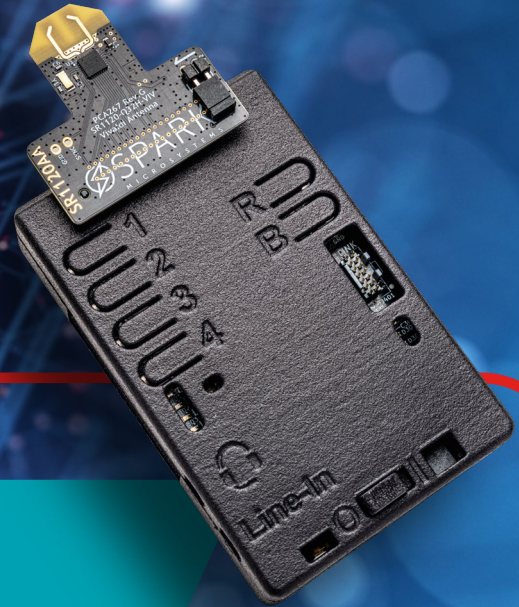




SR1120 EVK OPTIMIZING UWB COMMUNICATION SOLUTIONS



*User-Centric Design
Versatile Testing Environment
Graphical Data Visualization*



The SPARK EVK, featuring the SR1120 UWB radio and the datacom application, is a complete and versatile platform for developing, testing, and optimizing ultra-wideband (UWB) wireless solutions. Designed around the SR1120 transceiver, it delivers ultra-low power consumption, very-low latency, and high data rates — ideal for prototyping high-performance data links, wireless audio, IoT, robotics, wearables, and other real-time communication systems.

DATAKOM APPLICATION FEATURES

Experience unparalleled control and insight with our comprehensive configuration and monitoring features. Our advanced system offers intuitive tools and real-time diagnostics to streamline your setup and troubleshooting process. Explore the following key functionalities:

- **Comprehensive Configuration:** Intuitive tools for customizing devices, networks, data rates, and frequency settings.
- **Real-Time Monitoring and Diagnostics:** Immediate visual feedback on system status through RGB LED indicators, aiding quick troubleshooting.
- **Advanced Device Management:** Remote configuration capabilities for managing all setup aspects, even for long-range tests, via the 'Devices' and 'Network' sections.
- **Insightful Statistics and Analysis:** Detailed insights into network performance, including data transfer rates, signal metrics, and visual metrics such as signal strength and packet delivery ratio.
- **Customizable Data Transfer Settings:** Flexible communication settings for optimized speed and reliability, supporting both unidirectional and bidirectional transfers.

APPLICATION HIGHLIGHTS

User-Centric Design:

SPARK EVK Demo and Datacom application ensure easy usability for all technical levels.

Versatile Testing Environment:

Supports a wide range of network testing with remote connectivity and detailed statistics.

Graphical Data Visualization:

Offers clear, intuitive graphs for easy understanding of network health and performance.

SPECIFICATIONS

Processor:

- STM32U5 MCU (STM32U5A5AJH6Q chip)
- Type: 32-bit Arm Cortex M33
- Speed: Up to 160MHz
- Memory: 4MB flash, 2.5MB RAM

Audio Features:

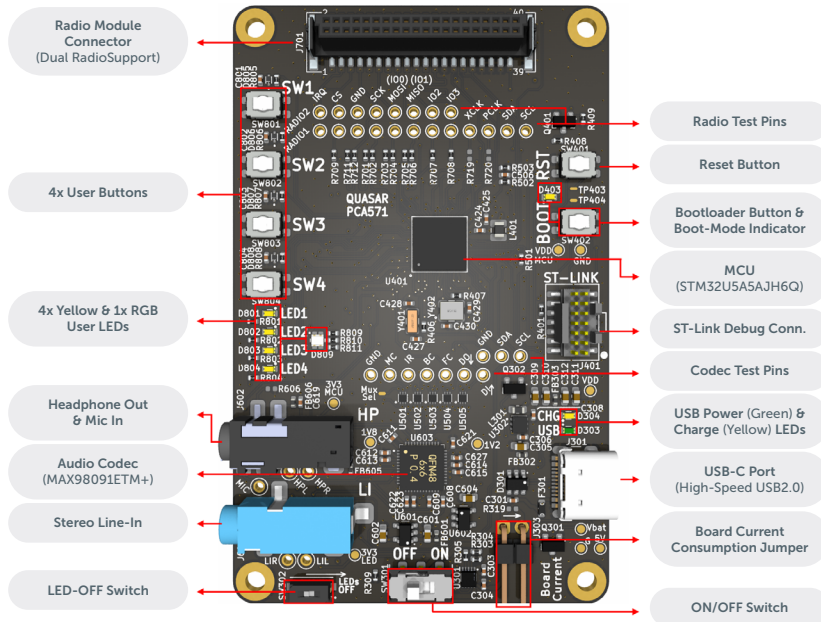
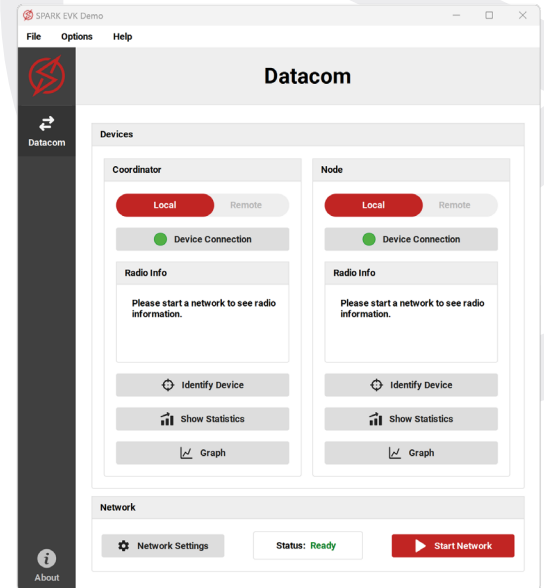
- Codec: Analog Devices MAX98091
- Capabilities: Stereo Line-In, Headphone Output, Microphone Input
- Integrated Features: Headphone amplifier, 7-band parametric equalizer
- Supported Rates: 8KHz to 96KHz
- Formats: Standard PCM, I2S
- Ports: Analog via 3.5mm jacks, digital via USB port, external I2S via expansion port

Connectivity:

- Dual-Radio Support: Communicates with two Spark radios simultaneously
- Interfaces: USB 2.0 High-Speed controller with on-chip PHY, dual QSPI, multiple SPI interfaces

Power Supply:

- Voltage: Selectable 1.8V/3.3V via firmware
- Source: Li-Ion battery
- USB-C port for charging, data communication, and firmware updates via USB bootloader



ABOUT SPARK MICROSYSTEMS

SPARK Microsystems is building next-generation short-range wireless communication devices for consumer, industrial, and medical applications. Leveraging patented LE-UWB™ technology, SPARK delivers ultra-low-power, high-speed wireless connectivity with unmatched interference robustness and exceptionally low latency. LE-UWB™ technology is ideally suited for wearables, peripherals, tags, sensors, and other IoT-connected devices that require reliable, high-performance data communication, as well as ranging and positioning capabilities. SPARK makes it possible to minimize and ultimately eliminate wires and batteries from a wide range of applications underserved by existing wireless technologies. For more information, please visit sparkmicro.com.



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