

The world's most versatile onboard and offboard camera system designed for critical dynamic applications.

## FEATURES

- 5 Different Camera Head Options Freely Configurable for Different Applications
- Full HD @ 2,000FPS (M-Cam/M-Cam MFT)
- Ultra-Small, Lightweight Camera Head Options
  - 25x25x45mm, 60g (M3-Cam)
  - 15x16x16mm, 15g ( $\mu$ -Cam)
- Phenomenal Light Sensitivity
- Lens Mount Options: C-Mount and MFT-Mount (M-Cam/M-CamMFT)
- "On Board", Hi-G Camera Head Options
- "Off Board", Ruggedized Camera Head with Remote Control
- Reliable Thin Cable 7mm (OD) up to 80m Long
- Built-in Memory Backup
- Electronic Shutter
- Hi-G Compact Processing Unit (4 or 8 Camera Ports)
- Multiple Camera Operation with Precise Synchronization
- Camera Control, Viewing and Setup via PC or Tablet (Wired/Wireless LAN)
- MEMRECAM MX System is Backward Compatible with all MEMRECAM Platforms
- Cameras can be Triggered by Shock Using Built-in G-Sensor



The nac MEMRECAM MX is a robust, turnkey solution for multi-camera onboard and offboard automotive testing and occupant safety applications. Each system supports up to eight, tightly synchronized camera views, and integrates seamlessly with all current and legacy MEMRECAM imaging systems.

## Five Camera Head Options

### M-Cam



The M-Cam is designed for both "On Board" and "Off Board" use, making it the most flexible camera head available. This camera head operates via a single cable that can range in length from 5m to 80m long and offers full HD resolution at up to 2,000 fps.

### M3-Cam



The M3-Cam is designed for "On Board" and "Off Board" use where the compact size of camera head is critical. The camera offers the same great image quality as the M2-Cam in half the volume utilizing NAC's custom adapter and separate mini camera head.

### M-CamMFT



The M-CamMFT is designed for "Off Board" use. This camera head is compatible with Micro Four Thirds optics. This enables electric control for focus, aperture, and zoom with Micro Four Thirds lenses while maintaining phenomenal light sensitivity and full HD resolution at 2,000 fps. The M-CamMFT enables lens control from remote locations such as the ceiling of crash test sites, underground pits, remote shooting of military applications, etc...



### M2-Cam



The M2-Cam is designed for "On Board" applications where size limitations are a consideration. The M2-Cam offers mega pixel resolution, high frame rates, and incredible light sensitivity in a package that enables imaging in areas that are otherwise inaccessible.

### $\mu$ -Cam



The  $\mu$ -Cam (micro-cam) is no doubt the smallest high-speed camera head in the world (15x16x16mm). The camera is designed for "On Board" applications where conventional cameras cannot be installed due to their larger form factor. This tiny micro-cam provides 640x456 pixel images up to 500fps (max. frame rate: 1000fps).



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## MX- Series Camera Heads

	M-Cam	M-CamMFT	M2-Cam	M3-Cam	μ-Cam
					
Resolution	1920 x 1080 @2,000fps 1920 x 512 @5,000fps		1280 x 1024 @1,000fps 640 x 480 @4,000fps		640 x 456 @500fps - 640 x 210 @1,000fps - 640 x 416 @1,000fps*
Light Sensitivity	ISO 8,000 (Color) ISO 32,000 (Mono)		ISO 2,000 (Color) ISO 10,000 (Mono)		ISO 2,000 (Color) ISO 8,000 (Mono)
Memory	4GB/8GB (can be segmented up to 16 times)		8GB (can be segmented up to 16 times)		4GB (can be segmented up to 16 times)
Bit Depth	8bit / 10bit		8bit / 10bit / 12bit	8bit / 10bit	
Lens Mount	C-Mount	MFT-Mount (Micro Four Thirds)	C-Mount	NF-Mount	M10.5 Special Mount
Dimensions	W75 x H55 x D55mm	W80 x H66 x D55mm	W33 x H33 x D45mm	W39 x H25 x D29mm (Angle) W25 x H25 x D45mm (Straight) W33 x H33 x D110mm (Adapter)	W16 x H16 x D27mm (Angle) W15 x H16 x D16mm (Straight) W33 x H33 x D110mm (μ-MX Adapter)
Weight	470g	550g	100g	60g (Camera Head) 200g (Adapter)	15g (Camera Head) 200g (μ-MX ADAPTER)
Camera Cable	OD 6.9mm; Length 5m/10m/20m; Max. 80m with MXBB and ext. cable		OD 6.9mm; Length 0.6m/5m; Max. 80m with MXBB and ext. cable	OD 5mm; Length 3m (b/w M3-Cam & M3-Cam Adapter); OD 6.9mm; Length 5m/10m/20m (b/w M3-Cam Adapter & MX-5) Max. 80m with MXBB and ext. cable	OD 3.7mm; Length 2m (b/w μ-Cam & μ-MX Adapter); OD 6.9mm; Length 5m/10m/20m (b/w μ-MX Adapter & MX-5) Max. 80m with MXBB and ext. cable
Data Security	Autostorage - 64GB SSD; plus Memory Back-up (60 min.)		Autostorage - 64GB SSD; plus Memory Back-up (20 min.)	Autostorage - 64GB SSD; plus Memory Back-up (60 min.)	
Impact Resistance	150G (6 axis) Half Sign 11 ms 200G (6 axis) Half Sign 7ms	50G (6 axis) Half Sign 11ms	150G (6 axis) Half Sign 11ms 200G (6 axis) Half Sign 7ms	150G (6 axis) Half Sign 11ms 200G (6 axis) Half Sign 7ms	150G (6 axis) Half Sign 11ms
Use	On Board and Off Board	Off Board Only	On Board and Off Board	On Board and Off Board	On Board and Off Board

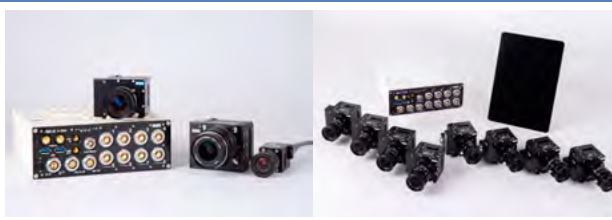
## MX-5 Control Units

	Four (4) Port Unit	Eight (8) Port Unit
		
Camera Ports	Four (4)	Eight (8)
Dimensions	W195 x H60 x D160mm	W195 x H70 x D180mm
Weight	3.0kg	3.6kg
Multi-Camera Control	via PC and Tablet (wired/wireless LAN)	via PC and Tablet (wired/wireless LAN)
Interface	1,000BASE-T/USB3.0	1,000BASE-T/USB3.0x1, USB2.0x1 (TYPE T2)
Impact Resistance	150 G (6 axis) Half Sign 11ms 200 G (6 axis) Half Sign 7ms	150 G (6 axis) Half Sign 11ms 200 G (6 axis) Half Sign 7ms

### Two MX-5 Control Unit Options



MX-5 Four (4) Camera Port Unit



MX-5 Eight (8) Camera Port Unit

\*Advanced sampling mode

\*MXBB – Bespoke product and so, contact your reps to confirm if it is deliverable into your region (the industry standard might not be certified)

## Cabling



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