



The MM5D91-00 is the presence detection sensor module which integrates 60GHz mmWave technology. The module simplifies the implementation of mmWave sensors in the band of 61.0 to 61.5 GHz, and it includes the ARM Cortex M4F based processor system, 1Tx 3Rx antenna and onboard regulator. This presence detection sensor module targets low power and high resolution presence detection in smart home, office, security and diverse applications.

Presence Detection Features

Low power and high resolution

Presence sensing for home, office and commercial buildings

Adjustable detection range

Field of View of Radar: Azimuth: $\pm 45^\circ$ / Elevation: $\pm 40^\circ$

Immune to environmental factors such as temperature, wind, sunlight, and dust/debris

Detection Range :

※ Detection up to 10m for macro motion (1)

※ Detection up to 5m for micro motion (2)

(1) Macro motion: human movements

(2) Micro motion: Stationary human (normally breathing and blinking eyes) in sitting or standing positions with no active movements for at least 30 sec.

Specification

ARM Cortex-M4F 150MHz, 1024KB Flash, 288KB RAM

Built-in Antenna (1Tx, 3Rx)

Built-in Regulator

UART interface and GPIOs

3.6~5.5 V Power input

26-pin pitch 1.27mm Castellated Holes

Dimensions: 20 x 15 x 2.3 mm