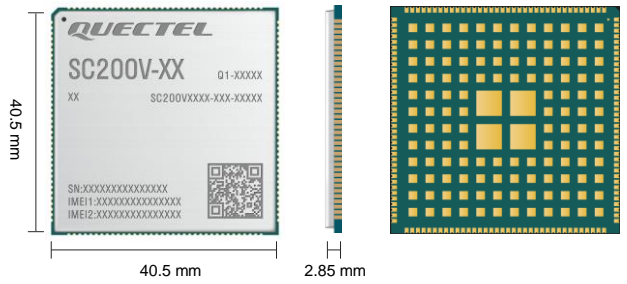


Quectel SC200V Series

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



SC200V series is Quectel’s new generation of multi-mode Smart LTE Cat 4 module with built-in Android OS. Based on SM6225 high-performance 64-bit octa-core processors (4 × A73 + 4 × A53) with built-in Adreno™ 610 GPU, it is an ideal solution for a wide range of industrial and consumer applications requiring high data rates and multimedia functions. SC200V series module has 3 variants: SC200V-EM, SC200V-NA and SC200V-WF (only supports Wi-Fi & Bluetooth antenna) .

SC200V series module supports Multiple-Input Multiple-Output (MIMO) technology. The concurrent use of multiple antennas on the same frequency band at the receiver end greatly minimizes bit error rate and optimizes the communication quality. The module also supports multi-constellation GNSS (GPS, GLONASS, BDS and Galileo) receiver for fast and accurate positioning.

SC200V series module integrates a rich set of interfaces (such as LCM, camera, touch panel, video, audio, UART, USB, I2C and SPI), which widely extends the module’s applicability to a wide range of M2M applications, including smart cash registers, smart POS, tax control machines, smart safety, automotive equipment, high-end information acquisition equipment, smart robots, smart home, smart hardware, industrial smart handheld equipment, audio and video recorders, smart interphones, smart wearables, vending machines, logistics cabinets, etc.



Key Features

- ✓ Exceptional system performance based on SM6225 64-bit octa-core ARM Kryo™ processors
- ✓ High-performance built-in Adreno™ 610 graphics engine
- ✓ Supports frequency bands in Europe/ Middle East/ Asia-Pacific/ India/ Africa
- ✓ Built-in Android OS
- ✓ Supports 2.4 & 5 GHz, 802.11a/ b/ g/ n/ ac
- ✓ Supports Bluetooth 2.1 + EDR/ 3.0/ 4.1 LE/ 4.2 BLE/ 5.0 LE
- ✓ Supports 3 concurrent cameras
- ✓ Supports GPS/ BDS/ GLONASS/ Galileo positioning systems
- ✓ Supports 1080P @ 60 fps video recording and playback



ARM Kryo™ 64-bit Processor (Octa-Core)



Qualcomm® Adreno™ 610 GPU



Android OS



Smart 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/
BDS/ Galileo



Powerful Multimedia
Function



LCC + LGA
Package

Quectel SC200V Series

LTE Cat 4	SC200V-EM	SC200V-NA	SC200V-WF
Region/ Operator	Europe/ Middle East/ Asia-Pacific/ India/ Africa	North America	Global
CPU	SM6225 4 x A73 @ 2.4 GHz + 4 x A53 @ 1.9 GHz	SM6225 4 x A73 @ 2.4 GHz + 4 x A53 @ 1.9 GHz	SM6225 4 x A73 @ 2.4 GHz + 4 x A53 @ 1.9 GHz
Memory	4 GB LPDDR4X + 64 GB eMMC (Default) 3 GB LPDDR4X + 32 GB eMMC (Optional) 8 GB LPDDR4X + 128 GB eMMC (Optional)	4 GB LPDDR4X + 64 GB eMMC (Default) 3 GB LPDDR4X + 32 GB eMMC (Optional) 8 GB LPDDR4X + 128 GB eMMC (Optional)	4 GB LPDDR4X + 64 GB eMMC (Default) 3 GB LPDDR4X + 32 GB eMMC (Optional) 8 GB LPDDR4X + 128 GB eMMC (Optional)
OS	Android 13/ 14/ 15*	Android 13/ 14/ 15*	Android 13/ 14/ 15*
Dimensions (mm)	40.5 x 40.5 x 2.85	40.5 x 40.5 x 2.85	40.5 x 40.5 x 2.85
Package	LCC + LGA	LCC + LGA	LCC + LGA
Weight (g)	Approx. 10.6	Approx. 10.6	Approx. 10.6
Temperature Range			
Operating Temperature	-35 °C to +75 °C	-35 °C ~ +75 °C	-35 °C to +75 °C
Frequency Bands			
LTE-FDD	B1/ 2/ 3/ 4/ 5/ 7/ 8/ 20/ 28	B2/ 4/ 5/ 7/ 12/ 13/ 14/ 17/ 25/ 26/ 66/ 71	-
LTE-TDD	B38/ 40/ 41	B41	-
WCDMA	B1/ 2/ 4/ 5/ 8	-	-
GSM/ EDGE (MHz)	850/ 900/ 1800/ 1900	-	-
WLAN	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
Bluetooth	Bluetooth 2.1 + EDR/ 3.0/ 4.1 LE/ 4.2 BLE/ 5.0 LE	Bluetooth 2.1 + EDR/ 3.0/ 4.1 LE/ 4.2 BLE/ 5.0 LE	Bluetooth 2.1 + EDR/ 3.0/ 4.1 LE/ 4.2 BLE/ 5.0 LE
GNSS	GPS/ GLONASS/ BDS/ Galileo	GPS/ GLONASS/ BDS/ Galileo	-
Certifications			
Carrier	-	North America: AT&T*/ Verizon*/ T-Mobile*	-
Regulatory	Europe: CE Australia/ New Zealand: RCM	North America: FCC*/ PTCRB* Global: GCF*	-
Others	RoHS/ REACH	RoHS/ REACH	RoHS/ REACH
Data Rates			
LTE-FDD (Mbps)	150 (DL)/ 50 (UL)	150 (DL)/ 50 (UL)	-
LTE-TDD (Mbps)	130 (DL)/ 30 (UL)	130 (DL)/ 30 (UL)	-
DC-HSPA+ (Mbps)	42 (DL)/ 11.2 (UL)	-	-
WCDMA (kbps)	384 (DL)/ 384 (UL)	-	-
EDGE (kbps)	296 (DL)/ 236.8 (UL)	-	-
GPRS (kbps)	107 (DL)/ 85.6 (UL)	-	-
Enhanced Features			
3GPP E-UTRA	Release 10	Release 10	-
Bandwidth (MHz)	1.4/ 3/ 5/ 10/ 15/ 20	1.4/ 3/ 5/ 10/ 15/ 20	-
Rx-diversity	●	●	-
DL MIMO 2 x 2	●	●	-
(U)SIM Card Detection	●	●	-
DSDS	●	●	-
Firmware Upgrade via USB	●	●	●
Firmware Upgrade via OTA	●	●	●

Notes:

- *: Under development/ in progress/ planning
- : Supported

Quectel SC200V Series

LTE Cat 4		General Features	
Interfaces			
LCM	One 4-lane MIPI DSI, supports up to 1080 × 2520 @ 90 fps		
Camera	Two 4-lane MIPI CSI, up to 2.5 Gbps/ lane Each 4-lane can be divided into (2-lane + 1-lane), and supports 3 concurrent cameras 3 ISPs, supports up to 3 concurrencies (13 MP + 13 MP + 5 MP) or 2 concurrencies (25 MP + 5 MP or 16 MP + 16 MP) or 1 single connection of 32 MP (30 fps @ ZSL) Up to 64 MP for 1 single camera (ZSL)		
Touch Panel	Capacitive touch panel		
Video	Encoding: 1080P @ 60 fps; HEVC/ H.264/ H.265 Decoding: 1080P @ 60 fps; HEVC/ H.264/ H.265/ VP9		
Audio	3 analog audio inputs: MIC1, MIC2 and MIC3 3 analog audio outputs: speaker, headset and earpiece		
USB	× 1, supports USB 3.1 Type-C interface, compatible with USB 2.0		
(U)SIM	× 2, supports 1.8/ 2.95 V (U)SIM cards; supports (U)SIM card hot swap detection and DS2S (Dual-SIM Dual-Standby)		
SD Card	× 1, SD 3.0, supports 4-bit SDIO		
ADC	× 2, general-purpose ADC interface		
UART	× 3 Debug UART: 2-wire serial port, dedicated for debug UART1: 2-wire serial port UART0: 4-wire serial port, supports RTS and CTS hardware flow control		
I2C	× 4		
SPI	× 1 (Multiplexed from UART0)		
I2S	× 2 (Multiplexed from other interfaces)		
PWRKEY	1.1 V, internally pulled up		
GPIO	× 26		
Antenna	× 4, Main, Rx-diversity, GNSS, Wi-Fi & Bluetooth antennas respectively (SC200V-WF: × 1, Wi-Fi & Bluetooth antenna)		
Electrical Features			
Supply Voltage Range	3.55–4.4 V, typ. 3.8 V		
Power Consumption	TBD		

Note:

TBD: To Be Determined