SIM7020

NB-IoT Module

Product Description

The SIM7020 is Multi-Band NB-IoT module solution in a SMT type .

It has strong extension capability with rich interfaces including UART, GPIO etc. The module provides much flexibility and ease of integration for customer's application.

The package of SIM7020 is compatible with SIM800C. This also maximizes the investments of customers, and enables a short time-to-market.

It 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..

Multi-Band	NB-IoT	LCC
LWM2M/COAP	Compact Size	FOTA
TCP/UDP	PSM/eDRX	HTTP/SSL

Key Benefits

● With Power Save Mode(PSM) and Extended Discontinuous Reception(eDRX), SIM7020 can extend battery life to 10 years

● SIM7020 provides deeper coverage enhancement compared to GSM

● The package and AT commands of SIM7020 mostly are compatible with SIM800C.

General Features

SIM7020C: B1/B3/B5/B8
SIM7020E: B1/B3/B5/B8/B20/B28
Control Via AT Commands
Supply voltage range: 2.1V-3.6V
Operation temperature: -40℃ to +85℃
Dimensions: 17.6 X 15.7 X 2.3mm
Weight: 1.3g±0.2g

Data

Uplink: 62.5Kbps   Downlink:26.15Kbps

SMS

Text and PDU mode

Consumption

PSM: 3.4 uA
sleep: 0.4mA
Idle: 5.6mA
eDRX: 30uA （eDRX=655.36s）

* In development

Other Features

Firmware update via UART
TCP/UDP
HTTP/HTTPS/TLS/DTLS/DNS/NTP/PING
LWM2M/COAP/MQTT/MQTTS
OneNET/CT Cloud/CUCC Cloud/Ayla Cloud/Ali Cloud
FOTA
EAT

Interfaces

UART
SIM card (1.8V/3V)
Embedded SIM IC (Optional)
GPIO
ADC
Netlight
PSM_EINT
Reset
Powerkey

Certifications

SIM7020C：
SRRC/CCC/CTA
RoHS/REACH
China Telecom
China Mobile
China Unicom

SIM7020E：
CE
RoHS / REACH
GCF*
DTAG*/VDF*

Smart machine Smart decision