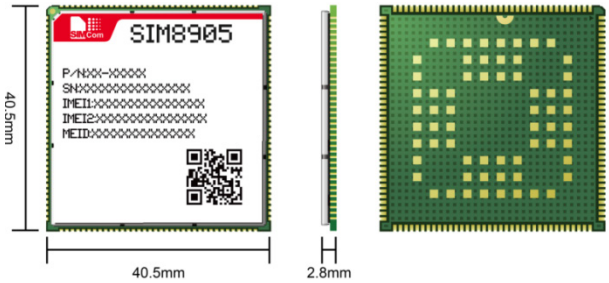
V: 2020.02

SIM8905 Series

SIMCom LTE Smart Module



4G LTE

4 ARM Cortex-A7

Touch Screen

Dual Camera

GNSS

Wi-Fi/BT

Android

Video & Audio

LCC+LGA

Product Description

SIM8905 series is the LTE Cat 4 smart module with Android system, it adopts Qualcomm 4-core 32-bit ARM Cortex-A7 processor, with frequency up to 1.1GHz and Adreno™ 304 GPU. It supports multiple high resolution camera and single screen 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 SIM8905 series highly integrates wireless communication, short distance communication and multiple satellite positioning receiver function. It supports multiple communication modes such as GSM/GPRS/EDGE, WCDMA/HSPA+, TD-SCDMA, CDMA2000/EVDO, 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 and BT4.0 LE.

The SIM8905 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

- Support dual SIM card
- Support charge management function
- Support 720@30fps video recording and playing
- Support global multi network mode (LTE Cat 4)
- Support double camera
- Integrate GNSS function, supports rapid accurate positioning under different environment

Copyright © 2020 SIMCom Wireless Solutions Limited All Rights Reserved
Building B, SIM Technology Building, No.633, Jinzhong Road Changning District, Shanghai P.R.China
Tel: 86-21-31575100 Email: support@simcom.com Web: www.simcom.com

Frequency Bands

SIM8905E	
LTE-FDD	B1/B3/B5/B7/B8/B20
LTE-TDD	B38/B40/B41
WCDMA	B1/B2/B5/B8
GSM	850/900/1800/1900 MHz
SIM8905A	
LTE-FDD	B2/B4/B5/B7/B12/B13/B17/B25/B26
LTE-TDD	B41
WCDMA	B1/B2/B4/B5/B8
GSM	850/900/1900 MHz
SIM8905E-W	
WLAN	2.4G/5G, 802.11a/b/g/n
BT	BT2.1+EDR /3.0 /4.0 BLE

Data Transfer

LTE	50Mbps(UL)
	150Mbps(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	Microsoft Windows2000/XP/ Vista/Win7/Win8/Win10/Linux
Operating System	Android 5.1/7.1/8.1
Video encoding and decoding	Encode: H.264 BP/MP – 720p, 30 fps MPEG-4 /WVGA/VP8 Decode: H.264/MPEG-4/VP8 – 1080p, 30 fps H.265 DivX 4x/5x/6x –1080p, 30 fps H.263 P0 – WVGA, 30 fps
Audio encoding and decoding	G711; Raw PCM; QCELP; EVRC/EVRC-B/EVRC-WB; AMR-NB/ AMR-WB/GSM-EFR/GSM-FR/GSM-HR; MP3; AAC/AAC+/eAAC; AMR-NB/ ARM-WB; G.711/WMA 9/10 Pro
Firmware Upgrade	USB/OTA/TF card

Interface

LCM	4-lane MIPI_DSI, support HD 720p@60fps
	Capacitive Touch Panel
Camera	Use MIPI_CSI, support two cameras 2-lane MIPI_CSI for rear camera, up to 8MP 1-lane MIPI_CSI for front camera, up to 5MP
Audio	2 input & 3 output
USB	*1 high-speed USB 2.0, support USB OTG
UART	*2, support 4Mbps with hardware flow control
I2C	*3
SPI	*1
ADC	*1 16bits ADC
UIM Card	*2, dual cards dual standby
SD Card	*1
GPIO	≥ *21
PMW	*1
Motor Drive	*1
Keypad	PWRKEY, VOL UP, VOL DOWN
Antenna	Main & Diversity & GNSS & Wi-Fi/BT

General Feature

WLAN	2.4G /5G 802.11 a/b/g/n
BT	BT 4.0 LE
GNSS	BeiDou/GPS/GLONASS
Supply Voltage	3.4V ~ 4.4V
Memory	8GB eMMC + 1GB LPDDR3 16GB eMMC + 2GB LPDDR3(optional)
Temperature Range	-35℃ ~ +75℃
Dimensions	40.5*40.5*2.8mm
Form Factor	LCC+LGA
Weight	Approx. 10.5g

Certification

CE/ROHS/REACH/FCC/IC/PTCRB/AT&T

Copyright © 2020 SIMCom Wireless Solutions Limited All Rights Reserved
Building B, SIM Technology Building, No.633, Jinzhong Road Changning District, Shanghai P.R.China
Tel: 86-21-31575100 Email: support@simcom.com Web: www.simcom.com