

Smart Radar Sensor

Radar sensor for non-invasive traffic applications

DESCRIPTION

uRAD Smart Radar Sensor is a specialized radar solution designed for the deployment of non-invasive traffic applications in both urban and interurban environments. This sensor incorporates the latest and most advanced uRAD radar hardware specifically tailored for Smart Cities applications.

The system is affordable, easy to install, very versatile, since it can be installed on any road, and can be easily configured for a multitude of use cases or applications.

USE CASES



Velocity measurement up to 180 Km/h.



Activation of light signals: educational radar, warnings, cyclists, traffic jams, etc.



Intelligent pedestrian detection at crosswalks.



Dense or light traffic scenarios.



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



Multiple lanes at the same time.



TECHNICAL FEATURES

RF Parameters

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

Power supply

Voltage	8 V to 42 V DC
Consumption	0.5 - 2 W (Depending on the application)

Mechanical Parameters

PCB dimensions	75 x 70 x 20 mm
PCB weight	50 g
Dimensions with box	115 x 90 x 65 mm
Weight with box	285 g
Box protection	Polycarbonate. IP68, NEMA 1,2,4X,12,13, UL-508
Connector	Customizable. M12 5-pole, cable gland, etc.
Installation	Optional clamping. Ball joint and brackets.

Other parameters

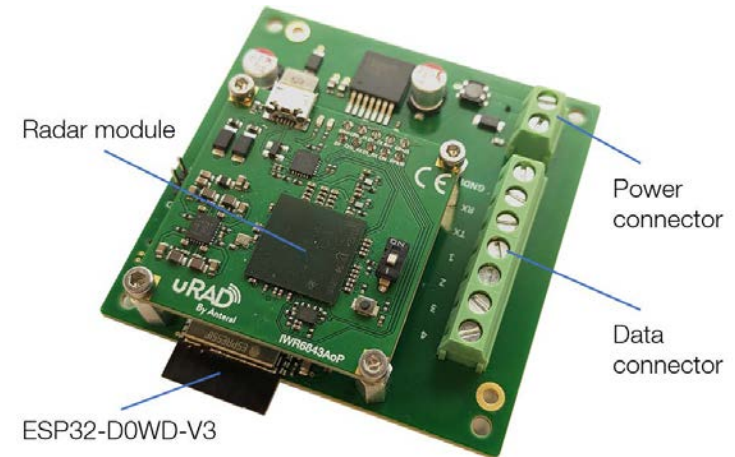
Communication interface	UART (TTL 3.3V), 4 x GPIOs, Wi-Fi & Bluetooth.
Protocol	Customized (depending on the application)
Core processor	ESP32-D0WD-V3
Operating temperature	-20°C to +80°C

Performance

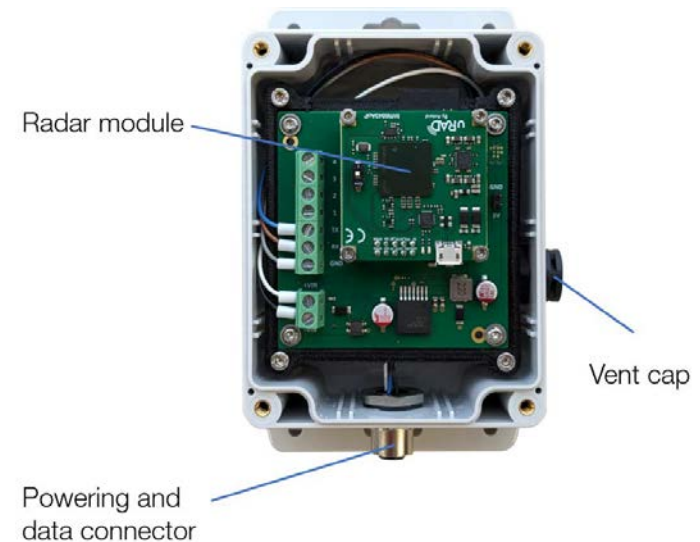
Maximum velocity	180 Km/h
Maximum distance	100 m
Side distance	±15 m

*Performance depends on the application: vehicles detection, pedestrians, sensor placement, etc.

PCB



PCB WITH BOX INCLUDED



The device can be purchased with or without box

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THE POWER OF RADAR. THE POWER OF YOU.

