Product Brief

PHY6230

High-performance, Low-power,
Bluetooth LE 5.4/Proprietary 2.4GHz System on Chip

PHYPLUS

奉加科技

PHYPLUS Technologies

Bluetooth 5.4

2.4GHz PHY+

Proprietary 2.4GHz Protocol Stack

TX/RX

10/10mA

OFF Mode

0.7uA

-96dBm

@BLE 1Mbps

10dBm

Max TX Power

-93dBm

@BLE 2Mbps

19/11/3

GPIO

USB 2.0

Master & Slave

SPECIFICATION

MCU	32-bit Processor (Max 64MHz) with SWD
Memory	64KB ROM 8KB Retention SRAM 16KB OTP EEPROM (optional)
Sensitivity	-96dBm@BLE 1Mbps data rate -93dBm@BLE 2Mbps data rate TX Power -20 to +10dBm in 3dB steps
Power Consumption	0.7uA @ OFF Mode (IO wake up only) 2uA @ Sleep Mode with 32KHz RTC Receive mode: 10mA @3.3V power supply Transmit mode: 10mA (0dBm output power) @3.3V power supply
2.4 GHz transceiver	Support BLE 5.4 RF PHY 1Mbps/2Mbps Proprietary 500K Protocol Stack FSK with configurable Gaussian filter (configurable modulation index)
GPIO	19/11/3 General Purpose I/O Pins configurable as serial interface and programmable IO MUX function mapping All pins can be configured for wake-up All pins for triggering interrupt
Peripherals	3 Quadrature Decoder(QDEC) 6-channel PWM 1-channel 12C 1-channel SPI Master UART SWD USB 2.0
Timer/ Counters	4-channel 32-bit Timer, 1 Watchdog Timer Real Timer Counter (RTC)
Oscillators	Internal High/Low frequency RC osc 32KHz RC osc for RTC with +/-200ppm accuracy 32MHz RC osc for HCLK with 3% accuracy
Hardware Security	AES-128 encryption hardware
Operating Temperature	-40℃~+125℃
RoHS Package	QFN24/ SSOP24/SOP16/TSSOP8/SOP8/ MSOP10

OVERVIEW

高性价比的低功耗高性能蓝牙5.4系统级芯片PHY6230，适用多种PC/手机外设连接场景

高性能多模射频收发机

通过硬件模块的充分复用实现高性能多模数字收发机。发射机最大发射功率达到10dBm；BLE 1Mbps速率下接收机灵敏度达到-96dBm；0dBm时收发功耗10/10mA（TX/RX）。

超低功耗芯片设计

采用高效率片上电源管理、低功耗射频前端、低功耗时钟产生架构、振荡器快速启动技术等技术实现低功耗性能，保证常规200mAH纽扣电池供电状态下能够持续工作二年以上。

自主知识产权全栈蓝牙方案和多协议栈支持

BLE 5.4 — Bluetooth LE 5.4
2Mbps High-speed
BLE Master&Slave

2.4GHz PHY+ — Phyplus
私有2.4G协议栈

USB 2.0 — 支持USB 2.0

Master & Slave — 支持一主多从、主从切换
1-channel SPI Master

多样化的应用领域

无线键鼠、手机外设、智能穿戴设备、智能家居、智能照明、自拍器、防丢器、遥控器、智能楼宇、智慧工业.....

Series Comparison

PHY62 Series	PHY6230	PHY6222	PHY6252	PHY6228	PHY6235	PHY6212
Bluetooth Quallified	5.4	5.4	5.4	5.4	5.4	5.4
Zigbee 3.0	N	N	N	N	N	N
MCU	32-bit	32-bit	32-bit	32-bit	32-bit	32-bit
SRAM	8K	64K	64K	64K	8K	138K
FLASH	16KB OTP	128K-8M	256/512K	512K	256/512K	512K/2M
TX/RX (mA)	10/10	4.6/4	8.6/8	4.6/4	10/10	6.7/6.7
OFF (uA)	0.7	0.3	0.3	0.3	1.6	0.7
Sensitivity@BLE 1M	-96	-99	-99	-99	-96	-97
Sensitivity@BLE 125K	-	-105	-105	-105	-	-103
Sensitivity@Zigbee 250K	-	-	-	-	-	-
Max TX Power	10	10	10	10	10	10
GPIO	19/11/3	22	19	66	15	33/19
Package	QFN24/ SSOP24 SOP16/TSSOP8 SOP8/ MSOP10	QFN32/24	SSOP24 SOP16	QFN88/64	SSOP24 SOP16	QFN48/32

关于奉加

奉加科技(上海)股份有限公司致力于研发世界一流的低功耗射频芯片技术与自主知识产权的通信协议栈，为AIoT提供灵活、安全、多功能、高性价比的低功耗无线通信芯片和方案。

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