



REDEFINING WIRELESS AUDIO!

PURETONE™ Wireless Headset Demo *Low latency, uncompressed* *high-quality audio*

Experience true low-latency, high-fidelity sound with SPARK's SR1120 UWB Transceiver. SPARK Microsystems' advanced wireless headset leverages the SR1120 ultra-wideband (UWB) transceiver to deliver pristine, uncompressed audio with latency lower than 7 ms, matching wired performance. With industry-leading energy efficiency, the SR1120 unlocks new possibilities for gaming, conferencing, pro-consumer, and professional audio applications, surpassing Bluetooth with superior data rates and unmatched audio latency.



SR1120 6.2–9.5 GHz band

KEY FEATURES

Ultra-Low Latency Audio

- ≤ 7 ms latency for stereo main channel
- ≤ 10 ms latency for microphone back channel

Latency measured at system level, reflecting a fully integrated headset solution.

High-Fidelity Audio Quality

- Stereo: Up to 96 kHz / 24-bit uncompressed
- Microphone: Up to 48 kHz / 24-bit uncompressed

Ideal for High-Performance Applications

- Gaming headsets with sub-10 ms latency and high fidelity audio and microphone
- Studio monitoring at 96 kHz / 24-bit fidelity
- Enterprise conferencing with clear, low-latency microphone audio

Simplified Integration

- Standard SPI and Quad-SPI interfaces for easy microcontroller connectivity
- Comes with full reference designs, design files, and technical support

ACCELERATES YOUR DEVELOPMENT AND TIME-TO-MARKET.

PURETONE™ LOW LATENCY HIGH QUALITY HEADSET DEMO

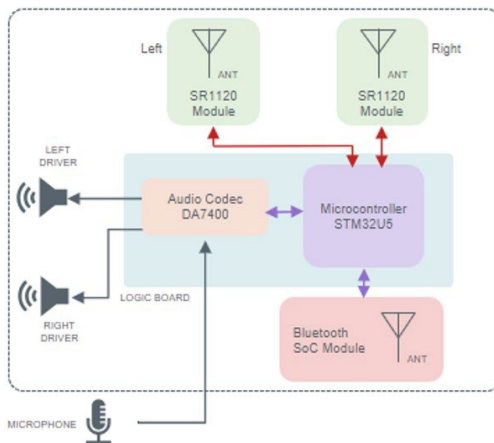
UTILIZING SPARK SR1120 LOW LATENCY UWB TRANSCEIVER



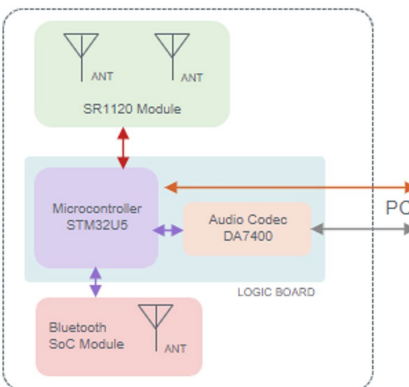
The PURETONE™ Demo kit demonstrates the low latency and high data rate capabilities of SPARK's SR1120 UWB transceiver to deliver pristine uncompressed audio. The design features a dual receiver configuration for increased robustness and body block mitigation. It comes complete with a USB-C dongle and all design files to simplify application specific implementations.

DUAL RECEIVER DESIGN

Headset



Dongle



MODES OF OPERATION

MAIN (STEREO)

- 96 kHz 24-bit uncompressed
- 48 kHz 24-bit uncompressed
- 48 kHz ADPCM
- Bluetooth 48 kHz 16-bit

MIC (MONO)

- 48 kHz 16-bit uncompressed
- 48 kHz ADPCM
- Bluetooth 48 kHz 16-bit



DONGLE

- SR1120 SPARK transceiver
- Bluetooth SoC
- STM32U5 microcontroller
- Audio Codec DA7400
- USB Communication with GUI
- Miniaturized design
- Antenna diversity for mobility

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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