



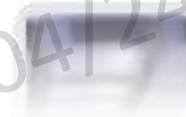
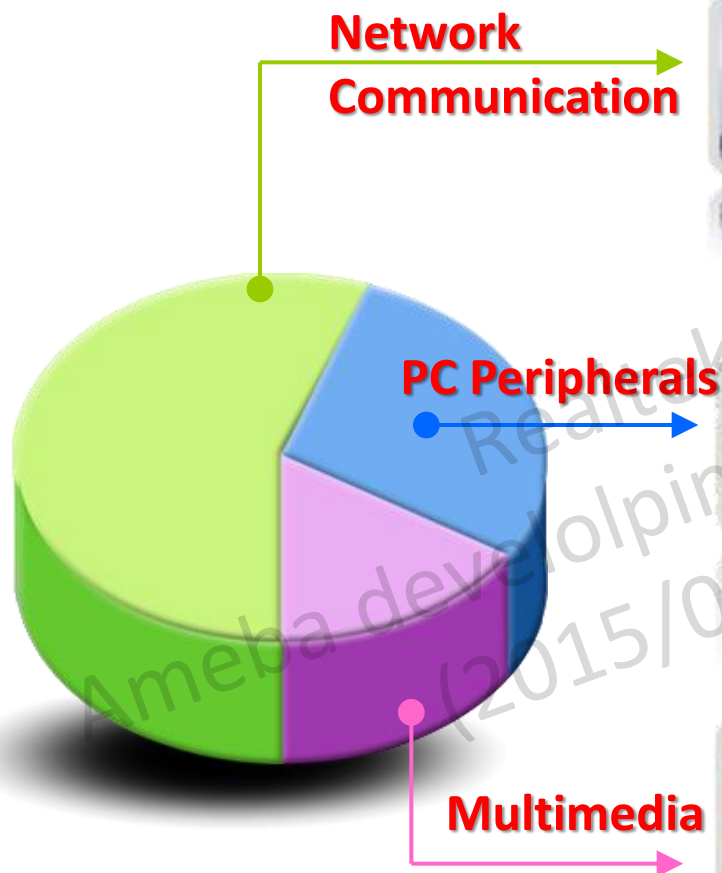
50 BILLION
CONNECTIONS BY 2020

Anything that benefits from being
connected will be connected

The IoT Era



Realtek – Leading ahead



- Wifi, Bluetooth, GNSS, FM
- Network Processor
- Ethernet Chip
- Network Switch Chip
- ADSL, PON Solution
- VoIP Solutions

- Audio Codec
- Card Reader Controllers
- Web Camera Controllers
- Clock Generators
- Class-D Amplifier

- LCD Monitor Controllers
- Translator
- LCD TV Controllers
- STB/OTT





Wifi Application Innovation

1st Gen.



2nd Gen.



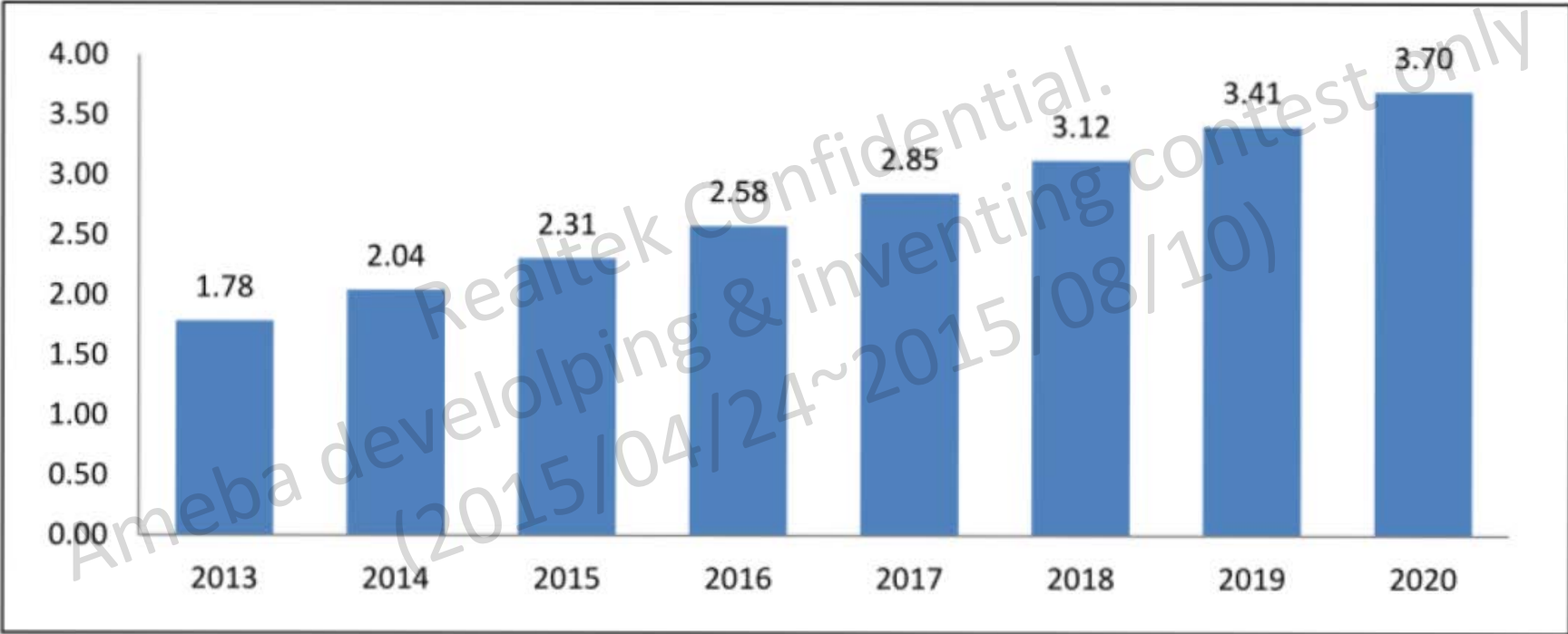
3rd Gen.





Global IoT Market

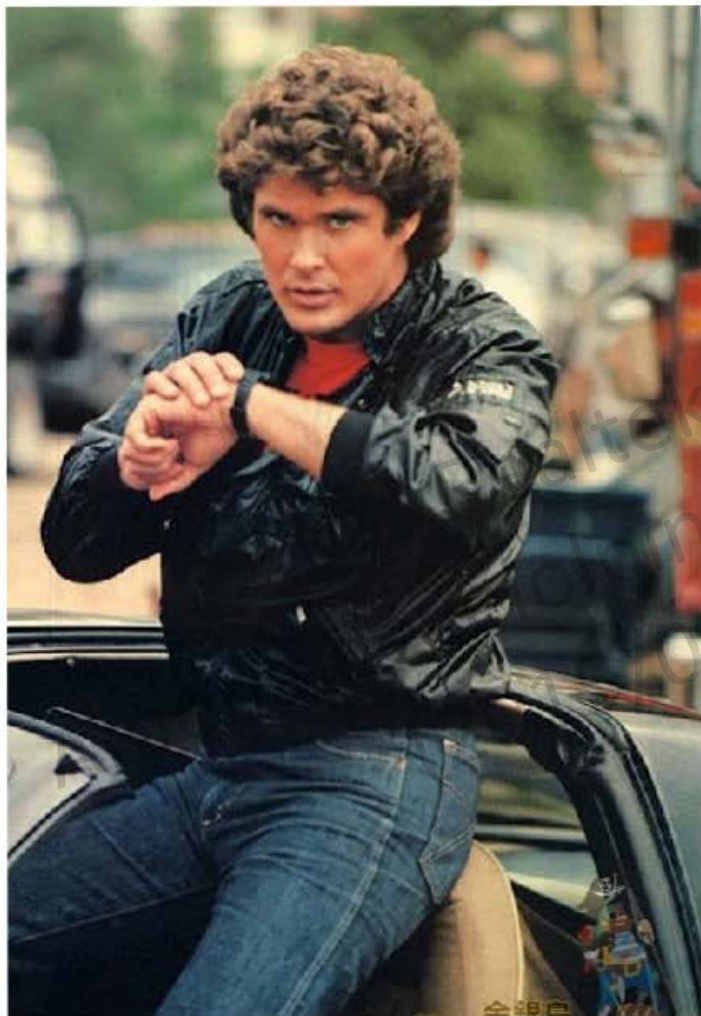
CONSUMER DEVICES MARKET, 2013-2020 (BILLION UNITS)



Source: MarketsandMarkets Analysis



IoT is ON





IoT Platform / EcoSystem



Device
Discovery

Data
Transmission

Device
Management

Data
Management

Security, Authentication

Network Stack

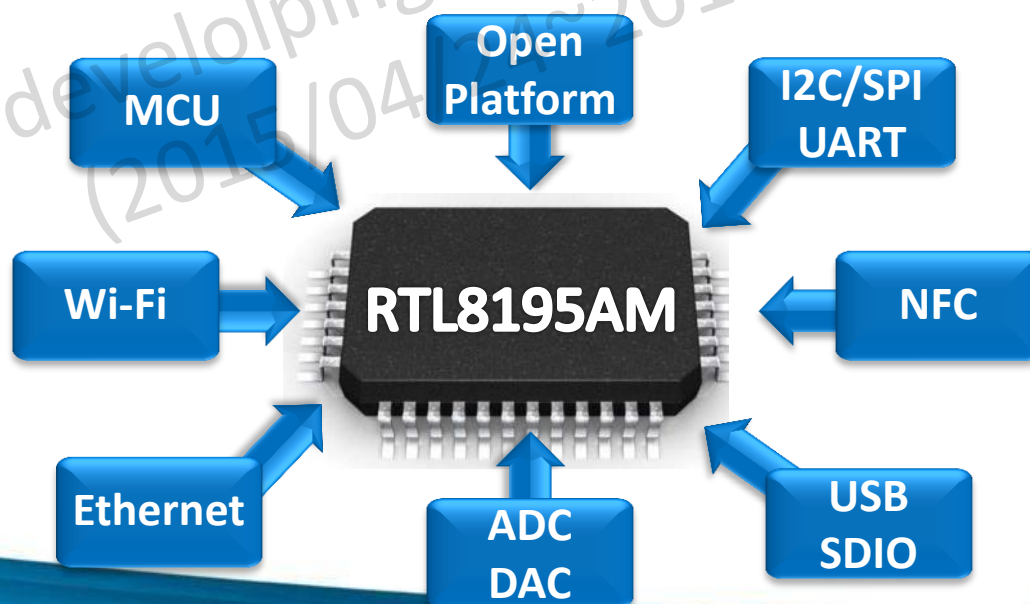
Hardware Platform

Realtek IOT Solution – Ameba



Product Features

- Integrated MCU, Wi-Fi, Ethernet, NFC, SDIO, USB, ADC, DAC and plenty of peripherals into a SoC.
- Low power design
- WW 1st embedded NFC in low power Wi-Fi SoC
- Miniature module size
- Support “One Button Configuration” (Simple-config) in 3 seconds
- Fast resume to reconnect to AP router in 1.5 second
- Support open platform for easily integrating multiple IoT protocols



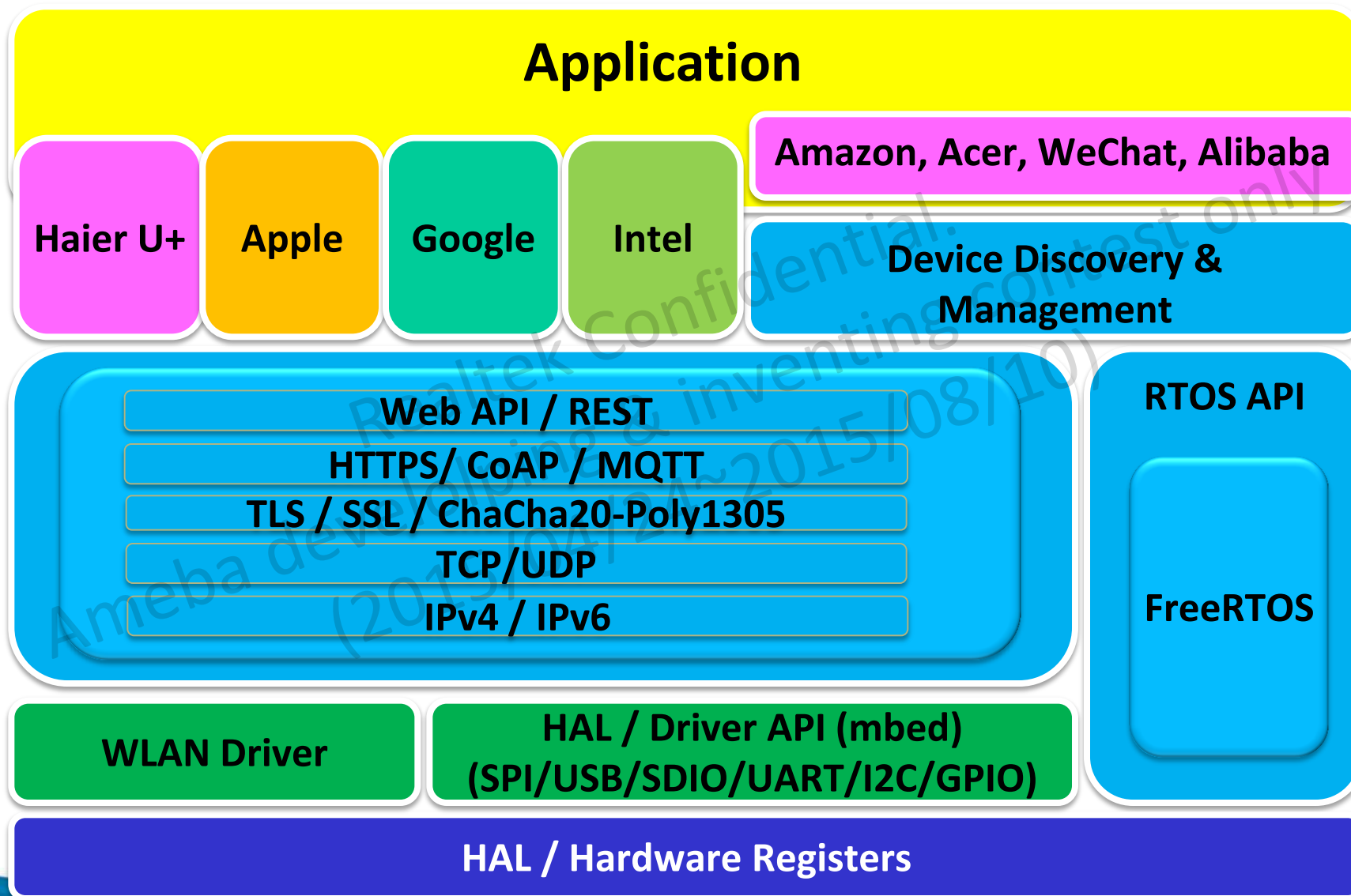


One Button Configuration





Open Platform





IoT System

Remote Control

Cloud / Web API

- Google Nest cloud
- *Amazon
- *Acer BYOC
- JD+
- Ali-Yu
- WeChat



M2M

CoAP

MQTT

LwM2M

Local Control

Homekit
(Siri control)

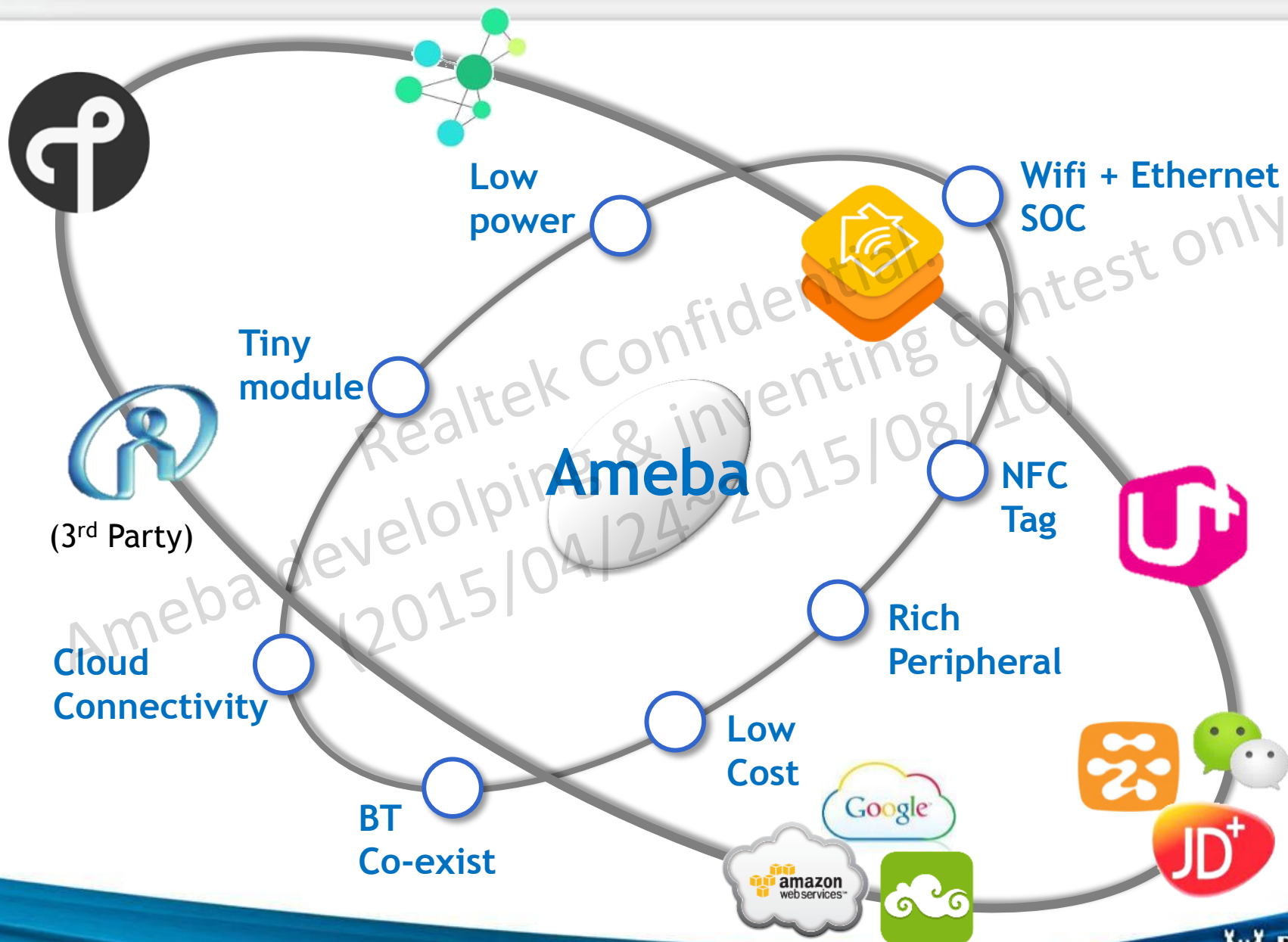


Realtek SDK
Thread* 、OIC*

**Not released*

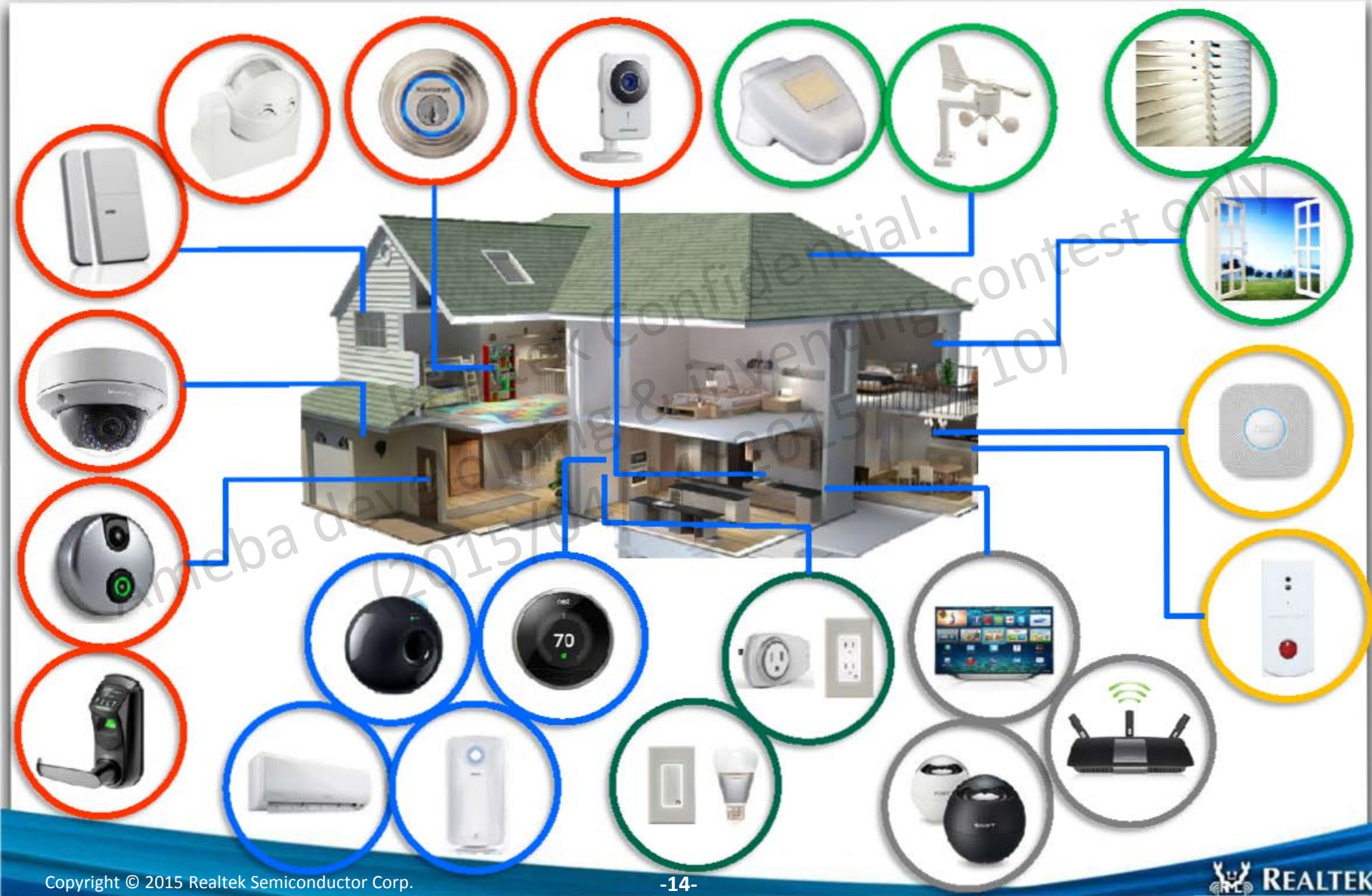


IoT with Ameba



Smart Appliance

Realtek Confidential.
Ameba developing & inventing contest only
(2015/04/24~2015/08/10)



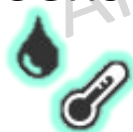


Realtek Solution for IOT



SDIO
Camera

I2C/SPI
Sensor



UART/Data

25mm



18mm

NFC



External
Antenna



Realtek Ameba SoC

- 802.11bgn
- MCU: 32bit Cortex-M3 166MHz
- ROM 1MB, SRAM 512KB, SDRAM 2MB
- Flash up to 16MB
- Hardware SSL Engine

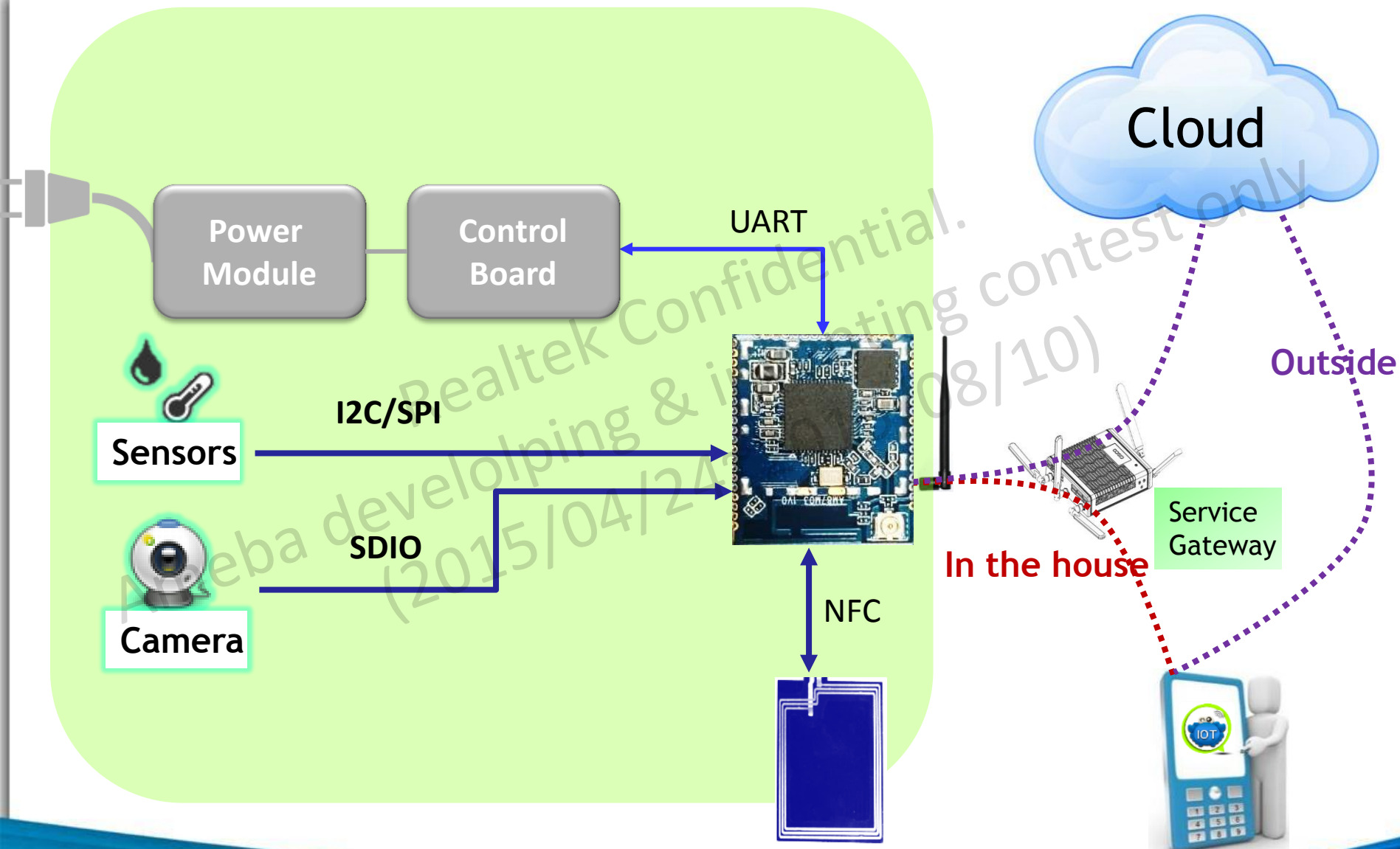
UART/Debug

JTAG

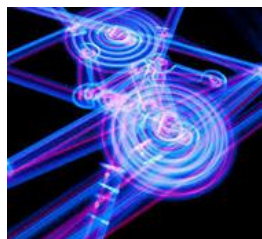
- Compact & highly-integrated IoT module
- One module for many appliances
- Unified homologation



Upgrade to be a Smart Appliance



[Smart Appliances] Robot Cleaner



- Route scan to know the place the robot visited
- Clean the non-visited area



- Remote control/monitor for security/ safety/elderly/pets, etc.



- Air/temperature/humidity detection everywhere



- Monitor the power consumption status, motor operation, etc.
- Automatic alarm for Maintenance

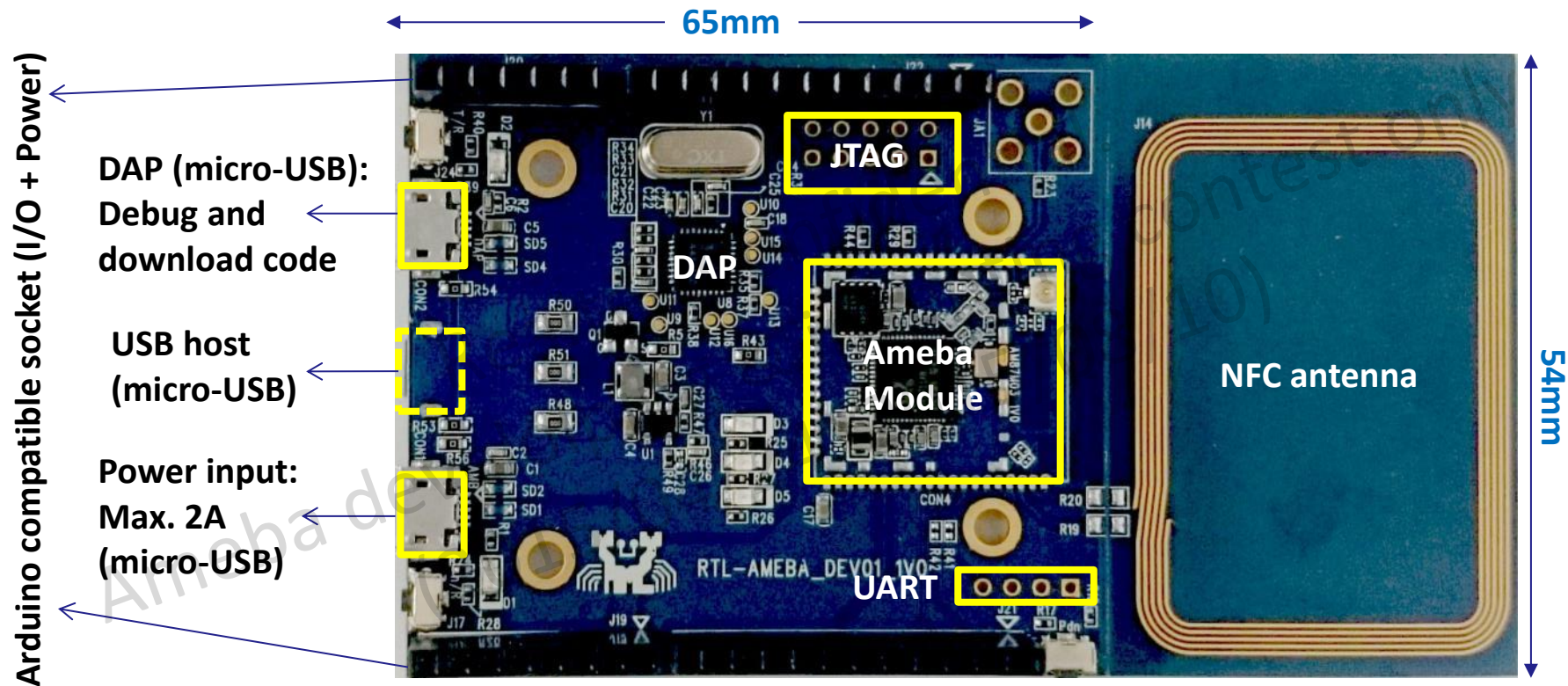


Ameba Development Kit

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Ameba Development Kit





Audio Codec Extension Board

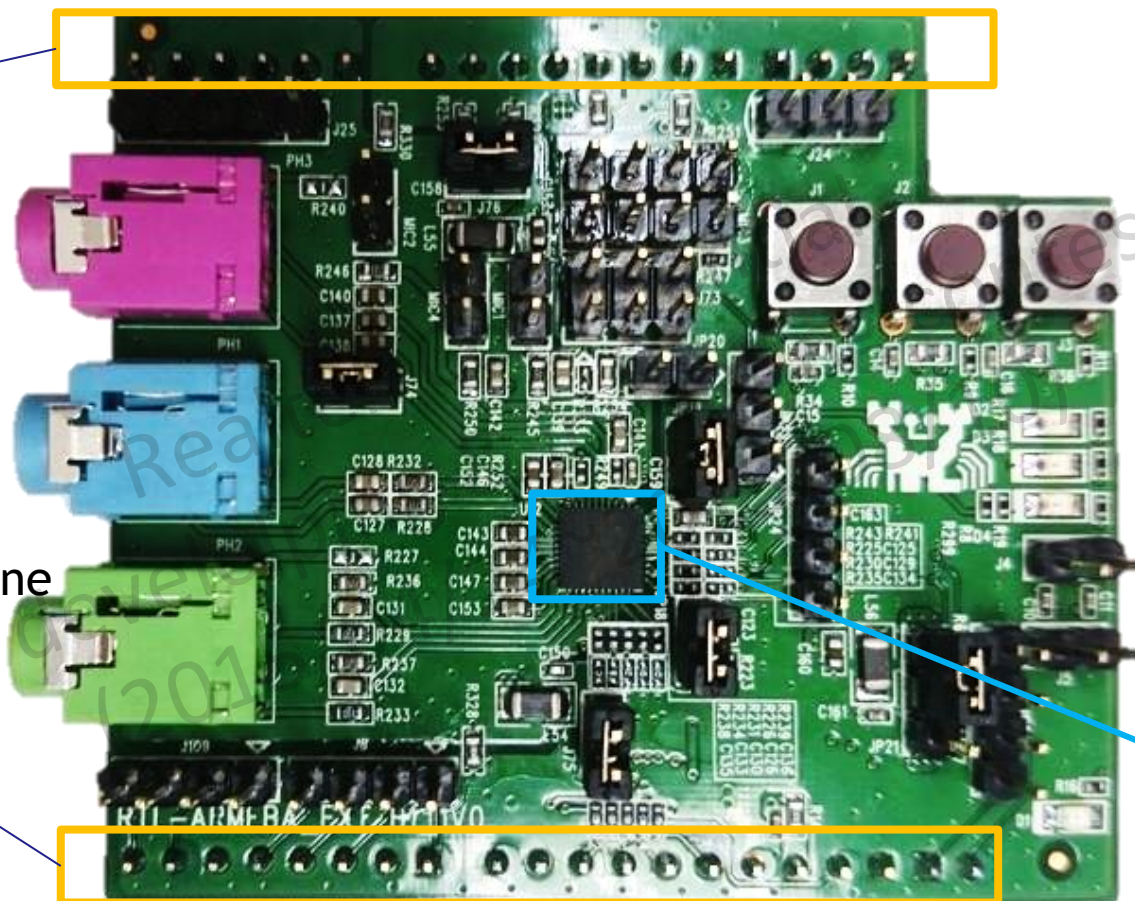
To development board

Line in

Line out

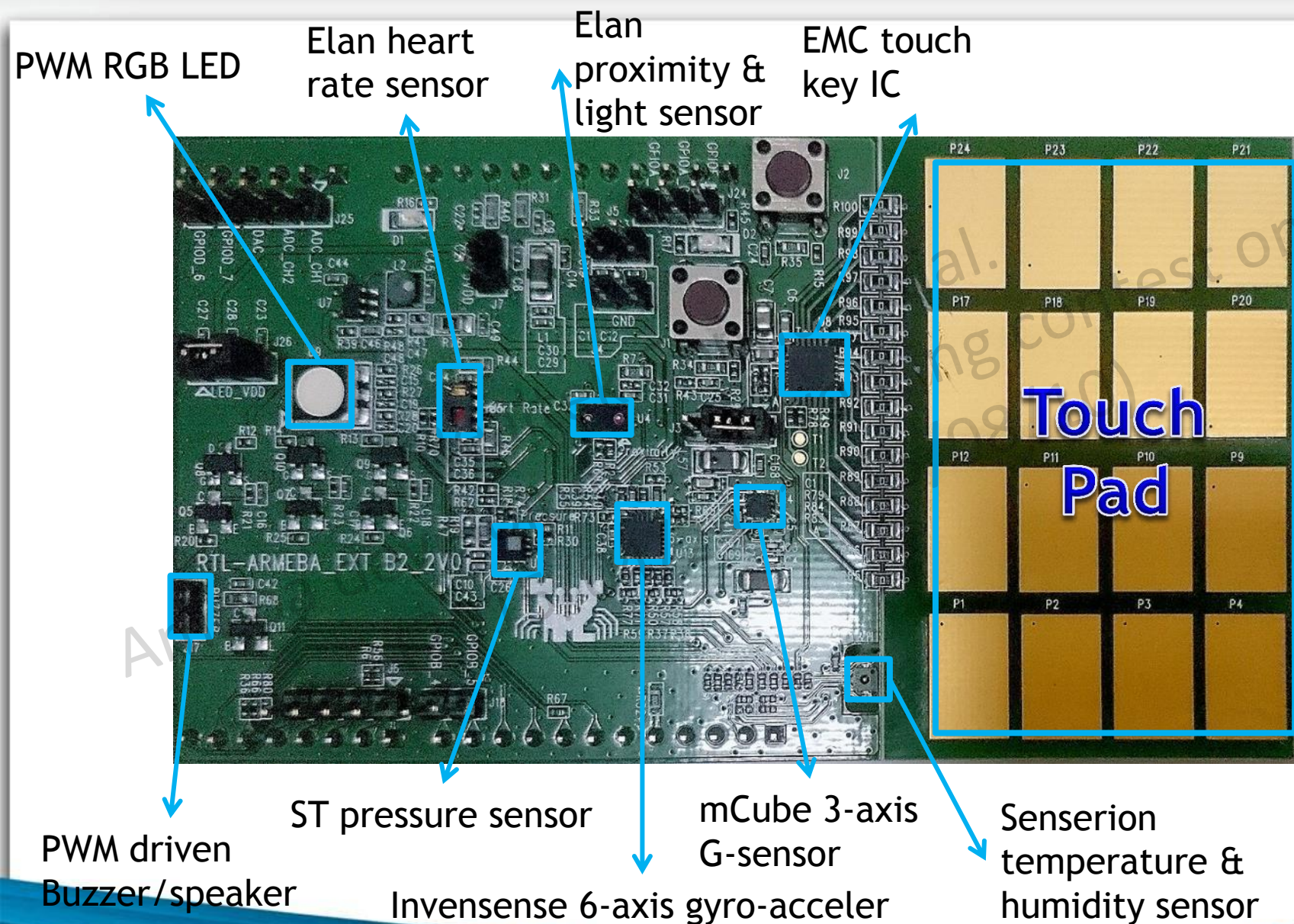
Headphone out

Realtek
audio codec,
ALC5651





Sensor Hub Extension Board





Thank You!

Realtek is committed to providing its customers with the best possible connectivity and multimedia solutions.

