x 32	1.1	2.1	4.2	8.4	16.8
80,000	512 x 24	1.1	2.1	4.2	8.4	16.8
100,000	512 x 16	1.3	2.5	5.0	10.0	20.0
200,000	512 x 8	1.2	2.4	4.7	9.4	18.8



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