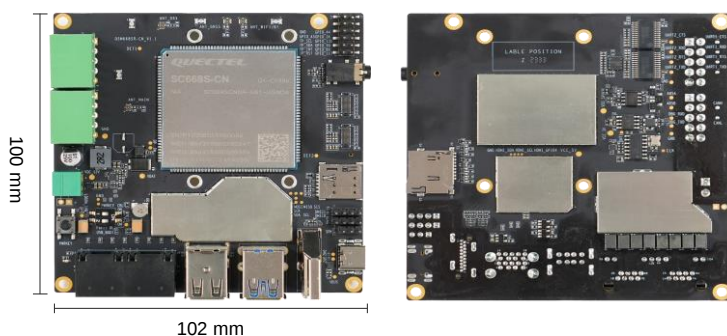


QSM668SR Series

Fully-Featured ARM Platform
Multiple Network Modes
LTE & Wi-Fi & Bluetooth



QSM668SR is a series of LTE Cat 4 smart products based on QCM6125 octa-core 64-bit processor with multiple network modes and built-in Qualcomm Adreno™ 610 GPU, supporting Android, Linux*, and Ubuntu operating systems. QSM668SR series products come with excellent product performance and powerful multimedia functions. The products include multiple variants: QSM668SR-CN, QSM668SR-EM*, QSM668SR-NA* and QSM668SR-WF*.

QSM668SR series products integrate abundant peripheral interfaces: HDMI, Camera, Video, UART, USB, Ethernet, I2C, RS232, RS485, CAN, SD, SIM, etc., which greatly expands the products' applicability to such use cases in M2M industry as intelligent robots, Internet of Things gateways, smart homes, industrial equipment terminals, smart commercial displays, smart cash registers, smart safety, vehicle equipment, information collection equipment, vending machines and logistics cabinets.



Key Features

- ✓ 4 × Kryo Gold 260 @ 2.0 GHz
4 × Kryo Silver 260 @ 1.8 GHz
- ✓ Adreno 610 GPU @ 950 MHz
- ✓ 1.1 TOPS NPU
- ✓ Wireless: 4G, WiFi, Bluetooth and GNSS
- ✓ USB/ Ethernet/ RS232/ RS485/ CAN
- ✓ HDMI/ MIPI CSI/ SIM/ SD
- ✓ Android/ Linux*/ Ubuntu
- ✓ Self-start, wake-on-LAN, watchdog, ultra-low power consumption, etc.



ARM Kryo™ 260 64-bit
Processor (Octa-core)



Qualcomm
Adreno™ 610 GPU



Android/ Linux*/
Ubuntu



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



IEEE 802.11
a/ b/ g/ n/ ac



Bluetooth 5.0
(BR/EDR + BLE)



GPS/ GLONASS/
BDS/ Galileo/ QZSS/
SBAS



Abundant
multimedia functions



Powerful
computing power

Quectel QSM668SR Series

Product	QSM668SR-CN	QSM668SR-EM*	QSM668SR-NA*	QSM668SR-WF*
Region/ Operator	China/ India	Europe/ India/ Korea/ South Asia/ Latin America/ Australia/ South Africa	North America	Global
CPU	QCM6125 Kryo Gold: high-performance quad-core processor @ 2.0 GHz Kryo Silver: low-power quad-core processor @ 1.8 GHz	QCM6125 Kryo Gold: high-performance quad-core processor @ 2.0 GHz Kryo Silver: low-power quad-core processor @ 1.8 GHz	QCM6125 Kryo Gold: high-performance quad-core processor @ 2.0 GHz Kryo Silver: low-power quad-core processor @ 1.8 GHz	QCM6125 Kryo Gold: high-performance quad-core processor @ 2.0 GHz Kryo Silver: low-power quad-core processor @ 1.8 GHz
NPU	1.1 TOPS	1.1 TOPS	1.1 TOPS	1.1 TOPS
Memory	3 GB LPDDR4X + 32 GB EMMC* 4 GB LPDDR4X + 64 GB UFS 8 GB LPDDR4X + 128 GB UFS*	3 GB LPDDR4X + 32 GB EMMC* 4 GB LPDDR4X + 64 GB UFS* 8 GB LPDDR4X + 128 GB UFS*	3 GB LPDDR4X + 32 GB EMMC* 4 GB LPDDR4X + 64 GB UFS* 8 GB LPDDR4X + 128 GB UFS*	3 GB LPDDR4X + 32 GB EMMC* 4 GB LPDDR4X + 64 GB UFS*
OS	Ubuntu/ Linux*/ Android 11/ 13	Ubuntu/ Linux*/ Android 11/ 13	Ubuntu/ Linux*/ Android 11/ 13	Ubuntu/ Linux*/ Android 11/ 13
Dimensions (mm)	102 × 100 × 23	102 × 100 × 23	102 × 100 × 23	102 × 100 × 23
Weight (g)	Approx. 97.7	Approx. 97.7	Approx. 97.7	Approx. 97.7
Temperature Range				
Operating temperature	-20 °C ~ + 75 °C	-20 °C ~ + 75 °C	-20 °C ~ + 75 °C	-20 °C ~ + 75 °C
Storage temperature	-20 °C ~ + 85 °C	-20 °C ~ + 85 °C	-20 °C ~ + 85 °C	-20 °C ~ + 85 °C
Frequency Bands				
LTE-FDD	B1/ 3/ 5/ 8	B1/ 2/ 3/ 4/ 5/ 7/ 8/ 20/ 28	B2/ 4/ 5/ 7/ 12/ 13/ 14/ 17/ 25/ 26/ 66/ 71	-
LTE-TDD	B34/ 38/ 39/ 40/ 41 (200 MHz)	B38/ 39/ 40/ 41 (200 MHz)	B41 (200 MHz)	-
WCDMA	B1/ 8	B1/ 2/ 4/ 5/ 8	-	-
EVDO/CDMA	BC0	-	-	-
GSM	900/ 1800 MHz	850/ 900/ 1800/ 1900 MHz	-	-
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	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	Bluetooth 2.1 + EDR/ 3.0/ 4.1 LE/ 4.2 BLE/ 5.0 LE
GNSS	GPS/ GLONASS/ BDS/ Galileo/ QZSS/ SBAS	GPS/ GLONASS/ BDS/ Galileo/ QZSS/ SBAS	GPS/ GLONASS/ BDS/ Galileo/ QZSS/ SBAS	-
Data Rates				
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)	
DC-HSPA+ (Mbps)	42 (DL)/ 5.76 (UL)	42 (DL)/ 5.76 (UL)	-	
WCDMA (kbps)	384 (DL)/ 384 (UL)	384 (DL)/ 384 (UL)	-	
EVDO (Mbps)	3.1 (DL)/ 1.8 (UL)	-	-	-
1X Advanced (kbps)	307.2 (DL)/ 307.2 (UL)	-	-	-
EDGE (kbps)	296 (DL)/ 236.8 (UL)	296 (DL)/ 236.8 (UL)	-	-
GPRS (kbps)	107 (DL)/ 85.6 (UL)	107 (DL)/ 85.6 (UL)	-	-

Note:

*: Under development/ in progress/ planning



Quectel QSM668SR Series

Product	General Features
Interface	
Supply voltage	DC 12-19 V (Wide voltage input, compatible with 12 V & 19 V)
HDMI	× 1
Camera	× 2, 4-lane MIPI CSI, up to 2.1 Gbps/ lane
Audio	× 2, digital microphones × 1, speaker × 1, 3.5 mm headset jack
Video	Encoding: 4K @ 30 fps; HEVC/ H.264/ VP8 Decoding: 4K @ 30 fps; HEVC/ H.264/ VP8/ VP9 1080P @ 30 fps, MPEG-2
Ethernet	× 2, 1.0 Gbps
USB	× 4 × 1, USB 3.0 Type-A × 3, USB 2.0 Type-A
UART	× 1, Debug UART: 2-wire UART, only for debugging
SD卡	× 1, SD 3.0, 4-bit SDIO
(U)SIM	× 1
RS232	× 2
RS485	× 1
CAN	× 1
RTC	Supported
GPIO	× 7
Antenna	× 4, Main, Rx-diversity, GNSS, Wi-Fi/Bluetooth antennas respectively (QSM668SR-WF*: × 1, Wi-Fi/ Bluetooth antenna)

Note:

*: Under development/ in progress/ planning