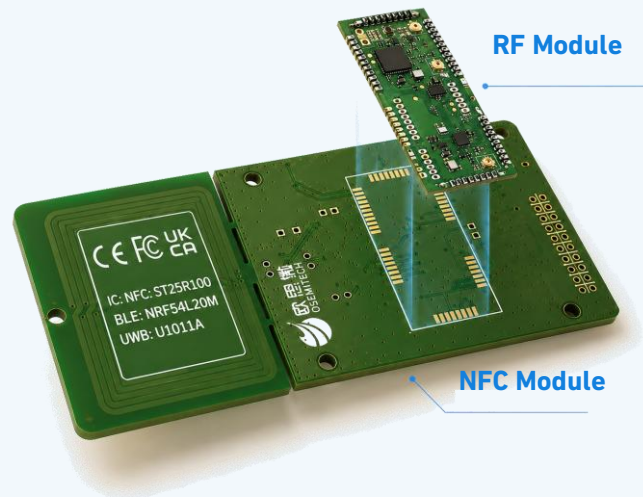


The First Full-Stack UWB Solution for Smart Locks Supporting Aliro

Built on Osemitech's in-house UWB chipset, it brings precise ranging, direction-aware decisions and secure ranging to smart-lock products.



CUSTOMER VALUE

Natural Passive Entry Authorized devices enter the access-decision flow on approach, without near-contact action or opening an app.	Distance & Direction ToF and PDoA support trigger thresholds and indoor/outdoor zone decisions.	Secure Ranging Aliro protocol support helps reduce traditional relay-attack risk.
---	---	---

KEY EVIDENCE

±10 cm Ranging Accuracy Known-environment test	Distance + PDoA Distance & Direction Supports zone decisions	0.5-3 m Configurable Trigger 1-2 m recommended	≈500 ms Normal Response UWB ranging chain
--	--	--	---



FULL-STACK SOLUTION

From Core Technology to Customer Products

Reducing UWB Integration Complexity

Osemitech combines its in-house chipset, module hardware, reference firmware, host interfaces, evaluation tools and integration support into one complete solution, helping customers assess product fit earlier.

SOLUTION CAPABILITIES

In-House UWB Chipset Provides ToF ranging and PDoA direction output.	Module & Evaluation Board Supports evaluation in the customer's target structure and system.	Reference Firmware Covers ranging, direction, access decisions and event output.
Host Interfaces Outputs data, events and status through UART/GPIO.	PC & iOS Evaluation Tools Observe ranging status and assess the iPhone 11+ experience.	Integration Support Covers mechanics, antenna, system RF, interfaces and interaction logic.

CUSTOMER BENEFITS

Assess Product Fit Earlier Confirm the experience, trigger logic and system architecture before full product development.	Reduce Cross-Domain Complexity Connect UWB, antenna mechanics, host interfaces and the mobile experience in one solution.	Move Faster into Engineering Validation Use existing hardware, software and tools to validate the target product structure.
---	---	---

Full-stack scope: Osemitech's in-house UWB chipset, modules, reference firmware, host interfaces, evaluation tools and integration support. The customer system provides the host-control strategy, lock actuator and final product design.

DISCUSS YOUR APPLICATION

Schedule a Solution Discussion

Talk with us about your lock structure, target mobile platform, host interface and desired interaction. After an initial review, we can confirm the evaluation resources and validation scope.

sales@osemitech.com | +86 137 6434 6747

