# Driver•i D-210
## Technical Specifications

## Overview

Driver·i®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. The power is supplied from the car battery through a custom power cable. The device is capable to connect with the OBD II/J1939 of the vehicle to collect the vehicle data.

When the vehicle is being driven, the road facing camera is enabled by default. The camera records and generates real time safety alerts to assist the driver. The camera facing the driver/passenger is optional due to privacy requirements and enabled at customers' request.

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 1 button 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 & also indicate privacy setting (driver facing camera recording stat).

## Physical Dimensions

| | |
|---|---|
| **Length x Width x Height** | 127mm x 96.2mm x 45.4mm / 5 x 3.78 x 1.78 in |
| **Color** | Black |
| **Case Material** | Polycarbonate (PC) |
| **Power Cable Length** | 3 meters |
| **Power Cable Thickness** | 4.35mm / 0.17 in |
| **Weight** | D-210: 610 grams, GPS/Wireless Module:284 grams |
| **ISO 16750-3, IEC 60068-2-64 Compliant** | |



Power Adaptor        GPS Cellular Module

## Features

- **Tested Operating Temperature: -4° F to 131° F / -20°C to 55°C**
- **Octacore CPU+ GPU / DSP for Edge computing.**
- **Auto-grade sensor with 120dB of HDR performance and Full HD imaging**
- **Full HD Inward /driver facing camera with IR LED for night vision.**
- **Connectivity – LTE/ WiFi / BT.**
- **2 LED indicators to represent device state.**
- **Integrated Microphone and Speaker for Alerts.**
- **2GB RAM + 64GB/128GB/256GBInternalStorage**
- **Inertialsensors (Accelerometer and Gyro), Thermalsensor**
- **Location Services: Galileo, Glonass, GPS**

# RAM and Storage

| | |
|---|---|
| Storage | 50 hours/ 100 hours/ 200 hours |

# Electrical Specification

| | |
|---|---|
| Input Voltage | 10V-30V |
| Input current (full operation) | 12V / 2A |
| Max Power Consumption | 22W |
| Signal Input – High Voltage (Pos) | +17V |
| Signal Input – Low Voltage (Neg) | +7V |
| Operating Temperature | -20°C to +55°C |

**Active Mode Power Consumption**

| | |
|---|---|
| Peak Current (A) | 1.8A @ 12V |
| RMS Current (A) | 0.7A @ 12V |
| Peak Power (W) | 21.6W |
| RMS Power (W) | 8.4W |

**Periodic Wake-up Mode Power Consumption\*\***

| | |
|---|---|
| Peak Current (A) | 1.04A @ 12V |
| RMS Current (A) | 0.47A @ 12V |
| Peak Power (W) | 12.48W |
| RMS Power (W) | 5.64W |

**Shutdown Mode Power Consumption**

| | |
|---|---|
| Current (A) | 9mA @ 12V |
| Power (W) | 108mV |
| Average Power consumption\*\*\* | 23.9mAh\*\*\* |

# Accessories

| | |
|---|---|
| Compatible with EZ Install | |
| Accessories Compatible with Driver•iHub | |

# Wireless Connectivity & IO

| | |
|---|---|
| LTE Connectivity | 4G-LTE - Bands 2, 4, 12, 66, 71 |
| SIM Connector | Yes, micro SIM |
| Wi-Fi | 802.11 ac |
| Bluetooth | v4.0 |
| GPS Receiver Antenna | True GPS Antenna |
| Connectors | USB (with OTG Support), Power Jack, microSD |

# Mechanical Shock

| | |
|---|---|
| Pulse Type | Half Sinusoidal |
| Accelerator | 50gm |
| Pulse Duration | 6ms |
| Number of shocks per axis | 20 Nos (10 Positive and 10 Negative) |

# Camera Specifications

| Camera | Outward | Inward |
|---|---|---|
| Pixel Size | 2.8µm OmniBSI-2 pixel | 3µm x 3µm |
| Dynamic Range | 120dB HDR | 72db |
| Field of view | 74° (H) 57° (V) 90° (D) | 148° (H) 80° (V)168° (D) |
| Construction | 6G – Visible | 6G + IR Filter (Dual Band) |

# Battery Consumption

| | |
|---|---|
| 3 minutes for every 360minutes | 12.8mAh |
| 6 minutes for every 180 minutes | 23.9mAh |

# Processor Specifications

| | |
|---|---|
| CPU | 64-bit ARM® Octa Core |
| Video Encoding H.265 | 1080p |
| Sensors | IMU – Accelerometer + Gyro + Compass, Temperature, Ambient Light |

# Fuse Recommendations

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

\* 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

**Edge Computing**
Real Time Analysis

**Vehicle Data**
J1939 / OBDII
Data Integrity
API / Data Integration

**Internal Sensors**
Accelerometer / GYRO
Sudden impact
movement detection

**Driver Alerts**
Driver initiated
alerts

**Connectivity**
4G LTE / Wi-Fi /
Bluetooth

**Dual HD Camera**
Front:
HDR / 1080p / 30fps/120dB HDR
Inward:
HD / 1080P /30FPS

**Storage**
Event Access: Up To
50/100/200 Hours Of
Real-time Searchable
Video Stored On Device

**Machine Learning**
Periodic Update of Alert Algorithms.
System Gets Smarter with Additional
Utilization (Minutes/Miles)

**Audio Real Time Notifications**
Speeding / Following
Distance / Distracted /
Seatbelt / Drowsy