SIM868E

SIMCom GSM/GPRS+GNSS Module

15.7mm

17.6mm   2.3mm

Quad-Band

GPRS+GNSS

LCC+LGA

TCP/IP

Compact Size

DTMF

MMS

UART

SSL
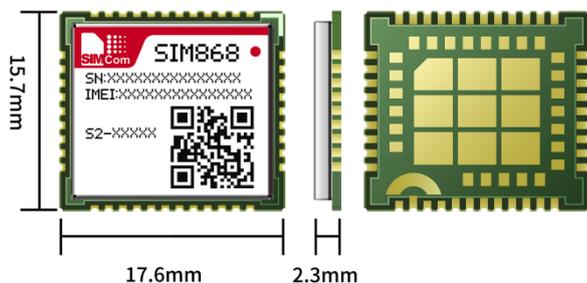
Product Description

SIM868E module is the complete Quad-Band GSM/GPRS module which combines GNSS(GPS/GLONASS/BDS) technology for satellite navigation. It has strong extension capability with abundant interfaces including UART, USB2.0, GPIO etc. The module provides much flexibility and ease of integration for customer's applications.

The form factor of SIM868E is LCC+LGA. The compact design with LCC and LGA pads will significantly save both time and costs for customers to develop GNSS enabled applications. Featuring an industry-standard interface and GNSS function, it allows variable assets to be tracked seamlessly at any location and anytime with signal coverage.

Due to the unique combination of performance, security and flexibility, this module is ideally suited for many applications.
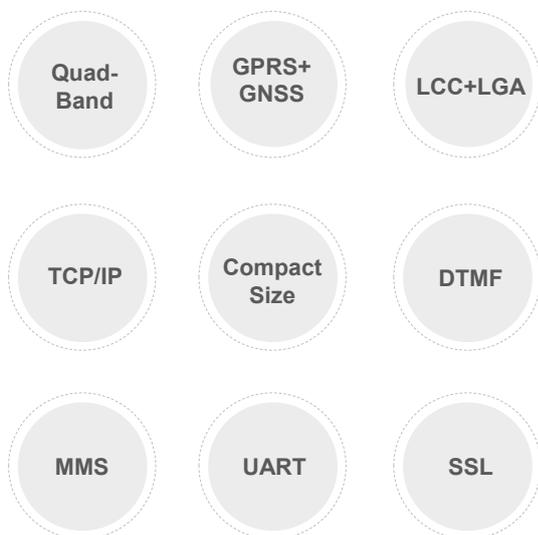
Key Benefits

◆ Small size quad-band GSM/GPRS + GNSS module

◆ LCC+LGA form factor with rich interfaces

◆ Rich software functions: DTMF, MMS, MUX

◆ Low power consumption

◆ Embedded TCP/UDP protocols

◆ Multi-constellation GNSS receiver support: GPS, GLONASS, BeiDou

◆ Support BLE4.0

General Features

Frequency Bands	850/900/1800/1900MHz
GPRS multi-slot class	12/10
Dimensions	17.6*15.7*2.3mm
Weight	1.5±0.1g
Supply Voltage	3.4V ~ 4.4V
Operation temperature	-40℃ ~ +85℃
Compliant GSM phase 2/2+	Class 4 (2W @ 850/900MHz)
	Class 1 (1W @ 1800/1900MHz)
Control Via AT Commands(3GPP TS 27.007, 27.005 & SIMCom enhanced AT Commands)	
Low Power consumption	
GPRS mobile station class B	

Specifications for GPRS Data

GPRS class 12: Uplink/Downlink up to 85.6Kbps

PBCCH support

Coding schemes CS 1, 2, 3, 4

PPP-stack

USSD

Specifications for SMS via GSM/GPRS

Point to point MO and MT

SMS cell broadcast

Text and PDU mode

Specification for GNSS

Receiver type	33 tracking/99 acquisition channel

Sensitivity
    -Tracking
    -Reacquisition
    -Cold starts
	
	-167 dBm
	-161 dBm
	-149 dBm

Time-To-First-Fix
    -Cold starts
    -Hot starts
    -Warm starts
	
	28s(typ.)
	<1s
	22s

Accuracy -Horizontal position	 <2.5m CEP

Software Features

0710 MUX protocol

Embedded TCP/UDP protocol

FTP/HTTP/POP3/SMTP

MMS

DTMF

Jamming Detection

Audio Record

LBS*

SSL/TLS*

BT 3.0&4.0

TTS*

EAT*

Specifications for Voice

Speech Codec Modes	AMR/HR/FR/EFR
Echo Arithmetic	AEC/EES

Interfaces

Analog audio interface

UART

USB

(U)SIM card(1.8V/3V)

SD

RTC GNSS backup

ADC

I2C

GPIO

Antenna: GSM/GNSS/BT

Certifications

CE/BQB

RoHS/REACH

Deutsche Telekom

Note

*: optional