

LTE/TD-SCDMA/WCDMA/CDMA/GSM Module

GM551A

 LGA Form Factor	 GNSS	 Rx diversity
 LTE FDD & LTE TDD	 TD-SCDMA & WCDMA & EVDO	 CDMA 1x & GSM
 LTE FDD: DL 150Mbps / UL 50Mbps	 4-wires UART	 USB 2.0
 WeFOTA	 -40°C ~ 85 °C	 Auto suspend & remote wakeup

For Automotive Application

GM551A series is a wireless communication module supporting LTE category 4. It delivers maximally 50Mbps uplink and 150Mbps downlink data rates. It can also be fully backward compatible with existing 3G and 2G networks.

GM551A features diversity reception. So it can effectively improve the communication quality and reliability of wireless connection.

The module provides a variety of network protocols (PAP/CHAP/TCP/UDP) and a variety of functions (GNSS/Remote wakeup/SMS/WelinkOpen™) and so on, these protocols and functions can be used in many IoT (Internet of Things) applications.

This series module is produced and designed according to the requirements of IATF 16949:2016, and conforms to the quality control procedure such as APQP and PPAP. GM551A works within wide temperature range, has good EMC characteristics and excellent mechanical and reliability. It is suitable for vehicle application.



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

General Features

- ❑ LGA Form Factor (108 pins)
- ❑ Dimensions: 32mm × 32mm × 2.8mm
- ❑ Weight: 6.1g
- ❑ Frequency Band :
 - LTE FDD/LTE TDD/WCDMA/TD-SCDMA/GSM/CDMA EVDO/CDMA 1x
- ❑ GNSS: GPS/Beidou/GLONASS/Galileo

Frequency Band

- ❑ For China
 - LTE FDD: B1/B3/B5/B8
 - LTE TDD: B38/B39/B40/B41
 - UMTS: B1/B8
 - TD-SCDMA: B34/B39
 - CDMA: BC0
 - GSM: 900/1800 MHz
- ❑ For Europe
 - LTE FDD: B1/B3/B7/B8/B20/B28
 - LTE TDD: B38(B40/B41)
 - UMTS: B1/B5/B8
 - GSM: B2/B3/B8

Electrical & Sensitivity

- ❑ Power Supply :
 - 3.4V ~ 4.2V (3.8V is recommended)
- ❑ Transmit Power:
 - LTE: 23 ± 2.7dBm (Power Class 3)
 - WCDMA: 24 +1/-3dBm (Power Class 3)
 - TD-SCDMA: 24 +1/-3dBm
 - GSM900: 33 ± 2dBm (Power Class 4)
 - GSM1800: 30 ± 2dBm (Power Class 1)
 - CDMA: 24 ± 1dBm @ All up bits
- ❑ Receiving sensitivity:
 - Rx Diversity
 - Exceed 3GPP standard

Data Features

- ❑ LTE FDD
 - Uplink 50Mbps / Downlink 150 Mbps
- ❑ TD-LTE
 - Uplink 30Mbps / Downlink 112Mbps
- ❑ WCDMA
 - Uplink 5.76Mbps / Downlink 42Mbps
- ❑ TD-SCDMA
 - Uplink 2.2Mbps / Downlink 2.8Mbps
- ❑ EDGE (Multi-slot Class 12)
 - Uplink 236.8 kbps / Downlink 236.8 kbps
- ❑ GPRS (Multi-slot Class 10)
 - Uplink 85.6 kbps / Downlink 85.6 kbps
- ❑ CDMA2000 EVDO
 - Uplink 1.8Mbps / Downlink 3.1Mbps
- ❑ CDMA2000 1X
 - Uplink 153.6 kbps / Downlink 153.6 kbps

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%

Interfaces

- ❑ USB 2.0 × 1 (High speed up to 480Mbps)
- ❑ UART × 2
- ❑ SIM × 1 (1.8/3.0V)
- ❑ SPI × 1
- ❑ SDIO × 2
- ❑ I2C × 1
- ❑ LED × 2
- ❑ ADC × 2(15 bits)
- ❑ GPIO × 12
- ❑ Antenna (RF pads for Main, Diversity and GNSS)
- ❑ Reset & Power-on
- ❑ WAKEUP-IN & WAKEUP-OUT

Applications

- ❑ Supports WelinkOpen™
- ❑ Multi-APN
- ❑ TCP/UDP/PPP/FTP/HTTP/HTTPS/SSL/TLS/SMS protocols
- ❑ USB Selective Suspend & Remote wakeup
- ❑ Update via USB/UART
- ❑ RAS/ECM/NDIS
- ❑ AT Commands according to 3GPP TS27.005, 27.007 and GOSUNCN extended AT commands

SMS Features

- ❑ Text /PDU mode
- ❑ Point to point MO and MT
- ❑ SMS Status Report
- ❑ SMS center address setting
- ❑ Management of SMS

Driver & Tools

- ❑ Drivers
 - Windows XP, Vista, 7, 8, Win CE, Windows Mobile
 - Linux 2.6.20 or above
 - Android 4.x/5.x/6.x/7.x
- ❑ Diag-log Tool
- ❑ Firmware Update Tool

Note: * is optional