![nac Image Technology]

NAC Image Technology, the most experienced name in high-speed video, presents the Memrecam fx 6000, the Memrecam fx Product Family member that combines ultra fast framing rates with optimal light sensitivity.

NAC's Memrecam fx 6000 Digital High-Speed Video System

NAC's Memrecam fx 6000 is a 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 4,000 pps. Using an advanced CMOS sensor, the Memrecam fx 6000 captures images at frame rates in excess of 200,000 pps.

The Memrecam fx 6000 System Features

- **Simple Operation**—The Memrecam fx 6000 is a fully self-contained system available in both color and monochrome versions. The camera can be operated locally without a control PC or can be controlled remotely. The Memrecam fx 6000's External Synchronization Function (ESF) allows the camera to slave itself to an external master sync signal, accepting drive pulses from other devices.
- **High Resolution and Fast Framing** —The Memrecam fx 6000 records: a) up to 4,000 pps at 512 X 512 pixel resolution; b) up to 5,000 pps at 512 X 500 pixel resolution; c) up to 6,000 pps at 512 X 384 pixel resolution; and d) up to 10,000 pps at 512 X 248 pixel resolution. The Memrecam fx 6000 provides framing rates in excess of 200,000 pps.
- **Ultra-Long Recording Times**—The Memrecam fx 6000 offers ultra-long recording times of more than one minute at 1,000 pps at standard resolution.
- **Ultra-High Light Sensitivity**—The Memrecam fx 6000's light sensitivity rating of more than ISO 1650 at 1,000 pps, F4 (monochrome version) makes it ideal for imaging applications requiring higher framing rates.

The Memrecam fx family of products is easily networked and synchronized using NAC's complete line of accessory items including 2D and 3D Motion Analysis Systems. Choose NAC to help address your high-speed imaging needs and you'll see *The Visible Difference*.

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Memrecam fx Family Common Features

- **High Resolution, High-Speed Sensor**: The Memrecam fx cameras use state-of-the-art CMOS sensors.
- **Electronic Shutter**: OPEN to 1/200,000 seconds
- **Bit Density**: 10 Bits
- **Standard Lens Mount**: C-Mount or F-Mount available
- **Live Image**: A live image is generated by the Digital Signal Processor (DSP) and can be displayed on an optional LCD viewfinder or on the monitor of a PC.
- **Standalone Operation**: The Memrecam fx cameras do not require a PC for setup and operation.
- **Operation and Control**: All functions from the camera setup to the recording and slow playback can be controlled using the panel on the back of the camera. Alternatively, the camera can be controlled remotely using NAC's J-Pad II hand-held controller or via a PC-based control system.
- **Trigger Mode**: The Memrecam fx 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. −100% to +100%).
- **Synchronous Data Recording**: Scene number, date and time of trigger, shutter speed, video process data, comments.
- **Back Panel Connectors**: TRIG IN (Trigger In), Control (J-Pad II connection), AUX (recording synchronous signal and serial operation signal for external products), 100Base-TX (Ethernet connection), FC-AL (Fibre Channel connection), Remote In (M-Hub connection), D-VGA Out (VGA Viewfinder), CF (Compact Flash).
- **Recording Video Monitor**: In VIEW mode, live images captured by the camera but not saved in memory are reviewed. Images are displayed at a rate of 30 pps. In ARM/REC mode, the images captured by the camera and stored in memory can be reviewed. Image playback speed is adjustable.
- **Video Playback Unit**: Recorded images can be played back and viewed, immediately after image capture, on an optional LCD viewfinder (or NAC's View Box), on a VGA monitor or on the monitor of a control 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**: 1.3GB, 4.0GB, 8.0GB and 16.0GB
- **Backup Option**: The memory backup option maintains power to the camera's DRAM in the event of power loss, thereby saving the customer's images. The images will be saved for approximately 1 hour.
- **Image Download**: The recorded images, having been captured to DRAM, can be downloaded directly to a PC via Fibre Channel or Ethernet. Alternatively, images can be saved locally to a Compact Flash.
- **Multi-Camera Control**: Up to a maximum of 48 Memrecam fx cameras can be connected and fully synchronized using NAC's M-Hub system. Alternatively, a similar number of cameras can be linked using commercial off-the-shelf (COTS) Fibre Channel or Ethernet network hubs.
- **PC Communications**: The customer has the option of selecting from three different modes of PC communications.
- **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.
- **IRIG-B**: Memrecam fx cameras support real time IRIG-B time insertion and can be synchronized to IRIG-B.

Contact Us:

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Memrecam fx 6000—Full Resolution						
Resolution		Frame Rate (fps)	Recording Time/Memory Configuration			
Horizontal	Vertical		1.3GB	4.0GB	8.0GB	16.0GB
512	512	100	42.5 sec	127.3 sec	254.5 sec	508.8 sec
512	512	250	17.0 sec	50.9 sec	101.8 sec	203.5 sec
512	512	500	8.5 sec	25.4 sec	50.8 sec	101.7 sec
512	512	1000	4.2 sec	12.7 sec	25.4 sec	50.9 sec
512	512	2000	2.1 sec	6.4 sec	12.8 sec	25.4 sec
512	512	3000	1.4 sec	4.2 sec	8.4 sec	17.0 sec
512	512	4000	1.1 sec	3.2 sec	6.4 sec	12.7 sec
512	500	5000	0.9 sec	2.6 sec	5.2 sec	10.4 sec
512	384	6000	0.9 sec	2.8 sec	5.6 sec	11.3 sec
512	308	8000	0.9 sec	2.6 sec	5.2 sec	10.4 sec
512	248	10000	0.9 sec	2.6 sec	5.2 sec	10.4 sec
512	120	20000	0.9 sec	2.7 sec	5.4 sec	10.9 sec
512	60	40000	0.9 sec	2.7 sec	5.4 sec	10.9 sec
512	36	60000	0.9 sec	2.7 sec	5.4 sec	10.9 sec
512	32	70000	1.0 sec	2.9 sec	5.8 sec	11.6 sec
512	16	120000	0.9 sec	2.7 sec	5.4 sec	10.9 sec
512	8	210000	0.9 sec	2.7 sec	5.4 sec	10.9 sec

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Memrecam fx 6000—Standard Resolution

Resolution		Frame Rate (fps)	Recording Time/Memory Configuration			
Horizontal	Vertical		1.3GB	4.0GB	8.0GB	16.0GB
512	384	100	56.5 sec	169.5 sec	339 sec	678.3 sec
512	384	250	22.6 sec	67.8 sec	135.6 sec	271.3 sec
512	384	500	11.3 sec	33.9 sec	67.8 sec	135.6 sec
512	384	1000	5.7 sec	17.0 sec	34.0 sec	67.8 sec
512	384	2000	2.8 sec	8.5 sec	17.1 sec	33.9 sec
512	384	3000	1.9 sec	5.6 sec	11.2 sec	22.7 sec
512	384	4000	1.5 sec	4.3 sec	8.5 sec	16.9 sec
512	384	5000	1.2 sec	3.4 sec	6.8 sec	13.5 sec
512	384	6000	0.9 sec	2.8 sec	5.6 sec	11.3 sec
512	308	8000	0.9 sec	2.6 sec	5.2 sec	10.4 sec
512	248	10000	0.9 sec	2.6 sec	5.2 sec	10.4 sec
512	120	20000	0.9 sec	2.7 sec	5.4 sec	10.9 sec
512	60	40000	0.9 sec	2.7 sec	5.4 sec	10.9 sec
512	36	60000	0.9 sec	2.7 sec	5.4 sec	10.9 sec
512	32	70000	1.0 sec	2.9 sec	5.8 sec	11.6 sec
512	16	120000	0.9 sec	2.7 sec	5.4 sec	10.9 sec
512	8	210000	0.9 sec	2.7 sec	5.4 sec	10.9 sec

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