

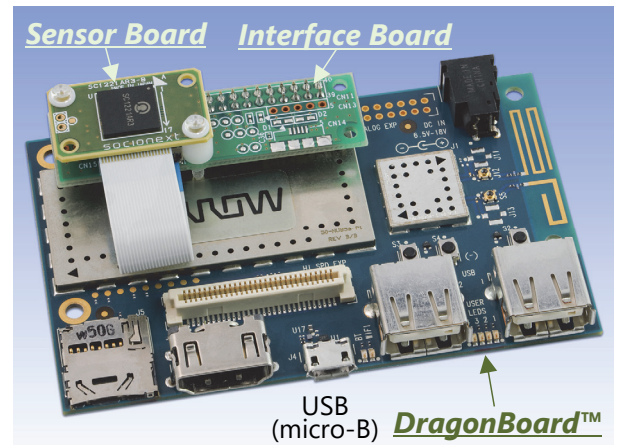
# SC1221AR3-B-122

# Evaluation Kit for CMOS 60GHz Radar Sensor

## Overview

"The 2D location sensing evaluation kit (EVK), SC1221AR3-B-122, provides an evaluation environment of the Socionext 60GHz Radar Sensor (SC1221AR3).

The EVK consists of EVK main unit (sensor board, interface board, and DragonBoard™\*), accessory, and the software package which is to be used under the host windows OS PC connected with the EVK via a USB cable.

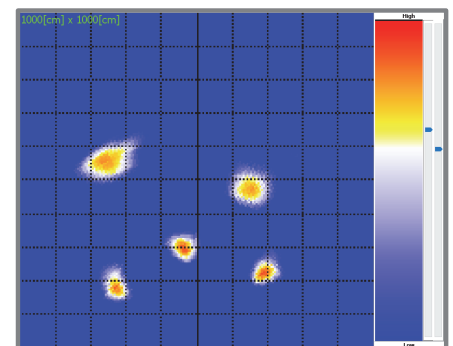


Evaluation Kit of SC1221AR3

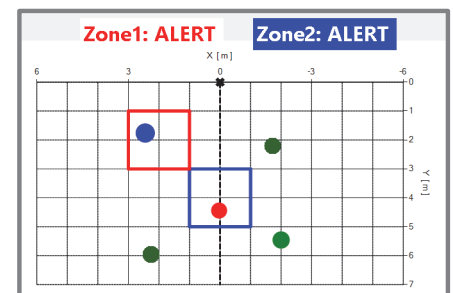
\*: DragonBoard is a trademark of Qualcomm Incorporated, registered in the United States and other countries.

## Functions

- Selectable three sensing results through API :
  1. 1D/2D location detection result
  2. FFT operation data
  3. IQ data
- 2D location library optimized for human detection.
  - Several operation modes with reduced power consumption.
- GUI based evaluation software :
  - View 2D location library results on GUI application.
  - A rich set of viewers, including 2D heat-maps, 2D plots, and FFT analysis graphs.
  - Application that detects intrusion into a specified zone.



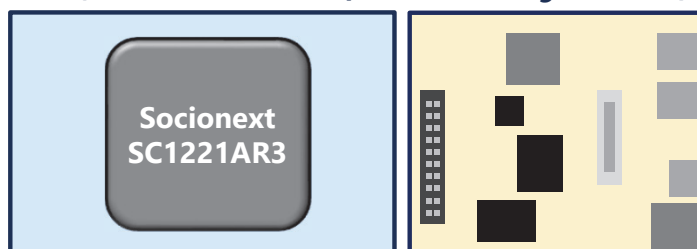
a) 2D Heat-map



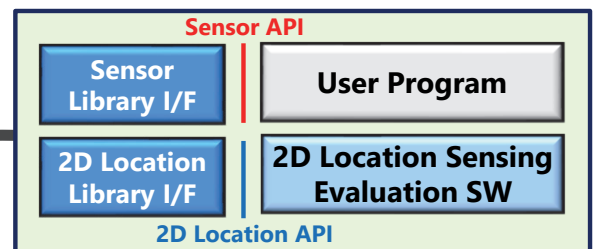
b) 2D Plot

## EVK System Structure

EVK (Sensor Board & Interface Board, DragonBoard™)



Host PC (Windows)



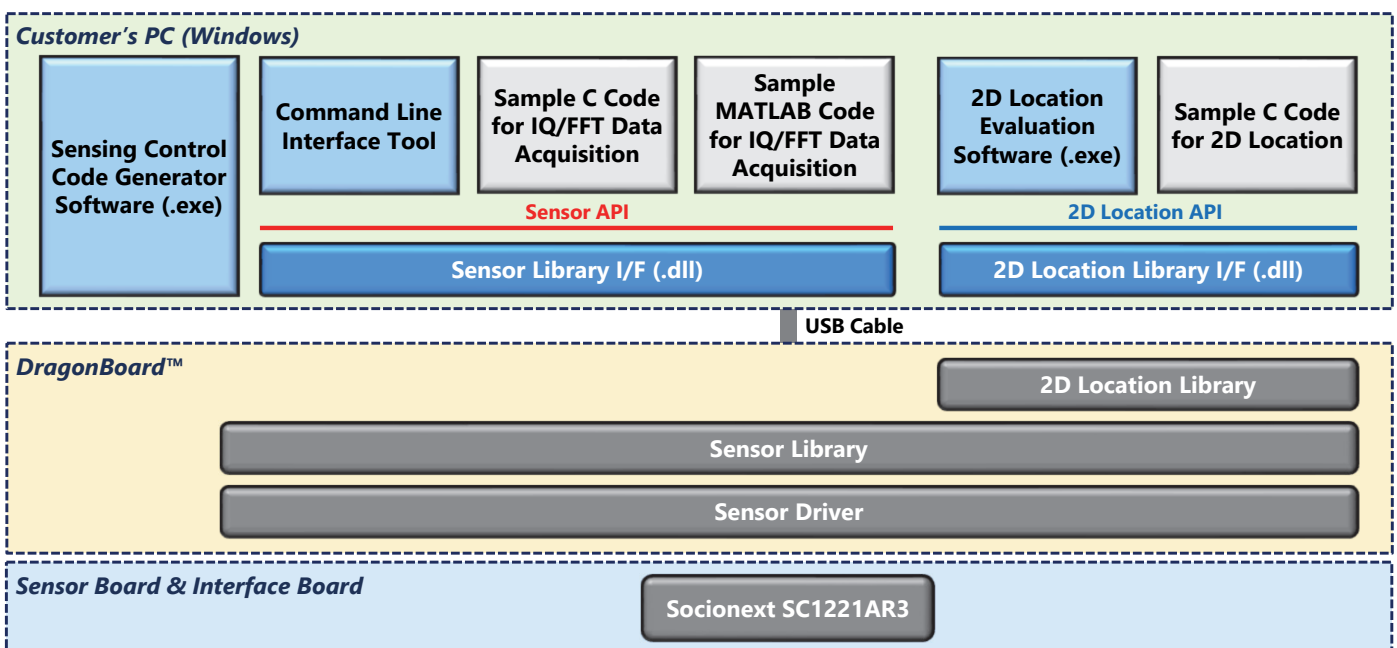
## ■ Specifications

<b>Frequency</b>	61.025 - 61.475GHz
<b>Sensing mode</b>	FMCW/ CW/ FSKCW <sup>*1, *2</sup>
<b>Output (API)</b>	<ul style="list-style-type: none"> <li>• IQ/FFT Data (API of Sensor Library)</li> <li>• Distance/ 2D Location (API of 2D Location Library)</li> </ul>
<b>Interface</b>	USB2.0 (micro-B)

\*1: FMCW: Frequency Modulated Continuous Wave, FSKCW: Frequency Shift Keying Continuous Wave

\*2: In the 2D location library, FMCW sensing mode is used.

## ■ Contents of EVK Software



## ■ Measurement environment using EVK

**Setting** : Connects the Evaluation Kit (EVK) to the host PC, on which the 2D location sensing software is installed, by a USB cable.

**Notes** : In order to detect objects on the ground, the EVK should be faced to the detection target area, for example, placing it on the wall or with a supporter like a tripod stand as shown in the right figure.

