SIM7080 Series
SIMCom LPWA Module

- Global-Band
- Cat-M/NB
- MQTT
- LWM2M
- Compact Size
- FOTA
- TCP/UDP
- PSM/eDRX
- HTTP/SSL
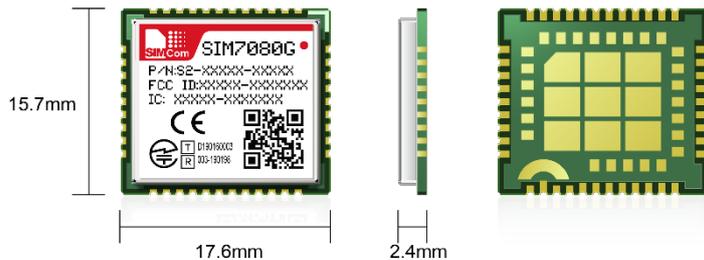
Product Description

The SIM7080 series is the LPWA module which supports wireless communication modes of Cat-M/Cat-NB.

The SIM7080 series adopts LCC and LGA form factor and has a compact size of 17.6mm*15.7mm which makes it ideal for compact products design.

The SIM7080 series has powerful expansibility with abundant interfaces including UART, GPIO, PCM, SPI, I2C etc. The SIM7080 series is designed for applications that need low latency, low throughput data communication in a variety of radio propagation conditions. Due to the unique combination of performance, security and flexibility, this module is ideally suited for M2M applications, such as metering, asset tracking, remote monitoring, E-health etc.
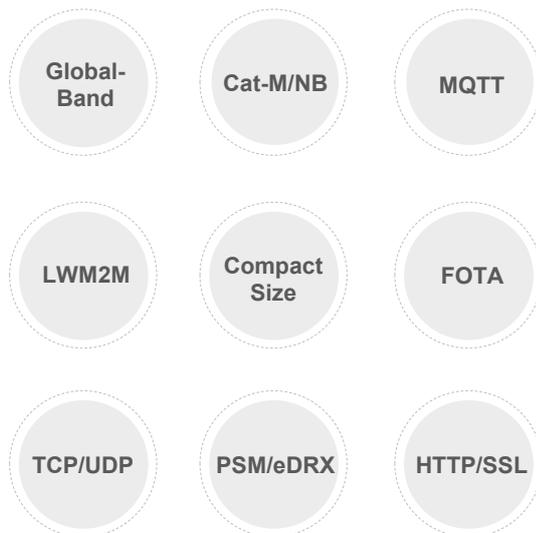
Key Benefits

◆ With Power Saving Mode(PSM) and Extended Discontinuous Reception(eDRX), the SIM7080 series can extend battery life up to 10 years

◆ The SIM7080 series provides deeper coverage enhancement compared to GSM

◆ The form factor and AT commands of SIM7080 series are compatible with SIM7020/SIM868

Product		SIM7080G	SIM7080G-M
Form Factor		LCC+LGA, 77PIN	LCC+LGA, 77PIN
Dimensions(mm)		17.6*15.7*2.3	17.6*15.7*2.3
Frequency Bands	Cat-M	B1/B2/B3/B4/B5/B8/B12/B13/B14/B18/B19/B20/B25/B26/B27/B28/B66/B85	B1/B2/B3/B4/B5/B8/B12/B13/B14/B18/B19/B20/B25/B26/B27/B28/B66/B85
	Cat-NB	B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B28/B66/B71/B85	
RF Power Class		Class 5 (Typ. 21dbm)	Class 5 (Typ. 21dbm)
GNSS		o	o
Temperature		-40℃ ~ +85℃	-40℃ ~ +85℃

Electrical Features

Supply Voltage Range(V)		2.7~ 4.8	2.7~ 4.8
Power Consumption	@PSM(uA)	3.2	3.2
	@Sleep(mA)	0.6	0.6
	@Idle(mA)	10	10

Data Transfer

	SIM7080G	SIM7080G-M
Cat-M (Kbps)	589(DL)/1119(UL)	589(DL)/1119(UL)
Cat-NB (Kbps)	127(DL)/158.5(UL)	127(DL)/158.5(UL)

Software Features

	SIM7080G	SIM7080G-M
Protocol	TCP/UDP/HTTP/HTTPS/FTP/TLS/DTLS/PING/LWM2M/COAP/MQTT	TCP/UDP/HTTP/HTTPS/FTP/TLS/DTLS/PING/LWM2M/COAP/MQTT
FOTA	●	●
Embedded AT	●	●
Firmware Upgrade	USB/FOTA	USB/FOTA

Interfaces

	SIM7080G	SIM7080G-M
SIM Card	1.8V	1.8V
UART	●	●
USB	●	●
PCM/I2S	●	●
ADC	●	●
SPI	●	●
I2C	●	●
Embedded SIM	o	o

Certification

	SIM7080G	SIM7080G-M
Regulatory	FCC/IC/CE/RCM/JATE/TELEC/NCC*/GCF*/PTCRB*/RoHS/REACH	FCC/IC/CE/RCM/JATE/TELEC/NCC*/GCF*/PTCRB*/RoHS/REACH
Carrier	AT&T*/VERIZON*/TMOBILE-US*/SPRINT*/ROGERS*/TELSTRA*/SoftBand*/DoCoMo*/KDDI*	AT&T*/VERIZON*/TMOBILE-US*/SPRINT*/ROGERS*/TELSTRA*/SoftBand*/DoCoMo*/KDDI*

●: support   o: optional   * : on going