



Netradyne Vision based driver safety solution

Model name: **Driver *i***
Model number: **DRI-128-TMO**

Device specifications:

Electrical Characteristics (Overall)	
Input Voltage	7v-17v
Input current (full operation)	12v 2000mA
Max Power Consumption	24W
Signals Input – High Voltage (Pos)	+17v
Signals Input – Low Voltage (Neg)	0v

Camera Sensor (outward)	
Camera Sensor:	OV2775
Pixel Size:	2.8 μ m OmniBSI-2 pixel
Dynamic Range:	>90dB dual capture; >120dB in HDR mode
Shutter type:	Global shutter
Responsivity:	~5 V/lux sec
Angle of view:	80° (horizontal), 45° (vertical), 95° (diagonal)

Camera Sensor (side and inward)	
Camera Sensor:	OV9732
Pixel Size:	3 μ m x 3 μ m
Dynamic Range:	72db (not true HDR)
Shutter type:	Rolling Shutter
Responsivity:	3.3 V/lux sec
Angle of view:	127° (horizontal), 82° (vertical), 143° (diagonal)

Physical Characteristics	
Length:	189.9 mm
Width:	78.9 mm
Height (with clamps):	118.5 mm
Color:	Black (MT11010)
Case Material:	Polycarbonate (Bayer 2805)
Cable Length:	3 meters
Cable Diameter:	6 mm

The product is an intelligent car DVR, sold as aftermarket product to fleets. This device has below components integrated:

- Nvidia Jetson TX1 module
- 4 cameras to capture 360degree videos
- Sierra WP7504 module which is used for LTE connectivity and GPS
- Inertial sensors

The device is installed in trucks/cars behind the rearview mirror, and the power is supplied from the car battery though a RJ45 cable. The device has also the capability to connect to the OBD/J1939 of the vehicle to collect the engine data. This device is passive to the driver.

When the truck is running, the device captures 360degrees videos where the outward facing camera is the primary recording and other 3 cameras are optional 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 any event detected, the output together with the supporting processed data is uploaded to the cloud dashboard where the events and related data can be accessed by the fleet management.

The device has 2 buttons on the bottom side of the device, by pressing the buttons, user can generate alerts which will be uploaded to the cloud.

Device has 2 LED indicators towards driver facing side and indicates the operational state of the device.

OPERATING REQUIREMENTS AND CONDITIONS

The design of Netradyne DRI-128 complies with U.S. Federal Communications Commission (FCC) guidelines respecting safety levels of radio frequency (RF) exposure for Mobile devices.

RF Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

FCC PART 15 STATEMENT

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules.

REGULATORY INFORMATION

Model name: Netradyne DRI-128

FCC ID: 2AM8R-DRI128

IC company number **23098**

FCC CAUTION STATEMENT FOR MODIFICATIONS

CAUTION: Any changes or modifications not expressly approved by Netradyne could void the user's authority to operate the equipment.

Warning

A vision-based platform designed to enhance driver safety within the commercial vehicle market, Driveri™ focuses on identifying, recognizing and rewarding positive driver performance. The platform was developed to capture every moment of the driving experience, delivering stronger value to each driver, fleet manager, and a fleet's bottom line. It does not replace the role of the driver nor the functions a driver ordinarily performs. It does not eliminate or decrease the need for a driver to stay alert and to obey all traffic laws while operating a vehicle. Driveri is not an automated driving assistance program and it does not act as a substitute for any aspect of driver vehicle control or safe driving practices. Whether or not the device is in use, it is always the responsibility of the driver to take appropriate corrective action. The driver should never wait for the Driveri program to provide a warning or coaching opportunity before taking measures to avoid an accident. Failure to do so can result in serious personal injury, death, or severe property damage.

While Driveri uses machine vision learning, artificial intelligence, and algorithms, it cannot and does not guarantee 100% accuracy in the detection of street signs, other vehicles, traffic lights, driving lanes, pedestrians, weather conditions, nor in providing warnings of all potential road hazards. Drivers should never solely rely on Driveri, but instead should rely on safe driving practices and maintain control of the vehicle at all times.

Driveri may have limited to no functionality in certain conditions such as inclement weather, low visibility, and certain road conditions. Always keep the cameras and view of the device unobstructed and properly calibrated so as not to inhibit the functionality of Driveri. Driving in certain conditions or any interference with the device can result in false, few, or no alerts.