M500

IN-CAR VIDEO SYSTEM

In your vehicle out in the field, your eyes are your first line of defense. You're trained to constantly scan your surroundings for threats—to yourself and to the public. It's intense, highly demanding work. But with our technology, you can lighten that load and heighten your situational awareness like never before.

The M500 in-car video system is a groundbreaking leap forward in awareness, safety and efficiency. It's not just an eye recording what it sees, it's a brain analyzing everything around you. Powerful video analytics—driven by industry-leading 4k video—constantly process your surroundings, alerting you in real time to threats and search targets.

An ultra-rugged, tamperproof design withstands the toughest conditions. An intuitive interface is easy to use in the most demanding situations.

And the M500 seamlessly coordinates with the mission critical technology you already count on—from body cameras, to command centers and evidence management.

When you're only as safe as what you can see, the M500 gives you real time awareness of what's happening around you. It's a watchtower calling out what you need to know. A partner that takes you to a new level of calm and collected. Because the more you know what's out there, the more you can keep yourself and the people you serve safe.

MOTOROLA SOLUTIONS

SCAN. ANALYZE. REACT.

M500

FEATURES

M500 CORE PROCESSOR

M5F FRONT CAMERA

M5P CABIN CAMERA

M5R REAR CAMERA

M5D CONTROL PANEL

HIFI MICROPHONE

M500 KEY FEATURES

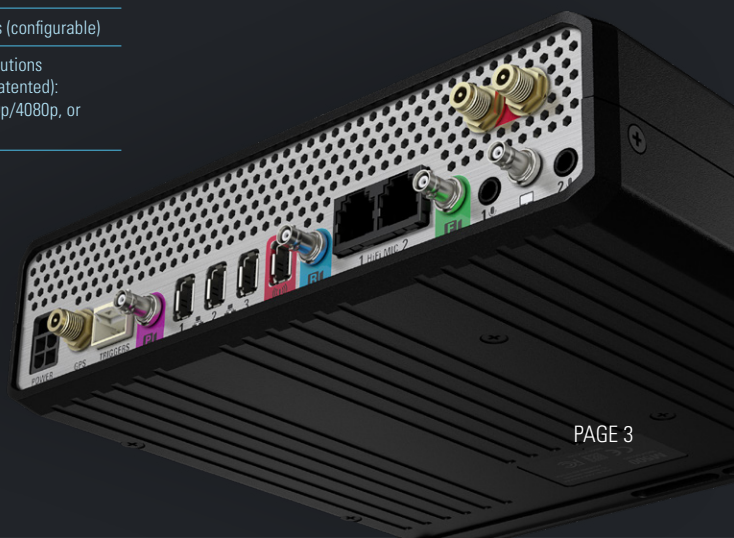|			
Front Camera Recording	Support for high resolution front camera	Remote Upgrade	System firmware can be upgraded over a wireless link
Cabin Camera Recording	Support for daylight and infrared cabin camera with integrated microphone	Dual-stream Recording	System can record 2 streams and select upload resolution based on event tagging
Cabin Microphone Recording	Support for discreet cabin microphone x2	Covert Mode	System can be configured to record with no visual or audio indicators
Rear Camera Recording	Support for high resolution rear camera	Dark Mode	System can be configured to turn off screen, and button backlights
Smart Power Switch (SPS)	Power and/or connectivity for MDC, LTE/WiFi router, and V300 WiFi dock	State Capture	System can log key parameters for debug purposes
USB Drive Support	Support for configuration and firmware updates via removable USB drive	Impact Detection	System can recognize vehicle impact and automatically start recording
USB Evidence Backup	Removable USB Drive can be used for storing and offloading video evidence*	Internal UPS	System can self-power for several seconds in case of vehicle collision / power failure
Auto-record Triggers	System can be triggered to record by vehicle speed, lights, siren, aux input x2	License Plate Recognition	System can read license plates and interface with Vigilant VehicleManager
Auto-stop Record	Configurable maximum length of video recordings	Back Seat Occupancy Detection	Cabin camera will automatically record when a human is detected in back seat*
Group Recordings	System can initiate group recordings with body cameras (V300 only)	Wide And Cropped Front Camera Views	System will capture panoramic and detailed views (at 2 resolutions each)
GPS Support	Support for GPS location information and timing reference	Synchronized Playback	Support for synchronized playback in VideoManager EL and CommandCentral Evidence
WiFi Event Upload	System can upload events to DEMS solution via WiFi access point	HiFi Microphone Support	System supports up to 2x portable wireless microphones
LTE/WiFi Router Upload	System can upload events via a Sierra Wireless LTE/WiFi modem/router	Live-streaming	Video and audio streaming to CommandCentral Aware*
Encryption	Video evidence is encrypted at rest and in transit	VideoManager EL Support	System can upload events to VideoManager EL
Officer Settings	User access to system preferences to adjust display brightness, etc	CommandCentral Evidence Support	Events can be uploaded to CommandCentral Evidence
Event Playback	Video and audio can be played back on the control panel / display		
Record-after-the-Fact™	Events can be recovered from the system even if no recording was initiated		

*Feature not supported at launch

CORE PROCESSOR

POWER

M500 CORE PROCESSOR KEY FEATURES

Form Factor	Single DIN
Dimensions (H x W x D)	7.0 x 1.9 x 7.7 (180 x 49 x 171 mm)
Weight	3.1 lb (1.4 kg)
Operating Temperature	-30°C to +65°C (-22°F to +149°F)
Mounting Option	Overhead (vehicle-specific brackets) or universal mount
Recording Media (Internal)	1 TB automotive-grade solid state drive
Recording Media (Removable)	128 GB USB Drive*
GPS	Integrated
Crash Detection	6-axis sensor
Additional Input / Outputs	USB, Ethernet, wired microphone (x2), trigger interface (2 AUX inputs), wireless microphone (x2), powered ethernet (x4)*
Video Transfer Methods	Wireless 802.11 router, optional WiFi or all-in-one LTE/WiFi Router, Ethernet, USB*
Max Camera Capacity	Up to 5 cameras (Initial release: 2)
Resolutions	1920x1080p, 1280x720p, 864x480p (dual stream, configurable), with configurable high/medium/low bitrate
Frame Rate	30, 15, 10, & 5 fps (configurable)
Multiple Resolution Encoding	Records two resolutions simultaneously (patented): 1080p/720p, 1080p/4080p, or 720p/480p

Recording Triggers	Lights, siren, AUX triggers (x2), impact/ crash, speed, wireless microphone, backseat occupancy
Storage	Dual drive architecture*
Pre-Event	None, 15 sec, 30 sec, 45 sec, 90 sec, 1 min, 2 min, 3 min, 5 min, or 10 min
Redundancy	Record-After-The-Fact (patented, configurable)
Recording Capacity	Dependent on recording resolution, frame rate and cameras connected: Video 1080p@30fps High Quality = 4.5GB per hour per stream 720p@30fps High Quality = 2.25GB per hour per stream 480p@30fps High Quality = 1GB per hour per stream Audio 23.4MB per hour per stream
WiFi	WiFi, LTE/WiFi routers
Security	FIPS-140-2 compliant encryption
Cabin Camera Audio	Integrated MEMs microphone (digital audio over coax)

FRONT CAMERA

CAPTURE

M500 FRONT CAMERA KEY FEATURES

Dimensions (H x W x D), including bracket	1.7 x 1.6 x 2.7 in (43 x 40 x 69 mm)
Weight	2.68 oz (85.4 g)
Operating Temperature	-30°C to +65°C (-22°F to +149°F)
Connection	Bayonet-locking HDBNC for power and data
Aspect Ratio	Electronic panoramic view (simultaneous wide and cropped streams)
Horizontal Field of View	Wide panoramic stream: 102/119° with/without dewarp Cropped stream: 51/59.5° with/without dewarp
Low Light Performance	Below 0.1 lux
Sensor Resolution	3840x1920 pixels
Sensor Technology	8MP, BL-CMOS (backlit CMOS)
Sensor Area	1 x 1.7 in
Mounting	Windshield puck or ball mount

M500 LPR SYSTEM KEY FEATURES

Accuracy	Greater than 90%
Range	40ft

CABIN CAMERA

COMPACT

M5P CABIN CAMERA KEY FEATURES

Dimensions (H x W x D)	4.5 x 1.9 x 1.5 in (113 x 48 x 39 mm)
Weight	5.3 oz (150 g)
Operating Temperature	-30°C to +65°C (-22°F to +149°F)
Connection	Single HD-BNC connection for power and data
Resolution	1920x1080
Viewing Angle	108° (horizontal)
Low Light Performance	0 lux (infrared illumination)
Infrared Illumination	940nm, not visible
Audio	Integrated MEMs microphone (digital audio over coax)
Environmental Protection	IP54, MIL-STD 810G
Mounting	Tamperproof screws or zip ties, 180-degree rotation

MOTOROLA

REAR CAMERA

EXPAND

M5R REAR CAMERA KEY FEATURES

Dimensions (H x W x D)	2.75 x 2.56 x 1.61 in (70 x 65 x 41 mm)
Weight	4.8 oz (135 g)
Operating Temperature	-30°C to +75°C (-22°F to +167°F)
Connection	Single HD-BNC connection for power and data
Resolution	1920x1080 at 30 fps
Viewing Angle	108º (wide view)
Low Light Performance	0.07 lux
Sensor Technology	CMOS
Mounting	Variable adjustment mount (ball and socket)
Environmental Protection	IP54

CONTROL PANEL

INTUITIVE

M5D CONTROL PANEL KEY FEATURES

Dimensions (H x W x D)	4.3 x 5.7 x 1.4 x in (110 x 144 x 36 mm)
Weight	0.7 lb (0.3 kg)
Operating Temperature	-30°C to +65°C (-22°F to +149°F)
Connection	Single HD-BNC connection for power and data
Screen Size	5" diagonal
Screen Resolution	1920x1080
Screen Brightness	600 nits
Touchscreen Technology	Capacitive multi-touch
Dedicated Controls	Power, home, record, stop, cameras, display
Mounting	B-size RAM mount
Other	Silicone overmold for secure grip

HIFI MICROPHONE

CONNECT

M500

HIFI MICROPHONE KEY FEATURES

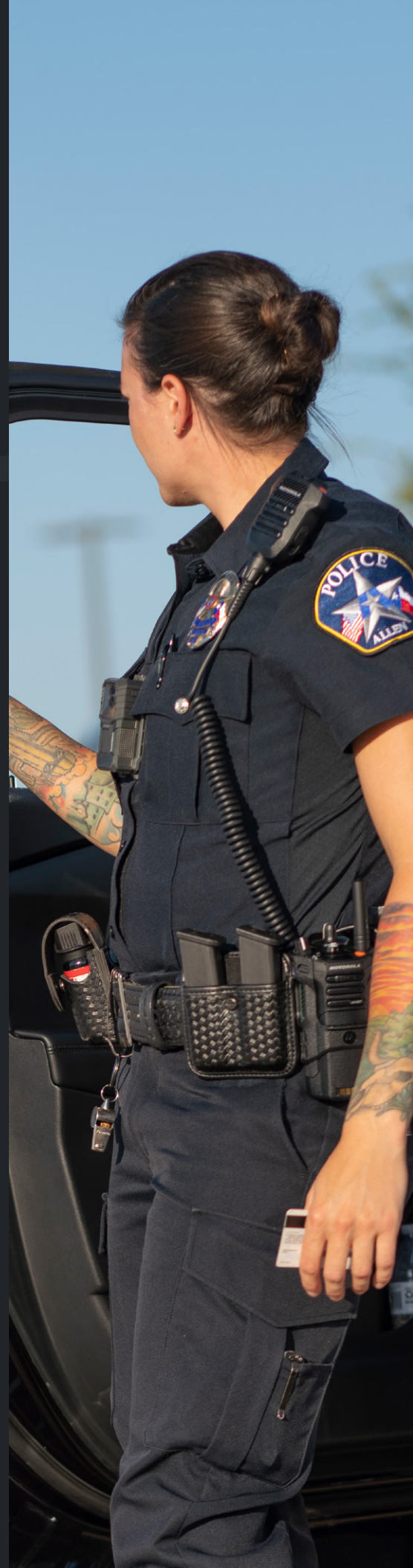|	
Dimensions (H x W x D), Transmitter	3.0 x 2.1 x 1.1 in (75 x 53 x 28 mm), not including clip
Dimensions (H x W x D), Charging Dock	3.1 x 3.0 x 2.0 in (80 x 75 x 51 mm)
Dimensions (H x W x D), Transmitter in Charging Dock	4.2 x 3.0 x 2.0 in (108 x 75 x 51 mm)
Weight (Transmitter)	3.0 oz (85 g)
Weight (Charging Dock)	4.5 oz (128 g)
Operating Temperature	-25°C to +65°C (-13°F to +149°F)
Frequency Response	200-10,000 Hz +/- 3 dB
Wireless Link Frequency Band	2.4 GHz
Audio Compression	BV32

M500

NOW OBSERVATION BECOMES ACTION

SUPPORT

WARRANTY

Comprehensive 12-month product warranty included.

Warranty may be optionally extended to 5 years at additional cost.

For more information, please visit
www.motorolasolutions.com/M500

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