

## Technical Specifications for mm WaveRadar

mmWaveRadar to measure proximity of vehicles and obstacles from probe vehicle traveling in real world traffic situation is desired. The solution should be capable of providing a 360 ° view around the probe vehicle at a fine time resolution (10 hz or better) and fine precision (<10 cm error)

Specification for sensor:

- On board antenna
- Four receive channels.
- Two transmit channels.
- 76 to 81 GHz coverage with 4GHz available bandwidth.
- Range
  - For short range - 80m
  - Ultra-short range- 20m
- Field of view - +/-60°
- 1.5MB on chip memory
- Operating Voltage: 12V
- Power consumption: 3.6Watts
- Interfaces available for user application
  - I. USB
  - II. RS485
  - III. CAN FD
- Built-in LDO network for enhanced PSRR
- Programming interface
  - I. USB
  - II. JTAG
- Supports automotive temperature operating range.
- Dimension 65mm×65mm×20mm

Data Recorder module

- CPU : Intel 8th m3--8100y / equivalent or better
- Core : 1.1-3.4GHz Dual-Core, Four-Thread / equivalent or better
- Graphics : Intel HD Graphics 615, 300-900MHz / equivalent or better
- RAM : min. 8G LPDDR3
- External Memory : min. 128GB SSD
- Connectivity : WIFI 802.11 AC, 2.4G & 5G
- Dual Band Bluetooth 4.2
- Gigabyte Ethernet
- USB Ports : 3x USB 3.0 Type A / 1x USB Type C, supports PD, DP, USB 3.0
- Display : HDMI Output / Type-C DP Support / Extendable eDP touch displays
- Co-processor : Arduino Leonardo / equivalent or better
- Data Recorder Software (6 Channel) with Operating System

Terms and conditions:

- Vendor has to quote for minimum number of sensors required for obtaining 360 ° view.

- The equipment should be capable of being installed in a four-wheeler or two-wheeler. It should be easy to remove and install on multiple vehicles.
- The quotation should include installation on a vehicle, demonstration, and the software required for collecting the data.
- All wires and connectors (hardware and associated software) must be part of the quote.
- Warranty of two years to be provided for the product.