



ECHORING™ BASICS

EchoRing™ is a ground-breaking wireless technology designed for applications that require time-critical performance and high-robustness simultaneously. Based on extensive research and the introduction of massive cooperation EchoRing™ enables a deterministic and low-latency wireless communication with a cable-like performance.

The EchoRing™ software runs on standard hardware platforms, making it a cost-effective and highly flexible solution for time-critical communication requirements.

EchoRing™ enables new product concepts. For instance, with EchoRing™ an ordinary industrial robot can develop into a cheaper and lighter product with new mobile and cooperative capabilities.

AGNOSTIC HARDWARE

OSI LAYER 1

DYNAMIC COOPERATION

Massive cooperation is the underlying technology of EchoRing™. Our dynamic cooperation schemes safeguard the guaranteed performance levels.

SEAMLESS ROAMING

Wireless coverage is an important requirement. EchoRing™ offers features to extend the coverage introducing a novel seamless roaming approach.

ADAPTIVE COEXISTENCE

EchoRing™ deals with potential interference scenarios intelligently and adapts its communication pattern dynamically at runtime.

MACHINE LEARNING

Reinforcement learning incorporated in EchoRing™ is used to optimize the system performance at runtime.

FLEXIBLE TOPOLOGY

EchoRing™ is not limited to a fixed set of topologies. In fact, EchoRing™ adjusts automatically to the need of the scenario or application.

EXTENDED SECURITY

Besides standard security measures, EchoRing™ introduces additional encryption and authentication features.

SERVICE LEVEL

EchoRing™ introduces a service-oriented wireless communications link extending the opportunities of the higher layer applications.

FLEXIBLE IMPLEMENTATION

EchoRing™ can either be realized as firmware (high performance) or as a driver (regular performance).



ECHORING™

TRANSPARENT INTERFACES

OSI LAYER 3



ECHORING™ EVALUATION KIT

EchoRing™ Demo-Kit is the first wireless communications prototype using our technology EchoRing™. The Evaluation Kit can be ordered by contacting us directly or on the website and includes the following:

EchoRing™ Evaluation Station

Hardware Basis	TI Sitara Platform
Wireless Module	TI WiLink™ 8 WL1837
EchoRing™ Mode	Firmware (radio certified)

EchoRing™ Evaluation Kit

EchoRing™ Stations	5 stations per Evaluation Kit
Configuration Hardware	Server + Ethernet cables + switch
Software	Browser-based configuration and measurement system
Accessories	Power adapter + Evaluation Kit case

