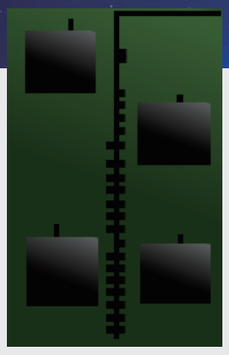
KaiKuTeK · JMicron

The world's first SoC integrated 60GHz mmWave radar, deep learning algorithms and AI accelerators for hand gesture recognition application.

Low power consumption, Low latency, High resolution, and Small form factor



K60168-MABA

SoC Key Feature

- MCU: ARM® Cortex™-M0 core
- 32-bit hardware multiplier
- 40MHz Clock rate
- Integrated mmWave transceiver, baseband, radar DSP, AI accelerator, DC/DC, and PMU
- Antenna in package (AiP) design
- 1T3R
- External 8Mbits 3.3V flash, QSPI
- Support I2C or UART*1/GPIO/SPI*2
- Build-in temperature sensor
- 6.1*3.9*1.3mm

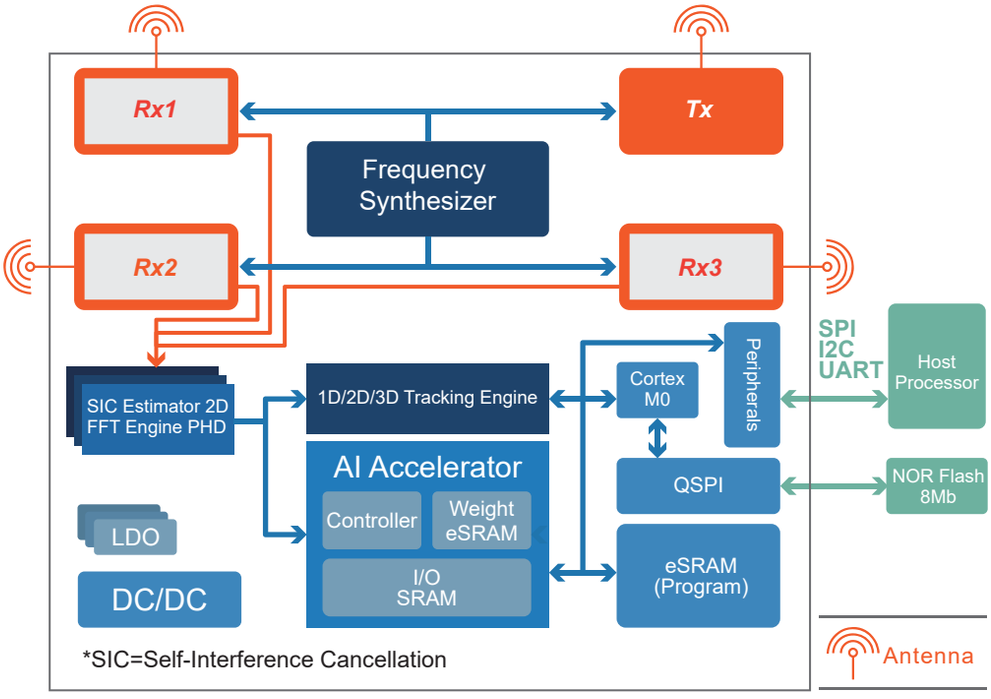
Gesture Control Feature

- Operation distance 1 ~ 30 cm
- FOV +/- 30° 3dB beamwidth
- Gesture Recognition (accuracy > 95%)
- Object tracking, support 1D to 3D position tracking
- Provides pre-trained gestures

Product Description

K60168-MABA is a Hand Gesture Recognition SoC using 60GHz millimeter-wave Radar and AI accelerator. This SoC has 1 transmit antenna and 3 receive antennas which are integrated on top of a 6.1 x 3.9mm package. K60168-MABA is also able to perform 1D, 2D, and 3D position tracking. As it stands, it can be used in smart phone, tablet, notebook, gaming console, headphones, TWS, smartwatch, smartglasses, etc. as Human-Interface devices.

Block Diagram



Air-Gesture Control

K60168-MABA in final product mockup

Application Scenario