

FOR ENERGY EFFICIENT INNOVATIONS

THINK ON.

www.onsemi.com

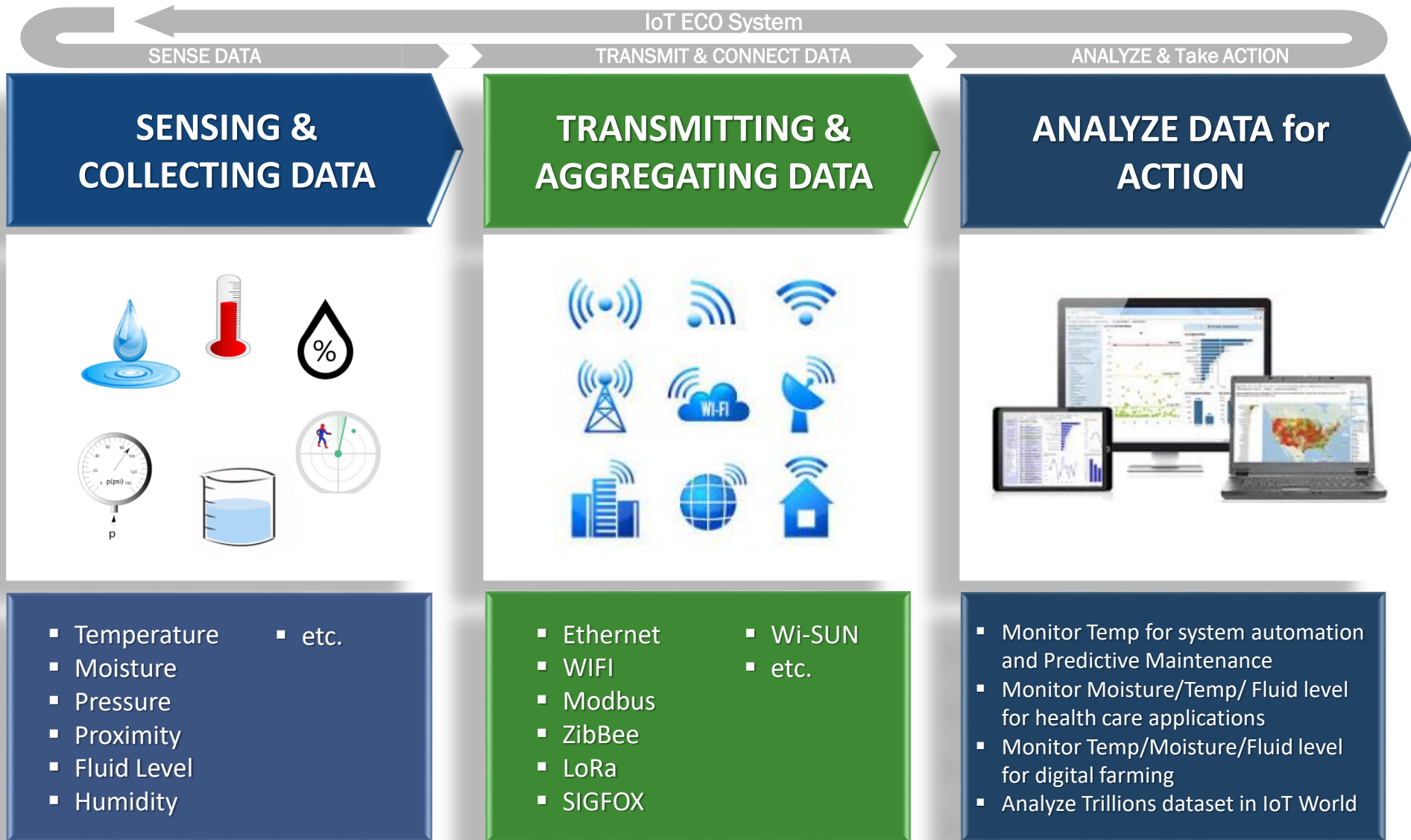
Low data rate IoT Nodes

Embedded World 2020

Public Information



Sensors in the IoT



Low data rate connectivity solutions

- Long range
- Indoor/outdoor
- Proprietary/ Standard protocols
- Ultralow power

Sub GHz



- Ubiquity
- Widespread Ecosystem
- Ultra-Low-Power
- Energy Harvesting
- Mesh Networking
- Security

Bluetooth®
Low Energy

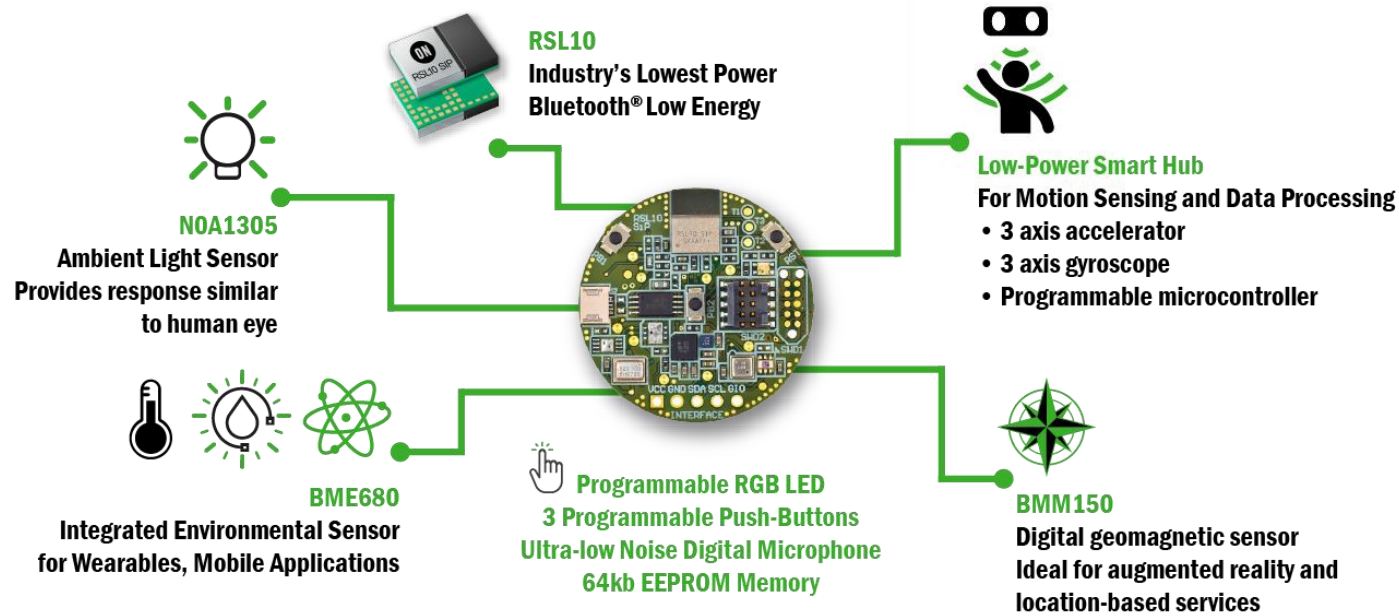


- Ultra-Low-Power
- Energy Harvesting
- Mesh Networking
- Security
- Wide Application ecosystem
- Very good interoperability

Zigbee™
Green Power



RSL10 Sensor Development Kit



RSL10 Sense and Control



Zigbee Green Power Battery-free Button



Low Cost

- No buck-boost, No Battery

Long Range Connectivity

Secured commissioning

Payload encryption

Easy Set-up

Compatible with Commercial Products

Native Mesh Implementation

Energy
Harvesting
Switch



Zigbee Green
Power Module



Zigbee 3.0
and GP
Stack



New SubGHz Sensor Platform

SubGHz sensor platform for long range data transmission!

- New DVKs Use B-IDK (with RLS10) as a gateway ([link](#))



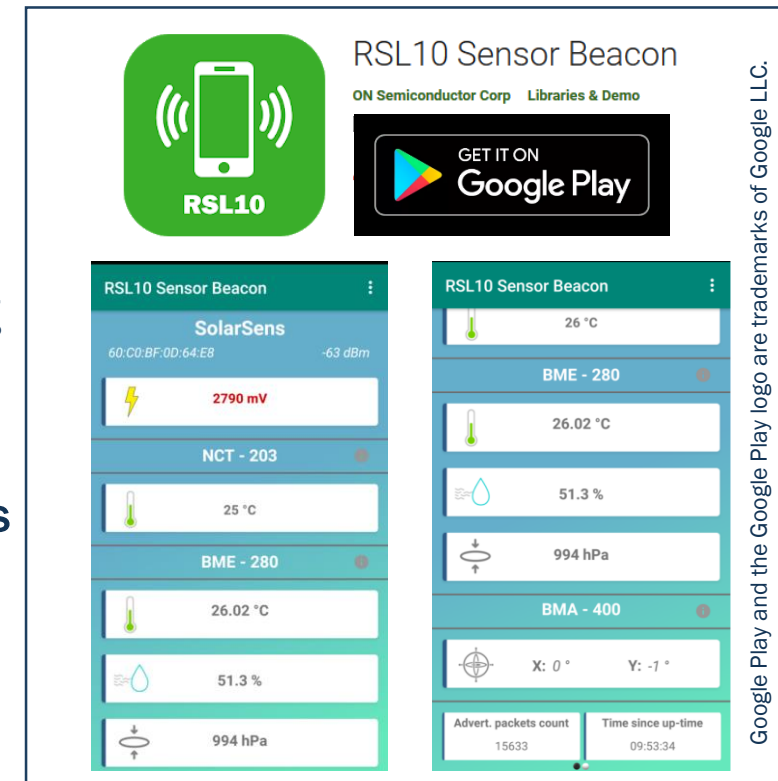
AXM0F243-Sense

Long range
SubGHz link
➔
>500 meters



B-IDK (RLS10) + AXM0F243-DVK
Shield Bridges SubGhz to BLE

BLE
Advertising
message
➔
~100 meters



RSL10 Sensor Beacon
ON Semiconductor Corp Libraries & Demo
GET IT ON Google Play

Sensor	Value
SolarSens	2790 mV
NCT - 203	25 °C
BME - 280	26.02 °C
BME - 280	51.3 %
BMA - 400	994 hPa
BMA - 400	X: 0° Y: -1°
Advert. packets count	15633
Time since up-time	09:53:34

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