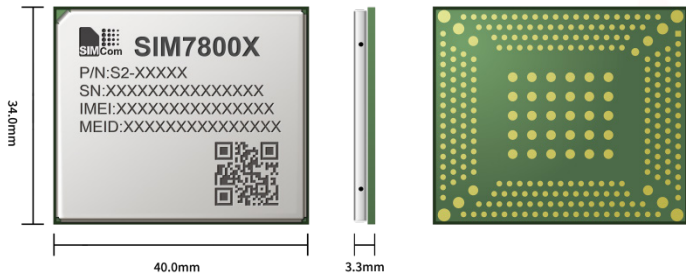


SIM7800 Series

SIMCom LTE Cat 4 Module for Automotive



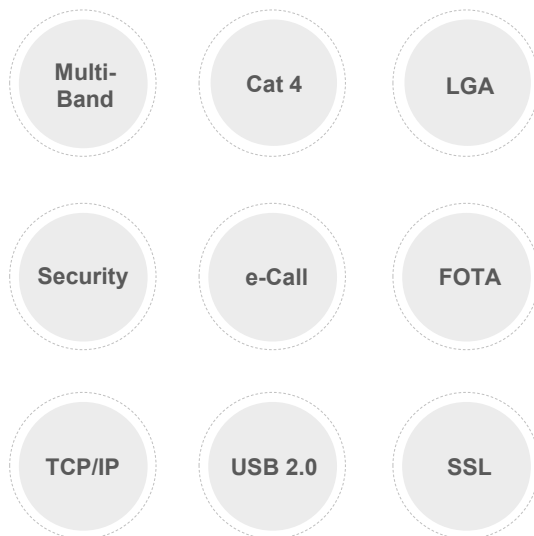
Product Description

The SIM7800 series is the Multi-Band LTE-TDD/LTE-FDD/ HSPA+/TD-SCDMA/EVDO and Dual-Band GSM/GPRS/ EDGE automotive grade LTE Cat 4 module which supports maximum 150Mbps downlink rate and 50Mbps uplink rate.

The SIM7800 series adopts LGA form factor which makes it ideal for integration in automotive devices.

The SIM7800 series is designed and manufactured according to IATF 16949: 2016 quality management system, it targets at the IoV (Internet of Vehicles) market. It has strong extension capability with abundant interfaces including SGMII, UART, SDIO, I2C, SPI, GPIO etc.

The SIM7800 series provides much flexibility and ease of integration for customer's applications, and its excellent performance in ESD and EMI protection ensures great robustness in harsh environments.



Key Benefits

- ◆ LGA form factor with abundant interfaces
- ◆ Compliant with automotive quality management system IATF 16949: 2016
- ◆ Excellent EMC protection ensures great robustness even in harsh environments
- ◆ Compact LGA form factor ideal for integration in automotive devices
- ◆ Multi-constellation GNSS receiver
- ◆ With abundant interfaces and application capability, provides much flexibility and ease of integration for customer's applications

| Product | | SIM7800CE | SIM7800E |
|----------------------------|-------------------|--|---|
| Form Factor | | LGA, 282 PIN | LGA, 282 PIN |
| Dimensions(mm) | | 34.0*40.0*3.1 | 34.0*40.0*3.1 |
| Frequency Bands | LTE-FDD | B1/B3/B5/B8 | B1/B3/B5/B7/B8/B20 |
| | LTE-TDD | B38/B39/B40/B41 | B38/B40/B41 |
| | WCDMA | B1/B8 | B1/B5/B8 |
| | TD-SCDMA | B34/B39 | |
| | EVDO/CDMA | BC0 | |
| | GSM | 900/1800 MHz | 900/1800 MHz |
| GNSS | | • | • |
| Temperature | | -40℃ ~ +85℃ | -40℃ ~ +85℃ |
| Electrical Features | | | |
| Supply Voltage(V) | | 3.3~ 4.2 | 3.3~ 4.2 |
| Power | LTE-FDD | 1.8 | 1.8 |
| Consumption (mA) | WCDMA, DRX=9 | 3.3 | 3.3 |
| | GSM,BS_PA_MFRMS=2 | 1.8 | 1.8 |
| Data Transfer | | | |
| LTE(Mbps) | | 150 (DL)/50(UL) | 150 (DL)/50(UL) |
| HSPA+(Mbps) | | 42(DL)/5.76(UL) | 42(DL)/5.76(UL) |
| WCDMA(Kbps) | | 384(DL)/384(UL) | 384(DL)/384(UL) |
| GPRS/EDGE(Kbps) | | 236.8(DL)/236.8(UL) | 236.8(DL)/236.8(UL) |
| Software Features | | | |
| Protocol | | TCP/IP/IPV4/IPV6/MultiPDP/FTP/FTPS/HTTP/HTTPS/DNS/NTP/PING/SSL | TCP/IP/IPV4/IPV6/Multi-PDP/FTP/FTPS/HTTP/HTTPS/DNS/NTP/PING/SSL |
| eCall | | • | • |
| TLS | | • | • |
| File System | | • | • |
| Audio Record/Play | | • | • |
| TTS | | • | • |
| DTMF | | • | • |
| LBS | | • | • |
| FOTA | | • | • |
| Jamming Detection | | • | • |
| Security | | SELinux/Trustzone/Secure boot | SELinux/Trustzone/Secure boot |
| Android RIL | | Android 5.0/6.0/7.0/8.0/9.0 | Android 5.0/6.0/7.0/8.0/9.0 |
| USB Driver | | Microsoft Windows 7/8/10/Linux/Android | Microsoft Windows 7/8/10/Linux/Android |
| WWAN (RNDIS)/ECM | | • | • |
| MBIM | | Win8/Win10 | Win8/Win10 |
| NDIS | | Linux/Windows 7/8/10 | Linux/Windows 7/8/10 |
| Open Linux | | • | • |
| Firmware Upgrade | | USB/FOTA | USB/FOTA |
| Wi-Fi/BT | | 2.4G/5G/BLE4.2(with W59) | 2.4G/5G/BLE4.2(with W59) |
| Interfaces | | | |
| SIM Card | | 1.8V/3.0V | 1.8V/3.0V |
| UART | | 3*UART | 3*UART |
| USB | | • | • |
| HSIC | | • | • |
| I2S | | • | • |
| ADC | | • | • |
| SDIO | | SDIO3.0(200MHz Max) | SDIO3.0(200MHz Max) |
| SD Card | | SD3.0(128G Max) | SD3.0(128G Max) |
| SPI | | • | • |
| I2C | | • | • |
| SGMII | | 10M/100M/1000M Ethernet | 10M/100M/1000M Ethernet |
| Diversity Receiver | | • | • |
| Certification | | | |
| Regulatory | | 3C/SRRC/NAL*/RoHS*/REACH* | CE-RED*/RoHS*/REACH* |