i.MX RT CROSSOVER PROCESSORS & ZEPHYR™ OS
IMPROVE RESPONSIVENESS, REDUCE COSTS

i.MX RT1050 AND ZEPHYR - A WINNING COMBINATION

When compared to an Arm® Cortex®-A7 core running Linux, the i.MX RT1050 running Zephyr OS performed:

- **27x** faster in context switching*
- Up to **11x** faster in allocating, deallocating memory*
- Up to **15x** faster in locking and unlocking mutexes using pthreads**
- Faster in creating, joining, and canceling threads using pthreads**
- Delivered more performance with less resources at a lower cost

* Comparison between Zephyr running on i.MX RT1050 EVK and Linux running on i.MX 6UL EVK
** POSIX PSE52 partial support

ZEPHYR OS

Zephyr OS is a small, scalable open source RTOS for IoT Embedded devices. It is optimized for resource constrained devices, and built with security in mind.

Learn more at [www.nxp.com/zephyr](http://www.nxp.com/zephyr)

NXP CROSSOVER PROCESSORS

The i.MX RT1050 crossover processor features NXP’s advanced implementation of the Arm® Cortex®-M7 core and is designed to:

- Support the next generation of IoT applications
- Offer high level of integration and security at a competitive price.

Learn more at [www.nxp.com/imxrt](http://www.nxp.com/imxrt)

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See benchmark study at: [www.nxp.com/zephyr](http://www.nxp.com/zephyr)