

Driver.i D-410

Technical Specifications



Overview

Driveri® is an AI powered vision based IoT system, sold as a product to fleets. The device is installed in trucks/cars behind the rear-view mirror, and the power is supplied from the car battery through a RJ45 cable. The device is capable to connect with the OBD II/J1939 of the vehicle to collect the engine data.

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 sensor 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.

RAM & Storage

| | |
|--------------|--|
| Memory (Ram) | 4GB LPDDR4 @ 16000MHz Storage |
| Storage | 16 GB eMMC (System) + 128GB eMMC (Video) |

Physical Dimensions

| | |
|-------------------------|---|
| Length x Width x Height | 189.9mmx78.9mmx118.5mm/ 7.47 x 3.10 x 4.66 inch |
| Color | Matte Black with MT11010 Finish |
| Case Material | Polycarbonate(Bayer 2805) |
| Power Cable Length | 3meters |
| Power Cable Thickness | 6mm/ 0.33 inch |

Features

- **256 Core GPU**
Quad Core ARM A57 CPU with 256 Core GPU with performance up to 1 TFLOPS
- **Outward facing camera with 120dB in HDR mode**
- **Inward facing camera with IR LED for night vision**
- **Connectivity – LTE / WiFi / BT**
- **2 LED indicators to represent device state**
- **Integrated Mic & Speaker for alerts**
- **4GB RAM + 16GB ROM**
Storage expandable up to 512GB
- **Inertial sensor (Accelerometer & Gyro), Thermal sensor**



Supercap Cable



Camera Specifications

| Camera | Outward | Inward | Right & Left |
|---------------|--|---------------------------------|-------------------------------|
| Pixel Size | 2.8µm OmniBSI-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) | 127° (H) 82° (V) 143° (D) |
| Construction | 6G – Visible | 6G + IR Filter – Dual Band Pass | 2G2P – Visible with IR Filter |

Electrical Specification

| | |
|-----------------------------------|----------|
| Input Voltage | 10V-15V |
| Input current (full operation) | 12V / 3A |
| Max Power Consumption | 36W |
| Signal Input – High Voltage (Pos) | +17V |
| Signal Input – Low Voltage (Neg) | +7V |

Active Mode Power Consumption

| | |
|------------------|------------|
| Peak Current (A) | 2.9A @ 12V |
| RMS Current (A) | 1.5A @ 12V |
| Peak Power (W) | 34.8W |
| RMS Power (W) | 18W |

Periodic Wake-up Mode Power Consumption**

| | |
|------------------|-------------|
| Peak Current (A) | 1.8A @ 12V |
| RMS Current (A) | 0.77A @ 12V |
| Peak Power (W) | 21.6W |
| RMS Power (W) | 9.24W |

Shutdown Mode Power Consumption

| | |
|------------------------------|------------|
| Current (A) | 4mA @ 12V |
| Power (W) | 48mV |
| Average Power consumption*** | 28.7mAh*** |

Processor & GPU Specifications

| | |
|----------------------|--|
| GPU | 256-core GPU |
| CPU | 64-bit ARM® Quad Core A57 CPUs |
| Video Encoding H.265 | 1080p @ 30 fps, 720p @ 30 fps |
| Sensors | IMU – Accelerometer + Gyro + Compass, Temperature, Ambient Light |

Fuse Recommendations

| | |
|---------------|----|
| VBAT Line | 5A |
| Ignition Line | 2A |

Battery Consumption

| | |
|---------------------------------|---------|
| 3 minutes for every 360minutes | 10.3mA |
| 6 minutes for every 180 minutes | 28.7mAh |

Wireless Connectivity & I/O

| | |
|-----------------|---------------------------------|
| Supported Bands | 4G-LTE - Bands 2, 4, 12, 66, 71 |
| SIM Connector | Yes, micro SIM |
| Wi-Fi | 802.11 b/g/n/ac |
| Bluetooth | v4.0 |

* These values are measured at room temperature of +25°C

** Power Consumption (6 min/ every 3 hours after vehicle shutdown)

*** As per default Periodic wake-up Mode defined in ** with ignition off

