Start	End	Agenda
09:00	09:15	Welcome and practical information
09:15	09:45	Introduction to the nRF52 and Nordic wireless solutions
09:45	10:00	2.4GHz Radio update and PCB layout recommendations
10:00	10:15	Automated power management, making SW development easy
10:15	10:30	Break
10:30	11:00	Bluetooth Smart and ANT stacks, solutions and features.
11:00	11:15	Software Development Kit, example code and drivers
11:15	12:00	PPI, GPIOTE and EasyDMA: HW acceleration of IO functions for increased efficiency and power consumption optimization
12:00	13:00	Lunch
13:00	13:45	The nRF52 flavor of standard peripherals like: Timers, RTCs, TWIs, SPIs, ADC and how to use them efficiently in low power designs
13:45	14:15	Advanced peripherals for Audio and control: I2S, PDM and PWM
14:15	14:45	Near Field Communication, NFC, and how it can ease secure pairing and commissioning in wireless system
14:45	15:00	Break
15:00	16:00	Breakdown of a full Bluetooth Smart application built using the S132 Softdevice, SDK example code and snippets from the code examples covered so far. This will be demonstrated with mobile apps and PC tools for solution testing and development.
16:00	16:30	Solutions to support the growing IoT market
16:30	16:45	Wrap up with Q&A

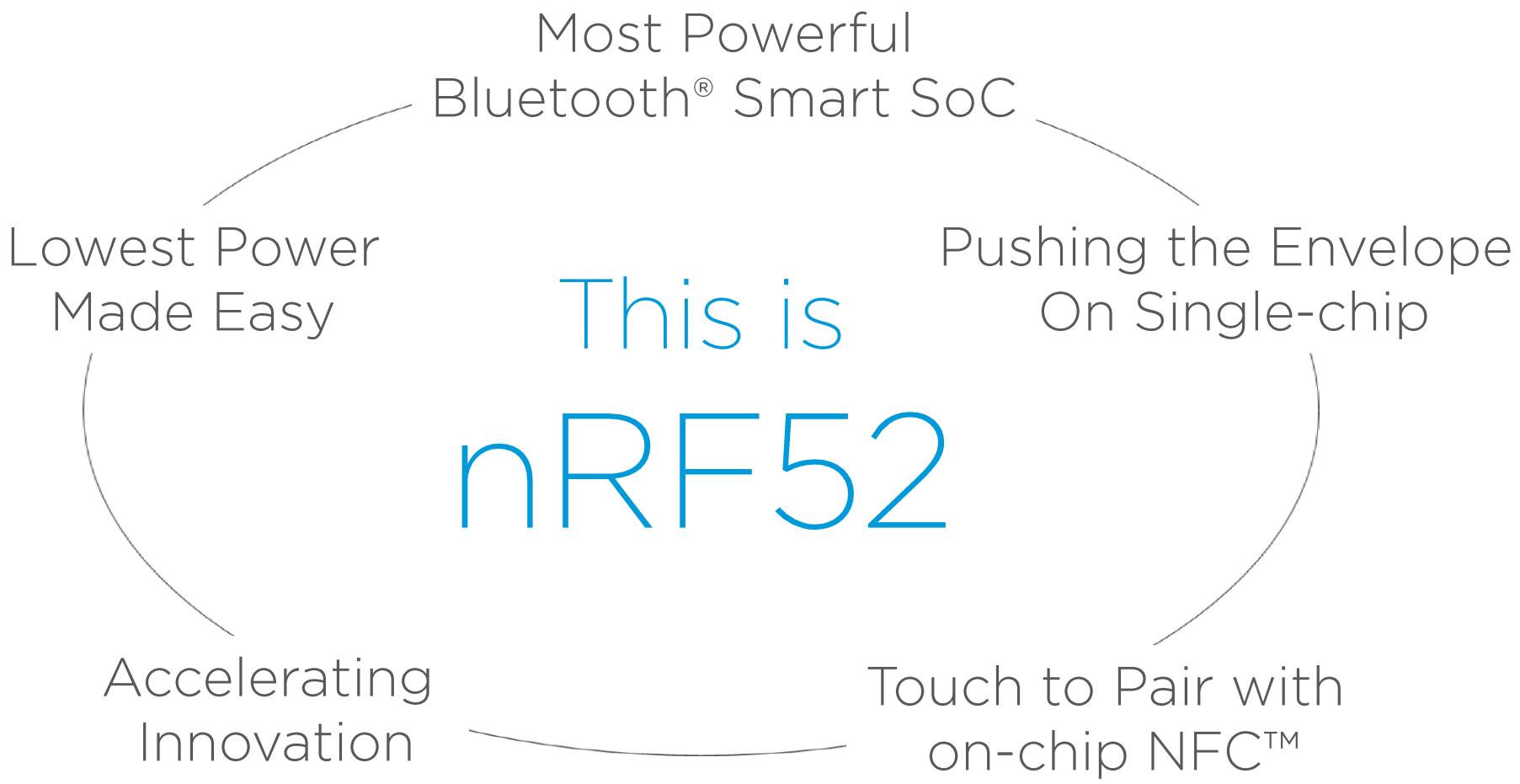
General information

- Registration
- Restrooms
- Breaks
- Lunch
- Questions
- Feedback
- Presentations

This is nRF52

Pushing the Envelope for Bluetooth® Smart

Global Tech Tour 2015



Complete Bluetooth® Smart Solution

nRF52 ICs

High Performance, Ultra low power Bluetooth® Smart SoCs

nRF52 Software

Comprehensive and Advanced Connectivity and Application Software

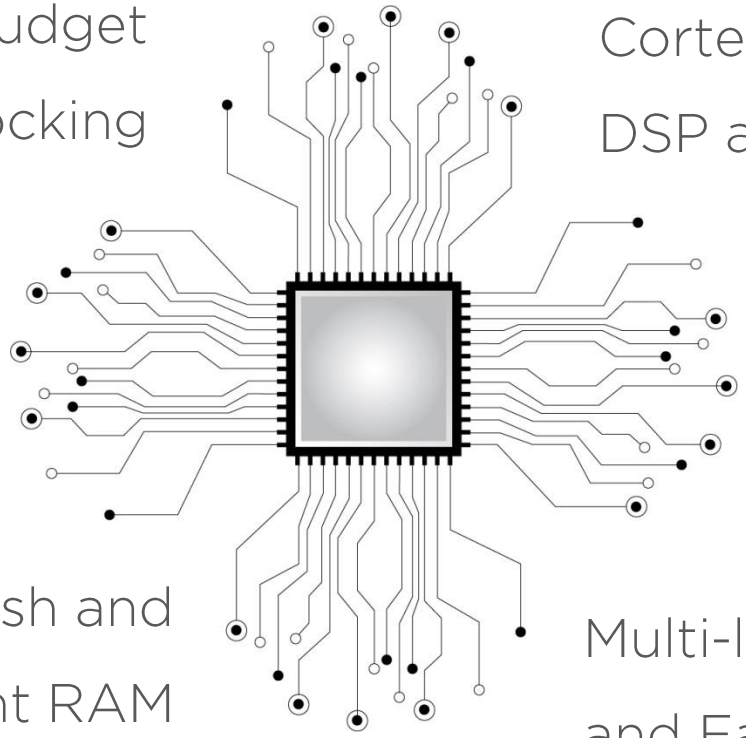
Tools & Support

Great Development Tools, Amazing Support and Vibrant Community

Architected for Speed

Radio Link Budget and Blocking

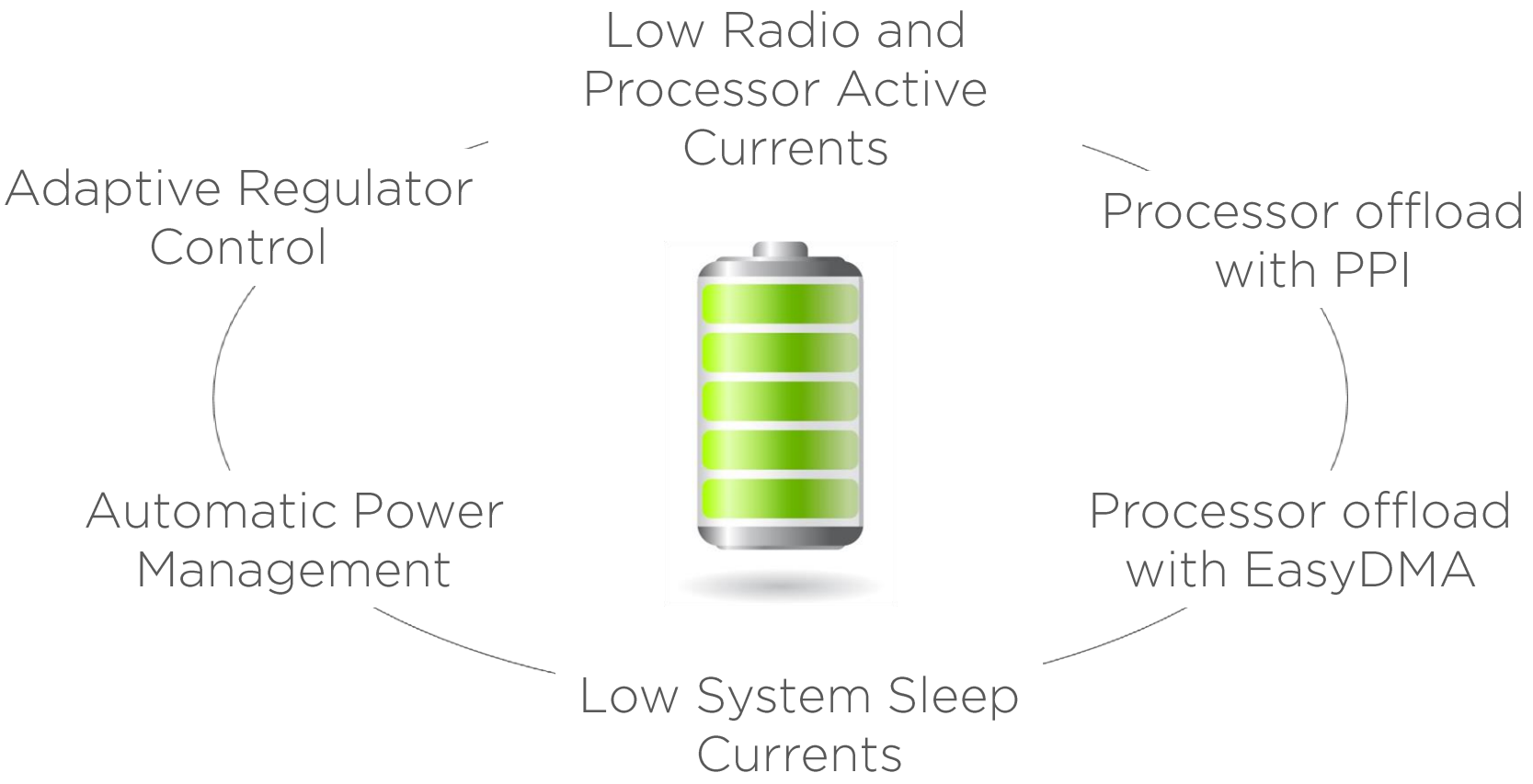
Cortex-M4F: CoreMark, DSP and Floating Point

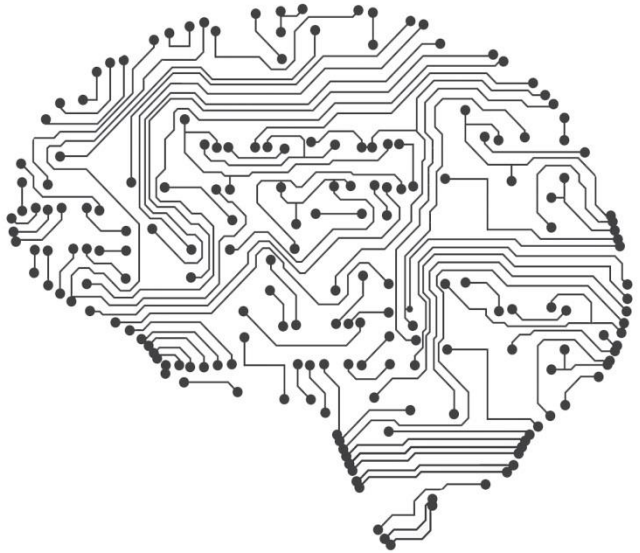


Embedded Flash and Multi-Segment RAM

Multi-layer AHB Bus and EasyDMA

Built for Power Efficiency





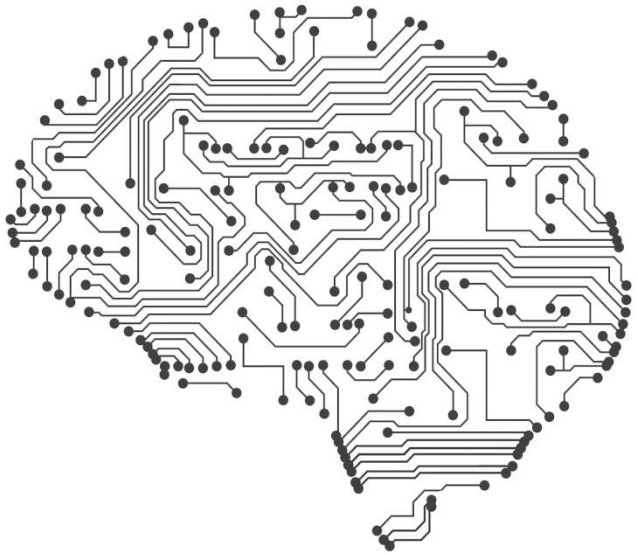
Processor

Performance & Power

Highest Performance Processor

64MHz ARM Cortex-M4F

Embedded Flash, Cache



215

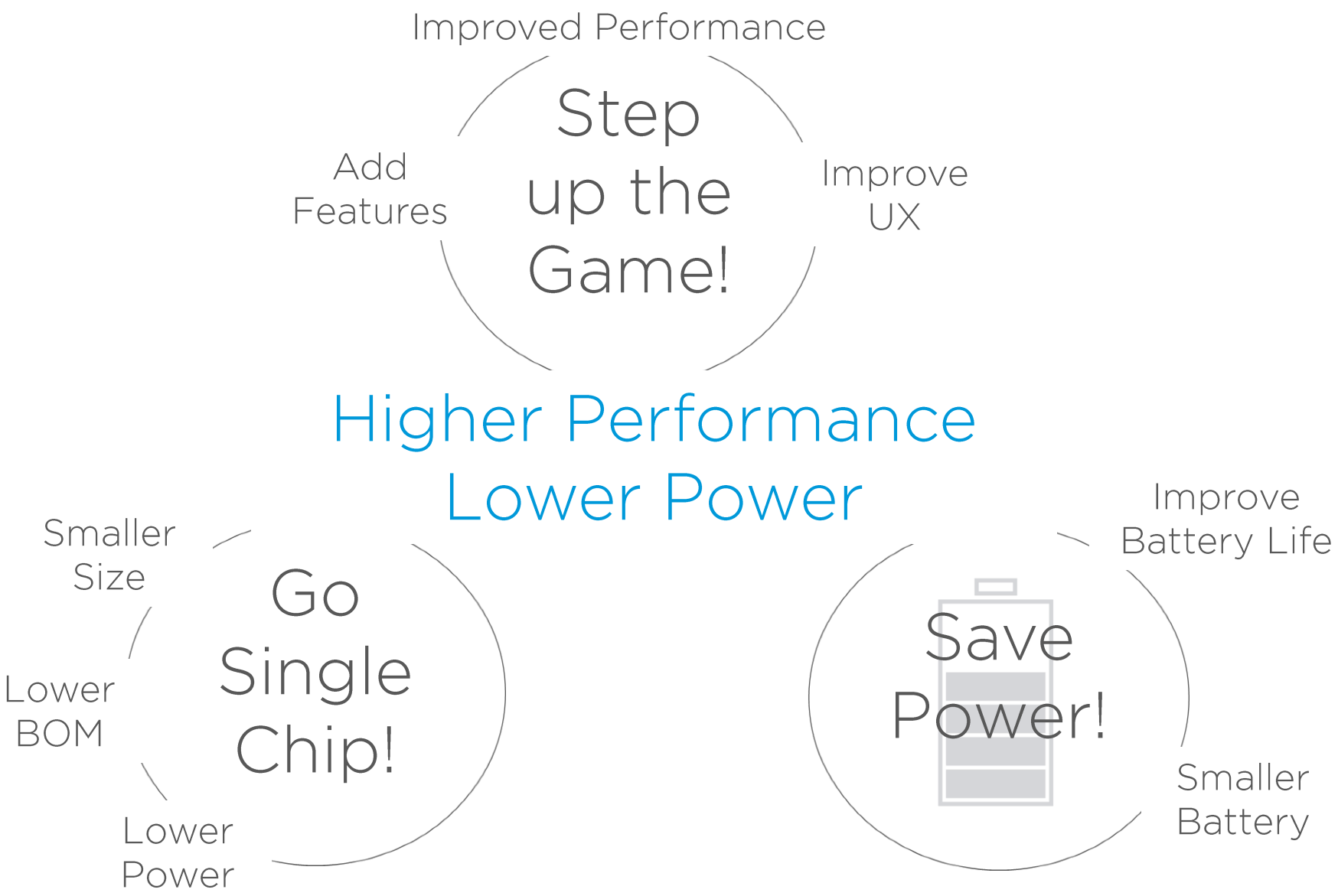
EEMBC CoreMark®

2X

DSP

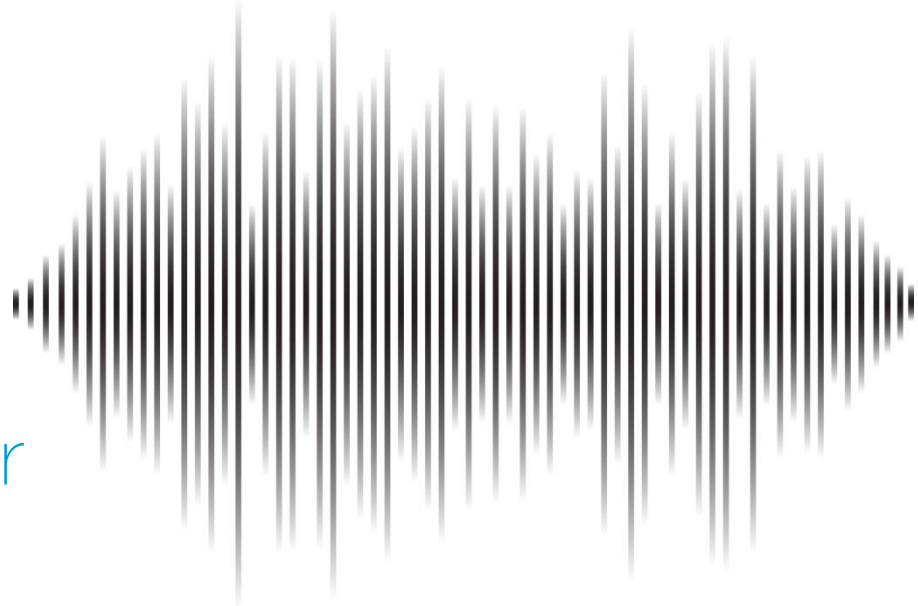
10X

Floating Point



Radio

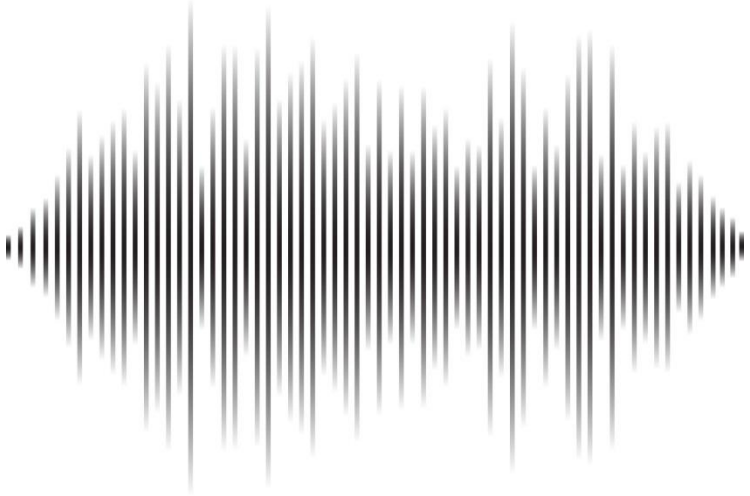
Performance & Power



Radio Performance Redefined

Multi-Protocol 2.4GHz Radio

On-chip Balun

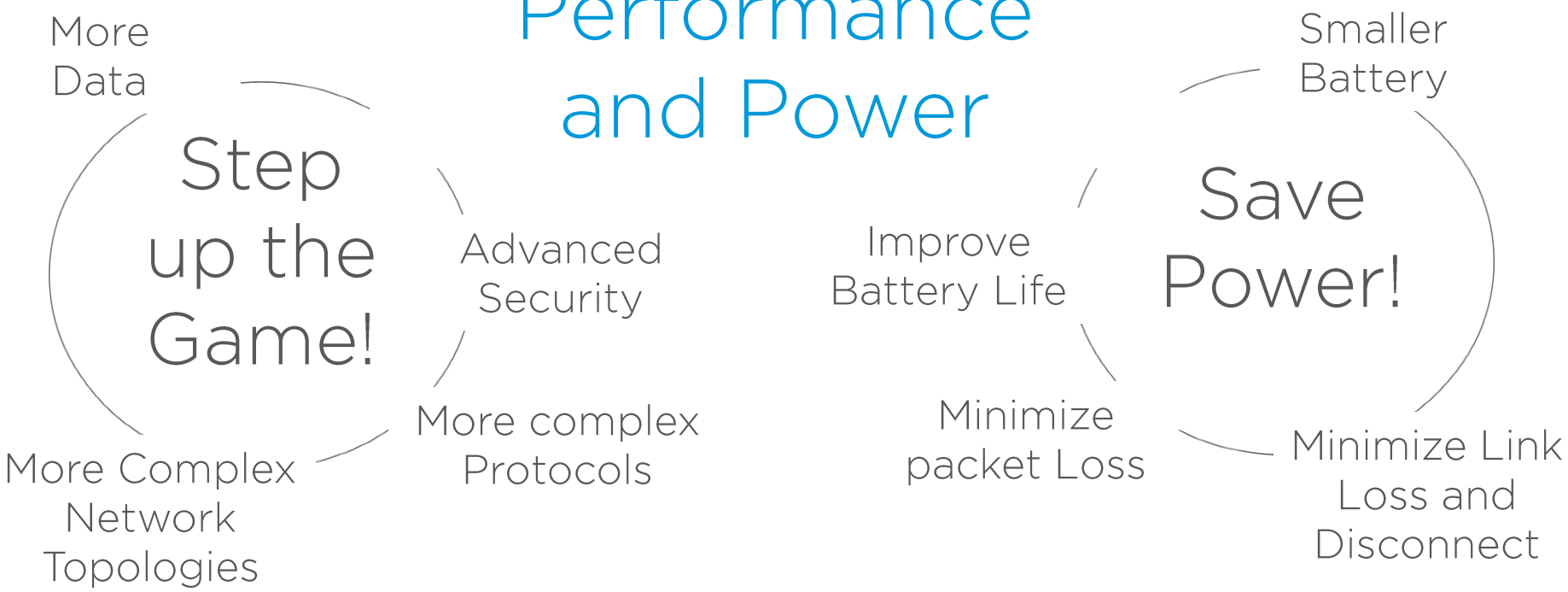


-96 dBm
RX Sensitivity

+4 dBm
Max TX Output

-42 dB
Selectivity (2'nd CI)

Big Leap in Radio Performance and Power



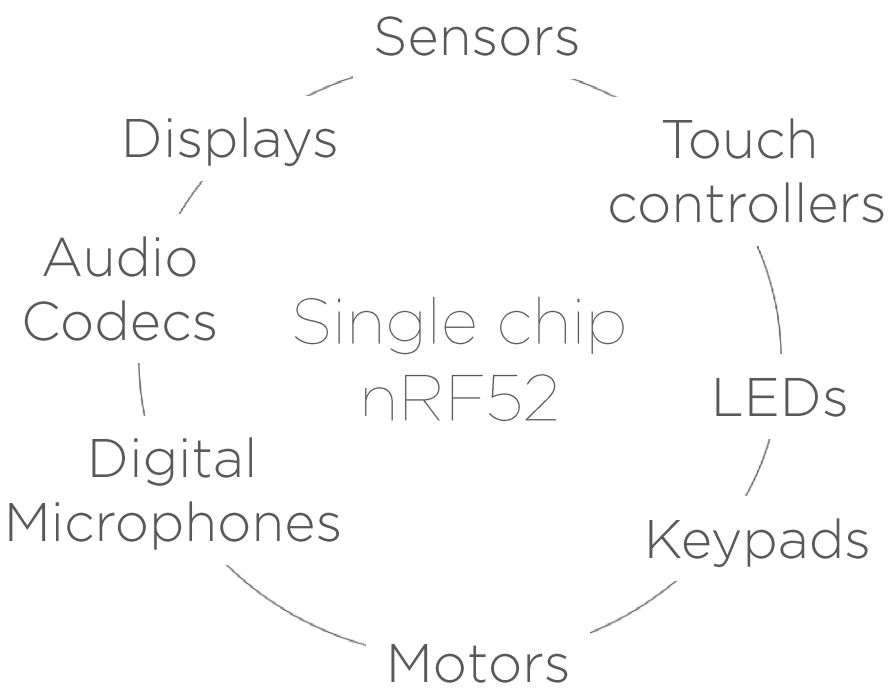
Most Powerful
Bluetooth® Smart SoC

Pushing the Envelope
On Single-chip

System Peripherals

Touch to Pair with
on-chip NFC™

Wide Range of Peripherals



3×SPI, 2×I2C and UART

I2S and PDM for Audio

8-channel 12-bit ADC

3× 4-channel PWMs

Analog Comparators

Quadrature Decoder

32 Configurable GPIOs

Touch-to-Pair with NFC™

On-Chip NFC™-A tag

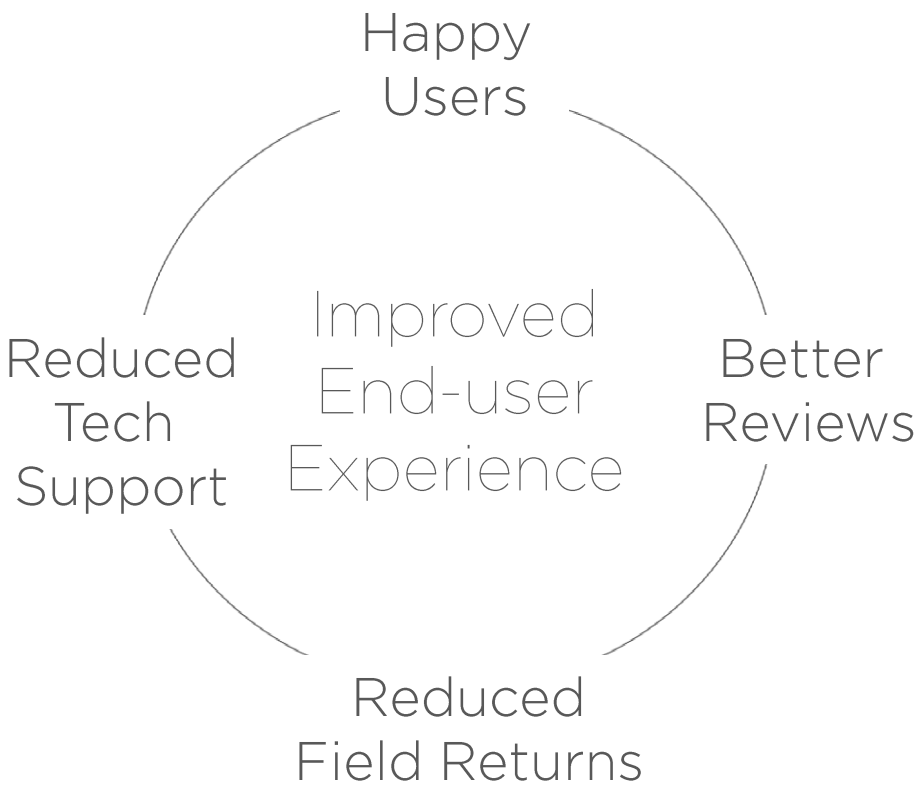
Bluetooth OOB Pairing

Easy, Fast and Secure

Proximity Detection

Wake-on-field

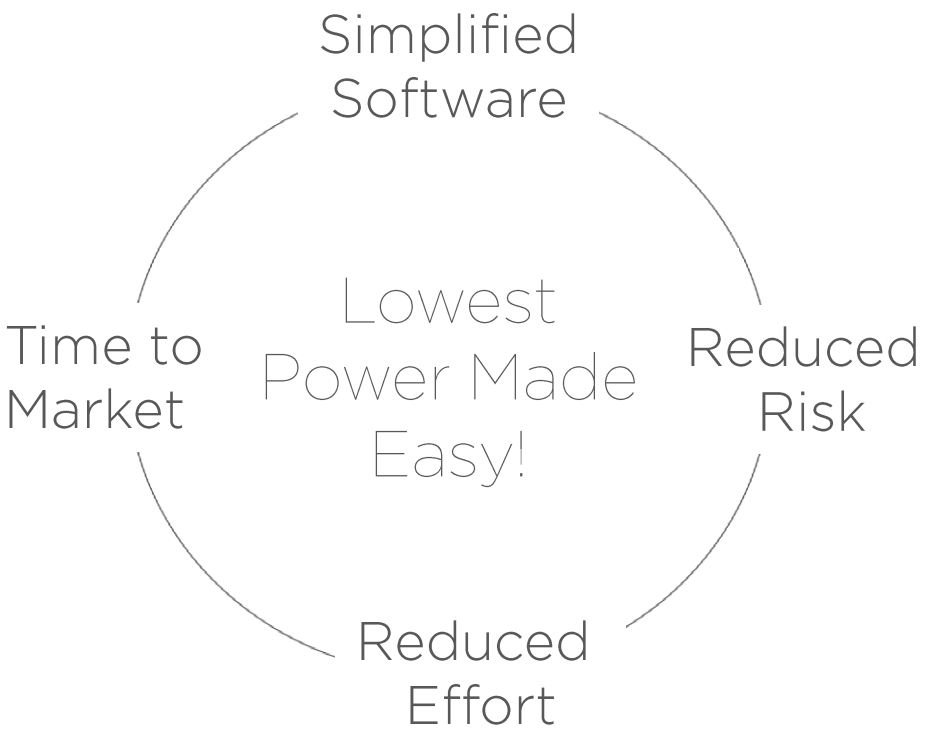
Power Savings



System

Performance & Power

Fully Automated Power Management



Two power modes: ON/OFF

Multiple on-chip regulators

Modules Request Power

System Monitors total Current and Supply level

Automatic selection of optimal regulator type and mode

Ultra Low Power Sleep modes

OFF

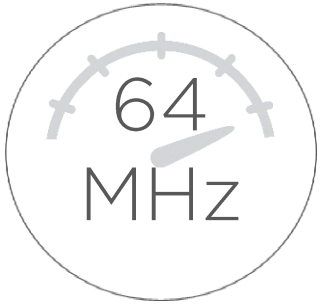
ON Idle

ON Idle
with RTC

Per 4kB RAM
Retention

Ultra Low Power Active modes

CPU Active

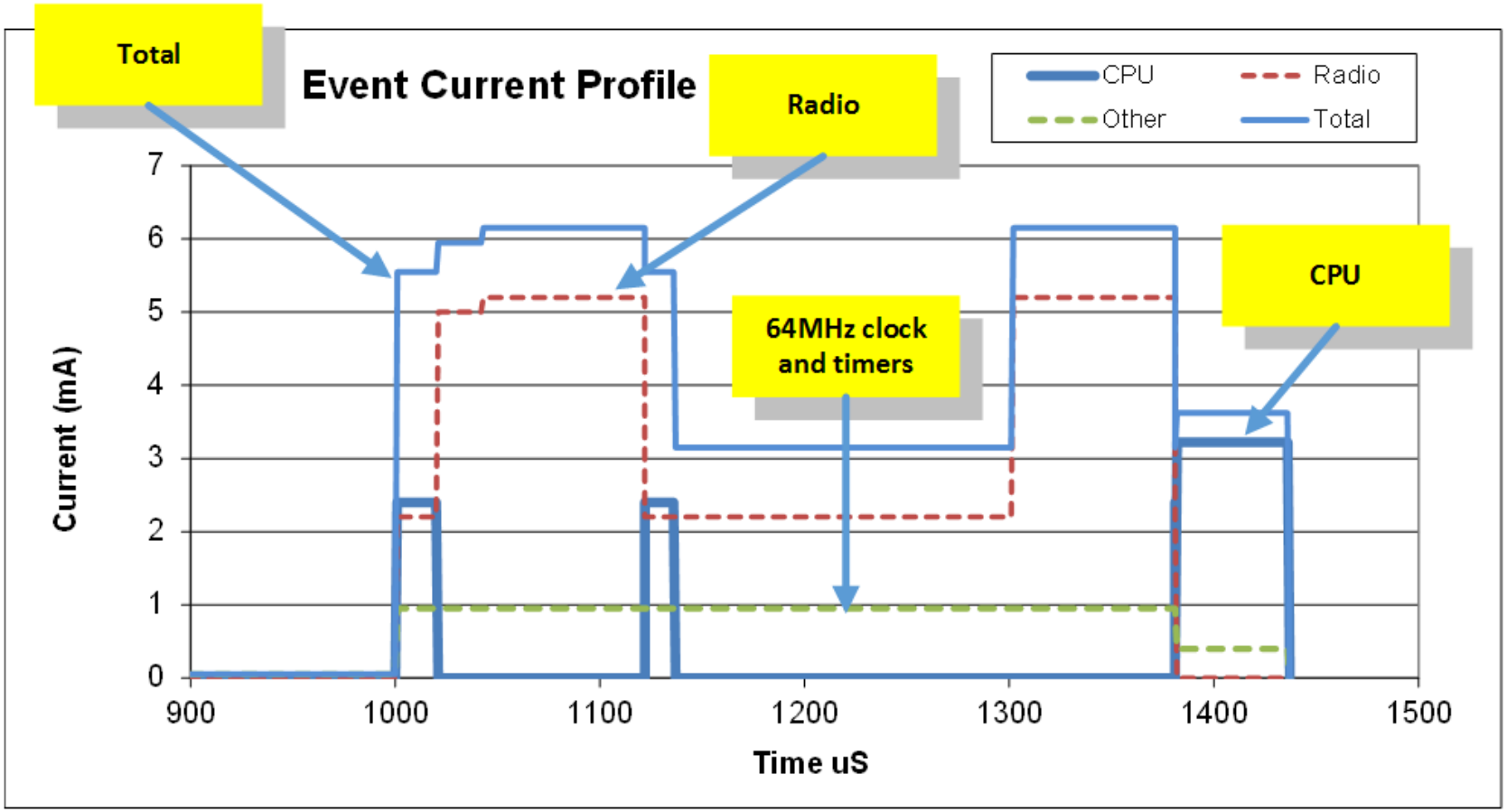


Fast execution

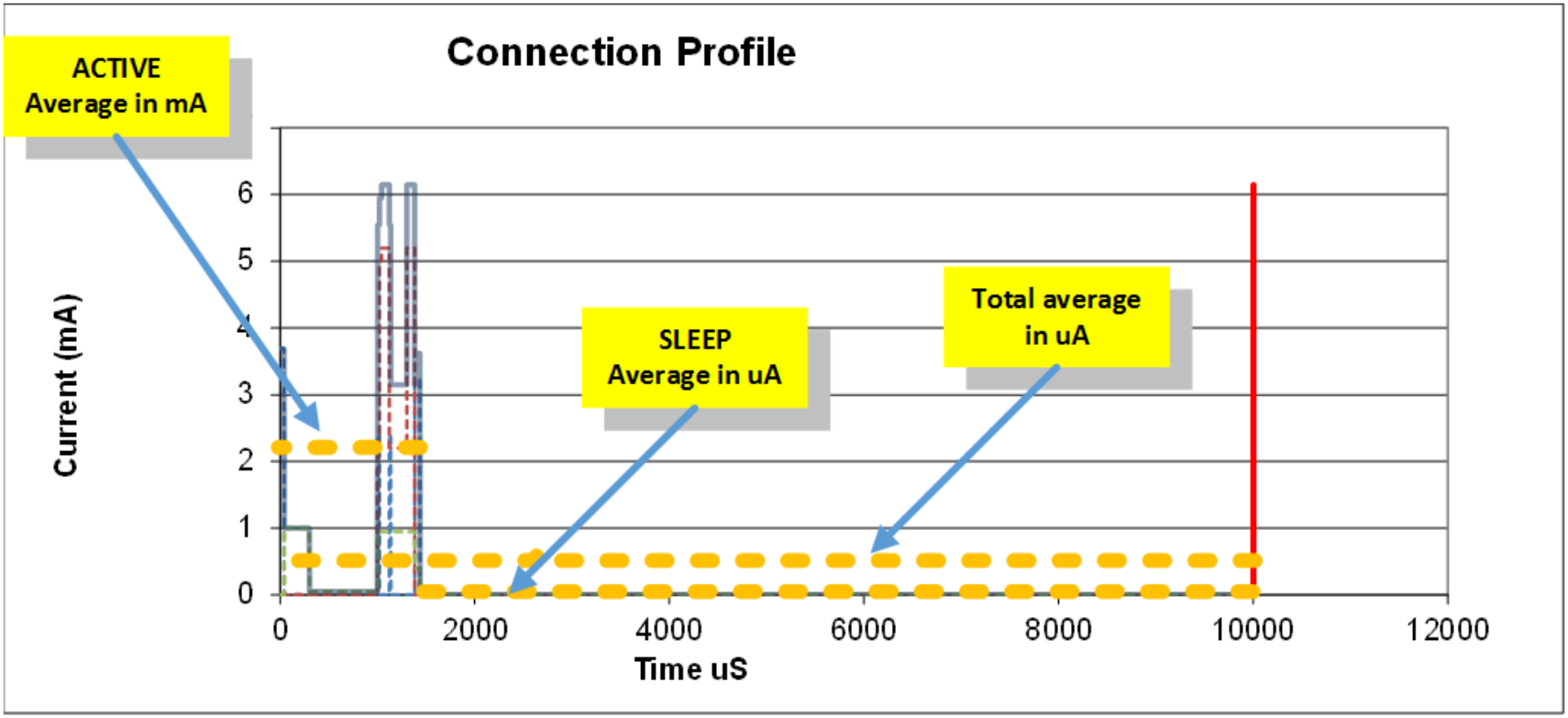
Radio Active

Fast startup

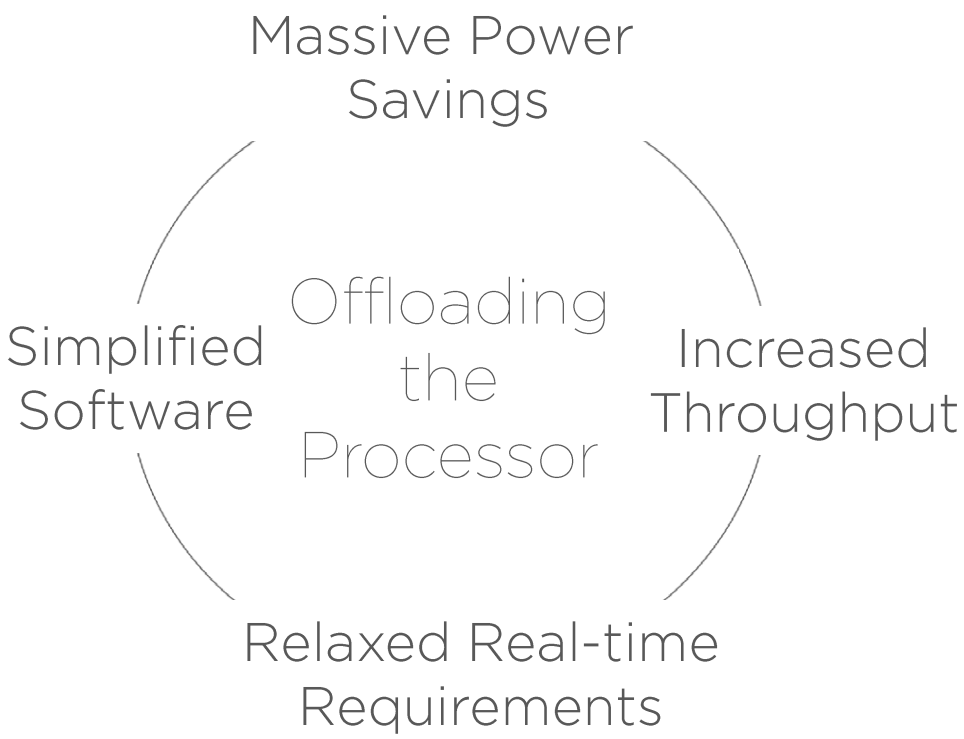
Low active current + Low active time



Law of averages for low power!



PPI and EasyDMA



PPI

Programmable Task and Event System

EasyDMA

Support for all modules

nRF52 Modules coming soon

RAYTAC

TW

TAIYO YUDEN

JP

RIGADO

WE PROVIDE CUSTOM PRODUCT DESIGN SERVICES

US

Insight SiP

It's all in the package

FR

HOSIDEN

JP

Laird™

UK

stollmann

DE

braveridge

JP

FUJITSU

JP


Most Powerful
Bluetooth® Smart SoC
Pushing the Envelope
On Single-chip
Touch to Pair with
on-chip NFC™
Accelerating
Innovation
Lowest Power
Made Easy
This is
nRF52!