Thundercomm

TURBOX

W5+ Development Kit

TurboX W5+ development kit is equipped with the latest generation W5+ wearable platform of Qualcomm. The main chip adopts 4nm process technology and supports dual-core/dual-system design, allowing for seamless switching between the Android and FreeRTOS operating systems. Compared to the previous generation wearable platform, the W5+ series offers a 50% increase in battery life, twice the performance, and a 30% reduction in size.

TurboX W5+ development kit adopts a core board and expansion board design. The core board can be customized according to the actual size of the smartwatch, which shortens the development cycle of wearable products. The expansion board provides abundant interfaces for easy expansion and replacement of peripherals. Additionally, TurboX W5+ development kit provides a development software baseline, which significantly reduces application development time, and wireless charging module to match more practical smartwatch solutions.

Applications

Smart
Watch

Smart
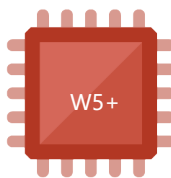Glasses

Smart
Headset

Smart
Tracker

Features

4nm process technology,
small form factor/ultra-low power design

4 x ARM Cortex A53, 64-bit,
up to 1.7GHz

LPDDR4 and eMMC 5.1
integrated in POP-MCP

Dual-core/dual-system design,
enabling seamless switching
between Android and RTOS

W5+

W5+ Development Kit

Support design of LTE Cat1/4, WLAN 802.11
a/b/g/n, BT5.3, NFC, Camera, Wireless
charging, etc.

Core board customizable according to
actual size of the smartwatch

Abundant interfaces for easy expansion
and replacement of peripherals

Provide a development software baseline,
significantly reducing application
development time

Specifications

Category	W5+ Development Kit
Platform	Qualcomm® SW5100: 4x ARM Cortex A53, 64-bit, up to 1.7GHz, 512KB L2 cache
	Coprocessor Qualcomm® QCC5100: ARM Cortex-M55 up to 250MHz
Operating System	Qualcomm® SW5100: Android R/S (TBD)/Go
	Qualcomm® QCC5100: FreeRTOS
Memory	2GB+32GB LPDDR4/eMMC
	32MB Flash
	8MB PSRAM
Charge	Wireless charger IC & USB
Wireless Connections	GNSS: GPS, Galileo, GLONASS, and Beidou
	LTE: B1/B2/B3/B4/B5/B7/B8/B12/B13/B17/B18/B20/B25/B26/B28A/B28B/B38/B39/B40/B41
	WCDMA: B1/B2/B4/B5/B8
	BT: v5.3
	WLAN: 802.11 a/b/g/n
	NFC
SIM Card	eSIM*/Nano-SIM
Display	1.78 inch, 368 x 448
Camera	2MP
Sensor	A+G Sensor, M-Sensor, Barometer
	ALS, HRM, OTS
Motor	ERM Vibrator
Audio	MIC
	Speaker
Key	Button x 4
Battery*	-
Other Interfaces	USB Type-C x 2

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