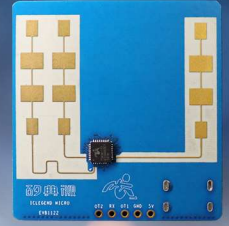


# EVB1122

ICL1122 SoC evaluation board with high-gain antennas

24G mmWave Sensor Development Kit



The EVB1122, equipped with the ICL1122 SoC, 1T2R multi-patch high-gain antennas, and ARM Cortex-M4 MCU, is designed to streamline the evaluation of SoC's long-range detection performance for developers. This advanced platform automatically generates SoC register configurations tailored to mmWave sensor parameter settings, simplifying the development process. It empowers developers to effortlessly craft algorithms for a wide range of applications by providing real-time data gathering and analysis capabilities. Additionally, the EVB1122 offers multiple intuitive application demonstrations, including indoor multi-human tracking and outdoor long-range (>100 m) target tracking.

## Features

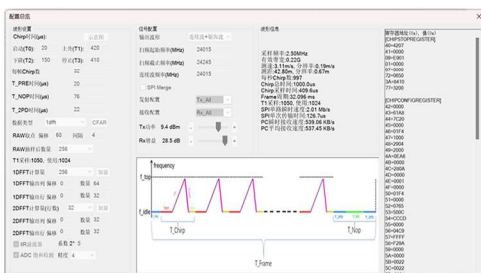
**Complete hardware system:** Integrated 1T2R mmWave sensor SoC, multi-patch high-gain antennas, high-performance MCU, and high-rate USB type-C interface.

**Agile developing tools:** Comprehensive SoC evaluation system, intuitive radar configuration and real-time signal waveform analysis tools.

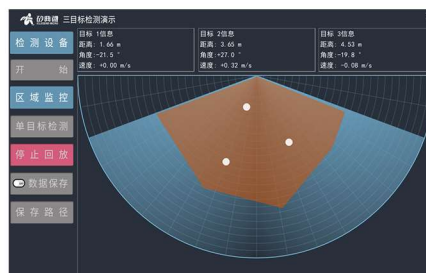
**Diverse user experience:** Built-in typical application demos, i.e. indoor multi-human tracking, and outdoor long-range target tracking.

Specifications	
Operating Frequency	24 GHz
Sweeping Bandwidth	24~25 GHz (reconfigurable)
Equivalent Isotropic Radiated Power	22 dBm (reconfigurable)
Operating Voltage	5 V
Sensor SoC	ICL1122 (1T2R)
Hardware Size	43 mm x 41 mm
Field of View (6 dB beamwidth)	86° x 28°
IAP Function	In-application programming (IAP) using UART

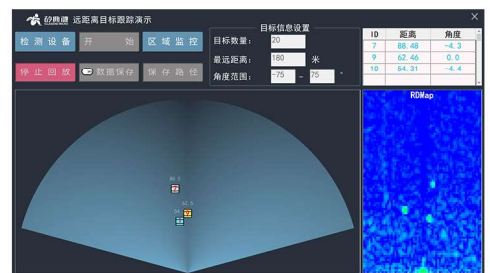
Power Supply and Interfaces
Support UART / USB Type-C / I/O interface communication.
Maximum data transfer rate 34 Mbps.
Support debugging and programming via SWD.
Support USB power supply (default) or external power supply via J1.



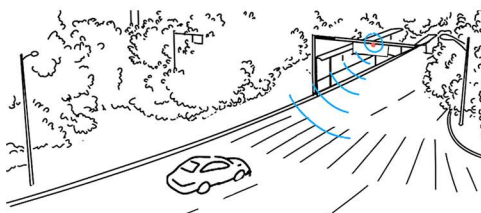
Parameter Configuration Interface



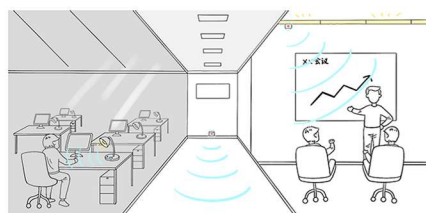
Indoor Multi-Human Tracking



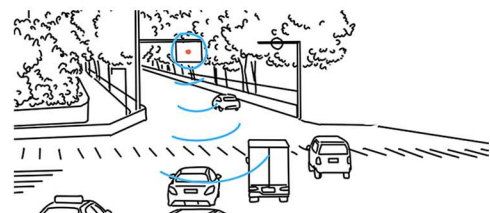
Outdoor Long-Range Target Tracking



Accurate Range, Velocity, and Angle Measurement



Indoor Multi-Human Tracking



Outdoor Long-Range Target Tracking

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