

UNIT CatM+GNSS

SKU:U137



Description

UNIT CatM+GNSS is the global version of **CAT-M** & **NB-IoT** dual-mode wireless communication module. The internal 'SIM7080G' module supports both 'CAT-M' and 'NB-IoT' bands worldwide and **GNSS**. This module adopts serial communication, **AT command control** and supports **multiple communication protocols**. Integrated dual **SMA** external antenna interfaces (LTE+GNSS) to improve the communication quality and signal stability. Well suited for remote control, remote monitoring, and other IoT applications.

Product Features

- Integrated **Communication+Positioning**, Dual SMA antenna interfaces
 - Cat-M & NB-IoT modes with Global Coverage
 - Uplink: & Downlink:
 - Cat-M: Uplink: 1119Kbps Downlink: 589Kbps
 - NB-IoT: Uplink: 150Kbps Downlink: 136Kbps
 - Supported protocols:
 - TCP/UDP/HTTP/HTTPS/TLS/DTLS/PING/LWM2M/COAP/MQTT and others
 - Certifications:
 - Softbank/Telec/RoHS/REACH/JATE/Docomo/KDDI/RCM/CE(RED)/GCF Deutsche Telekom/FCC/PTCRB/AT&T/Verizon/T-Mobile/US Cellular/IC
 - GNSS: **GPS/GLONASS/BeiDou/Galileo**
 - MicroSIM card slot
 - Two power supply:

- Two power supply:
 - External DC 9-24V (5.5/2.1mm DC socket) input, built-in DC/DC circuit, to converter 9-24V to 5V
 - External DC 5V power through HY2.0-4P cable
- Communication interface: UART(3.3V TTL), AT Command control
- Supported platform: **Arduino IDE** , **UIFlow**
- Reserved 4 installation holes, suitable for multiple installations

Included

- 1x Unit CatM+GNSS
- 1x 4G Antenna (Telec)
- 1x GPS Antenna
- 1x HY2.0-4P cable (20cm)

Applications

- Remote Control
- Remote Monitor
- AGV

Specification

Spec	Parameters
Module Model	SIM7080G
Supported CAT-M bands	B1/B2/B3/B4/B5/B8/B12/B13/B14/B18/B19/B20/B25/B26/B27/B28/B66/B85
Supported CAT-NB bands	B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B28/B66/B71/B85
GNSS	GPS/GLONASS/BeiDou/Galileo
Cat-M	Uplink: 1119Kbps Downlink:589Kbps
NB-IoT	Uplink: 150Kbps Downlink:136Kbps
RF Power Class	Class 5 (Typ. 21dbm)
Standby Current	DC12V@13mA

Communication

Spec
Interface

UART: baud 115200 8N1

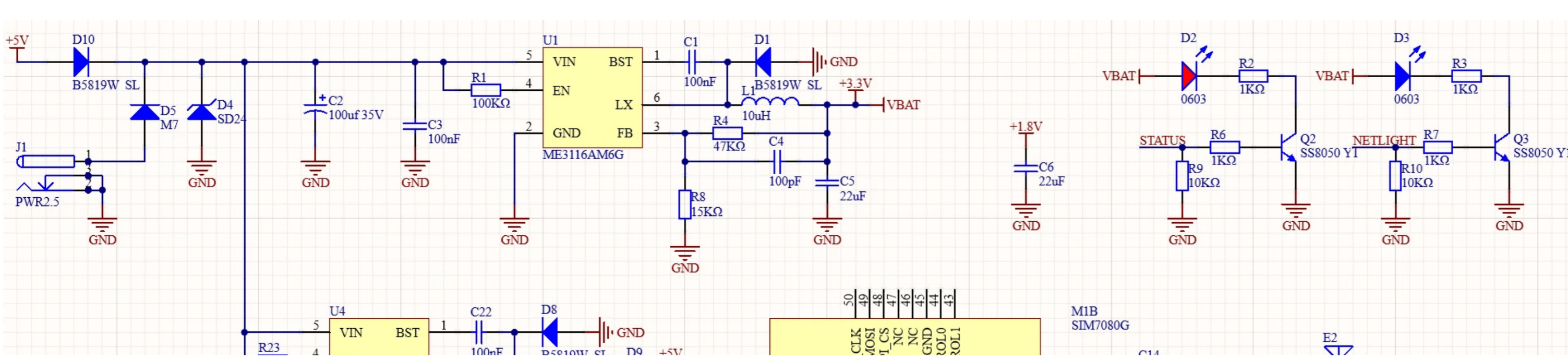
Net Weight	25.1g
Gross Weight	99.6g
Product Size	62 * 40 * 18.4mm
Package Size	190 * 55.5 * 26mm

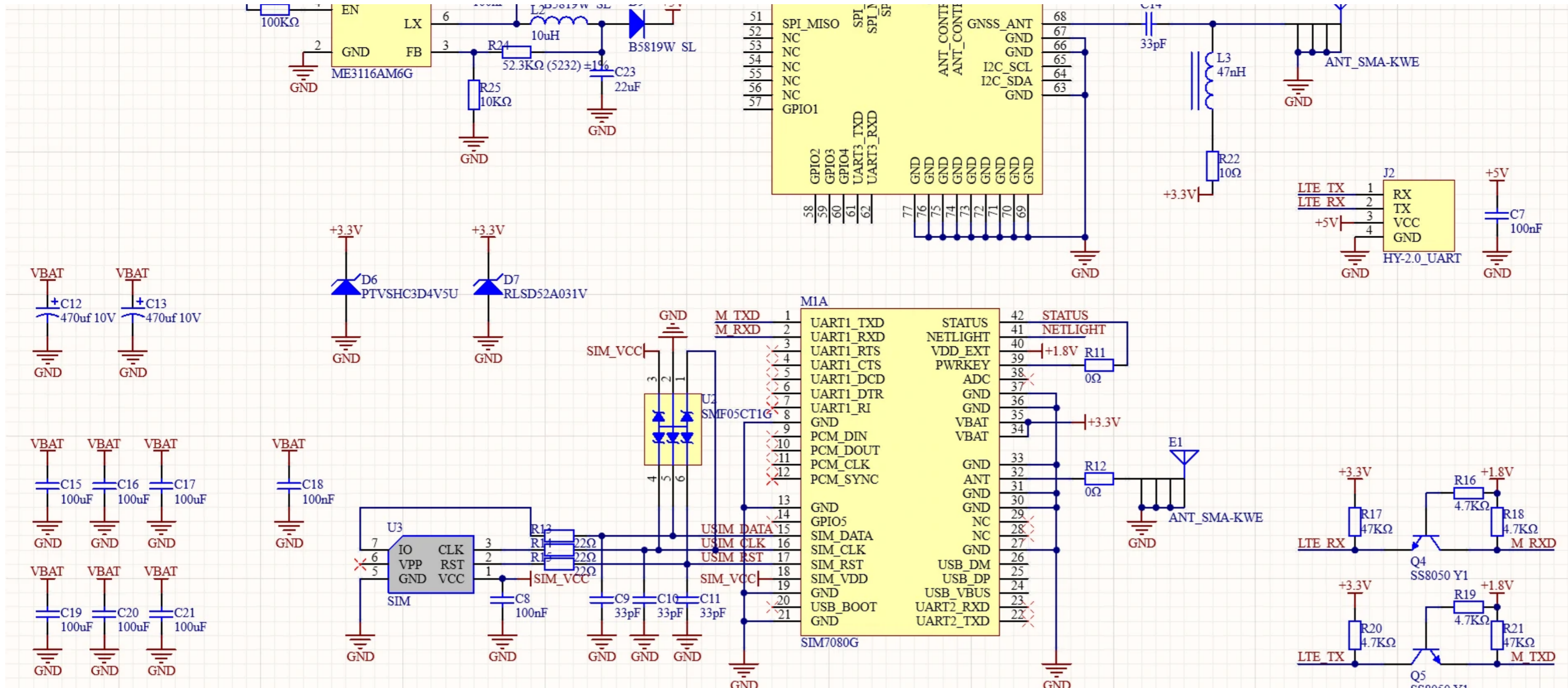


PinMap

M5Core	TX(GPIO17)	RX(GPIO16)	VCC	GND
UNIT CatM	RX	TX	VCC	GND

Schematic





Related Links

Application

- [SIM7070_SIM7080_SIM7090 Series_CTBURST_Application Note_V1.02](#)
- [SIM7070_SIM7080_SIM7090 Series_CoAP\(S\)_Application Note_V1.03](#)
- [SIM7070_SIM7080_SIM7090 Series_Email_Application Note_V1.02](#)
- [SIM7070_SIM7080_SIM7090 Series_FOTA_Application Note_V1.02](#)
- [SIM7070_SIM7080_SIM7090 Series_FS_Application Note_V1.02](#)
- [SIM7070_SIM7080_SIM7090 Series_FTP\(S\)_Application Note_V1.02](#)
- [SIM7070_SIM7080_SIM7090 Series_GNSS_Application Note_V1.02](#)
- [SIM7070_SIM7080_SIM7090 Series_HTTP\(S\)_Application Note_V1.02](#)
- [SIM7070_SIM7080_SIM7090 Series_Linux_Application Note_V1.02](#)
- [SIM7070_SIM7080_SIM7090 Series_Low Power Mode_Application Note_V1.02](#)
- [SIM7070_SIM7080_SIM7090 Series_LwM2M_Application Note_V1.02](#)
- [SIM7070_SIM7080_SIM7090 Series_MQTT\(S\)_Application Note_V1.03](#)
- [SIM7070_SIM7080_SIM7090 Series_PING_Application Note_V1.02](#)
- [SIM7070_SIM7080_SIM7090 Series_SAT_Application Note_V1.02](#)
- [SIM7070_SIM7080_SIM7090 Series_SSL_Application Note_V1.00](#)
- [SIM7070_SIM7080_SIM7090 Series_TCPUDP\(S\)_Application Note_V1.03](#)

Datasheet

- [SIM7080_Series_SPEC_20200427](#)

AT Command

- [SIM7070_SIM7080_SIM7090 Series_AT Command Manual_V1.04](#)

Certificate

- [SIM7080G_AT&T_Certificate_2020](#)

- [SIM7080G_GCF_Certificate_2020](#)

- [SIM7080G_GCF_Certificate_2020](#)
- [SIM7080G_NCC_2020](#)
- [SIM7080G_PTCRB_Certificate_2020](#)
- [SIM7080G_RCM_Compliance Certificate_2020](#)
- [SIM7080G_T-mobile_Certificate_2021](#)
- [SIM7080G_US Cellular_Certificate_2021](#)

| Example

Arduino

- [GNSS Example](#)
- [MQTT Example](#)

UIFlow

- [Click here to download the UIFlow example UIFlow](#)



| FAQ