

Preliminary Datasheet 120 GHz Fix Beam Sensor Module

High precision customizable 120 GHz short range radar sensor module for various application scenarios

Applications:

1. High accuracy distance measurement of static objects
2. Detection of moving objects and their relative velocity speed
3. Determination of object position and localisation
4. Detection of micro-motion of objects and detection of living objects

Technology:

120 GHz antenna with lens and fixed beam

Implemented Signal Processing Algorithms

Accessible Application SW Partition for easy customization to target application

Frequency **M**odulated **C**ontinuous **W**ave (**FMCW**)

Continuous **W**ave (**CW**)

Measurement: Difference of Inphase and **Q**uadrature Component of sampled Base Band signal.

Sensor Module:

Form factor: PCB with 4cm x 4cm

Accuracy of Measurement +/-2mm,

Area of Measurement min 1,5cm, max 10m

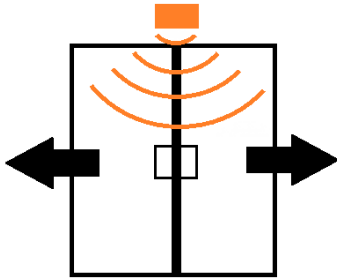
Software Calibration

Power Consumption Overall Typ. 5.7W continuous operation

Interface: UART, USB

Application Examples





- High-accuracy Distance Detector for Industry /Automotive / Constructing / Food / Chemical / Agricultural
- Level measurement / metering in silo / fuel tank / container