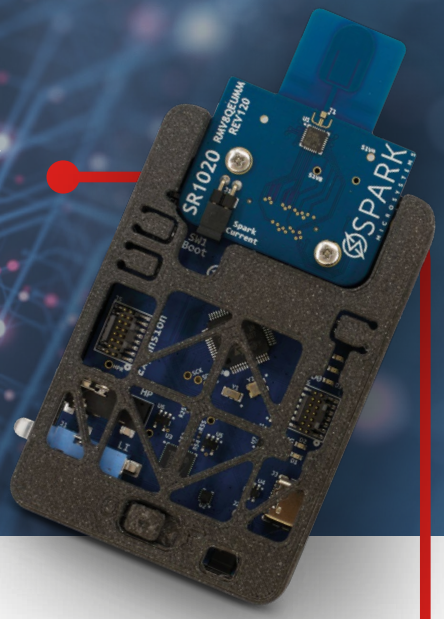
SPARK MICROSYSTEMS

EVK - SR1000
ENHANCING WIRELESS PERFORMANCE



User-Centric Design
Versatile Testing Environment
Graphical Data Visualization

The SR1000 transceiver family Evaluation Kit, featuring the SR1010 and SR1020, represents the cutting edge of wireless communication. Operating in the license-free spectrum, these transceivers offer ultra-low latency data streaming from a few kbps to 6 Mbps, all while maintaining superior energy efficiency. With a robust design tailored for new product innovation, the SR1000 family EVK equips users with the tools to advance cutting-edge communication solutions.

DATALINK APPLICATION FEATURES

High Performance

- **Multi-Mbps Data Streaming:** Supports rapid data transfer with ultra-low latency.
- **Superior Energy Efficiency:** Delivers significantly better energy efficiency than BLE.

Versatile Applications

- **Audio Streaming:** Enables high-fidelity, uncompressed audio for pro-consumer, gaming, and professional uses.
- **Gaming Hub:** Simulates controllers and headsets in a unified star network.
- **Ranging:** Uses low power time of flight measurement for ranging between SPARK chips.

Development Ready

- **Comprehensive API:** Provides source code and examples for quick setup and development.
- **Flexible Compatibility:** Compatible with any microcontroller featuring SPI bus, GPIOs, a timer, and external interrupt pins.

Future-Proof

- **Upcoming Protocol Stack API:** Will enable high-reliability, time-synchronized networks.

APPLICATION HIGHLIGHTS

User-Centric Development

- The SR1000 API is easy to use with comprehensive documentation, supporting even basic microcontrollers for a seamless user experience.

Versatile Testing Environment

- Supports diverse applications from wireless sensor nodes to complex networks, offering extensive testing and customization.

Graphical Data Visualization

- Provides real-time tools for monitoring link quality, performance, and ranging, giving clear, graphical insights.

SPECIFICATIONS

Core Features

- **ARM Cortex-M4 MCU:** High-performance processing for complex tasks.
- **Detachable SPARK RF Module:** Flexibility in wireless applications.

Connectivity & Streaming

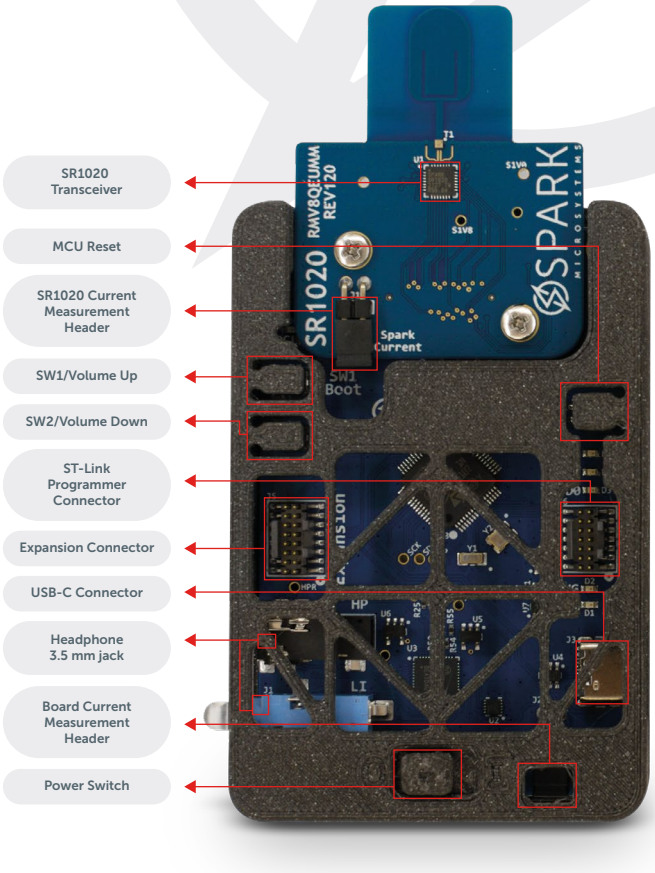
- **Multi-Mbps Data Streaming:** High-speed data handling capabilities.
- **Built-in Audio I/O:** For uncompressed, high-fidelity audio streaming demonstrations.
- **USB Interface:** Standard connectivity for peripherals and computers.
- **Expansion Header:** Allows for custom application testing.

Advanced Monitoring & Testing

- **Link Quality Monitor:** Visualize link statistics in real-time.
- **Stats Mode:** Evaluate link quality for typical profiles.
- **Advanced Mode:** Test all configurations of the wireless link.
- **Ranging Mode:** Assess time-of-flight ranging capabilities.
- **Gaming Hub Mode:** Simulate controllers and audio headsets in a unified star network.

Development Support

- **API Support:** Facilitates robust application development.
- **Quick Start Guide:** Easy setup with example code to get started quickly.
- **Cross-Platform Compatibility:** Works with various microcontrollers featuring SPI bus, GPIOs, a timer, and external interrupt pins.
- **Future-Proofing:** Ready for upcoming enhancements like the SPARK Wireless Protocol Stack API.



Carrier board and SR1020 transceiver module with monopole antenna.

GET STARTED

The API package includes source code and a binary for ARM Cortex M4 processors. For other processors, contact SPARK Microsystems. Experience cutting-edge wireless communication with the SPARK SR1000 Series Evaluation Kit, pushing the limits of data rate, power efficiency, and latency.

ABOUT SPARK UWB

SPARK Microsystems is building next generation short-range wireless communication devices. SPARK UWB provides high data rate and very low latency wireless communication links at an ultra-low power profile, making it ideal for personal area networks (PANs) used in mobile, consumer and IoT-connected products. Leveraging patented technologies, SPARK Microsystems strives to minimize and ultimately eliminate wires and batteries from a wide range of applications. For more information, please visit sparkmicro.com.

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