Stamp CatM

SKU:S003

Description

Stamp CatM is a compact international version **CatM** & **NB-IoT** dual-mode wireless communication module. It adopts the **SIM7080G** module solution, **covering most CatM & NB-IoT frequency bands globally**, and can adapt to different data communication rate/throughput requirements. The module uses serial communication, **AT command control**, and supports **multiple communication protocols**. It is very suitable for IoT applications such as remote control, remote monitoring, and remote medical care.

Features

- **SIM7080G** / **UART** interface, **AT Command** control
- Supports **CatM**, **NB-IoT** dual modes
- Covers most CatM & NB-IoT frequency bands globally
- Uplink and downlink speeds:
  - 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 other communication protocols
- Onboard IPEX external antenna interface, can be connected to an SMA rod antenna via a feeder
- Card slot specification: MicroSIM
- Development platforms:
  - Arduino, UIFlow
- Multiple forms
  - Supports various application forms (SMT, DIP, flying leads)
  - Equipped with high-temperature plastic armor, supports SMT reflow temperature (230°C)
- Module certifications:
  - Softbank/Telec/RoHS/REACH/JATE/Docomo/KDDI/RCM/CE(RED)/GCF
  - Deutsche Telekom/FCC/PTCRB/AT&T/Verizon/T-Mobile/US Cellular/IC
- Antenna certification information
  - Telec

Includes

- 1 x Stamp CatM

- 1 x SMA rod GSM antenna YHJ-108-4G-B (with frequency band label sticker)
- 1 x SMA to IPEX feeder AH-15CM-IPEX 10cm
- 1 x L-shaped hex key 1.5mm (compatible with M2 screws)

Applications

- Remote control/data collection
- Cloud data applications

Specifications

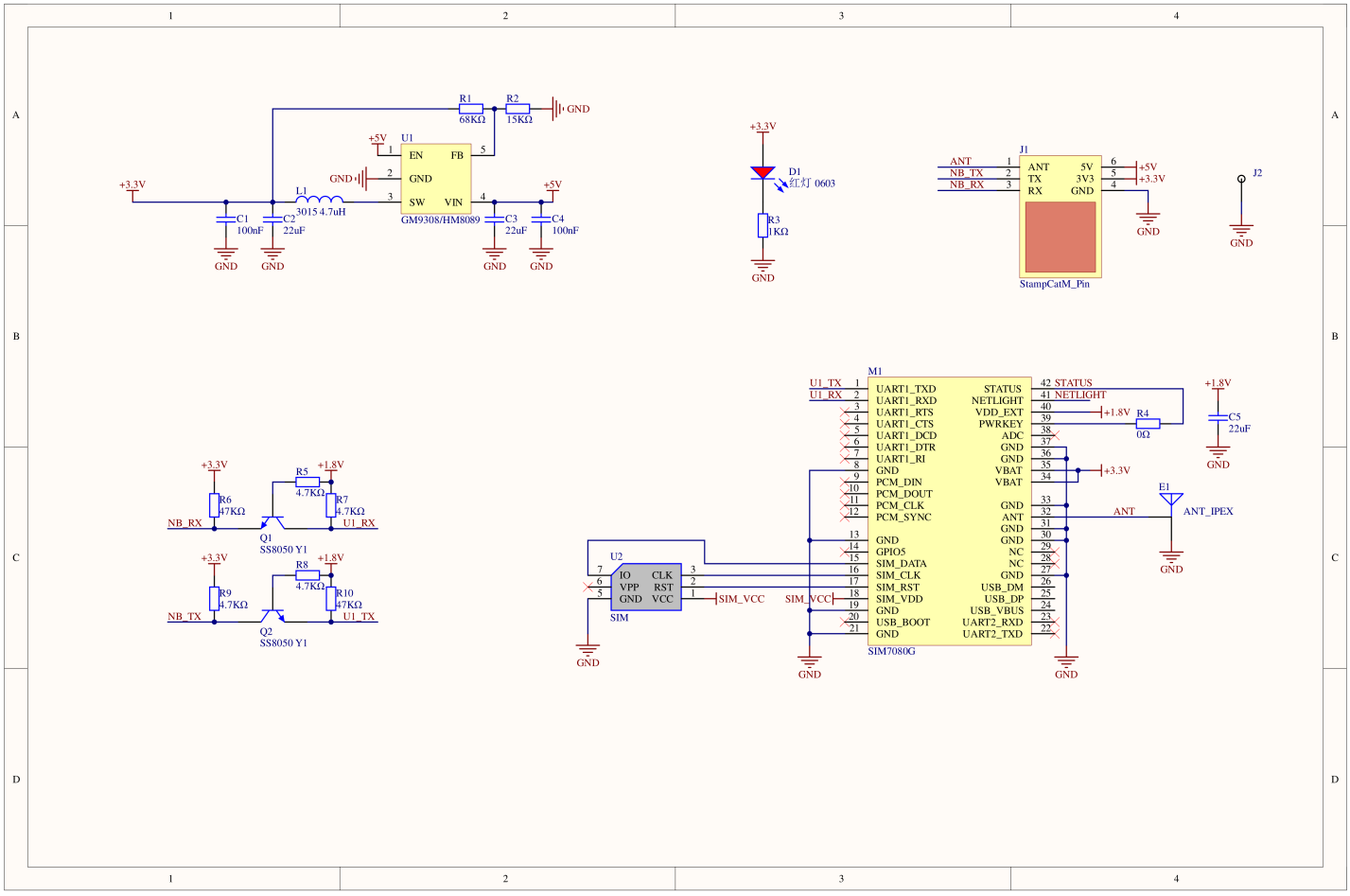
Specification	Parameter
Module Model	SIM7080G
Supported CAT-M Bands	B1/B2/B3/B4/B5/B8/B12/B13/B14/B18/B19/B20/B25/B26/B27/B28/B66/B85
Supported CAT-NB Bands	B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B28/B66/B71/B85
Cat-M Data Rate	Uplink: 1119Kbps Downlink: 589Kbps
NB-IoT Data Rate	Uplink: 150Kbps Downlink: 136Kbps
RF Power Class	Class 5 (Typ. 21dBm)
SIM Card Slot Type	MicroSIM
Standby Operating Current	DC 5V@46mA
Network Access Current	DC 5V@71mA
Communication Interface	UART: Baud Rate 115200 8N1
Product Size	30.1 x 20.1 x 5.5mm
Product Weight	4.5g
Package Size	138.0 x 93.0 x 13.0mm
Gross Weight	17.8g

Certifications

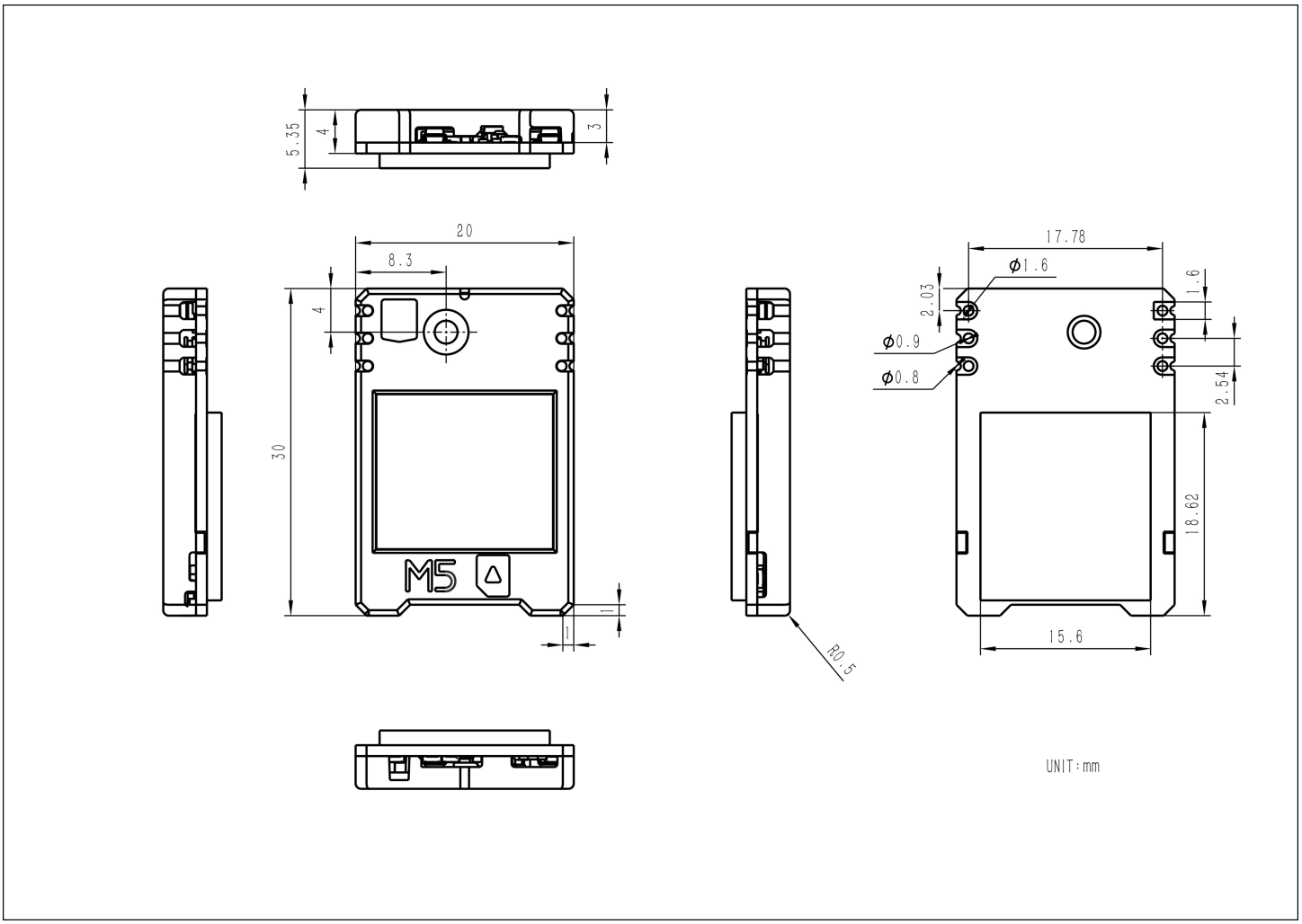
- SIM7080G_AT&T_Certificate_2020
- SIM7080G_GCF_Certificate_2020
- SIM7080G_NCC_2020
- SIM7080G_PTCRB_Certificate_2020
- SIM7080G_RCM_Compliance Certificate_2020
- SIM7080G_T-mobile_Certificate_2021
- SIM7080G_US Cellular_Certificate_2021

Schematics

- Stamp CatM Schematics PDF



Model Size



Datasheets

- 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
- SIM7080_Series_SPEC_20200427

Softwares

Arduino

- M5_SIM7080G- MQTT TEST

Protocol

- SIM7070_SIM7080_SIM7090 Series_AT Command Manual_V1.04