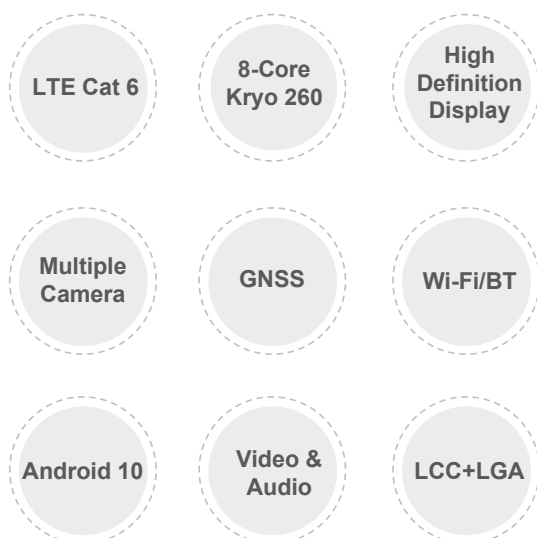
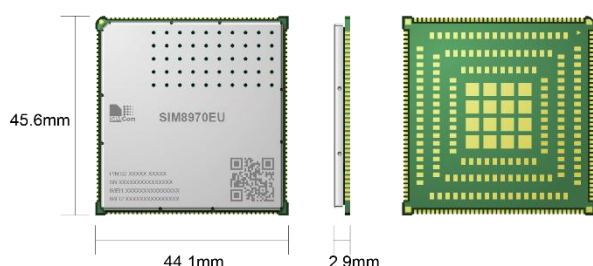


# SIM8970 Series

## SIMCom LTE Smart Module

### Product Description

The SIM8970 series is the LTE Cat 6 smart module with Android system, it adopts Qualcomm 8-core 64-bit ARM V-8 processor, with frequency up to 2.0GHz and Adreno™ 610 GPU. It supports multiple high resolution camera and high definition touch display, and has powerful high data transfer and multimedia processing capability. With smart module operation system and high performance advantage, the module is ideal for rapid development of multimedia wireless communication products and applications.



The SIM8970 series highly integrates wireless communication, short distance communication and multiple satellite positioning receiver function. MIMO technology is used to support LTE Cat 6 and  $2 \times 20\text{MHz}$  carrier aggregation. It supports multiple communication modes such as GSM/GPRS/EDGE, WCDMA/HSPA+, LTE-FDD and LTE-TDD. It supports GNSS multi-mode satellite positioning and short distance communication including Wi-Fi 802.11 a/b/g/n/ac and BT5.x BLE

The SIM8970 series has abundant interfaces, it can be connected with camera, display screen, audio, sensors and other equipments. It supports multi-dimensional data collection and man-machine interaction. The interfaces including MIPI\_DSI/CSI/UART/SPI/I2C/GPIO/USB greatly expand smart module applications, and make the module suitable for smart POS, advertising media, automotive electronics, smart diagnostics, smart security devices and industry.

### Key Benefits

- ◆ Cat 6 / Wi-Fi / BT
- ◆ Support 4K@30fps video recording and playing
- ◆ Built in charging management function, supporting QC3.0
- ◆ Integrate GNSS function, supports rapid accurate positioning under different environment
- ◆ 4-lane MIPI\_DSI (up to 2520\*1080 @60fps) and DP over USB Type-C for Dual Independent Display
- ◆ Can carry 4 cameras. The main camera can support up to 25MP pixels, and the secondary camera can support up to 16MP pixels

## Frequency Bands

<b>SIM8970EU</b>	
LTE-FDD	B1/B3/B5/B7/B8/B20/B28
LTE-TDD	B38/B40/B41
WCDMA	B1/B5/B8
GSM	900/1800
2CA	B1-B1,B3-B3,B1-B3,B38-B38,B40-B40,B41-B41
<b>SIM8970NA</b>	
LTE-FDD	B2/B4/B5/B7/B12/B13/B14/B17/B25/B26/B66/B71
LTE-TDD	B41
WCDMA	B2/B4/B5
2CA	2C,5B,7C,12B,66B,66C,41C 2A-2A,4A-4A,5A-5A,7A-7A,12A-12A,25A-25A,66A-66A,41A-41A,2A-4A,2A-66A
<b>SIM8070(No 4G)</b>	2.4G /5G 802.11 a/b/g/n/ac BT 5.x BLE

## Data Transfer

LTE	50Mbps(UL)
	300Mbps(DL)
HSPA+	5.76Mbps(UL)
	42 Mbps (DL)
UMTS	384Kbps(UL/DL)
EDGE	236.8Kbps(UL/DL)
GPRS	85.6Kbps (UL/DL)

## Media & Software Feature

USB Drive	Win7/Win8/Win10
Operating System	Android 10.1
Video encoding and decoding	Encode: 4K30 HEVC/H264/VP8/MPEG4 Decode: 4K30 8-bit: H.264/VP8/VP9 4K30 10-bit: HEVC Wireless display(decode + encode): 4Kp30 Dec + 1080p30 Enc
Audio encoding and decoding	G.711, G.729A/AB; EVRc, EVRC-B, EVRC-WB; AMR-NB, AMR-WB, AMR-eAMR, AMR-BeAMR; GSM-EFR/-FR/-HR; MP3; AAC; He-AAC v1, v2; WMA 9/Pro; Dolby AC-3, eAC-3, DTS-HD, FLAC, APE, ALAC, AIFF
Firmware Upgrade	USB/OTA/TF card

## Interface

LCM	4-lane MIPI_DSI FHD 2520 * 1080 @ 60fps DP1.4 over USB Type-C for Dual Independent Display
	Capacitive Touch Panel
Camera	3 groups of Mipi_CSI Combined dphy 1.2 / cphy 1.0 Configurable to 3 or 4 cameras up to 25MP pixels
Audio	2 channel digital mic interface 3 channel analog audio input & output 4 digital microphones
USB	Compliant with USB 3.1/2.0
UART	*6
I2C	*9
SPI	*4
ADC	*2
UIM Card	*2, dual cards dual standby
GPIO	≥*40
Charging	QC3.0
Antenna	Main & Diversity & GNSS & Wi-Fi/BT

## General Feature

WLAN	2.4G /5G 802.11 a/b/g/n/ac
BT	BT 5.x BLE
GNSS	BeiDou/GPS/GLONASS
Supply Voltage	3.4V ~ 4.4V
Memory	64GB eMMC + 4GB LPDDR4
Temperature Range	-35°C ~ +75°C
Dimensions	44.1*45.6*2.9mm
Form Factor	LCC+LGA
Weight	Approx. 13.5g

## Certification

RoHS/REACHCE

### Note

\*: on going