Fibocom SC171

42.5mm
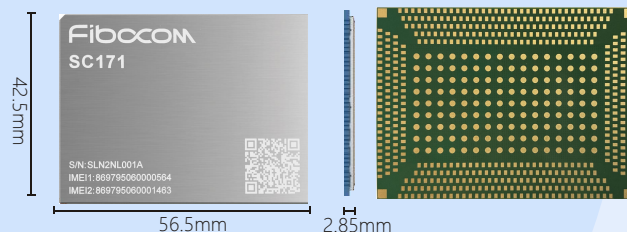56.5mm 2.85mm

Key Advantages:

- High-performance Qualcomm processor (1XGoldP@2.7GHz+ 3XGold@2.4GHz+ 4XSilver@1.95GHz)

- Support maximum four-channel camera and all of them working simultaneously

- Support dual-screen independent displays: 2520x1080@60fps

- 5G NR sub-6Ghz, support DL 4x4 MIMO SA/NSA mode and UL 2x2 MIMO SA mode

- Supports multi-constellation GNSS receiver (GPS/GLONASS/BeiDou) for accurate positioning and navigation

Qualcomm Octa-core

2520 x 1080@60fps

Wi-Fi 802.11 a/b/g/n/ac/ax

BT 5.2 BLE

Android12/13

GPS/GLONASS/Beidou

Professional reference design **and technical support**

Fibocom SC171 is a 5G wireless module powered by the Qualcomm QCM6490 chipset platform. It features an Octa-core (1*Kryo Gold plus 2.7GHz +3*Kryo Gold 2.4GHz+ 4*Kryo Sliver 1.95GHz) processor with visual Digital Signal Processor (vDSP), integrating a high-performance graphics engine to allow smooth 4K video playing and multi-channel camera input.

The SC171 module supports both 5G NSA and SA modes and is backwards compatible with 4G/3G network. It supports 5G NR Sub-6Ghz, DL 4x4 MIMO, UL 2x2 MIMO, as well as dual-band Wi-Fi/ Bluetooth short-distance wireless transmission technology, 2x2 MIMO and Wi-Fi 6. The module also supports multi-constellation GNSS receiver (GPS(L1+L5)/ GLONASS/ BeiDou), which provides high-performance positioning and navigation while greatly simplifies product design.

SC171 is equipped with Android operating system, with a rich set of interfaces including MIPI/ USB/ UART/ SPI/ I2C, etc., enabling much flexibility and ease of integration to meet various application demands of the IoT industry.

Fibocom smart module SC171 is a powerful 5G IoT module designed for various AIoT application scenarios such as industrial handhelds, body worn camera, security surveillance cameras, mobile DVR, VR and robotics. It is an ideal solution for the core system of smart wireless products worldwide.

Smart(NR Sub6)	SC171-CN	SC171-W
Region	China	(Wi-Fi ONLY)

Basic Features

Form Factor	636LGA	
CPU	QCM6490 1XGoldP@2.7GHz+ 3XGold@2.4GHz+ 4XSilver@1.95GHz	
GPU	Adreno™ 642 GPU	
Memory	4GB LPDDR4X+64GB UFS	
Dimensions(mm)	42.5x56.5x2.85	
Sub-6	n41,n78,n79 (SA&NSA) n1,n3,n5,n8,n28 (only SA)	NA
LTE FDD	B1/3/5/8	NA
LTE TDD	B34/38/39/40/41	NA
WCDMA	B1/8	NA
Wi-Fi	802.11 a/b/g/n/ac/ax (2X2 MIMO) 2.4G/5G	
BT	5.2 BR/EDR/BLE	
GNSS	GPS (L1+L5)/GLONASS/Beidou	NA
OS	Android 12/13	
Power Supply	3.5~4.4V	
Operating Tem	-30°C ~ +75°C	
Weight	9.6±0.1g	

Data Transmission

5G Sub-6 SA	2T4R 256Q Max. 2.3Gbps (DL)/Max. 900Mbps (UL)	NA
5G Sub-6 NSA	1T4R 256Q Max. 2.3Gbps (DL)/Max. 550Mbps (UL)	NA
LTE FDD(Mbps)	Max.900(DL)/Max. 100(UL)	NA
LTE TDD(Mbps)	Max.900(DL)/Max. 100(UL)	NA
WCDMA(Mbps)	Max. 42 (DL)/Max. 5.7 (UL)	NA

Multi-media

Video Encode	4K@30fps (H.264/H.265)
Video Decode	4K@60fps (H.264/H.265, VP9)

Interfaces

LCD	4-lane MIPI_DSI up to FHD+(2520 x 1080)
Cam	MIPI_CSIx4, ISPx4 Up to 36M
UART	6 x UART up to 3 Mbps
I2C	16 x I2C up to 3.4Mbps
USB	1 x USB2.0+1x USB3.1, Support OTG, Support DP over Type-C
SDIO	1 x SD 3.0
GPIO	33 GPIOs
Speaker	1W on 8Ω load in Class-D mode
Receiver	1 x Mono, AB
Mic	2 x analog microphones
Handset	Stereo CLASS AB
USIM	2 x SIM card,support dual-SIM dual-standby
Keys	Power on/off /Volume up /Volume down /Reset

Certification Approvals

Regulation	RoHS/CCC/SRRC/NAL	CE*
Operator	NA	
Industry	NA	

** = planning
* = under development