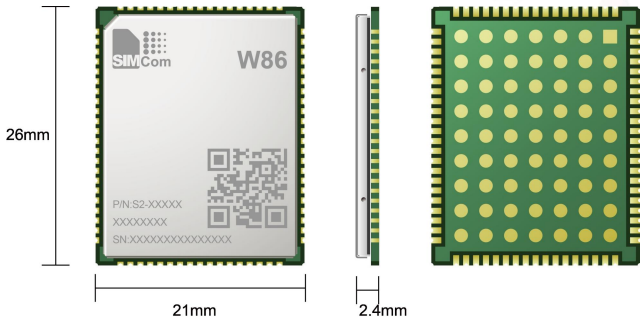
V 2023.11

W86

Wi-Fi Module with LCC+LGA Package



W86 is a small and highly integrated Wi-Fi module based on Qualcomm WCN-7851 chipset.

The module conforms to IEEE standard 802.11a/b/g/n/ac/ax/be.

The module is integrated with the WLAN processor, baseband and 2.4G/5G/6G RF transceivers. It support data communication between SIMCom 5G module SIM8X70X/SIM8X90X through PCIe interface.

The module can be applied to 5G CPE, MiFi, car networking, router, and other wireless terminals.

Compact Size | Wi-Fi 7 | BT 5.4

2.4G/ 5G/6G | Highly Integrated | PCIe

DBS | HBS | MLO

- Support 2.4GHz, 5GHz and 6GHz
- Support 2x2 MU-MIMO
- Channel bandwidth up to 40 MHz at 2.4 GHz, up to 160 MHz at 5 GHz and up to 320 MHz at 6 GHz
- Dual Band Simultaneous up to 2.4 GHz 2x2 40 MHz + 5 GHz 2x2 160 MHz / 6 GHz 2x2 160 MHz
- High Band Simultaneous up to 5 GHz/6 GHz 2x2 160 MHz + 5 GHz/6 GHz 2x2 160 MHz
- Up to 5.8 Gbps data rate (2x2 5 GHz 160 MHz + 2x2 6 GHz 160 MHz with 4K QAM modulation)
- Shared Bluetooth antenna with 2.4 GHz WLAN, and concurrent operation with 5 GHz/6 GHz WLAN

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Product		W86
Form Factor		LCC+LGA
Dimensions(mm)		26.0*21.0*2.4mm
WLAN Bands	2.4G+5G	●
	2.4G+6G	●
	5G+6G	●
BT 5.4		● Backward compatible with previous Bluetooth standards
Temperature		-30℃ ~ +70℃
Electrical Features		
Supply Voltage(V)		VBAT: 3.0 ~ 4.8
Data Transfer (theoretical)		
BT 5.4		48Mbps
802.11a		54Mbps
802.11b		11Mbps
802.11g		54Mbps
802.11n		HT40 GI=800 2MIMO:270Mbps
802.11ac		VHT160 GI=800 2MIMO:1560Mbps
802.11ax		HE160 GI=800 2MIMO: 2401Mbps
802.11be		EHT320 GI=800 2MIMO:5764Mbps
General Features		
WLAN Standard		IEEE802.11 a/b/g/n/ac/ax/be, 2x2
Modulation Mode		CCK, BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM,4K-QAM
bandwidth 2.4G		20/40 MHz
bandwidth 5G		20/40/80/160MHz
bandwidth 6G		20/40/80/160/320MHz
Encryption Mode		WPA3
HBS		●
Interfaces		
PCIe		●
UART		●
I2S		●
GPIOs		●
WLAN Antenna		*2 (+ 2.4G NON-AS antx2)
Certifications		
Regulatory		/RoHS*/REACH*

●: support o: optional * :means under developing/on-going/planning

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