

79GHz MIMO

Millimeter wave Radar Platform

■ Overview

- 79GHz millimeter wave Radar Sensor module
- Onboard Radar signal processing
- Multiple target detections with distance, azimuth, and velocity data
- High resolution (azimuth and distance): 10°, 0.1m
- USB/RS485/Ethernet(PoE) interface
- IP67 case option
- ROS compatible (ROS1 Noetic ROS2 Jazzy)



USB/RS485 I/F

■ Applications

- Collision avoidance
Obstacle detection
- Target's Flow monitoring
Intrusion detection

■ Custom option

- 76GHz band (ARIB-T48) certification
- FoV modification / Antenna layout change

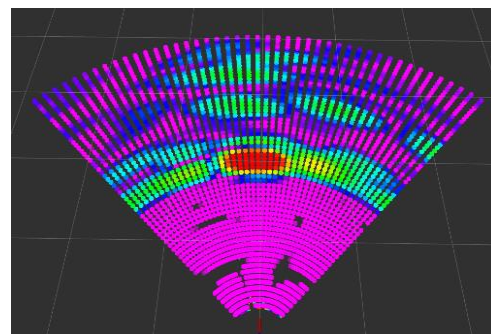
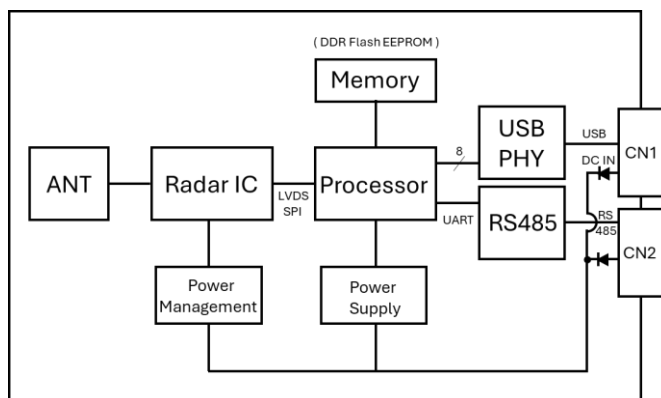


Ethernet(PoE) I/F

■ Specifications

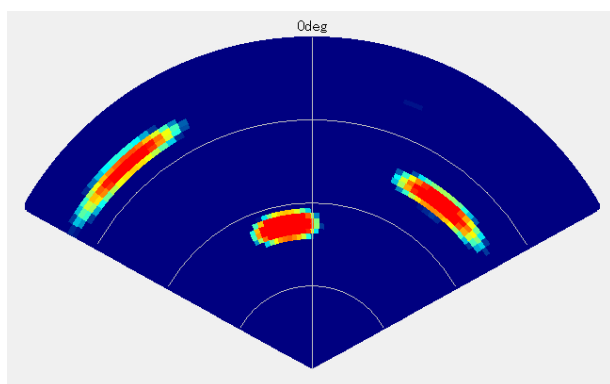
	USB / RS485	PoE
Frequency	79GHz (ARIB STD-T111) certified	
Tx Power	10dBm (no license required)	
Radar type	MIMO FMCW	
MIMO virtual channels	Tx 3ch, Rx 4ch (12 elements)	
Detection Range	100m @car	
FoV	Elevation±12°, Azimuth±60°	
Resolution	Distance 0.1m, Azimuth 10°	
Number of Simultaneous detection	8	
Detection Speed	50km/h (@default condition)	
Update rate	10Hz	
Power supply	USB/DC12V, 10W (average)	PoE, 10W (average)
Interface	USB type-C / RS485	100Base-T + PoE
Size and weight	91 x 55 x 10mm 70g	210 x 150 x 55mm 580g

Hardware block diagram

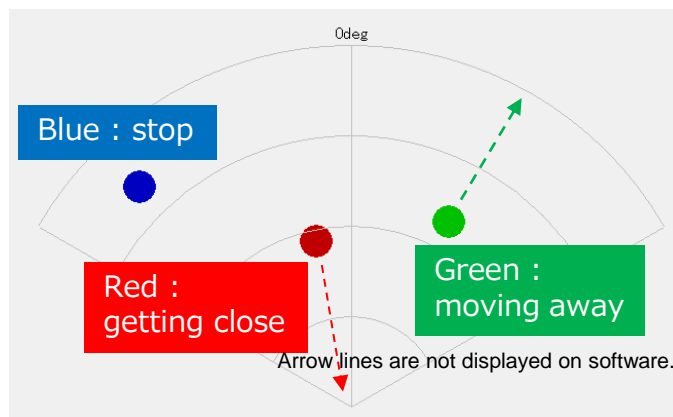


ROS RViz Point cloud

Sample software display example



MAP



PPI

Ordering Guide

Product Name	Product Number	Comments
miRadar®12e-USB	B290-021	79GHz MIMO Radar module, USB/RS485 interface
miRadar®12e-PoE	B290-051	79GHz MIMO Radar module, Ethernet(PoE) interface, with IP67 case
Mounting bracket	B290-OP06	for B290-021
Mounting bracket	DSU-026	for B290-051
Evaluation software	B290-SW001	includes source code

Note : Any product appearances, specifications, etc. are subject to change for improvement without prior notice. When exporting the product, confirm the country of destination, application, and customer. If any of them falls into an objective requirement, please take the necessary procedures, including export certificate application.

SAKURA TECH CORPORATION

Headquarters:

4F-B VORT Shin-Yokohama Bldg. 3-2-6 Shin-Yokohama,
 Kohoku-ku, Yokohama-shi, Kanagawa, 222-0033 Japan
 Phone: +81-45-548-9611 Fax: +81-45-548-9533

E-mail: info@sakuratech.jp

<https://sakuratech.jp>



ALLIANCE PARTNERS

