

SOC Smart Module SQ808



Qualcomm Quad Core

1440 x 720@60fps

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

BT 4.2 BLE

GPS/GLONASS/Beidou

The SQ808 series is an LTE Cat 4 smart module designed with Qualcomm QCM2150 platform, as the basis with a smart and open Android operating system. The LCC+LGA package is easy for patching, integrated core components such as baseband, EMCP, PMU, transceiver and PA, and supports long-distance communication modes such as FDD-LTE/TDD-LTE, WCDMA and GSM and short-distance 2.4G+5G wireless transmission technologies like Wi-Fi/Bluetooth. With built-in LNA, it supports GNSS wireless positioning technology. In addition, the module has rich extension interfaces such as UART/SPI/I2C/USB to be connected to an HD+ touch screen, and supports front and rear camera.

It can be embedded in various M2M applications. It is suitable for the development of smart devices such as smart POS, cash registers, robots, UAVs, smart homes, security monitoring and multimedia terminals.



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Product Feature

- Dimensions: 41.0mm x 41.0mm x 2.8mm
- Package: 148 LCC + 84 LGA pin
- CPU: Qualcomm's® QCM2150 Quad-core ARM® Cortex-A53 processor; up to 1.3GHz; 64-bit CPU
- Memory: 1GB/2GB LPDDR3+8GB/16GB eMMC
- Operating temperature: -30~ +75°C
- Operating voltage: 3.5~4.2V
- Weight: about 9.3g

Multi-Media

- GPU: Adreno™ 308 GPU
- Display: 1440 x 720
- Video Dec: 1080p @30fps (H.264, HEVC, VP8)
- Video Enc: 1080p @30fps (H.264)
- Camera: up to 13Mpix
- Audio: Analog Audio

Network	SQ808-EAU	SQ808-NA	SQ808-CN	SQ808-JP	SQ808-W
LTE-FDD	B1/3/5/7/8/20/28	B2/4/5/7/12/13/17/25/26/66	B1/3/5/8	B1/6/8/9/18/19/21/26/28	
LTE-TDD	B38/40/41	B41	B34/38/39/40/41	B41	
WCDMA	B1/2/5/8	B1/2/4/5/8	B1/8	B1/6/8/9/19	
GSM/EDGE	850/900/1800/1900MHz	850/900/1900MHz	900/1800MHz		
Wi-Fi	802.11 a/b/g/n/ac, 2.4G+5G	802.11 a/b/g/n/ac, 2.4G+5G	802.11 a/b/g/n/ac, 2.4G+5G	802.11 a/b/g/n/ac, 2.4G+5G	802.11 a/b/g/n/ac, 2.4G+5G
BT	4.2 BLE	4.2 BLE	4.2 BLE	4.2 BLE	4.2 BLE
GNSS	GPS/GLONASS/Beidou	GPS	GPS/GLONASS/Beidou	GPS/GLONASS/Beidou	
Area	Europe/Asia	North American	China	Japan	Global
Regulation Cert.	CE/RoHS/REACH/POPs/NCC*/KC*	FCC/RoHS/IC/ISED/NOM	RoHS*/CCC*	MIC/RoHS/TELEC/JATE	CE*
Operator		AT&T*/Bell*/T-Mobile*/Verizon*/Telus*/Rogers*/Telcel*		Softbank*/KDDI*/NTT Docomo*	
Industry	GCF*	PTCRB/GCF*			

DATA

- LTE: 3GPP R10 CAT4: FDD-LTE: Max 150Mbps(DL)/50Mbps(UL)
TDD-LTE: Max 130Mbps(DL)/30Mbps(UL)
- UMTS/HSPA/HSPA+: 3GPP R9: CAT6 HSUPA: Max 5.76Mbps(UL)
CAT24 HSPA+: Max 42Mbps(DL)
- EDGE/GPRS(Kbps): EDGE: Max 296Kbps(DL)/236.8Kbps (UL)
GPRS: Max 107Kbps(DL)/85.6Kbps(UL)

Interfaces

- UART/SPI 3 x UART Up to 4Mbps, 1x SPI
- USB 1 x USB2.0 up to 480Mbps, Support OTG
- SDIO 1 x SD3.0
- CAM 2x4-lane/4+2+1lane MIPI_CSI, Up to 2.1G/lane
4-lane MIPI_CSI0 connect 1 main camera up to 13Mpix
- GPIO 23 x GPIO
- Display 1 x MIPI DSI- 4lanes HD+(1440*720)
- USIM 2 x USIM, 3.0V/1.8V

Operating System

- Android Q

Note: * = Planning ** = Developing