

DRIVERI D-450 Camera

Ideal use-case for this device: Light-Duty and Heavy-Duty vehicles



Driveri® is a smart camera, installed in trucks/cars behind the rear-view mirror. The D-450 offers a quad cam system with four HD 1080p cameras providing a 360° picture of driver behavior.

When the truck is running, the device captures 360° videos where the outward facing camera is the primary recording and other 3 cameras are optionally configured as per the customer requirement. The recorded videos are processed (using our patented machine learning algorithms) on the device together with the other sensory data and can detect any events related to driving behavior and driver behavior.

When an event is detected, an alert together with the supporting processed data is uploaded to the cloud dashboard where the events and related data can be accessed by the fleet manager. The device has 2 buttons on the bottom side of the device, when pressed creates alerts which are user generated. 2 LEDs on driver facing side indicate the current operational state of device.

Key Features

- Forward Collision Detection/Warning
- Advanced Drowsiness Detection/Alert
- Nvidia TX2 Module
- Outward facing camera with 120dB in HDR mode
- Inward facing camera with IR LED for night vision
- Integrated Mic & Speaker for alerts
- 4GB RAM +128GB eMMC based Storage
- Inertial sensors (Accelerometer & Gyro), Thermal sensor

DRIVERI D-450 Specifications

PROCESSOR & GPU

GPU	NVIDIA Pascal architecture with 256 NVIDIA CUDA cores
CPU	Dual-core NVIDIA Denver 2 64-bit CPU, Quad-core ARM Cortex -A57 MPCore
Video Encoding - H.265	1080p @ 30fps
Video Format	MP4 with H.265
Sensors	6-Axis IMU - Accelerometer + Gyro, Temperature, Ambient Light

ELECTRICAL

Input Voltage	7 to 32V
Input Current (Full)	12V / 3A
Max Power Consumption	30W
Signals Input - High Voltage	+32V
Signals Input Low Voltage	+0v
Operating Temperature	-5° to 55° C

POWER CONSUMPTION

Avg. Power Consump. 38.7mAh

	Active Mode	Periodic Wake-up Mode	Shutdown Mode
Peak Current (A)	2.3A @ 12V	1.6A @12V	14mA @12V
RMS Current (A)	.78A @12V	.78 @12V	
Peak Power (W)	19.2W	19.2W	168mV
RMS Power (W)	9.4W	9.4W	

RAM & STORAGE

Memory	4GB LPDDR4 @16000MHz
Storage	16 GB eMMC (System) + 128 GB eMMC (Video)
Avg. Power Consump.	38.7mAh

CAMERA & FIELD OF VIEW

	Outward	Inward	Right & Left
Pixel Size	2.8µm Om-niBSI-2 pixel	3µm x 3µm	3µm x 3µm
Dynamic Range	>90dB dual capture; >120dB in HDR mode	72db (not true HDR)	72db (not true HDR)
Responsivity	~5 V/lux sec	3.3 V/lux sec	3.3 V/lux sec
Lens Size	1 / 2.7"	1 / 4"	1 / 4"
F No.	1.6	2.0	2.0
Field of View	74° (H) 57° (V) 90° (DI)	148° (H) 80° (V) 168° (D)	124° (H) 82° (V) 143° (D)
Construction	6G – Visible	6G + 1R Filter - Dual Band Pass	6G + 1R Filter - Dual Band Pass

WIRELESS CONNECTIVITY & I/O

LTE Connectivity	4G-LTE - Bands 2, 4, 12, 66, 71
Wi-Fi	802.11 b/g/n/ac
Bluetooth	v4.0

BATTERY CONSUMPTION

3 min (every 360 min)	20.4mA
6 min (every 180 min)	38.7mAhh

PHYSICAL

Dimensions	4.98 X 3.09 X 3.37 inches 126.6 X 78.6 X 85.6 mm
Color	Black
Case Material	Polycarbonate (PC)
Power Cable Length	3.3 meters
Power Cable Thickness	5.5 mm