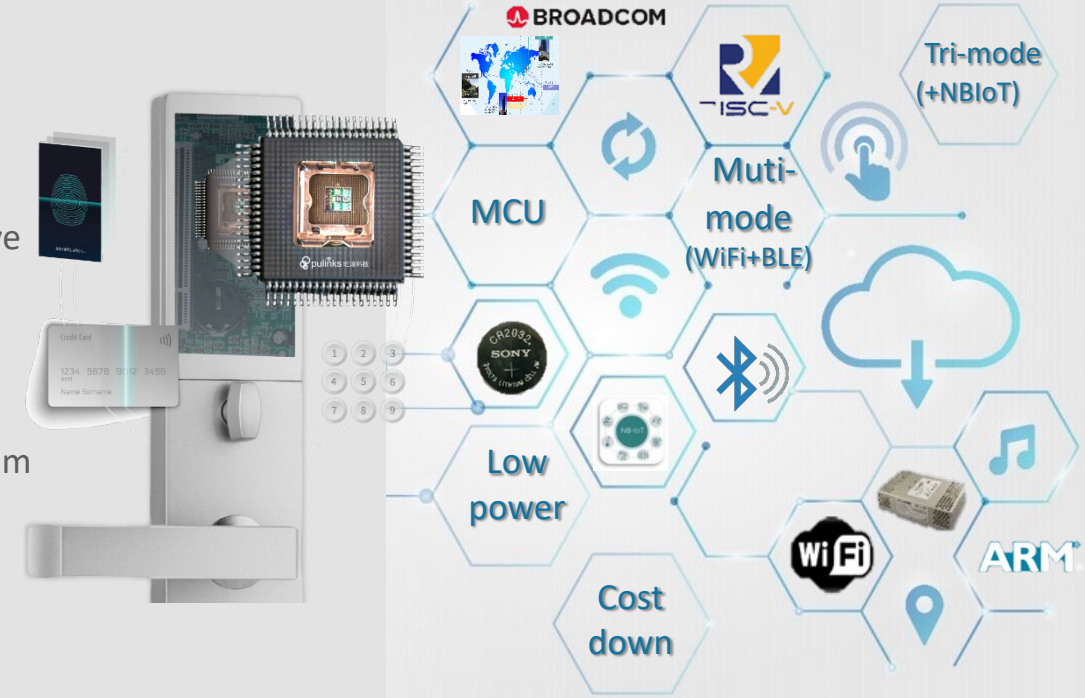
Product Feature

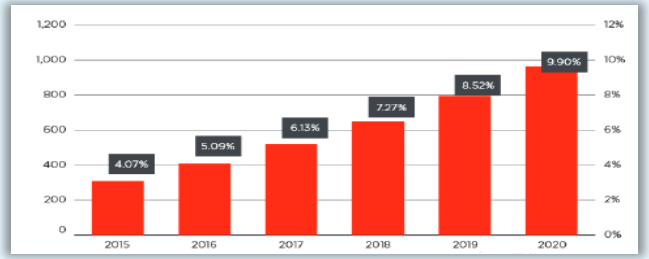
- High performance with low power/ Multimode / MCU
- Widely application/ Primary market
- Cost down with high market competitive advantage

Company Strength

- Senior Technical and Management Team worked at Broadcom with extensive experience in wireless communication
- One Global team



Market Growth



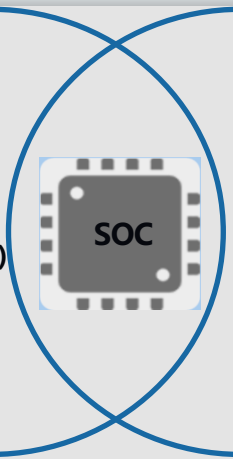
Large scale—IOT market extensive，growing rapidly

Widely application—market keep growth YOY20%-35%)

To integrate fragmented requirements in IoT market

Creating more application scenarios

2.4GHz (WiFi/BLE)



SUB-GHz (NB-IOT)

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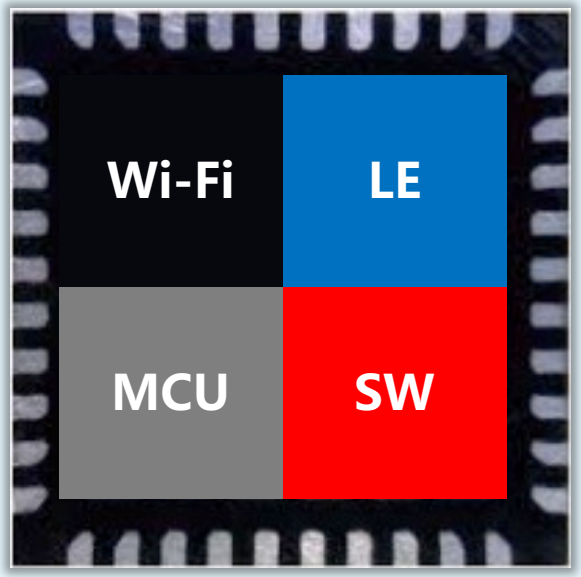
Product positioning and introduction

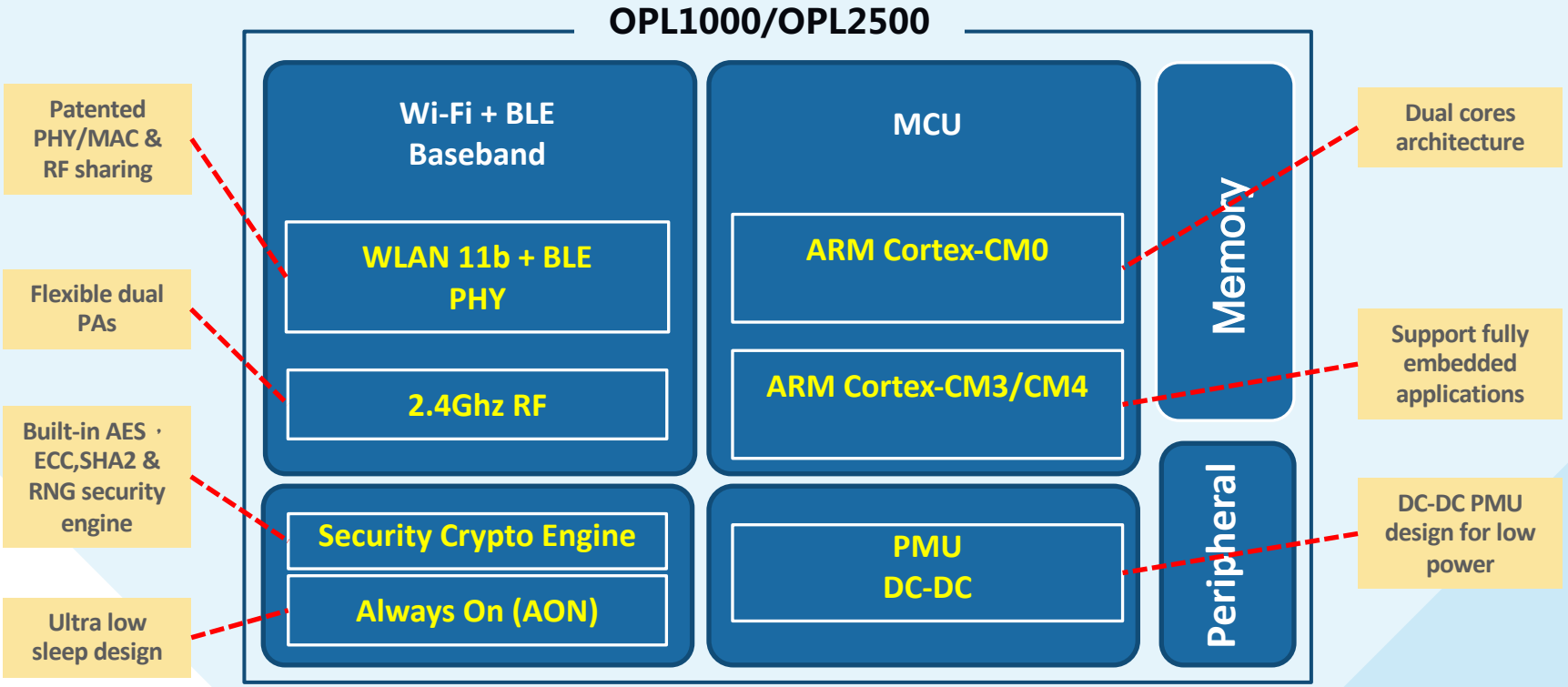
Excellent performance——OPL1000/ OPL2500：2.4GHz Wi-Fi/LE SoC Product



- Single SoC w/ multiple wireless protocols
- Ultra low power and latency
- Fully embedded architecture
- Dual MCUs and flexible memory
- High Integration/Low System Cost

Product positioning and introduction

Excellent performance —— Shared WiFi/LE Architecture+Ultra Low Power+Highly Integrated Chip Includes Power Management, Power Amplifier, Crypto Engine



Competition Analysis——Main Competition

■ **COMBO & WiFi only & LE only comparison :**

Product	COMBO (WiFi+LE)		WiFi only		LE only	
Chip	OPL1000	Espressif ESP32	Microchip RN1732	MediaTek MT7681	Dialog DA14580	Telink TLSR8269
Features	WiFi 11b+LE	WiFi 11b/g/n+LE	WiFi 11b/g/n	WiFi 11b/g/n	LE	LE
Sleep (uA)	~2	25	4	1100	0.6	1.7
Rx (mA)	Wi-Fi: ~18	Wi-Fi: 85 LE: not released	40	151	4.9	12
Tx (mA)	Wi-Fi: ~20 (0dBm)	Wi-Fi: <225 (0dBm) LE: not released	120 (0dBm)	242 (19dBm)	4.9	15
Tx Output Pw (dBm)	Wi-Fi: 0-15 LE: 0-10	Wi-Fi: 20.5 LE: 0-4	0-12	19	0	0-7
Rx Sensitivity (dBm)	Wi-Fi: -92(11b)	Wi-Fi: -98(11b) LE: -98	-83 (typ)	Wi-Fi: -91 (11b)	-93	-92
Dimension (mm2)	~9.5	8.5 (40nm)	26.5	~10	6	~7

Competition Analysis——Main Competition

In line with the trend of the industry, leading in performance and cost

- Product advantages —— highly integrated SoC with MCUs, PMU, Security, multiple wireless standards in the system (WiFi + LE), ultra low power consumption, very low cost
- Wide range of applications —— ultra low power, combo WiFi/LE with dual cores architecture will create more IoT connections, radically changes the wireless connectivity design of the IoT
- Competitor —— main competitor of combo/low-cost chip is Espressif where they are based on licensed IPs
- Power consumption ——— OPL1000 vs. ESP32 1:5 difference
- Cost leadership —— Both cost and ASP are lower than ESP32
- Technological Leadership/Market —— Ultra low power consumption, own wireless IPs, focus on low power applications first but not limited to all other applications, able to support all IoT applications

Market - Key Selling Point KSP

- Main focus area：Smart lock, Smart Scale, Wi-Fi positioning, Healthcare, Smart Lighting and Switch, Transparent mode

Smart Lock
- Battery Powered very sensitive to power
- Direct cloud connection without gateway

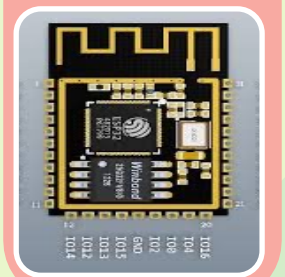
Smart Scale
- Battery Powered very sensitive to power

WiFi Location
- Battery Powered very sensitive to power

Personal Health Care
- Battery Powered very sensitive to power

Lighting & Switch
-Energy Star 0.2W (going to be 0.1W)
- Solving the ghost flare issue with single hot wire

Transparent mode
- Quick replacement of ESP8266 or ESP32 (competitors)



Other application markets

Remote control

BLE+WiFi Remote Control (Voice /OTA)

Watch & Band

Hybrid BLE/WiFi watch, Fitness Band

Toys

Battery powered Remote control/voice

Smart Speaker

BLE+WiFi Battery powered sensitive to power consumption

Fish Eye

Battery powered sensitive to power consumption

AIoT

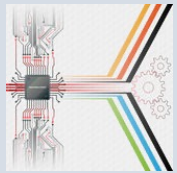
AI Voice+IoT
AI Image+IoT

Company Direction

IoT Trend – Build solid shared-architecture

- ARM CM3/CM4 -> RISC V
- +WIFi 6 AX STA
- +BLE 5.X
- +NB-IoT (Multi-mode)

Cheaper



Ultra Low-power

Small to Big
Near to Far

Multi-Connections

Security

Longer Range