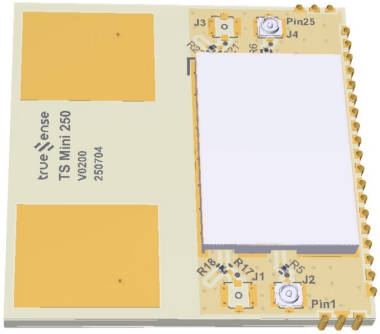
The TS MINI 250 UWB Ranging & Radar capabilities module

Secure Ranging

Radar Sensing

2D AoA, TDOA, RTLS



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TS MINI 250 is based on **NXP Trimension™ SR250, with 2 embedded PCB Antennas +1 additional external Radar antenna,** power management, clock control, BPF filter and peripheral components. **TS MINI 250 is pin to pin** compatible with the **DCU 150** module.

TS MINI 250 module is a **2D AoA solution without extra-antenna overhead**, no phase/amplitude skew, no SPST insertion loss and low-cost design.

TS MINI 250 supports **Radar** processing algorithm enabling **Presence Detection** & **2D pre-processed CIR streaming** allowing **advanced ML/AI applications.**

BENEFITS

No RF design required;

Range precision: +/- 5 cm distance & 3° of angle;

Industrial IoT (RTLS, Security & Danger zone detection);

Secure & Smart Access;

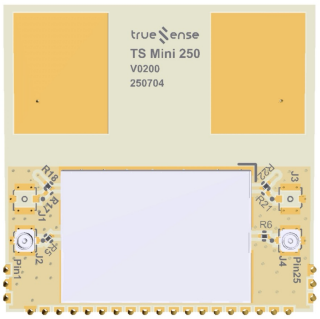
Advanced Radar sensing with ML/AI applications such as:

Breathing & Apnea Monitoring;

Fall Detection;

TECHNICAL SPECIFICATION

ANTENNA TYPE	On board
ANTENNA NUMBER	2+1
RADAR MODE	OCPD,CIRs & Off CRP
RANGING MODE	ToF, 2D AoA, TDOA, RTLS
SIZE	27.2x27.1x 3..3mm
INTERFACE	SPI
MAIN CHIP	NXP Trimension™ SR250
CHANNEL	UWB CH 5 & 9
FREQUENCY RANGE	6.24GHz~8.24GHz
SUPPLY VOLTAGE	1.71V ~ 1.89V



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