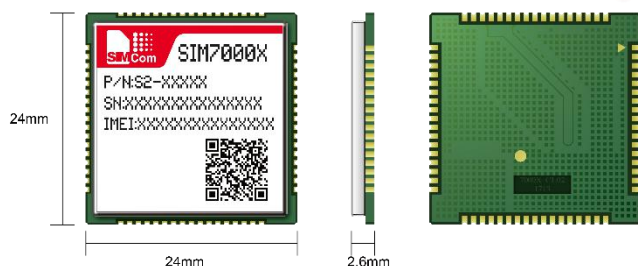


# SIM7000 Series

## SIMCom LPWA Module



### Product Description

The SIM7000 series is the LPWA module which supports wireless communication modes of Cat-M/ Cat-NB/GPRS/EDGE.

The SIM7000 series adopts LCC form factor and has a compact size of 24mm\*24mm which makes it ideal for compact products design.

The SIM7000 series has powerful expansibility with abundant interfaces including UART, GPIO, PCM, I2C etc. The SIM7000 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 SIM7000 series can extend battery life to 10 years
- ◆ SIM7000 series provides deeper coverage enhancement compared to GSM
- ◆ The form factor and AT commands of the SIM7000 series are compatible with SIM900 and SIM800F

Product	SIM7000G	SIM7000E	SIM7000A
<b>Form factor</b>	LCC, 68PIN	LCC, 68PIN	LCC, 68PIN
<b>Dimensions(mm)</b>	24*24*2.6	24*24*2.6	24*24*2.6
<b>Frequency Bands</b>	<b>Cat-M</b>	B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B26/B28/B39	B2/B4/B12/B13
	<b>Cat-NB</b>	B1/B2/B3/B5/B8/B12/B13/B17/B18/B19/B20/B26/B28	B2/B4/B12/B13
	<b>GSM</b>	850/900/1800/1900MHz	900/1800MHz
<b>GNSS</b>	o	o	o
<b>Temperature</b>	-40°C ~ +85°C	-40°C ~ +85°C	-40°C ~ +85°C
<b>Electrical Features</b>			
<b>Supply Voltage Range(V)</b>	3.0~ 4.3	3.0~ 4.3	3.0~ 4.3
<b>Power Consumption</b>	<b>Power Off(uA)</b>	7	7
	<b>PSM(uA)</b>	9	9
	<b>Sleep(mA)</b>	1	1
	<b>Idle(mA)</b>	11	11
<b>Data Transfer</b>			
<b>Cat-M(Kbps)</b>	300(DL)/375(UL)	300(DL)/375(UL)	300(DL)/375(UL)
<b>Cat-NB(Kbps)</b>	34(DL)/66(UL)	34(DL)/66(UL)	34(DL)/66(UL)
<b>EGPRS(Kbps)</b>	85.6(DL)/85.6(UL)	85.6(DL)/85.6(UL)	
<b>Software Features</b>			
<b>Protocol</b>	TCP/UDP/LWM2M/COAP/MQTT/FTP/HTTP/TLS/DTLS/NTP	TCP/UDP/LWM2M/COAP/MQTT/FTP/HTTP/TLS/DTLS/NTP	TCP/UDP/LWM2M/COAP/MQTT/FTP/HTTP/TLS/DTLS/NTP
<b>FOTA</b>	•	•	•
<b>Embedded AT</b>	•	•	•
<b>Firmware Upgrade</b>	USB/FOTA	USB/FOTA	USB/FOTA
<b>Interfaces</b>			
<b>SIM Card</b>	1.8V/3.0V	1.8V/3.0V	1.8V/3.0V
<b>UART</b>	•	•	•
<b>USB</b>	•	•	•
<b>PCM</b>	•	•	•
<b>ADC</b>	•	•	•
<b>I2C</b>	•	•	•
<b>Certification</b>			
<b>Regulatory</b>	FCC/IC/CE/3C/GCF/RoHS/REACH/RCM/PTCRB*	CE/RCM/IMDA/GCF/RoHS/REACH	FCC/IC/PTCRB/GCF/RoHS/REACH
<b>Carrier</b>	Deutsche Telekom /ORANGE*	TELSTRA/VDF*/ORANGE*/TIM*/GCF/Deutsche Telekom	AT&T/VERIZON/ROGERS*

•: support o: optional \*: on going

Product		SIM7000JC	SIM7000C
Form factor		LCC, 68PIN	LCC, 68PIN
Dimensions(mm)		24*24*2.6	24*24*2.6
Frequency Bands	Cat-M	B1/B3/B5/B8/B18/B19/B26	B1/B3/B5/B8
	Cat-NB	B1/B3/B5/B8/B18/B19/B26	B1/B3/B5/B8
	GSM		900/1800MHz
GNSS		o	o
Temperature		-40°C ~ +85°C	-40°C ~ +85°C
<b>Electrical Features</b>			
Supply Voltage Range(V)		3.0~ 4.3	3.0~ 4.3
Power Consumption	Power Off(μA)	7	7
	PSM(μA)	9	9
	Sleep(mA)	1	1
	Idle(mA)	11	11
<b>Data Transfer</b>			
Cat-M(Kbps)		300(DL)/375(UL)	300(DL)/375(UL)
Cat-NB(Kbps)		34(DL)/66(UL)	34(DL)/66(UL)
EGPRS(Kbps)			85.6(DL)/85.6(UL)
<b>Software Features</b>			
Protocol		TCP/UDP/LWM2M/COAP/MQTT/FTP/HTTP/TLS/DTLS/NTP	TCP/UDP/LWM2M/COAP/MQTT/FTP/HTTP/TLS/DTLS/NTP
FOTA		•	•
Embedded AT		•	•
Firmware Upgrade		USB/FOTA	USB/FOTA
<b>Interfaces</b>			
SIM Card		1.8V/3.0V	1.8V/3.0V
UART		•	•
USB		•	•
PCM		•	•
ADC		•	•
I2C		•	•
<b>Certification</b>			
Regulatory		JATE/TELEC/RoHS/REACH	CCC/NAL/SRRC/RoHS/REACH
Carrier		KDDI/DoCoMo	CMCC/CUCC/CT

• : support    o: optional    \* : on going