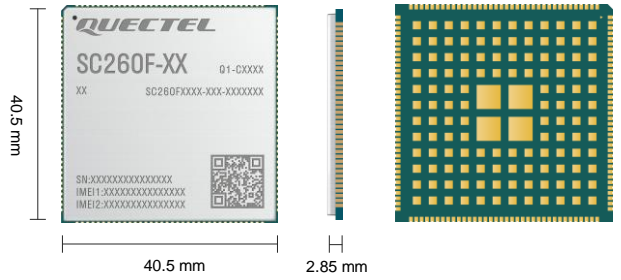


Quectel SC260F Series

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



SC260F series is Quectel’s new generation of multi-mode smart LTE Cat 4 module with built-in Android 13* OS. Based on MT8766 high-performance 64-bit quad-core processors (4xA53 2.0 GHz) with built-in IMG GE8300 @ 660 MHz GPU, it is an ideal solution for a wide range of industrial and consumer applications requiring high data rates and multimedia functions. SC260F series comes in three variants: SC260F-EM, SC260F-CE* and SC260F-WF* (only supports Wi-Fi and Bluetooth) .

SC260F series module supports multiple-input multiple-output (MIMO) technology. The concurrent use of multiple antennas at the receiver end on the same frequency band greatly minimizes bit error rate and optimizes the data speed, thereby improving communication quality. The module also supports multi-constellation GNSS (GPS, GLONASS, BDS, Galileo and QZSS) receiver for fast and accurate positioning.

A rich set of interfaces (such as LCM, camera, touch panel, Video, Audio, UART, USB, I2C, I2S and SPI) are integrated to extend the applicability of the module to a wide range of M2M applications, including smart cash registers, smart POS, tax control machines, smart safety, on-board equipment, high-end information acquisition equipment, smart robots, smart home, smart hardware, industrial smart handheld equipment, drones, audio and video recorders, smart interphones, smart wearables, vending machines, logistics cabinets, etc.



Key Features

- ✓ Exceptional system performance based on MTK MT8766 64-bit quad-core ARM processors
- ✓ Built-in high-performance IMG GE8300 @ 660 MHz GPU
- ✓ Worldwide LTE, UMTS/ HSPA+ and GSM/ GPRS/ EDGE coverage
- ✓ MIPI DSI (resolution of up to 1480 × 800 @ 60 fps)
- ✓ Dual concurrently-working cameras supported
- ✓ Multi-constellation GNSS receiver available for applications requiring fast and accurate fixes in any environment
- ✓ Recording and playback 1080P @ 30 fps

 ARM A53 64-bit Processor (quad-core)	 MTK IMG GE8300 GPU	 Android OS
 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	 Powerful Multimedia Function	 LCC + LGA Package

Quectel SC260F Series

LTE Cat 4	SC260F-EM	SC260F-CE*	SC260F-WF*
Region/ Operator	EMEA/ Korea/ South Asia/ Latin America/ India/ Australia/ New Zealand/ South Africa	China	Global
CPU	MT8766 high-performance quad-core A53 processor @ 2.0 GHz	MT8766 high-performance quad-core A53 processor @ 2.0 GHz	MT8766 high-performance quad-core A53 processor @ 2.0 GHz
Memory	2 GB LPDDR4X + 32 GB eMMC (Default) 3 GB LPDDR4X + 32 GB eMMC (Optional)	2 GB LPDDR4X + 32 GB eMMC (Default) 3 GB LPDDR4X + 32 GB eMMC (Optional)	2 GB LPDDR4X + 32 GB eMMC (Default) 3 GB LPDDR4X + 32 GB eMMC (Optional)
OS	Android 13*	Android 13*	Android 13*
Dimensions (mm)	40.5 × 40.5 × 2.85	40.5 × 40.5 × 2.85	40.5 × 40.5 × 2.85
Package	LCC + LGA	LCC + LGA	LCC + LGA
Weight (g)	TBD	TBD	TBD
Temperature Range			
Operating Temperature	-35 °C to +75 °C*	-35 °C to +75 °C*	-35 °C to +75 °C*
Frequency Bands			
LTE-FDD	B1/ 2/ 3/ 4/ 5/ 7/ 8/ 20/ 28	B1/ 3/ 5/ 8	-
LTE-TDD	B38/ 40/ 41	B34/ 38/ 39/ 40/ 41 (140 M)	-
WCDMA	B1/ 2/ 4/ 5/ 8	B1/ 8	-
GSM	850/ 900/ 1800/ 1900 MHz	900/ 1800 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
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/ QZSS, L1	GPS/ GLONASS/ BDS/ Galileo/ QZSS, L1	-
Certifications			
Carrier	Australia: Telstra*	TBD	TBD
Regulatory	Global: GCF* Europe: CE* UK: UKCA* Brazil: Anatel* South Korea: KC* Australia/New Zealand: RCM*	China: CCC*/ SRRC*/ NAL*	TBD
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)/ 11.5 (UL)	42 (DL)/ 11.5 (UL)	-
WCDMA (kbps)	384 (DL)/ 384 (UL)	384 (DL)/ 384 (UL)	-
EDGE (kbps)	236 (DL)/ 236 (UL)	236 (DL)/ 236 (UL)	-
GPRS (kbps)	85.6 (DL)/ 85.6 (UL)	85.6 (DL)/ 85.6 (UL)	-
Enhanced Features			
3GPP E-UTRA	Release 11	Release 11	-
Bandwidth	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	●	●	-
DSDS	●	●	-
Firmware Upgrade via USB	●	●	●
Firmware Upgrade via OTA	●	●	●

Notes:

- : Supported
- *: Under development/ in progress/ planning
- TBD: To be determined

Quectel SC260F Series

LTE Cat 4	General Features
Interfaces	
LCM	4-lane MIPI DSI, supports up to 1480 × 800 @ 60 fps
Camera	Two 4-lane MIPI CSI, up to 2.8 Gbps/ lane Supports 2 cameras, up to 21 MP or 13 MP + 8 MP with dual ISPs
Touch Panel	Capacitive touch panel, controlled by I2C
Video	Encode: 1080P @ 30 fps/ H.263/ H.264/ MPEG4 Decode: 1080P @ 30 fps/ HEVC/ H.263/ H.264/ VP9/ MPEG4
Audio IO	3 analog input: MIC1, MIC2 (earpiece), MIC3 3 analog output: Line-out, earpiece, headphone
USB	× 1, supports USB 2.0, USB OTG etc.
(U)SIM	× 2, supports 1.8/ 2.95 V (U)SIM cards; supports (U)SIM card hot swap detection and dual-SIM dual-standby
SD Card	× 1, SD 3.0, supports 4-bit SDIO
ADC	× 1, general-purpose ADC interface
UART	× 2 Debug UART: 2-wire serial port, dedicated for debugging UART05: 4-wire serial port, up to 4 Mbps data rate, supports RTS and CTS hardware flow control
I2C ^①	× 4 (Default)
SPI ^①	× 1 (Multiplexed)
I2S ^①	× 2 (Multiplexed)
PWRKEY	1.8 V, pull it down to power on
GPIO ^①	× 41
Antenna	× 4, Main, Rx-diversity, GNSS, Wi-Fi/ Bluetooth antennas respectively (SC260F-WF*: × 1, Wi-Fi & Bluetooth antenna)
Electrical Features	
Supply Voltage Range	3.55–4.4 V, typ. 3.8 V
Power Consumption (Typ.)	TBD

Notes:

- ①: SPI, I2C, I2S and GPIO outputs are multiplexed. Let us know your requirements if you need to customize them. We will assist you in customizing the software needed.
- *: Under development/ in progress/ planning