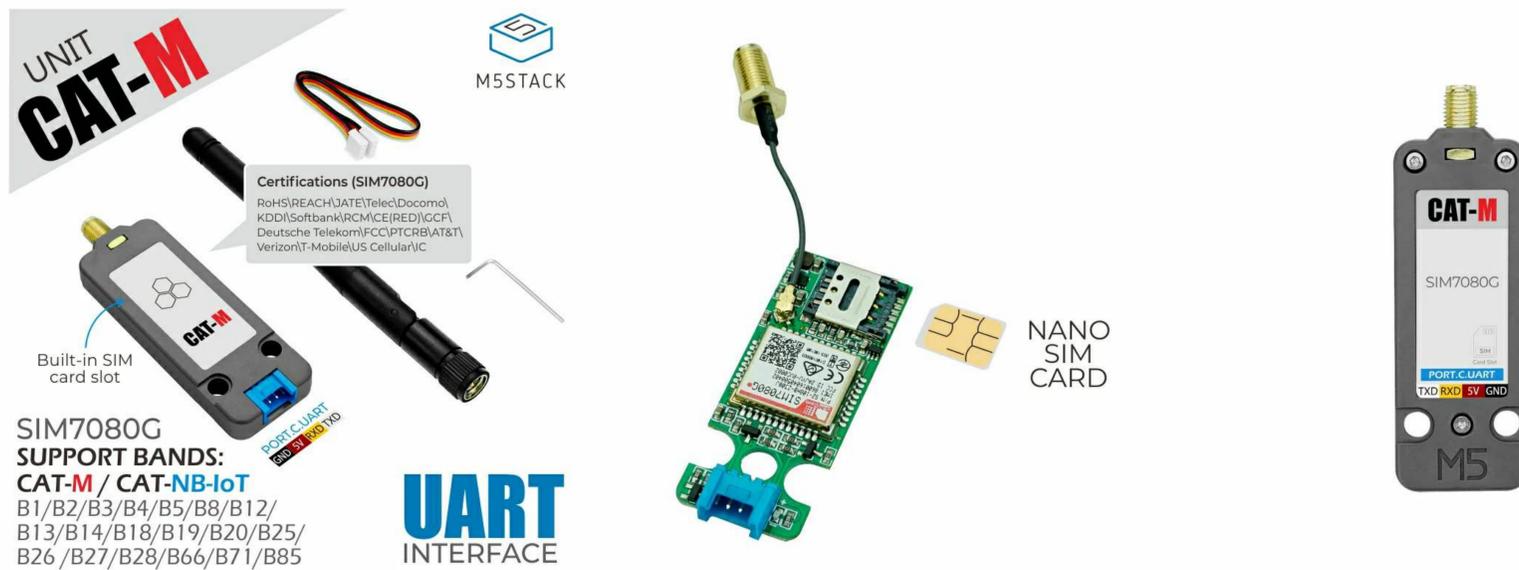


# UNIT CatM

SKU:U128



## Description

UNIT **SIM7080G Dual Mode Wireless Module CatM** is the international version of the dual-mode wireless communication module. The 'SIM7080G' supports both 'CAT-M' and 'NB-IoT', this serial communication module CatM with adaptive response rates, supports 'Types of Protocols'. CatM Integrated **SMA** external antenna interface to upgrade the communication quality and signal stability. Well suited for remote control, remote monitoring, remote medical, and other IoT applications.

## Product Features

- **SIM7080G** / **UART** interface, **AT Command** control
- Dual Mode supports **CatM** and **NB-IoT**
- Support frequency band:
  - CAT-M: 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
- Up and down speed:
  - Cat-M: Uplink: **1119Kbps** Downlink: **589Kbps**

- NB-IoT: Uplink: **150Kbps** Downlink: **136Kbps**
- Protocol Support: TCP/UDP/HTTP/HTTPS/TLS/DTLS/PING/LWM2M/COAP/MQTT and other communication protocols
- Card slot specification: Nano
- Development Platform:
  - Arduino, UIFlow
- Module certification:
  - Softbank\Telec\RoHS\REACH\ATE\Docomo\KDDI\RCM\CE(RED)\GCF
  - Deutsche Telekom\FCC\PTCRB\AT&T\Verizon\T-Mobile\US Cellular\IC

## Include

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- 1x CardKB Unit
- 1x HY2.0-4P cable
- 1x hexagon wrench

## Application

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- Remote Data Collection/Cloud

## Specification

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Specifications	Parameters
Module Model	SIM7080G
Support CAT-M band	B1/B2/B3/B4/B5/B8/B12/B13/B14/B18/B19/B20/B25/B26 /B27/B28/B66/B85
Support CAT-NB frequency band	B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B28 /B66/B71/B85

Cat-M uplink and downlink speed	<b>Parameters</b> Uplink: 1119Kbps Downlink: 589Kbps
NB-IoT uplink and downlink speed	Uplink: 150Kbps Downlink: 136Kbps
RF Power Class	Class 5 (Typ. 21dbm)
Standby working current	49.4mA
Low power mode operating current	PSM: verifying
Communication interface	UART: baud 115200 8N1
Net weight	19.4g
Gross weight	44g
Product size	72 * 24 * 8 mm
Packing size	95 * 65 * 25mm

## Pin mapping

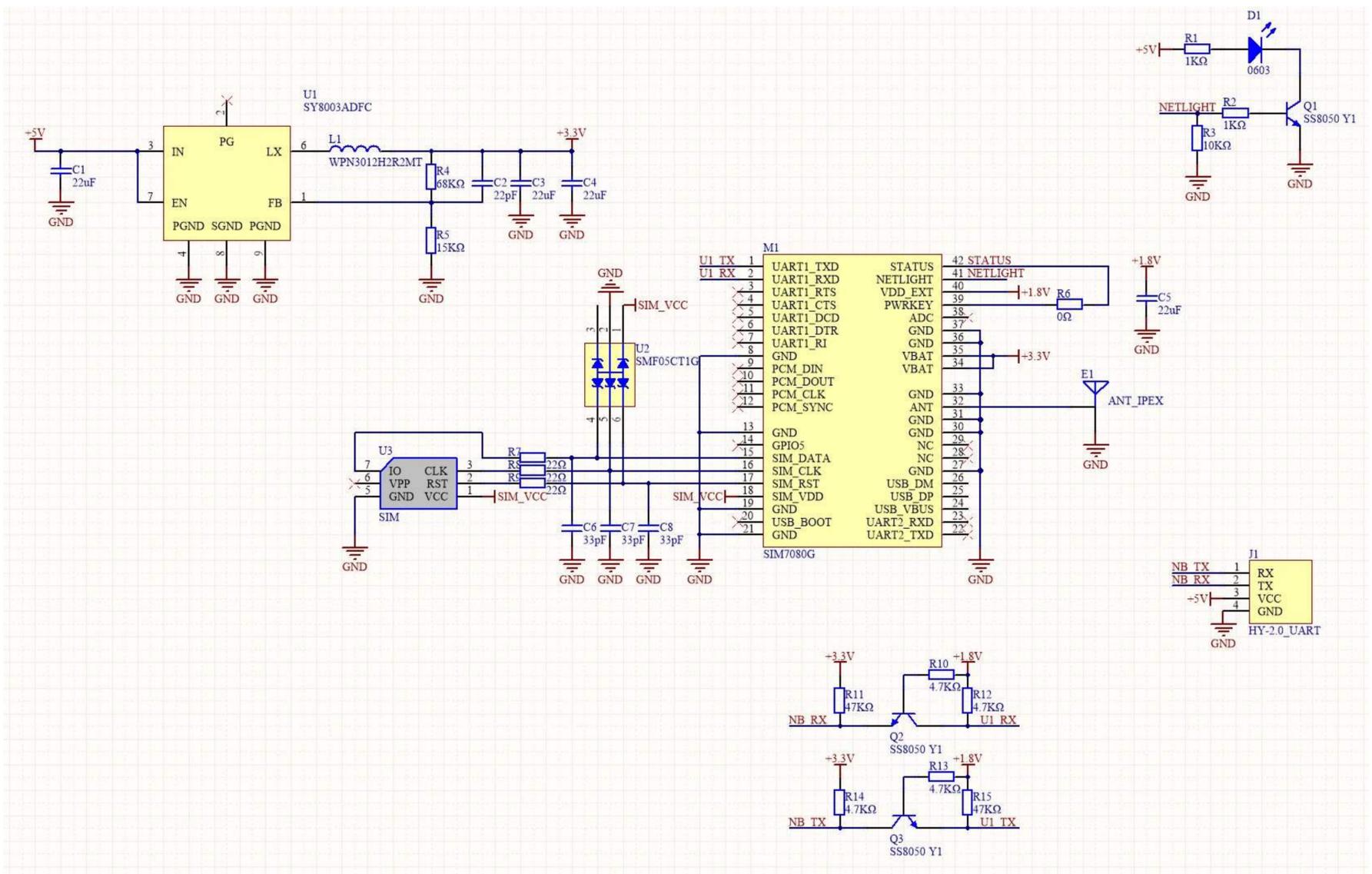
M5Core	TX(GPIO17)	RX(GPIO16)	VCC	GND
UNIT CatM	RX	TX	VCC	GND

## 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\\_NCC\\_2020](#)
- [SIM7080G\\_PTCRB\\_Certificate\\_2020](#)
- [SIM7080G\\_RCM\\_Compliance Certificate\\_2020](#)
- [SIM7080G\\_T-mobile\\_Certificate\\_2021](#)

# Schematic



# Examples

## Arduino

- M5\_SIM7080G- MQTT TEST