

# NB-IoT Module

## GM120

 LCC Form Factor	 NB-IoT	 CoAP/MQTT
 Ultra Low Power	 2 x UARTs	 NB-IoT: DL 34 Kbps / UL 66Kbps
 -40°C ~ 85 °C	 PSM & eDRX	 eSIM
 Embedded TCP/UDP	 Enhanced AT Commands	 SMT Package

## M2M Application

**GM120** is a ultra-packet NB-IoT module, The dimesions of GM120 is 16mm\*18mm\*2.3mm, it is fully compatible with 3GPP R14 standard, it can support eSIM, that means it can support mobility and lower power consumption, these three advantages make it more popular in Smart meter, Smart city, wearable devices and tracker industries.

GM120 is designed for low-power, wide-area, massive IoT connection, multiple protocols including CoAP, CoAPS, TCP/UDP, MQTT, MQTTS, OMA-LWM2M, OneNET are embedded in it. GM120 can support PSM /DRX/ eDRX low-power working mode.



Notes: The pictures are just for reference, please in kind prevail.

## General Features

- ❑ LCC Form Factor (40 pins)
- ❑ Dimensions: 16mm × 18mm × 2.3mm
- ❑ Band support: NB-IoT Band3,5,8
- ❑ 3GPP R14

## Applications

- ❑ TCP/UDP
- ❑ Embedded CoAP/OMA-LWM2M/MQTT
- ❑ China Mobile OneNET/China Telecom IOT
- ❑ HTTP/HTTPS
- ❑ FOTA
- ❑ OpenCPU
- ❑ GOSUNCN Extended AT Commands

## GM120 Series

PID	Band
C1A	NB-IoT B3,B5,B8

## Electrical & Sensitivity

- ❑ Transmit Power:
  - NB-IoT:  $23 \pm 2.7\text{dBm}$  (Power Class 3)
- ❑ Power Supply :3.1V -- 4.2V
- ❑ PSM 780nA
- ❑ eDRX(DRX:2.56s/PTW:10.24s/eDRX-value 40.96):120uA

## Data Features

- ❑ NB-IoT
  - Max Uplink 66 Kbps / Downlink 34 Kbps

## Data Features

- ❑ UART1
- ❑ UART2(For debug,2-wires)
- ❑ SIM interface (1.8/3.0V)
- ❑ eSIM
- ❑ RF PAD for Primary Antenna
- ❑ Reset
- ❑ ADC
- ❑ GPIO
- ❑ WAKEUP\_IN/WAKEUP\_OUT

## Environmental

- ❑ Operation temperature: -30° C to +75° C
  - Extreme Operating temperature: -40° C to +85° C
- ❑ Storage temperature: -40° C to +85° C
- ❑ Humidity: 5%~ 95%