

Vulcan™ Series VX4AI • All-in-One Mobile DVR

MDVR FEATURES

DIMENSIONS

- Height: 5.3 inches
- Width: 4.8 inches
- Depth: 1.9 inches
- Weight: 1.7 pounds

A/V INPUTS

- (4) Channels 1080P
 - (2) built-in HD channels; additional (2) channels with optional cable (1 IP + 1 HD)
- (2) Channels audio
 - (1) for HD channels (cameras 1-3)
 - (1) for IP channel (camera 4)

VIDEO/AUDIO OUTPUT

- (1) Channel CVBS

STORAGE MEDIA

RECORDING MEDIA

- Supports (2) microSD cards
- Up to 512GB available, per slot (up to 1TB total)

IMAGE RESOLUTION

MAINSTREAM

- DSC: 1080@30 FPS
- ADAS: 5MP@30 FPS

*NOTE: When using (4) channels, we recommend not exceeding 20 FPS.

RECORD RESOLUTION

MAINSTREAM

- DSC: 1080P@30 FPS
- ADAS: 5MP@30 FPS
- AHD: 1080P@30 FPS
- IPC: 1080P@30 FPS

*NOTE: When using (4) channels, we recommend not exceeding 20 FPS.

SUB STREAM

- 4 x CIF@30 FPS

IMAGE SETTING

- Brightness, chroma, contrast, color saturation and sharpness

INTERFACE

COMPRESSION FORMAT

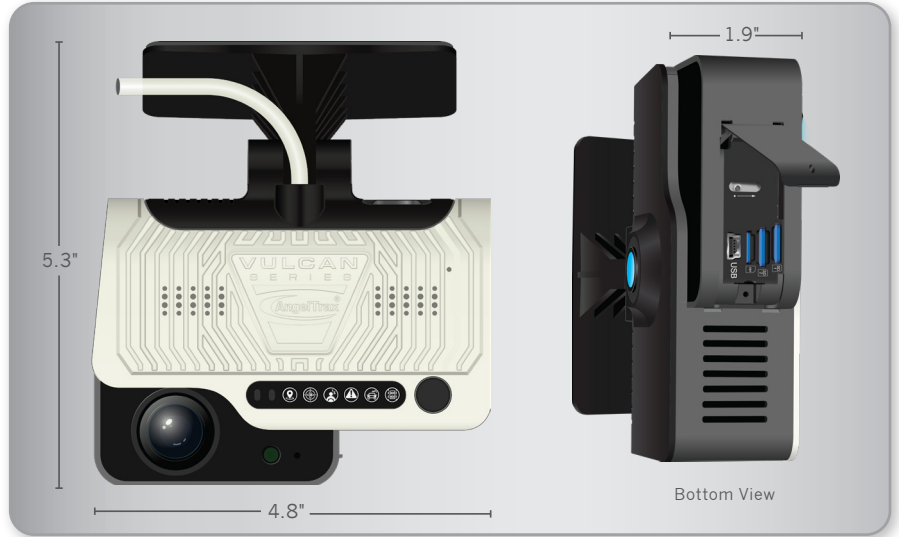
- Video: H.264/H.265
- Audio: ADPCM, G.711/G.726 (default: G.711)

NETWORK

- Wi-Fi: 2.4G & 5.8G
- IEEE Std. 802.11a/b/g/n/ac
- 4G Support (For North America)
 - LTE FDD: B2/B4/B5/B12/B13/B14/B66/B71
 - WCDMA: B2/B4/B5

GPS

- GPS L1 1575.42 MHz
- BDS B1 1561.42 MHz
- GALILEO E1B/C1
- GLONASS L1OF 1602 MHz
- SBAS: WAAS, EGNOS, MSAS, GAGAN



NETWORK PROTOCOL

- HTTP, TCP, ARP, UDP, FTP, DHCP, DNS, IPV4, NTP

PORTS

- RS232 x 1, CAN x 1, Speed x 1
- USB B (with adapter)

DEVICE MANAGEMENT

- Built-in Easy Check module for efficient firmware maintenance and upgrades via VConnect+ Device Management App using Wi-Fi module and active Internet connection

DRIVER ACTION DETECTION

PANIC BUTTON

- Built-in
 - Panic alarm trigger: Press once
 - Record privacy: Press twice (Interior camera and microphone will stop recording while vehicle speed is 0 MPH.)
 - Wi-Fi mode: Press for 3 seconds (Switch Wi-Fi to AP mode; AP mode is for VConnect+ App connection)

DRIVER ACTION DETECTION WIRES

- (2) signal wires individually programmable to indicate alarm or event

ELECTRICAL & OPERATING REQUIREMENTS

DELAY OFF SETTING

- Ignition delay: This setting allows the MDVR to shut down after a set period of time after the vehicle is turned off.
- Shutdown recording delay: This setting allows the MDVR to keep recording for a set period of time after the vehicle is turned off (only used in Wi-Fi downloading).

OPERATING CONDITIONS

- Normal:
 - 40°F ~ +158°F (-40°C ~ +70°C)
- Storage:
 - 40°F ~ +185°F (-40°C ~ +85°C)
- Humidity:
 - 15% ~ 90%

POWER INPUT

- 12V DC (9V ~ 36V)

POWER OUTPUT

- 5V@1000mA (IR off)
- 12V@500mA (IR on)

POWER CONSUMPTION

- Operating: < 8W
- Maximum: ≤ 11.5W

LOW VOLTAGE PROTECTION

- 8V DC (user selectable and programmed at installation)

HOUSING/CASING MATERIAL

- Driver facing plate: aluminum alloy
- Road facing plate: plastic

BUILT-IN CELLULAR MODULE

BUILT-IN WI-FI MODULE

BUILT-IN GPS

BUILT-IN G-FORCE SENSOR

AI FEATURES

- Phone detection
- Following too closely
- Seatbelt detection
- Collision warning

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CAMERA FEATURES

Mounted to the inside of the vehicle's windshield, the Vulcan Series VX4AI All-In-One MDVR features two built-in HD cameras: one capturing an exterior view through the windshield, the other an interior view of the cab, driver and passengers. This powerful device's built-in AI processor helps capture a definitive account of what really happens on the road by detecting certain driving events and automatically uploading them to a secure server for review. The VX4AI's privacy feature can be activated to turn off the interior camera and microphone when the vehicle is at OMPH.

INTERIOR FACING CAMERA

- 2.1mm focal length
- 2MP 1/2.8" CMOS sensor
- Infrared
- Signal to noise: $\geq 48\text{dB}$

EXTERIOR FACING CAMERA

- 2.8mm focal length
- 5MP 1/2.7" CMOS sensor
- Signal to noise: $\geq 39\text{dB}$

IMAGE FRAME RATE

- 1-30 FPS

*NOTE: When using (4) channels, we recommend not exceeding 20 FPS.

SHUTTER SPEED

- 1/30s - 1/1000000s

LED INDICATORS

- Recording: normal (green), failure (orange), no SD card detected (orange), privacy status (blinking orange)
- Server status: At least one server from PRO8CMS and MotoTrax is connected (green), SIM card issue (orange), WiFi is in AP mode (blinking green), SIM card is normal but no server is connected (LED off)
- GPS: normal (green), abnormal (orange)
- G-Force Sensor: no driver behavior event triggered (LED off), event triggered (orange)
- Fatigue: no fatigue event triggered (LED off), event triggered (orange)
- Distraction: no distraction event triggered (LED off), event triggered (orange)
- Front collision: no front collision triggered (LED off), event triggered (orange)
- Lane departure: no lane departure triggered (LED off), event triggered (orange)



AUDIO

- Built-in noise-gated microphone
- Built-in speaker
- Built-in audible alarm with on/off switch (accessible only in firmware) alerts driver of event

IMAGE CONTROL

- Wide Dynamic Range
- Backlight Compensation: Supported

PRIVACY BUTTON

- Deactivates microphone and interior camera for driver privacy (activated only when vehicle speed is OMPH; camera will switch to normal record mode when speed exceeds 5MPH)

WI-FI SWITCH

- Enables recording unit's Wi-Fi to switch to AP mode for system configuration and maintenance

