



Product Brief

Rev 3.0- 15 Dec 2021

Software Development Kit

SR1000 Series UWB transceivers software suite

The SDK is an extensive software suite for the SR1000 Series UWB transceivers. It can be used to simplify and accelerate development for applications such as establishing communication links between transceivers for low latency, low power data exchange and time-of-flight ranging.

✓ Toolchain

Works with GCC for Arm.
STM32CubeIDE projects available.

✓ Quick Start Guide

The SDK comes with a user guide and example code to help setup basic applications.

✓ Audio Core

The SPARK Audio Core is software used by all SPARK-based audio applications. Its role is to manage audio samples flow from recording to playback including audio processing and buffering.

✓ Ranging Core

The SR1010 and SR1020 ICs have the capability to gather information that can be used to do ranging measurement so that two devices exchanging data can determine the distance between each other.

✓ Wireless Core : SR1000 Driver and Wireless Protocol Stack

The Wireless Core contains two modules, the SR1000 Driver and the Wireless Protocol Stack including APIs that allow the user to interact with the transceiver and build wireless networks.

Features (*)

✓ SR1000 Driver API

✓ EVK Board Support (BSP)

✓ **Wireless Protocol Stack**

- *Concurrency*
- *Channel switching*
- *Dual Radio Support*

✓ **Audio**

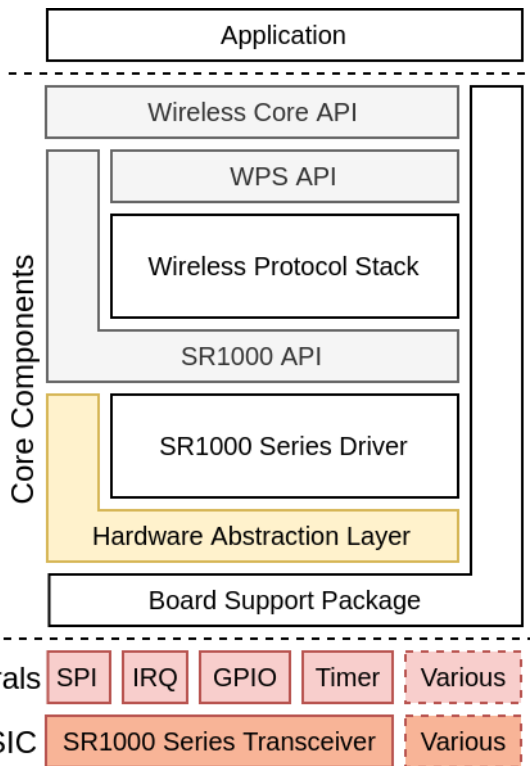
- *Full CD quality (up to 96kHz)*
- *Stereo/mono channels*
- *Digital volume control*
- *Clock drift compensation*
- *ADPCM audio compression*
- *Low-rate data channel*

✓ **Ranging**

- *2-way ranging (TWR)*

✓ **Examples**

- *Audio Streaming 48kHz*
- *Audio Streaming 96kHz*
- *Audio ADPCM Compression*
- *Audio 4-Channel*
- *Audio User Data*
- *Ranging*
- *Hello World*
- *Blinky*
- *Star Network*
- *Point-To-Point Pairing*



(*) For more information about the SDK, please visit: <http://www.sparkmicro.com/support>

About SPARK Microsystems

SPARK Microsystems is a fabless semiconductor company that is leading the way towards ultra-low power wireless communications for high-performance personal area networks and IoT-connected devices. With its patented technologies, SPARK Microsystems is bringing to market a next-generation ultra-wideband wireless transceiver that allows for orders of magnitude improved power consumption, latency and more accurate ranging and positioning, while providing higher data rates than competing technologies. For more information, please visit www.sparkmicro.com.

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