IMAGE TECHNOLOGY

nac High Speed Cameras - you'll see the difference.

MESSRING and our partner nac Image Technology offer a wide range of products to meet the most **demanding and unique imaging** needs in automotive testing. What remains after the test? It is the photos that capture the information and test results. The quality depends directly on the camera and lighting systems used. MESSRING lighting combined with nac cameras offer the **most light sensitivity**, the **best image quality**, the **largest memory capacities**, the **smallest camera heads**, the **fastest download times** and the **most inclusive software packages** in the industry.

- **Choose your camera:** Whether for offboard use with resolutions in 4k or in a demanding environment inside a crashed car with up to 200G shock, the nac product range covers it.

- **Fully integrated:** Run multiple cameras simultaneously and fully embedded in the crash facilities´ control suite.

- **Accessories and service for your camera:** MESSRING offers installation, service and maintenance for your camera infrastructure to ensure the highest quality for your high speed images.

MESSRING

Safer Mobility.

nac
IMAGE TECHNOLOGY

IMAGE TECHNOLOGIE

nac MEMRECAM GO-4K

IMAGE TECHNOLOGIE

GO-4K Smart High Speed Camera for automotive, R&D and Aerospace. High image quality in wide-field-of-view shooting which improves the accuracy of image analysis.

- Capable of capturing 10 megapixel images, for analysis with higher resolution at the crash test and 3D measurement for material development.
- Compact / Light weight
- Easy control via mobile device or PC
- AC power or battery operation
- Resolution: 4608×2176 pixels @ 1.000 FPS

TECHNICAL SPECIFICATIONS

Memory	16 GB / 32 GB / 64 GB
Lens mount	F / C / EF
Interface	1000BASE-T / USB 3.1 / USB 2.0
Sensor	10 Megapixel, CMOS
Dimensions (WxHxD)	Approx. 128 × 128 × 135 mm (excluding protrusions)
Weight	Approx. 2.9 kg

nac MEMRECAM GO-12/GO-9

IMAGE TECHNOLOGIE

Compact High Speed Camera. Smart, Reliable, Fast and Portable.

- Quality & Sensitivity ISO 100,000 (Mono) / ISO 20,000 (Color)
- Wireless - Web application control without dedicated control software
- Resolution: 1,008 x 896 Pixel @ 12.000 fps (GO-12), 1,008 x 896 Pixel @ 9.000 fps (GO-9)

TECHNICAL SPECIFICATIONS

Memory	16 GB / 32 GB / 64 GB
Lens mount	F / C / EF
Interface	1000BASE-T / USB 3.1 / USB 2.0
Sensor	0.9 M Pixel, CMOS
Dimensions (WxHxD)	Approx. 128 × 128 × 135 mm (excluding protrusions)
Weight	Approx. 2.9 kg

nac MEMRECAM GO-5M

IMAGE TECHNOLOGIE

High Speed Camera GO-5M for automotive crash safety testing and much more. Cutting-edge memory backup capabilities to reduce data retentcion.

- Capable of capturing 5 megapixel images, for analysis with higher resolution at the crash test and 3D measurement for material development
- Compact / Light weight
- Easy control via mobile or PC
- AC power or battery operation
- Resolution: 2,560 x 2,016 pixels @ 1.900 fps

TECHNICAL SPECIFICATIONS

Memory	16 GB / 32 GB / 64 GB
Lens mount	F / C / EF
Interface	1000BASE-T / USB 3.1 / USB 2.0
Sensor	5 Megapixel, CMOS
Dimensions (WxHxD)	Approx. 128 × 128 × 135 mm (excluding protrusions)
Weight	Approx. 2.9 kg

nac MEMRECAM ACS-1 M60/M40/M30

IMAGE TECHNOLOGIE

World´s first 60 Gigapixel / sec High Speed Camera System.

- Boost Mode/Boost4 mode
- Ultra high light sensitivity (ISO 100,000 Mono ~ 20,000 Color)
- The Image Trigger is a unique function that automatically triggers the camera by detecting a small brightness change
- Easy synchronization of multiple ACS- 1 cameras
- Resolution: 1280 x 896 pixel @ 150,000 fps (M60) and @ 120,000 fps (M40) @ 50,000 fps (M30

TECHNICAL SPECIFICATIONS

Model	ACS-1 M60	ACS-1 M40	ACS-1 M30
Memory	64 GB / 128 GB / 256 GB		
Lens mount	F / C / EF		
Interface	1000BASE-T / USB 3.1 / USB 2.0		
Sensor	1.14M Pixel CMOS sensor		
Dimension	175 W x 175 H x 206 D mm		
Weight	Approx. 7.3 kg		

nac MEMRECAM ACS-3 M16

IMAGE TECHNOLOGIE

ACS-3 M16 is the next era in high speed cameras. The ACS-3 M16 offers full frame, 1280 x 896 resolution up to 50,000 fps in boost4 mode. The ACS-3 M16 offers frame rate and resolution combinations that are far superior to any other high-speed cameras in its class.

- Boost Mode/Boost4 mode
- Ultra high light sensitivity (ISO 100,000 (Mono) and 20,000 (Color)
- The Image Trigger is a unique function that automatically triggers the camera by detecting a small brightness change
- Easy synchronization of multiple ACS- 3 cameras
- HDR mode available
- Resolution: 1280 x 896 @ 50,000 fps

TECHNICAL SPECIFICATIONS

Memory	16 GB / 32 GB / 64 GB
Lens mount	F / C / EF
Interface	1000BASE-T / USB 3.1 / USB 2.0
Sensor	1.14M Pixel CMOS sensor
Dimension	128 W x 128 H x 206 D mm
Weight	Approx. 4,5 kg

nac MEMRECAM Q2m

IMAGE TECHNOLOGIE

High Speed Camera Q2m for automotive crash safety testing and academic / industry / R&D testing. It is a compact, self-contained higher performance camera also usable for Hi-G applications.

- Extremely light sensitive image sensor
- Impact resistance up to 200G
- Built-in battery for memory backup up to hour
- Small and light weight
- Can be trigged by shock using the built-in G-Sensor
- Resolution: Full HD 1920 x 1080 @ 2,000 fps

TECHNICAL SPECIFICATIONS

Memory	8 GB / 16 GB / 32 GB
Lens Mount	C-mount
Interface	1000BASE-T
Sensor	2.07M Pixel CMOS
Dimension	62 W x 62 H x 87,5 D mm
Weight	670 g

nac MEMRECAM MX-5 Multi Camera Head System

IMAGE TECHNOLOGIE

The most versatile onboard and offboard camera system designed for critical dynamic applications. The MX Series utilizes extremely light sensitive image sensors, providing brilliant images complete with up to 8GB per camera view of memory and built-in memory backup protection.

- 5 Different Camera Head Options freely configurable for different applications
- Full HD @ 2,000 fps (M-Cam/M-CamMFT)
- Ultra-Small, Lightweight Camera Head Options
- „On Board", Hi-G Camera Head Options
- „Off Board", ruggedized Camera Head with remote control
- Hi-G Compact Control Unit (4 or 8 Camera Ports)

TECHNICAL SPECIFICATIONS

MX-Series Camera Head					
	M-Cam	**M-CamMFT**	**M2-Cam**	**M3-Cam**	**µ-Cam**
Resolution	1920 x 1080 @ 2,000 fps	1920 x 1080 @ 2,000 fps	1280 x 1024 @ 1,000 fps	1280 x 1024 @1,000 fps	640 x 456 @500 fps
Memory	4 GB/8 GB (can be segmented up to 16 times)	8 GB (can be segmented up to 16 times)	4 GB (can be segmented up to 16 times)	4 GB (can be segmented up to 16 times)	4 GB (can be segmented up to 16 times)
Lens Mount	C-Mount	MFT-Mount (Micro Four Thirds)	C-Mount	NF-Mount	M10.5 Special Mount
Data Security	Autostorage - 64 GB SSD; plus Memory Back-up (60 min)	Autostorage - 64 GB SSD; plus Memory Back-up (60 min)	Autostorage - 64 GB SSD; plus Memory Back-up (20 min)	Autostorage - 64 GB SSD; plus Memory Back-up (60 min)	Autostorage - 64 GB SSD; plus Memory Back-up (60 min)
Use	On Board and Off Board	Off Board Only	On Board and Off Board	On Board and Off Board	On Board and Off Board