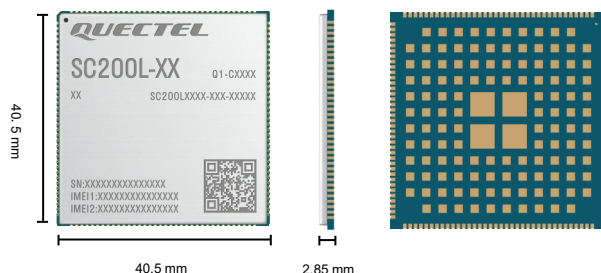




Quectel SC200L Series (Dual-band Wi-Fi)

Multi-mode Smart LTE Module with Wi-Fi & Bluetooth



SC200L series (dual-band Wi-Fi) is Quectel's new generation of multi-mode Smart LTE Cat 4 module with built-in Android 10/ 12/ Linux. Based on high-performance Unisoc quad-core ARM Cortex-A53 64-bit processor with built-in ARM Mali-T820 GPU, it is an ideal solution for both industrial and consumer applications requiring high data rates and multimedia functions. SC200L series (dual-band Wi-Fi) is available in four variants: SC200L-CE, SC200L-EU, SC200L-AU and SC200L-WF.

SC200L series (dual-band Wi-Fi) supports multiple-input multiple-output (MIMO) technology. The use of multiple antennas at the receiver end at the same time and on the same frequency band greatly minimizes errors and optimizes the data speed. The module also combines high-speed wireless connectivity with embedded multi-constellation and high-sensitivity GNSS (GPS + GLONASS or GPS + BDS) receiver for positioning.

A rich set of interfaces (such as LCM, Camera, Touch Panel, MIC, SPK, UART, USB, I2C and SPI) extend the applicability of the module to a wide range of M2M applications, including smart POS, smart cash registers, smart home gateways, smart robots, smart wearables, smart safety, PDA & tablets, vending machines, delivery lockers, audio and video recorders, as well as in-car video streaming and entertainment systems.



Key Features

- ✓ Supports LTE Cat 4, with maximum downlink speed of up to 150 Mbps
- ✓ Worldwide LTE, UMTS/ HSPA+ and GSM/ GPRS/ EDGE coverage
- ✓ Supports display resolution of up to HD+ (1440 × 720) @ 60 fps
- ✓ Multi-constellation GNSS receiver available for applications requiring fast and accurate fixes in any environment
- ✓ Supports recording and playback of 1080P videos @ 30 fps



ARM Cortex-A53
64-bit Processor
(Quad-core)



ARM Mali-T820
GPU



Android 10/ 12/
Linux



LTE Cat 4
Max. 150 Mbps (DL)
Max. 50 Mbps (UL)



IEEE 802.11
a/ b/ g/ n/ ac



Bluetooth 5.0
(BR/ EDR + BLE)



GPS + GLONASS or
GPS + BDS



Powerful Multimedia
Functions



LCC + LGA
Package

Version: 1.7 | Status: Released

Quectel SC200L Series (Dual-band Wi-Fi)

LTE Cat 4	SC200L-CE	SC200L-EU	SC200L-AU	SC200L-WF
Region/ Operator	China/ India	EMEA/ APAC	Latin America	Global
OS	Android 10/ 12/ Linux	Android 10/ 12/ Linux	Android 10/ 12/ Linux	Android 10/ 12/ Linux
Memory	8 GB eMMC + 1 GB LPDDR3 (default) 16 GB eMMC + 2 GB LPDDR3 (optional)	8 GB eMMC + 1 GB LPDDR3 (default) 16 GB eMMC + 2 GB LPDDR3 (optional)	8 GB eMMC + 1 GB LPDDR3 (default) 16 GB eMMC + 2 GB LPDDR3 (optional)	8 GB eMMC + 1 GB LPDDR3 (default) 16 GB eMMC + 2 GB LPDDR3 (optional)
Dimensions (mm)	40.5 × 40.5 × 2.85	40.5 × 40.5 × 2.85	40.5 × 40.5 × 2.85	40.5 × 40.5 × 2.85
Temperature Range				
Operating Temperature	-30 °C to +75 °C	-30 °C to +75 °C	-30 °C to +75 °C	-30 °C to +75 °C
Frequency Bands				
LTE-FDD	B1/ 3/ 5/ 8	B1/ 3/ 5/ 7/ 8/ 20/ 28	B1/ 2/ 3/ 4/ 5/ 7/ 8/ 28	-
LTE-TDD	B34/ 38/ 39/ 40/ 41 (140 MHz)	B38/ 40/ 41	B38	-
WCDMA	B1/ 8	B1/ 5/ 8	B1/ 2/ 4/ 5/ 8	-
GSM/EDGE	900/ 1800 MHz	900/ 1800 MHz	850/ 900/ 1800/ 1900 MHz	-
Bluetooth	Bluetooth 5.0	Bluetooth 5.0	Bluetooth 5.0	Bluetooth 5.0
Wi-Fi	2.4 & 5 GHz, 802.11a/ b/ g/ n/ ac	2.4 & 5 GHz, 802.11a/ b/ g/ n/ ac	2.4 & 5 GHz, 802.11a/ b/ g/ n/ ac	2.4 & 5 GHz, 802.11a/ b/ g/ n/ ac
GNSS	GPS + GLONASS or GPS + BDS	GPS + GLONASS or GPS + BDS	GPS + GLONASS or GPS + BDS	-
Certifications				
Carrier	-	-	-	-
Regulatory	China: CCC/ SRRC*/ NAL*	Global: GCF Europe: CE Australia/ New Zealand: RCM	Brazil: Anatel	-
Others	-	-	-	-
Data Rate				
LTE-FDD (Mbps)	150 (DL)/ 50 (UL)	150 (DL)/ 50 (UL)	150 (DL)/ 50 (UL)	-
LTE-TDD (Mbps)	130 (DL)/ 30 (UL)	130 (DL)/ 30 (UL)	130 (DL)/ 30 (UL)	-
HSPA (Mbps)	21 (DL)/ 11 (UL)	21 (DL)/ 11 (UL)	21 (DL)/ 11 (UL)	-
WCDMA (kbps)	384 (DL)/ 384 (UL)	384 (DL)/ 384 (UL)	384 (DL)/ 384 (UL)	-
EDGE (kbps)	296 (DL)/ 236.8 (UL)	296 (DL)/ 236.8 (UL)	296 (DL)/ 236.8 (UL)	-
GPRS (kbps)	107 (DL)/ 85.6 (UL)	107 (DL)/ 85.6 (UL)	107 (DL)/ 85.6 (UL)	-
Enhanced Features				
3GPP E-UTRA	LTE: Release 10 UMTS: Release 9	LTE: Release 10 UMTS: Release 9	LTE: Release 10 UMTS: Release 9	-
Bandwidth	1.4/ 3/ 5/ 10/ 15/ 20 MHz	1.4/ 3/ 5/ 10/ 15/ 20 MHz	1.4/ 3/ 5/ 10/ 15/ 20 MHz	-
Rx-diversity	●	●	●	-
DL MIMO 2 × 2	●	●	●	-
(U)SIM Card Detection	●	●	●	-
Dual SIM Dual Standby	●	●	●	-
Firmware Upgrade via USB or OTA	●	●	●	●
General Features				
Supply Voltage Range	3.5–4.2 V, typ. 3.8 V			
Power Consumption	3.8 mA			
Interfaces				
LCM	One 4-lane MIPI DSI, supports up to HD+ (1440 × 720) @ 60 fps			
Camera	Front camera: 1-lane MIPI CSI, supports up to 2 MP Rear camera: 2-lane MIPI CSI, supports up to 8 MP			
Touch Panel	Capacitive touch panel			
UART	× 2, one supports hardware flow control with a maximum data rate of 3.25 Mbps; one for debugging only			
USB	× 2, USB1 supports USB 2.0 high-speed mode and USB OTG but does not support USB hub; USB2 (optional) can only work in host mode and supports USB hub.			
Audio	3 analog outputs: speaker, earpiece, headphone 3 analog inputs: MIC1, MIC2, MIC3 (MIC1 and MIC3 support dual-microphone noise reduction)			
GPIO	× 25			
SD	× 1, supports SD 3.0, 4-bit SDIO			
I2C	× 4			
ADC	× 1			
SPI	× 1, multiplexed from GPIOs			
PWRKEY	Internally pulled up to VBAT			
Motor Drive	× 1			
(U)SIM	× 2, supports 1.8/ 2.95 V (U)SIM cards; supports (U)SIM card detection and Dual SIM Dual Standby			
Antenna	× 4, main antenna, Rx-diversity antenna, GNSS antenna and Wi-Fi/ Bluetooth antenna interfaces			

NOTE:
1. SC200L series are not promoted or sold in US, Canada, Australia, New Zealand, Japan, South Korea or Taiwan region.
2. ●: supported.
3. *: under development/ in progress/ planning

