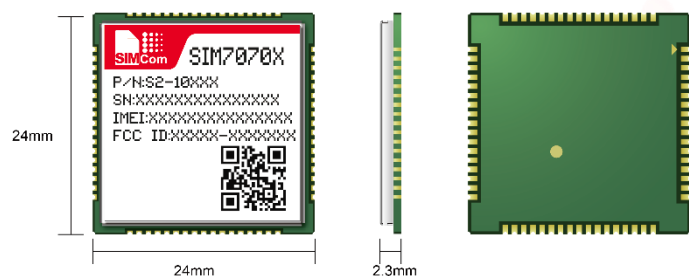


SIM7070 Series

SIMCom LPWA Module

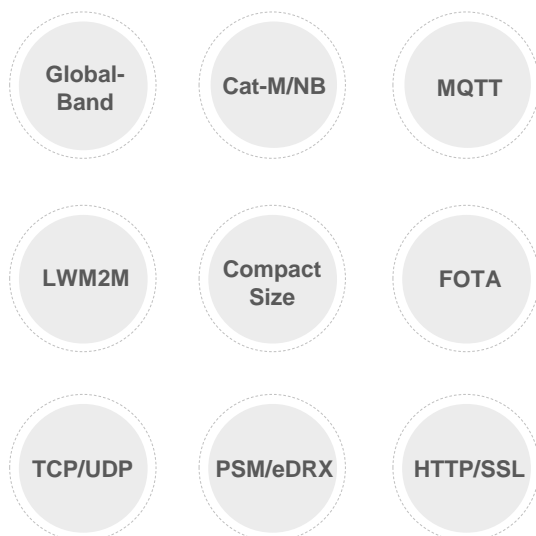


Product Description

The SIM7070 series is the LPWA module which supports wireless communication modes of Cat-M/Cat-NB/GPRS/EDGE.

The SIM7070 series adopts LCC form factor and has a compact size of 24mm*24mm which makes it ideal for compact products design.

The SIM7070 series has powerful expansibility with abundant interfaces including UART, GPIO, PCM, SPI, I2C etc. The SIM7070 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 SIM7070 series can extend battery life up to 10 years
- ◆ The SIM7070 series provides deeper coverage enhancement compared to GSM
- ◆ The form factor and AT commands of the SIM7070 series are compatible with SIM7000X/SIM800F/SIM900

Product	SIM7070G	SIM7070G-MN	SIM7070G-M	SIM7070G-HP
Form Factor	LCC, 68PIN	LCC, 68PIN	LCC, 68PIN	LCC, 68PIN
Dimensions(mm)	24*24*2.3	24*24*2.3	24*24*2.3	24*24*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	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	B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B28/B66/B71/B85	B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B28/B66/B71*/85*
	GSM	850/900/1800/1900MHz		
LTE RF Power Class	Class 5 (Typ. 21dbm)	Class 5 (Typ. 21dbm)	Class 5 (Typ. 21dbm)	Class 3 (Typ. 23dbm)
GNSS	○	○	○	○
Temperature	-40℃ ~ +85℃	-40℃ ~ +85℃	-40℃ ~ +85℃	-40℃ ~ +85℃
Electrical Features				
Supply Voltage Range(V)	3.0~ 4.6	3.0~ 4.6	3.0~ 4.6	3.0~ 4.5
Power Consumption	@PSM(μA)	3.2	3.2	4
	@Sleep(mA)	0.8	0.8	0.8
	@Idle(mA)	10	10	10
Data Transfer				
Cat-M(Kbps)	589(DL)/1119(UL)	589(DL)/1119(UL)	589(DL)/1119(UL)	589(DL)/1119(UL)
Cat-NB(Kbps)	127(DL)/158.5(UL)	127(DL)/158.5(UL)		127(DL)/158.5(UL)
EGPRS(Kbps)	296(DL)/236.8(UL)			
Software Features				
Protocol	TCP/UDP/HTTP/HTTPS/FTP/TLS/DTLS/PING/LWM2M/COAP/MQTT	TCP/UDP/HTTP/HTTPS/FTP/TLS/DTLS/PING/LWM2M/COAP/MQTT	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	USB/FOTA	USB/FOTA
Interfaces				
SIM Card	1.8V	1.8V	1.8V	1.8V
UART	•	•	•	•
USB	•	•	•	•
PCM/I2S	•	•	•	•
ADC	•	•	•	•
SPI	•	•	•	•
I2C	•	•	•	•
Embedded SIM	○	○	○	○
Certification				
Regulatory	FCC/IC/CE/RCM/JATE/TELEC/NCC/ANATEL*/GCF/PTCRB/RoHS/REACH	FCC/IC/CE/RCM/JATE/TELEC/NCC/ANATEL*/GCF/PTCRB/RoHS/REACH	FCC/IC/CE/RCM/JATE/TELEC/NCC/ANATEL*/GCF/PTCRB/RoHS/REACH	FCC*/IC*/CE*/RCM*/KC*/RoHS*/REACH*
Carrier	Deutsche Telekom/AT&T/VERIZON*/T-MOBILE US/US Cellular*/ROGERS*/TELSTR A*/VDF*/SoftBank*/DoCoMo*/KDDI*	Deutsche Telekom/AT&T/VERIZON*/T-MOBILE US/US Cellular*/ROGERS*/TELSTR A*/VDF*/SoftBank*/DoCoMo*/KDDI*	Deutsche Telekom/AT&T/VERIZON*/T-MOBILE US/US Cellular*/ROGERS*/TELSTR A*/VDF*/SoftBank*/DoCoMo*/KDDI*	

•: Support ○: Optional *: Under developing/On-going/Planning

Product		SIM7070E
Form Factor		LCC, 68PIN
Dimensions(mm)		24*24*2.3
Frequency Bands	Cat-M	B1/B2/B3/B4/B5/B8/B12/B13/B14/B18/B19/B20/B25/B26/B27/B28/B31/B66/B72/B85
	Cat-NB	B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B28/B31/B66/B85
	GSM	850/900/1800/1900MHz
LTE RF Power Class		Class 5 (Typ. 21dbm) Class 2@B31&72
GNSS		○
Temperature		-40℃ ~ +85℃
Electrical Features		
Supply Voltage Range(V)		3.2~ 4.2
Power Consumption	@PSM(uA)	3.2
	@Sleep(mA)	0.8
	@Idle(mA)	10
Data Transfer		
Cat-M(Kbps)		589(DL)/1119(UL)
Cat-NB(Kbps)		127(DL)/158.5(UL)
EGPRS(Kbps)		296(DL)/236.8(UL)
Software Features		
Protocol		TCP/UDP/HTTP/HTTPS/FTP/TLS/DTLS/PING/LWM2M/COAP/MQTT
FOTA		●
Embedded AT		●
Firmware Upgrade		USB/FOTA
Interfaces		
SIM Card		1.8V
UART		●
USB		●
PCM/I2S		●
ADC		●
SPI		●
I2C		●
Embedded SIM		○
Certification		
Regulatory		CE/RCM/RoHS/REACH
Carrier		

●: Support ○: Optional *: Under developing/On-going/Planning