



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

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



- ♦ **Laptop Friendly Interface for Control and Acquisition**
- ♦ **Low Cost**
- ♦ **Self-Contained**
- ♦ **Ultra High Framing Rates up to 200,000 pps.**
- ♦ **Up to 16 GB Onboard Memory**
- ♦ **Optional Gigabit Ethernet**
- ♦ **IRIG-B Capable**
- ♦ **Multi-Channel Wave Inserter**
- ♦ **Ultra High Light Sensitivity**

NAC's HotShot 512SC 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 at 5,000 pps. Using an advanced CMOS sensor, the HotShot 512SC captures images at frame rates in excess of 200,000 pps.

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

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



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## HotShot 512SC Features

- **High Resolution, High-Speed Sensor:** The HotShot 512SC 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 512SC 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, 3GB, 4GB, 6GB, 8GB, 12GB 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 (optional Gigabit Ethernet)
- **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.
- **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.
- **IRIG-B:** Optional Feature
- **On Board Battery System:** Optional feature



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<b>Hot Shot 512SC—Full Resolution</b>						
Resolution		Frame Rate (fps.)	Recording Time / Memory Configuration			
Horizontal	Vertical		1GB	2GB	3GB	4GB
512	512	100	39.0 sec	78.0 sec	117.0 sec	156.0 sec
512	512	250	15.6 sec	31.2 sec	46.8 sec	62.4 sec
512	512	500	7.8 sec	15.6 sec	23.4 sec	31.2 sec
512	512	1000	3.9 sec	7.8 sec	11.7 sec	15.6 sec
512	512	2000	1.9 sec	3.8 sec	5.7 sec	7.6 sec
512	512	3000	1.3 sec	2.6 sec	3.9 sec	5.2 sec
512	512	4000	1.0 sec	2.0 sec	4.0 sec	4.0 sec
512	512	5000	0.8 sec	1.6 sec	2.4 sec	3.2 sec
512	384	6000	0.8 sec	1.6 sec	2.4 sec	3.2 sec
512	320	8000	0.8 sec	1.6 sec	2.4 sec	3.2 sec
512	256	10000	0.8 sec	1.6 sec	2.4 sec	3.2 sec
512	128	20000	0.8 sec	1.6 sec	2.4 sec	3.2 sec
512	64	40000	0.8 sec	1.6 sec	2.4 sec	3.2 sec
512	42	60000	0.8 sec	1.6 sec	2.4 sec	3.2 sec
512	32	80000	0.8 sec	1.6 sec	2.4 sec	3.2 sec
512	25	100000	0.8 sec	1.6 sec	2.4 sec	3.2 sec
512	12	200000	0.8 sec	1.6 sec	2.4 sec	3.2 sec



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<b>HotShot 512SC—Full Resolution</b>						
Resolution		Frame Rate (fps.)	Recording Rate / Memory Configuration			
Horizontal	Vertical		6GB	8GB	12GB	16GB
512	512	100	234.0 sec	312.0 sec	468.0 sec	624.0 sec
512	512	250	93.6 sec	124.8 sec	187.2 sec	249.6 sec
512	512	500	46.8 sec	62.4 sec	93.6 sec	124.8 sec
512	512	1000	23.4 sec	31.2 sec	46.8 sec	62.4 sec
512	512	2000	11.7 sec	15.6 sec	23.4 sec	31.2 sec
512	512	3000	7.8 sec	10.4 sec	15.6 sec	20.8 sec
512	512	4000	5.9 sec	7.8 sec	11.7 sec	15.6 sec
512	512	5000	4.8 sec	6.4 sec	9.6 sec	12.8 sec
512	384	6000	4.8 sec	6.4 sec	9.6 sec	12.8 sec
512	320	8000	4.8 sec	6.4 sec	9.6 sec	12.8 sec
512	256	10000	4.8 sec	6.4 sec	9.6 sec	12.8 sec
512	128	20000	4.8 sec	6.4 sec	9.6 sec	12.8 sec
512	64	40000	4.8 sec	6.4 sec	9.6 sec	12.8 sec
512	42	60000	4.8 sec	6.4 sec	9.6 sec	12.8 sec
512	32	80000	4.8 sec	6.4 sec	9.6 sec	12.8 sec
512	25	100000	4.8 sec	6.4 sec	9.6 sec	12.8 sec
512	12	200000	4.8 sec	6.4 sec	9.6 sec	12.8 sec



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