OnMicro
昂瑞微

SOC产品介绍

北京昂瑞微电子技术股份有限公司

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昂瑞微公司简介

- 成立时间：2012年7月
- 公司总部：北京（业务辐射全球）
- 产品布局：射频前端&滤波器芯片、物联网SoC芯片&MCU芯片、模拟信号链&电源管理芯片等
- 公司人员：约400人，研发人员超280人，70%研发人员具有硕士及以上学历

北京总部：研发、运营财务总部

大连：研发中心

上海：研发/销售/技术支持中心

西安：研发中心

韩国：销售/技术支持中心

苏州：运营中心

中国台湾：销售/技术支持中心

广州：研发中心

中国香港：研发中心

深圳：研发/销售/技术支持中心

公司产品布局

OnMicro 昂瑞微

射频前端/滤波器

- 5G Phase7 LE PAMID
- 5G Phase5N TX/MMMB PA
- 5G Sub6G PA Module
- 4G TX Module/MMMB PA
- 5G Switch、LNA bank、tuner
- WiFi FEM（研发中）
- DiFEM（研发中）
- 基站PA、Switch、LNA bank（研发中）

物联网射频SOC/MCU

- BLE 5.1/5.2蓝牙芯片
- 四模蓝牙5.2芯片
  (音频、BLE、2.4G自定义RF、USB)
- 2.4G自定义射频芯片
- MCU系列（M33，研发中）

模拟信号链/电源管理
(新筹建团队)

- PMIC
- Buck/Boost DC-DC
- LDO
- OP
- BMS
- AD/DA

产品应用


Sumsung


Nokia-105


QIN


荣耀


小米


三星


摩托罗拉


中国移动 NZONE


中国联通 U-MAGIC


雷鸟


充电宝 座舱


哈啰 电单车


排队 叫号机


拉卡拉 移动POS机


Mibro X1

Mibro air

小寻手表


小天才手表


智能U型锁


凯迪仕智能门锁

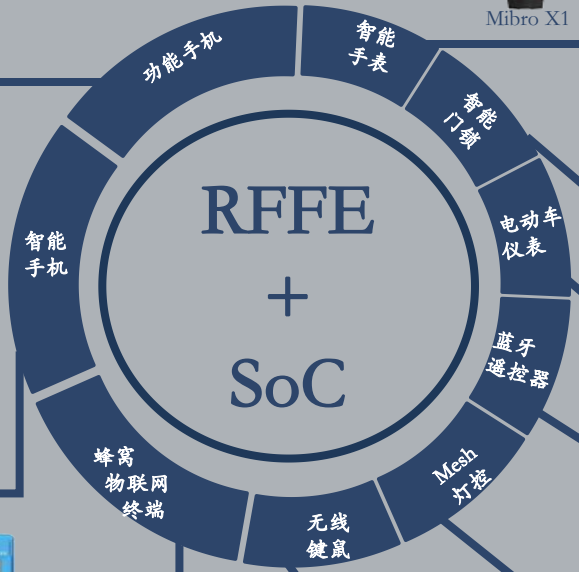

电动车仪表


小米遥控器


Mesh灯控




鼠标键盘套装



客户群体


HONOR
SAMSUNG
FOXCONN
CNCE 中诺通讯
TECNO
ZTE中兴
Lenovo
WINGTECH
PROFESSIONAL SOLUTIONS
闻泰科技股份有限公司
HUAQIN
华勤通讯
龙旗 LONGCHEER
TINNO 天珑
QUECTEL
Fibocom
PHILIPS
科大讯飞
iFLYTEK
tuya
涂鸦智能
Kaadas
凯迪仕 • 智能锁
xun小寻
hp

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SoC团队简介

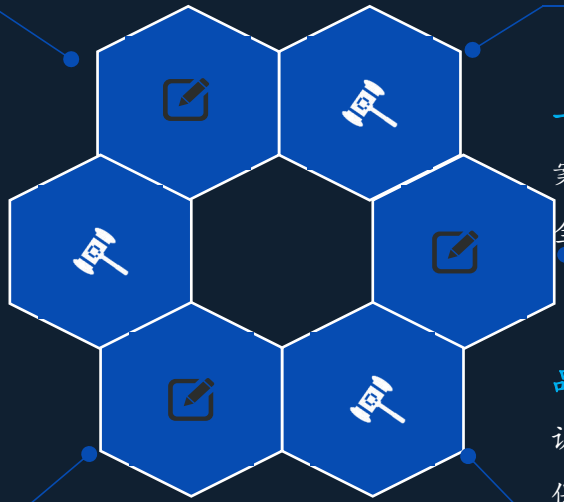
- 团队近100人，核心成员主要来自清华大学、北京大学、中科院博士和硕士，具有多年的设计经验，擅长低功耗无线通讯芯片和音频芯片设计。
- 团队分设数字组、模拟射频组、软件组、算法组、应用组和后端组，具备完善的模块和系统全集成设计能力。
- 经过多年的打磨，团队已成功量产多款无线通讯芯片，出货量为4000万颗/月左右。
- 有专业的应用团队和FAE团队，具备**智能穿戴**、**蓝牙遥控器**、**无线键鼠**、**智能门锁**、**电动车仪表**、**数字钥匙**、**寻物防丢器**等方案turn-key的设计能力。

SoC 技术优势

CMOS超低功耗技术和射频技术：产品工艺制程先进，射频性能领先，采用软硬件结合的低功耗技术策略，大幅降低产品综合功耗。

AIoT自组网技术：符合蓝牙官方认证的蓝牙MESH网络技术；自有知识产权的自组网MESH网络技术。

自有知识产权丰富：应用于可穿戴设备的2.5D图形处理加速引擎；应用于语音设备的智能语音前端处理技术；应用于室内定位和导航的无线定位技术等。



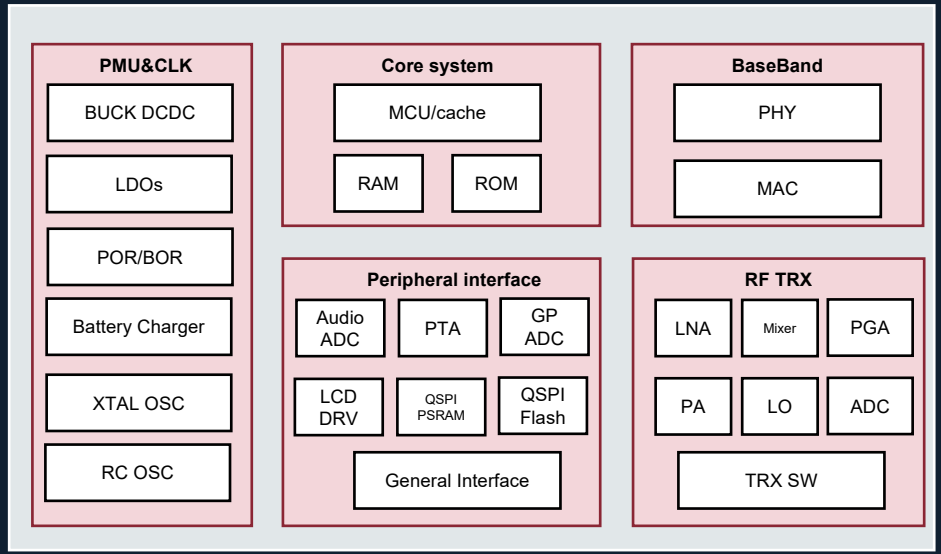
低功耗广域网（LPWAN）技术：自有协议的LPWAN技术，超低功耗，超远距离，性能居于业内领先水平。

一站式定制化服务：产品提供Turn-Key方案，包括键鼠、遥控器和手表等，提供全方位on-site技术支持。

品质保障：产品通过FCC、CE等射频认证，以及SIG蓝牙官方认证，品质有保障。

BLE IoT SoC 技术特性

- 全功能蓝牙BLE5.1，支持AoA/AoD定位功能
- 射频支持高速率和long range功能，输出功率范围广，接收灵敏度高灵敏度高
- 采用动态电压技术和ULP工艺实现低功耗设计，全集成电源管理电路
- 支持图像显示接口和外扩Flash/PSRAM存储
- AIOT自组网技术，已过SIG Mesh认证
- 内建高性能语音ADC，支持语音采集和语音遥控



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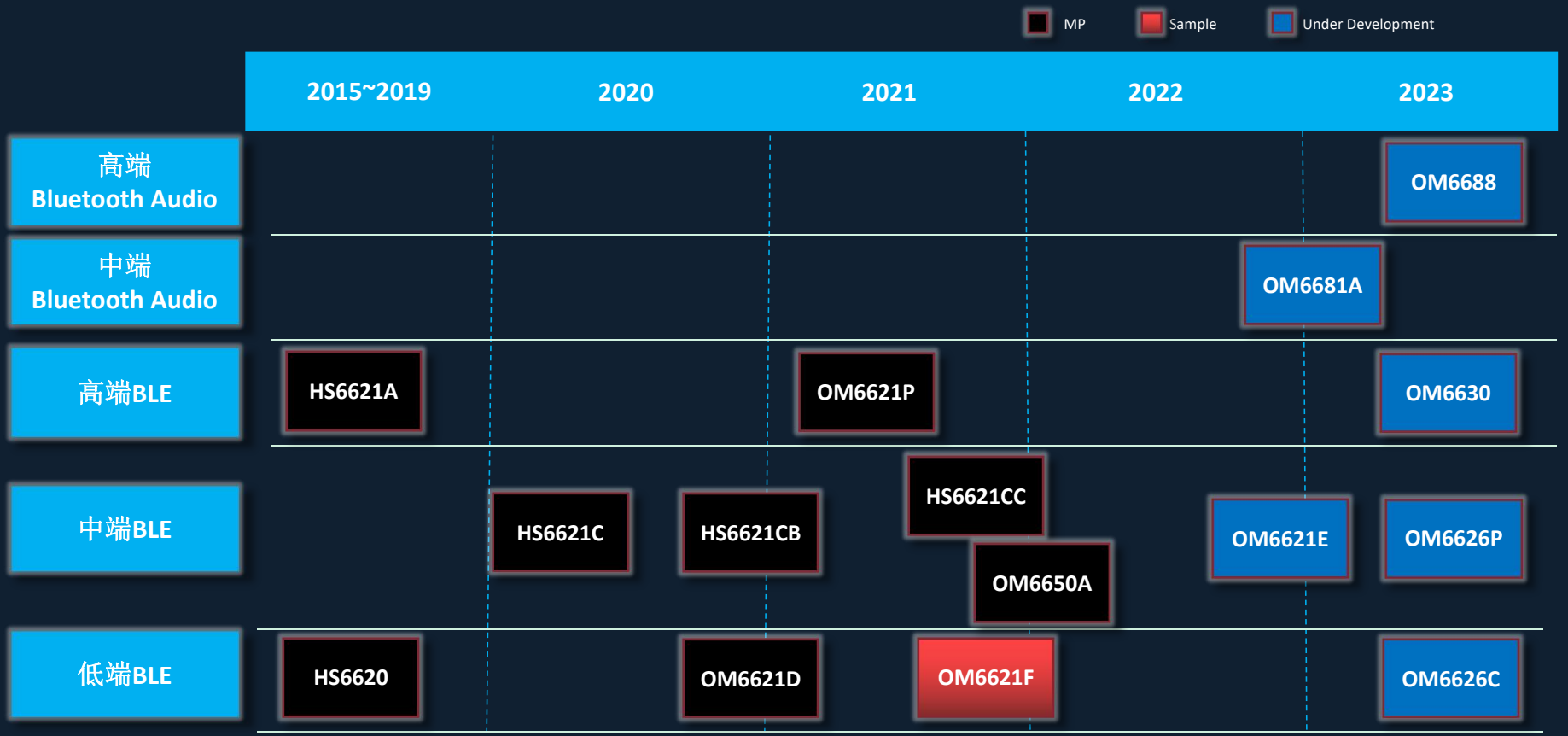
产品Roadmap


MP
Sample
Under Development
2015~2019
2020
2021
2022
2023
高端 Bluetooth Audio
中端 Bluetooth Audio
高端BLE
中端BLE
低端BLE
OM6688
OM6681A
HS6621A
OM6621P
OM6630
HS6621C
HS6621CB
HS6621CC
OM6650A
OM6621E
OM6626P
HS6620
OM6621D
OM6621F
OM6626C

蓝牙SoC产品列表

OnMicro 昂瑞微

参数	OM6681A系列	OM6621P系列	HS6621CC系列	OM6621D系列	OM6621F系列	OM6621E系列	OM6626P系列
MCU	M33s 208MHz + M33s 96MHz	Arm Cortex-M4F 128MHz	Arm Cortex-M4F 64MHz	Arm Cortex-M4 64MHz	Arm Cortex-M4 64MHz	Arm Cortex-M4 64MHz	Arm Cortex-M4 64MHz
RAM	512KB + 96KB BT RAM	392KB	64KB	24KB+ 16KB OTP	16KB + 24KB OTP	40KB	96KB
FLASH	1MB/16MB + 4KB eFuse	PG : 8Mb PW : 16Mb	CM/CG: 8Mb CQ/CF : 4Mb	DG : 4Mb DQ : 2Mb	FQ : 4Mb FB : 1Mb	4Mb	4Mb/8Mb + 256bit eFuse
Protocol	BLE 5.2 & proprietary 2.4GHz	BLE 5.1 & proprietary 2.4GHz	BLE 5.1 & proprietary 2.4GHz	BLE 5.1 & proprietary 2.4GHz	BLE 5.1 & proprietary 2.4GHz	BLE 5.1 & proprietary 2.4GHz	BLE 5.3 / proprietary 2.4GHz
Date rate	1M/2M/BR/EDR2M/ 3M	1M/2M/125K/500K bps	1M/2M/125K/500K bps	1M/2M bps	1M/2M bps	1M/2M bps	1M/2M/500K/250K bps
Modulation format	FSK/GFSK	FSK/GFSK	FSK/GFSK	FSK/GFSK	FSK/GFSK	FSK/GFSK	FSK/GFSK/MSK
Rx Current	5.0mA	6.8mA	6.6mA	13.5mA	13.5mA	4.0mA	3.0mA
Tx Current (0dBm)	5.0mA	6.4mA	6.2mA	14.0mA	14.0mA	4.5mA	4.0mA
Rx Sensitivity(@1M)	-96dBm	-96dBm	-95.5dBm	-97dBm	-97dBm	-98dBm	-99dBm
Ultra Sleep Current	2.0uA	1.6uA	1.5uA	3.0uA(RC 32K on)	3.0uA(RC 32K on)	1.0uA	1.0uA
GPIO	96	PG : 31+2 PW : 47+3	CM : 17 CQ : 21 CF /CG : 32	DQ : 19 DB : 12	FQ : 19 FB : 12	EM : 23	LM : 24
量产时间	23Q2	MP	MP	MP	CS	23Q1	23Q3

OM6650A系列产品特性

- **Bluetooth Spec**
  - Full feature BLE 5.1
  - Private 2.4G
  - 1Mbps/2Mbps/125KBps/500KBps
  - 255 advertise data length/37 advertise channel
  - AoA/AoD
- **RF Feature**
  - Sensitivity: -95.5dBm@1Mbps, -93dBm@2Mbps -98dBm@500KBps, -101.5dBm@125KBps
  - TX Power: -20dBm~+9dBm
  - RSSI resolution: ±1dB
- **MCU&Memory**
  - Arm Cortex-M4F, max 64MHz
  - 64KB SRAM
  - 4Mb sFLASH
- **Clock**
  - 32MHz crystal, 32MHz RC,
  - 32.768KHz crystal, 32KHz RC (100 ppm)
- **Link Layer Controller**
  - BT5.1 BLE link layer controller
  - 2.4GHz Proprietary protocol link layer controller
- **PMU**
  - Voltage range: 1.8V~3.6V
  - Charger input voltage: 4.5V~5.5V
  - Peak current: RX 6.6mA, TX 6.2mA@0dBm
  - Ultra-sleep current: 1.5uA
  - Connect current: 25uA (1s connect interval)
  - Integrated DCDC BUCK Converter
  - Integrated charger circuit of Li-battery
- **Interface and peripheral**
  - 17 GPIOs
  - 8xDMAs, 2xUARTs, 1xI2S, 3xI2Cs, 2xSPIs, 3xTimers, 3xQDECs
  - Support QSPI LCD
  - Watchdog, RTC
  - 8 channel 12bit ADC, max 2Msps
- **Audio ADC**
  - 16 bit ADC, SNR 93dB
  - Analog Mic/Digital Mic
- **Security and encryption**
  - Hardware AES
  - Random number generator

OM6681A系列产品特性

- **Bluetooth Spec**
  - Full feature BT 5.2
  - Private 2.4G
  - 1Mbps/2Mbps/BR/EDR
  - LC3 Codec
  - Isochronous channels and TWS
- **RF Feature**
  - Sensitivity: -96dBm@BLE 1Mbps
    -95dBm@BR
  - TX Power: -20dBm~+12dBm
  - RSSI resolution: ±1dB
- **MCU&Memory**
  - Arm Cortex-M33S, max 208MHz
    + Arm Cortex-M33S 96MHz
  - 512KB SRAM
  - 96KB SRAM for BT
  - 4KBit efuse
  - 16/128Mb sFLASH
  - 16Mb PSRAM (96MHz OSPI)
  - 16K Dcache + 16K Icache
- **Clock**
  - 32MHz crystal, 32MHz RC,
  - 32.768KHz crystal, 32KHz RC
- **Link Layer Controller**
  - BT5.2 BLE link layer controller
  - 2.4GHz Proprietary protocol link layer controller
- **PMU**
  - Voltage range: 2.4V~4.5V
  - Charger input voltage: 4.5V~5.5V
  - Peak current: RX 5mA, TX 5mA@0dBm
  - Ultra-sleep current: 2.0uA
  - Integrated DCDC BUCK Converter
  - Integrated charger circuit of Li-battery
- **Security and encryption**
  - Hardware AES
  - Random number generator
  - ECDSA
  - SHA
  - 4KB eFuse
- **Interface and peripheral**
  - Up to 96 GPIOs
  - (8+8)xchs DMAs, 5xUARTs, 2xI2Ss, 5xI2Cs, 3xSPIs
  - USB2.0 full speed, Wi-Fi PTA
  - 5xTimers, 5 independent PWMs
  - 2xWDTs, RTC
  - Key-board controller
  - 8 channel 12-bit ADC
  - eMMC/SDIO
  - QSPI/OPI PSRAM
- **Audio Codec**
  - 24 bit stereo DAC, SNR 97dB
  - 24 bit ADC, SNR 95dB
  - Noise reduction
  - Acoustic Echo Cancellation
  - Multi band EQ
  - two analog MICs/ two digital MICs
- **Display**
  - DSPI/QSPI up to 512x512
  - QSPI/OSPI PSRAM
  - 2D accelerator, ETC2 decoder

OM6621P系列产品特性

Bluetooth Spec
- Full feature BLE 5.1
- Private 2.4G
- 1Mbps/2Mbps/125KBps/500KBps
- 255 advertise data length/37 advertise channel
- AoA/AoD

RF Feature
- Sensitivity: -96dBm@1Mbps, -93dBm@2Mbps
  -99dBm@500KBps, -102dBm@125KBps
- TX Power: -20dBm~+9dBm
- RSSI resolution: ±1dB

MCU&Memory
- Arm Cortex-M4F, max 128MHz
- 392KB SRAM
- 8Mb/16Mb sFLASH

Clock
- 32MHz crystal, 32MHz RC,
- 32.768KHz crystal, 32KHz RC (100 ppm)

Link Layer Controller
- BT5.1 BLE link layer controller
- 2.4GHz Proprietary protocol link layer controller

PMU
- Voltage range: 2.7V~3.6V
- Charger input voltage: 4.5V~5.5V
- Peak current: RX 6.8mA, TX 6.4mA@0dBm
- Ultra-sleep current: 1.6uA
- Integrated DCDC BUCK Converter
- Integrated charger circuit of Li-battery

Interface and peripheral
- Up to 50 GPIOs
- 8xDMAs, 2xUARTs, 1xI2S, 3xI2Cs, 2xSPIs
- Support DSPI/QSPI LCD display
- Support QSPI PSRAM
- 3xTimers, 12xPWMs, 3xQDECs
- Watchdog, RTC
- Key-board controller
- 8 channel 12-bit ADC, max 2Msps

Audio ADC
- 16 bit ADC, SNR 93dB

Security and encryption
- Hardware AES
- Random number generator

HS6621CC系列产品特性

- **Bluetooth Spec**
  - Full feature BLE 5.1
  - Private 2.4G
  - 1Mbps/2Mbps/125KBps/500KBps
  - 255 advertise data length/37 advertise channel
  - AoA/AoD
- **RF Feature**
  - Sensitivity: -95.5dBm@1Mbps, -93dBm@2Mbps -98dBm@500KBps, -101.5dBm@125KBps
  - TX Power: -20dBm~+9dBm
  - RSSI resolution: ±1dB
- **MCU&Memory**
  - Arm Cortex-M4F, max 64MHz
  - 64KB SRAM
  - 4Mb sFLASH
- **Clock**
  - 32MHz crystal, 32MHz RC,
  - 32.768KHz crystal, 32KHz RC (100 ppm)
- **Link Layer Controller**
  - BT5.1 BLE link layer controller
  - 2.4GHz Proprietary protocol link layer controller
- **PMU**
  - Voltage range: 1.8V~3.6V
  - Charger input voltage: 4.5V~5.5V
  - Peak current: RX 6.6mA, TX 6.2mA@0dBm
  - Ultra-sleep current: 1.5uA
  - Connect current: 25uA (1s connect interval)
  - Integrated DCDC BUCK Converter
  - Integrated charger circuit of Li-battery
- **Interface and peripheral**
  - Up to 32 GPIOs
  - 8xDMAs, 2xUARTs, 1xI2S, 3xI2Cs, 2xSPIs, 3xTimers, 3xQDECs
  - Support QSPI LCD
  - Watchdog, RTC
  - 8 channel 12bit ADC, max 2Msps
- **Audio ADC**
  - 16 bit ADC, SNR 93dB
  - Analog Mic/Digital Mic
- **Security and encryption**
  - Hardware AES
  - Random number generator

OM6621D系列产品特性

- **Bluetooth Spec**
  - BLE 5.1
  - Private 2.4G
  - 1Mbps/2Mbps for 2.4G
- **RF Feature**
  - Sensitivity: -97dBm@1Mbps
  - TX Power: -20dBm~+10dBm
  - RSSI resolution: ±1dB
- **MCU&Memory**
  - Arm Cortex-M4, max 64MHz
  - 24KB SRAM
  - 16KB OTP
  - 2Mb/4Mb sFLASH
- **Clock**
  - 32MHz crystal，32MHz RC,
  - 32KHz RC
- **PMU**
  - Voltage range: 2.1V~3.6V
  - Charger input voltage: 4.5V~5.5V
  - Peak current: RX 13.5mA, TX 14mA@0dBm
  - Sleep current: 3.0uA(RC 32K on)
  - Integrated charger circuit of Li-battery
- **Interface and peripheral**
  - Up to 19 GPIOs
  - 4xDMAs, 1xUART, 3xTimers, 6xPWMs
  - 1xSPI, support DSPI display
  - Watchdog, RTC
  - 4 channel 10bit ADC
- **Security and encryption**
  - Hardware AES
  - Random number generator

OM6621F系列产品特性

- **Bluetooth Spec**
  - BLE 5.1
  - Private 2.4G
  - 1Mbps/2Mbps for 2.4G
- **RF Feature**
  - Sensitivity: -97dBm@1Mbps
  - TX Power: -20dBm~+10dBm
  - RSSI resolution: ±1dB
- **MCU&Memory**
  - Arm Cortex-M4, max 64MHz
  - 16KB SRAM
  - 24KB OTP
  - 1/4Mb sFLASH
- **Clock**
  - 32MHz crystal，32MHz RC,
  - 32KHz RC
- **PMU**
  - Voltage range: 1.8V~3.6V
  - Charger input voltage: 4.5V~5.5V
  - Peak current: RX 13.5mA, TX 14mA@0dBm
  - Sleep current: 3.0uA(RC 32K on)
  - Integrated charger circuit of Li-battery
- **Interface and peripheral**
  - Up to 19 GPIOs
  - 4xchns DMA, 3xUARTs, 1xSPI, 3xTimers, 6xPWMs
  - Watchdog, RTC
  - 7 channel 10bit ADC
- **Security and encryption**
  - Hardware AES
  - Random number generator

OM6621E系列产品特性

- **Bluetooth Spec**
  - BLE 5.1
  - Private 2.4G
  - 1Mbps/2Mbps
- **RF Feature**
  - Sensitivity: -98dBm@1Mbps, -95dBm@2Mbps
  - TX Power: -20dBm~+7dBm
  - RSSI resolution: ±1dB
- **MCU&Memory**
  - Arm Cortex-M4F, max 64MHz
  - 40KB SRAM
  - 256bit eFuse
  - 4Mb sFLASH
- **Clock**
  - 32MHz crystal, 32MHz RC,
  - 32KHz RC
- **Link Layer Controller**
  - BT5.1 BLE link layer controller
  - 2.4GHz Proprietary protocol link layer controller
- **PMU**
  - Voltage range: 1.8V~3.6V
  - Peak current: RX 4mA, TX 4.5mA@0dBm
  - Ultra-sleep current: 1.0uA
  - Integrated DCDC BUCK Converter
- **Interface and peripheral**
  - Up to 23 GPIOs
  - 4xDMAs, 2xUARTs, 1xI2S, 1xI2C
  - 2xadv timers
  - 1x16bit PWM timer
  - Watchdog
  - 6 channel 10bit 125Ksps ADC
  - IR transceiver
- **Audio ADC**
  - 16 bit ADC, SNR 93dB
  - Analog Mic/Digital Mic
- **Security and encryption**
  - Hardware AES
  - Random number generator

OM6626P系列产品特性

- **Bluetooth Spec**
  - BLE 5.3
  - Private 2.4G
  - 1Mbps/2Mbps/125KBps/500KBps
- **RF Feature**
  - Sensitivity: -99dBm@1Mbps, -96dBm@2Mbps
  - TX Power: -20dBm~+10dBm
  - RSSI resolution: ±1dB
- **MCU&Memory**
  - Arm Cortex-M4, max 64MHz
  - 96KB SRAM
  - 4/8Mb sFLASH
- **Clock**
  - 32MHz XTAL, 32MHz RC,
  - 32KHz RC, 32.768KHz XTAL
- **Link Layer Controller**
  - BT5.3 BLE link layer controller
  - 2.4GHz Proprietary protocol link layer controller
- **PMU**
  - Voltage range: 1.71V~3.6V
  - Peak current: RX 3mA, TX 4mA@0dBm
  - Ultra-sleep current: 1.0uA
  - Integrated DCDC BUCK Converter
- **Interface and peripheral**
  - Up to 24 GPIOs
  - 8 DMAs, 2 UART, I2S, I2C
  - 2 SPI, 1 flash controller
  - 5 adv timers, 12 PWM timer, 1 LE timer
  - Watchdog
  - 8 channel 12-bit 1Msps ADC
- **Security and encryption**
  - Hardware AES
  - Random number generator

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产品应用领域

OnMicro 昂瑞微

低功耗蓝牙BLE

手环手表　键盘鼠标　蓝牙遥控器　指纹锁　智能家居　...

2.4G自定义RF SoC

无线键鼠　智能电控　遥控玩具　调光灯　自拍杆　...

通用MCU

逆变储能

语音遥控器应用方案

客户：小米、TCL

01

OM6621E

Cortex-M4, max 64MHz

40KB SRAM, 256bit eFuse, 2Mb/4Mb sFLASH

Up to 23 GPIOs

02

OM6621CF-C

Cortex-M4F, max 64MHz

64KB SRAM, 4Mb sFLASH

Up to 32 GPIOs

03

OM6621CM-C

Cortex-M4F, max 64MHz

64KB SRAM, 4Mb sFlash

Up to 17 GPIOs

指纹锁应用方案

HS6621CG-B

01

Cortex-M4F, max 64MHz

64KB SRAM, 8Mb sFLASH

Up to 32 GPIOs

OM6621PG

02

Cortex-M4F, max 128MHz

392KB SRAM, 8Mb sFLASH

Up to 31 GPIOs + 2 INPUT

OM6621PW

03

Cortex-M4F, max 128MHz

392KB SRAM, 16Mb sFLASH

Up to 47 GPIOs + 3 INPUT

OM6681A

04

Cortex-M33S 208MHz + Cortex-M33S 96MHz

512KB SRAM, 96KB SRAM for BT

16/128Mb sFLASH

16Mb PSRAM (96MHz OSPI)

Up to 96 GPIOs

贝特莱sensor：160*160，采用经典算法，以特征点为主、模板2K;
贝特莱sensor：96*112，以图像算法为主、模板8-12K、解锁时间都＜1秒。一枚指纹录：4-6次。FAR/FRR：1/200000和1/50000。

指纹锁方案市场表现

OnMicro 昂瑞微

指纹锁整机品牌客户

凯迪仕

海贝斯

指纹锁方案开发公司

同欣智能

西尚科技

赛脑智能

指纹识别Sensor公司

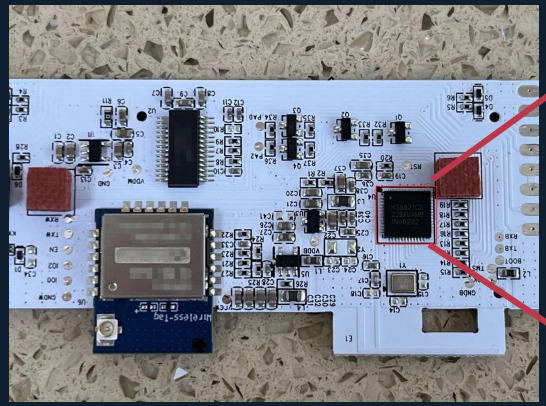
贝特莱

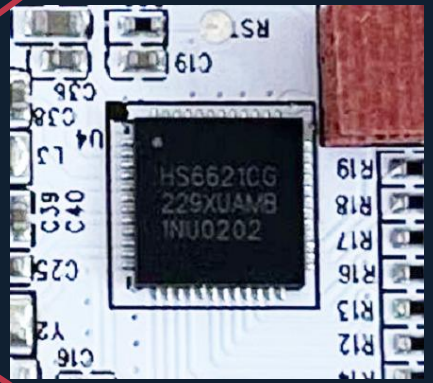
迈瑞微

FPC

产品	封装	sFlash	充电功能	1S蓝牙连接功耗	1S定时唤醒功耗	深睡功耗	每枚指纹占用空间		指纹识别时间		sensor分辨率	
							迈瑞微	贝特莱	迈瑞微	贝特莱	迈瑞微	贝特莱
OM6621PG	QFN48 (6*6mm)	8Mb	100/300mA	**30uA**	**15uA**	**1.6uA**	40KB(15枚)	16KB(30枚)	**220ms~530ms** (注册10~15枚指纹)	**350ms** (注册20枚指纹)	120*120 (508 dpi)	96*112 (508 dpi)
OM6621PW	QFN64 (7.5*7.5mm)	16Mb	100/300mA	**30uA**	**15uA**	**1.6uA**	40KB(40枚)	16KB(95枚)	**220ms~530ms** (注册10~15枚指纹)	**350ms** (注册20枚指纹)	120*120 (508 dpi)	96*112 (508 dpi)

体脂秤应用方案

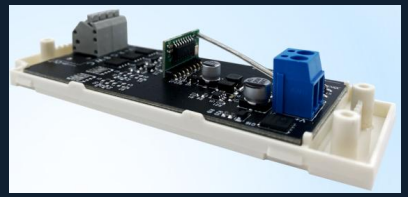




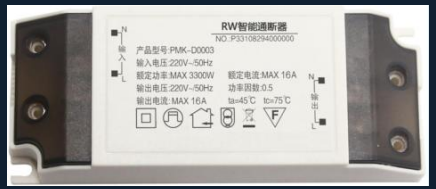
HS6621C系列芯片作为主控已应用在**乐福衡器体脂秤**，具有以下优点：

- 外设资源丰富，具有2xUART和2xQSPI
- 功耗低，待机功耗<5uA, 工作电流<4mA
- 驱动320*380的屏幕

智能家居应用方案

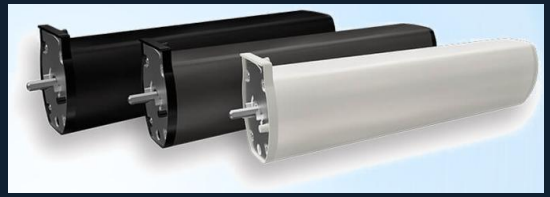


灯具控制器



通断器

智能插座



窗帘控制器

智能面板

蓝牙遥控

OM6621D系列芯片作为主控已应用在品上照明、三雄极光等产品上，助力客户实现以下功能：

- 低成本应用
- 多种控制方式：开关控制、遥控控制、APP控制
- 多种群组控制：单灯控制、分组控制，可以自由组网
- 多种调节方式：色彩调节、亮度调节、音乐律动
- 定时关机

可穿戴设备应用方案

客户：小寻

01

OM6621PG

Cortex-M4F, max 128MHz

392KB SRAM, 8Mb sFLASH

Up to 31 GPIOs + 2 INPUT

02

OM6621PW

Cortex-M4F, max 128MHz

392KB SRAM, 16Mb sFLASH

Up to 47 GPIOs + 3 INPUT

03

OM6681A

Cortex-M33S 208MHz + Cortex-M33S 96MHz

512KB SRAM, 96KB SRAM for BT, **16/128Mb sFLASH**

16Mb PSRAM (96MHz OSPI)

Up to 96 GPIOs

键鼠应用方案

01

OM6621F

Cortex-M4F, max 64MHz

16KB SRAM, 24KB OTP,

1/4Mb sFLASH

Up to 19 GPIOs

02

HS6621CG/CQ

Cortex-M4F,max 64MHz

64KB SRAM

HS6621CG: 8Mb flash, up to 32 GPIOs

HS6621CQ: 4Mb flash, up to 21 GPIOs

03

OM6621E

Cortex-M4F, max 64MHz

40KB SRAM, 256bit eFuse,

4Mb/2Mb sFLASH

Up to 23 GPIOs

04

OM6681A

Cortex-M33S 208MHz + Cortex-M33S 96MHz

512KB SRAM, 96KB SRAM for BT,

16/128Mb sFLASH

16Mb PSRAM (96MHz OSPI)

Up to 96 GPIOs

客户：惠普、Cherry、双飞燕

电动车应用方案

OnMicro 昂瑞微

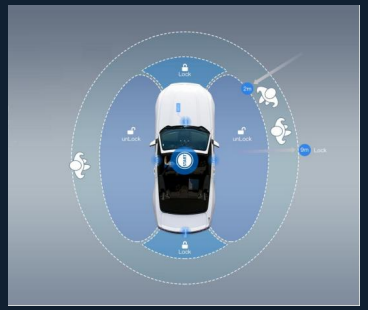
HS6621CG

- Cortex-M4F, max 64MHz
- 64KB SRAM, 8Mb sFLASH
- Up to 32 GPIOs

- ✓ 基于HS6621C的驱动包；显示、NFC、语音播放、串口通信等
- ✓ 基于裸奔及操作系统的事件管理平台；
- ✓ 蓝牙OTA方案；及车辆其他组件的OTA方案；
- ✓ 蓝牙绑定及安全设置；
- ✓ 提供周期性的RSSI报告值；
- ✓ 多连接的演示案例；
- ✓ 常见手机机型的连接测试报告；

NIU 小牛电动

汽车钥匙应用方案



车身模块

实体钥匙

注：OM6650A系列的车身模块和实体钥匙已应用于比亚迪的不同项目中。

车身模块

- 可以实现手机控制车门开锁、一键启动和落锁等功能。
- 1+N不同算法方案，当具有权限的手机/钥匙靠近汽车不同距离时，完成自动连接、鉴权、迎宾、解锁、离开落锁等功能。
- 可集成到BCM/OBD/T-BOX方案中。

实体钥匙

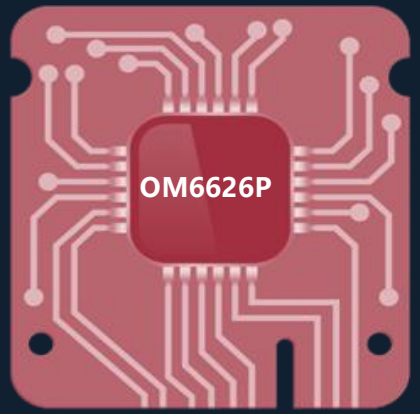
- 可以驱动320*380的屏幕。
- 功耗低，待机功耗<5uA, 工作电流<4mA

寻物防丢器应用方案

HS6621CM-C作为寻物防丢器主控已被翌虹认可，其具有以下特点：

- BLE 5.1全功能协议栈的功能，具有AoA/AoD功能。
- RSSI resolution: ±1dB，让寻物更精确。
- 超低待机功耗，让Tag续航更长久。

电子价签应用方案

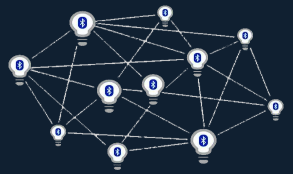


- Cortex-M4, max 64MHz
- 96KB SRAM, 4/8Mb sFLASH
- Up to 24 GPIOs
- Sensitivity: -99dBm@1Mbps
- RX 3mA, TX 4mA@0dBm
- Ultra-sleep current: 1.0uA

多协议应用方案

OnMicro 昂瑞微

Bluetooth®
BLE 5.2



SIG-mesh

2.4GHz
private

matter

ZigBee®

CONNECTS
WITH
THREAD

OnMicro
昂瑞微

THANK YOU