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Driver•i D-215 Two Camera Video Telematics Device

Technical Specifications

Overview

The Netradyne Driver•i® D-215 is the core component of our AI-powered fleet safety ecosystem. It's designed to enhance driver performance, reduce accidents, and promote a culture of safety. The compact, easy-to-install D-215 provides both driver and road views from two high-definition cameras. This dual-view configuration, integrated into a single windshield-mounted unit, minimizes potential points of failure and simplifies installation compared to multi-component systems.

The D-215 analyzes 100% of driving time with up to 99% AI alert accuracy. This means risky behaviors like speeding, tailgating, and distracted driving are identified in real-time, allowing for immediate in-cab feedback and coaching. The system processes data rapidly at the edge, empowering drivers to make safer decisions in the moment. Unlike legacy event recorders, the D-215 also recognizes and reinforces positive driving behaviors, fostering a culture of safety and encouraging driver improvement.

Key Features

- **Front Camera:**
  1080p at 30 frames per second with 120dB HDR

- **Driver Camera:**
  1080p at 30 frames per second with IR LED for night vision

- **Indicators:**
  2 LEDs to represent device status

- **Record Button:**
  Driver initiated alert button

- **Audio:**
  Integrated microphone and speaker

- **Storage Hours:**
  100-hour and 200-hour options

- **Sensors:**
  Inertial Measurement Unit (IMU) with 3-axis accelerometer, 3-axis gyroscope, and ambient light sensor

Safety Features

Advanced Driver Assistance System (ADAS)

Lane Departure Warning (LDW)
Following Distance Alert
Posted Speed Limit Alert
Traffic Light Alert
Stop Sign Alert
Low Bridge Alert
Roadside Parking Alert
Railroad Crossing Alert
Collision Warning

Driver Management System (DMS)

Distracted Driving – Looking at phone
Drowsiness Alerts
Excessive Yawn Alert
Seatbelt Compliance Alert
Camera Obstruction Alert
Smoking Alert
Driver initiated alerts
Camera Obstruction

Inertial Measurement Unit (IMU)

On-Device Speeding Alerts
Harsh Braking Alert
Harsh Acceleration Alert
Harsh Turning Alert
Weaving & Swerving
U-Turn
Low Impact
Potential Collision
Excessive Backing Alert

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Advanced Compound Alerts

These exclusive alerts trigger when two or more alerts occur closely together. This provides a better picture of severity and risk.

Driver Distraction + Traffic Light	Driver Distracted + Hard Brake	Driver Distracted + Speeding
Driver Distraction + Stop Sign	Driver Distracted + Hard Turn	Driver Distracted + Weaving
Speeding + Traffic Light	Speeding + Hard Brake	Speeding + Following Distance
Traffic Light + Hard Turn	Speeding + Hard Turn	Speeding + Weaving
Driver Distracted + Following Distance	Following Distance + Hard Brake	Hard Turn + Hard Brake

Enclosure & Mounting

Dimensions	Dimensions: 127 x 96.2 x 45.4 mm (5 x 3.78 x 1.78 in)
Color	Black
Case Material	Polycarbonate (PC)
Power/Data Connections	Compatible with a wide range of industry-standard connections, including J1708, J1939, RP1226, OBDII, and other common protocols.
Additional Connectivity	Optional Vehicle Data Adapter to retrieve ECM data. Up to 4 auxiliary cameras and 1 in-cab monitor through a Wi-Fi-connected Hub-X unit.
Power Cable Length	3 meters
Power Cable Thickness	4.354 mm (0.17 in)
Mounting	Mounts to windshield via industrial-grade adhesive tape (included)
Warranty	Limited Lifetime*

Cameras

	Outward	Inward
Pixel Size	2.8 µm OmniBSI-2 pixel	3 µm x 3 µm
Dynamic Range	120 dB HDR	72 db (not true HDR)
Responsivity	~5 V/lux sec	3.3 V/lux sec
Lens Size	1 / 2.7”	1 / 4”
Aperture (f/)	1.6	2.0
Field of View	74° (H) 57° (V) 90° (D)	148° (H) 80° (V) 168° (D)
Resolution	1080p Full HD (1920 x 1080 pixels)	1080p Full HD (1920 x 1080 pixels)
Frame Rate	30 frames per second (fps)	30 frames per second (fps)
Video Encoding	H.265 (HEVC - High Efficiency Video Coding)	H.265 (HEVC - High Efficiency Video Coding)
File Format	MP4 container	MP4 container
Video Format	H.265	H.265
Construction	6G – Visible	6G + 1R Filter - Dual Band Pass

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Processor & Electrical

Processor	Octacore 64-bit CPU + GPU / DSP for Edge computing
Input Voltage	10 V-30 V
Input Current (full operation)	12 V / 2 A
Max Power Consumption	24 W
Signal Input – High Voltage (Pos)	+30 V
Signal Input – Low Voltage (Neg)	+0 V

Active Mode Power Consumption

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

Periodic Wake-Up Mode Power Consumption**

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

Shutdown Mode Power Consumption

Current (A)	9 mA @ 12 V
Power (W)	108 mV
Average Power Consumption***	23.9 mAh

Battery & Battery Consumption

Power Backup	Integrated super-capacitor for low power wakeup
3 Minutes for Every 360 Minutes	12.8 mAH
6 Minutes for Every 180 Minutes	23.8 mAH

Connectivity

LTE Connectivity	Internal 4G-LTE Module - Bands 2, 4, 12, 66, 71
SIM Connector	No, embedded SIM
Wi-Fi	Wi-Fi (802.11 b/g/n/ac)
Bluetooth	Bluetooth v4.0
GPS Receiver Antenna	True GPS Antenna
Data Security	Robust encryption technologies protect sensitive data during transmission and storage.

Environmental

Operating Temperature:	-15° C to 55° C
Vibrations	ISO 16750-3-2007E
Acceleration	7.9 m/s2 (5.79g)

Mechanical Shock

8Pulse Type	Half sinusoidal
Accelerator	50 gm
Pulse Duration	6 ms
Number of Shocks Per Axis	20 (10 positive and 10 negative)

Vehicle Data Reader Specifications

Max power consumption wake/sleep	70mA / 9mA
Operating temp	-40° to +100° C (-40° to +212° F)
Dimensions	25.8 x 46.6 x 29.5 mm (1.01 x 1.83 x 1.16 in)

Optional Accessories

Driver·i Hub-X- Provides support for up to four additional auxiliary cameras for increased driver and manager visibility

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

Driver Alerts
Driver initiated alerts

Audio Notifications
Speeding / Following Distance / Distracted
Seatbelt / Drowsy

Machine Learning
Periodic Update of Alert Algorithms.
System Gets Smarter with Additional
Utilization (MINUTES/MILES)

Edge Computing
Real-time analysis

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

Connectivity
GPS / 4G Wi-Fi / Bluetooth

Vehicle Data
J1939 / OBDII Data integrity API Data
Integration

Internal Sensors
Accelerometer / GYRO Sudden impact
movement detection

* When purchasing via software as a service (SaaS) model
** Power Consumption (Low power wakeup for 6 min every 3 hours after vehicle shutdown)
*** As per default Periodic wake-up Mode defined in ** with ignition off

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