

Smart Traffic Compact

Radar sensor for non-invasive traffic monitoring

DESCRIPTION

uRAD Smart Traffic Compact is a Smart Cities specific radar solution for non-invasive traffic monitoring in urban and interurban environments. This sensor is the most compact and low consumption version of uRAD Smart Traffic Solutions, integrating MODBUS RS-485 wired and LTE-4G wireless communication together with the last and most advanced radar uRAD hardware.

This system is affordable, easy to install and configure, very versatile since can be installed in any road, and outstandingly accurate, with an effectiveness higher than 95%.

USE CASES



Velocity measurement up to 180 Km/h.



Urban and interurban roads.



Dense or light traffic scenarios.



Up to 4 lanes monitoring with a single radar.
* Up to 3 lanes in each direction.



Counting vehicles with positive (go away) and negative (approach) velocity simultaneously.



Vehicle discrimination between regular, medium and long vehicles, bicycles and pedestrians.



TECHNICAL FEATURES

RF Parameters

Frecuency	60 - 64 GHz
Modulation	FMCW
Emitting power	15 dBm
Field of view	160 °

Power supply

Voltage	8 V to 42 V DC
Connector	M12 female five-pole circular connector
Consumption	2.5 W

Mechanical Parameters

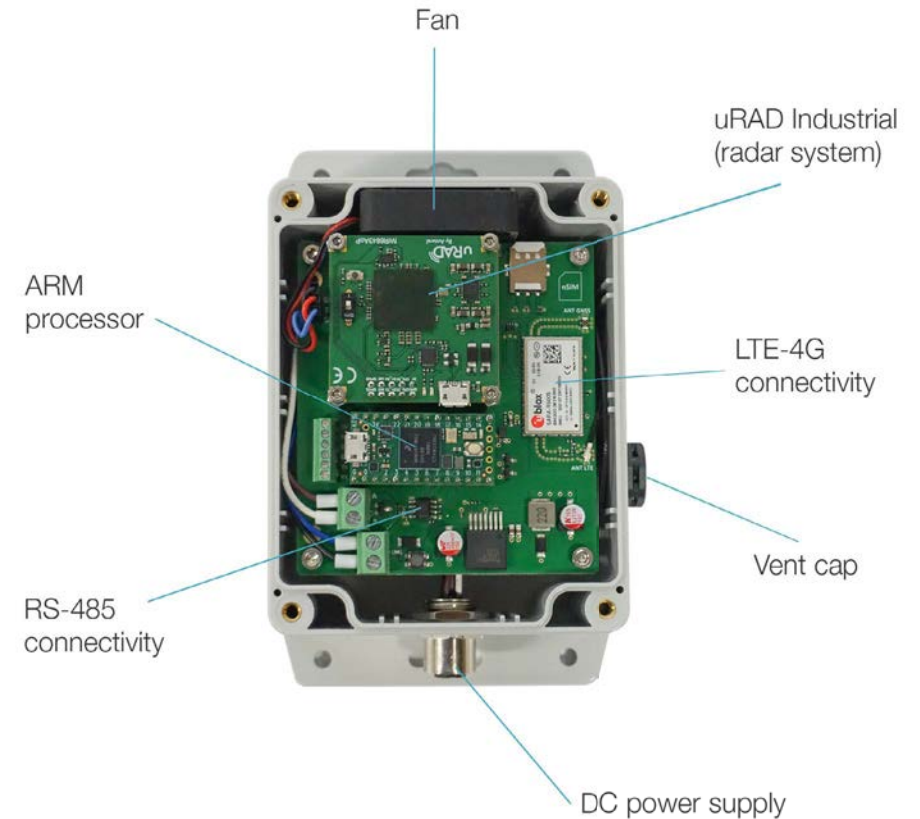
Dimensions	115 x 90 x 65 mm
Weight	285 g
Material	Polycarbonate
Protection	IP68, NEMA 1,2,4,4X,12,13, UL-508
Installation	Optional clamping structure. Joint for vertical orientation. Brackets for circular support.

Other parameters

Wired Interface	RS-485 via MODBUS RTU protocol
Wireless Interface	LTE-4G via API (FIWARE but also customizable)
Core processor	ARM Cortex-M7, 600 MHz, 1024K RAM
Operating temperature	-20°C to +80°C

Performance

Maximum velocity	180 Km/h
Maximum distance	60 m
Side distance	±15 m



CLAMPING STRUCTURE

A clamping structure can be optionally purchased to place the radar outside on cylindrical columns. The central articulation allows to set the necessary tilt angle in the placement. Clamps are also included.



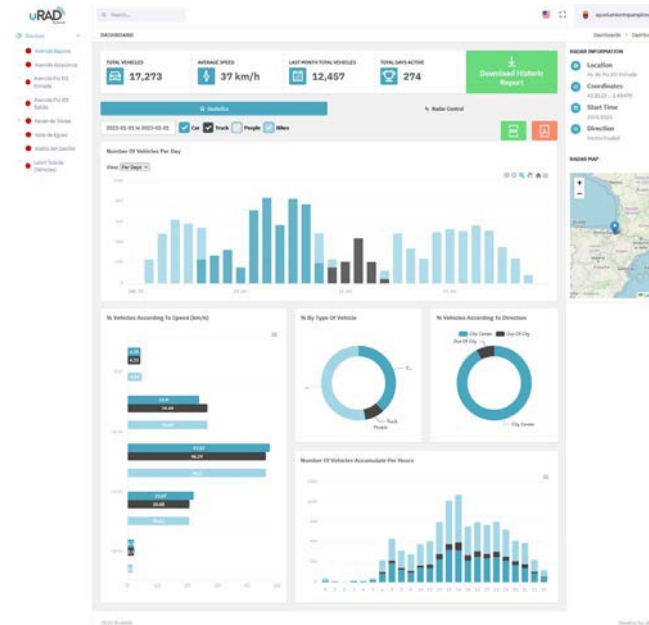
VEHICLE TYPE DISCRIMINATION

Discrimination between regular, medium and long vehicles, bicycles and pedestrians.

- Regular, medium and long vehicles are identified by their length.
- Regular vehicles are distinguished from bicycles based on their speed or the driving lane.
- Bicycles are distinguished from pedestrians based on their speed or the driving lane.

REAL TIME WEB APPLICATION

We offer a web platform where traffic statistics in real time are available. The platform is custom for each client according to their specific requirements. Users can access to traffic statistics and download reports quickly and easily through the web platform or mobile application.



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