LTE /WCDMA/GSM Module
GM510

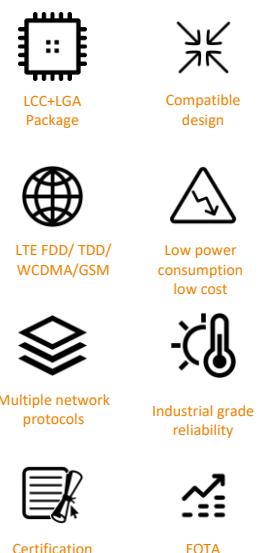◆Domestic core   ◆Low cost

◆High performance   ◆Multi-functions

GM510 is a wireless communication module based on LTE Cat.4 standard and designed for M2M and IoT applications.

The module hardware adopts our standard LCC+LGA 30×30 package. The package design is fully compatible with the GM510&ME3630 module and can be extended to support Mini PCIE package. GM510 module supports multiple network protocols (TCP/UDP/FTP/HTTP/MQTT/PAP/CHAP/PPP) and multiple functions (remote wake-up, FOTA, FILE, etc.), and can provide PCM/AUDIO/USB/UART/SDIO/ I2C/SPI/USIM/RMII/ RGMII/ADC and other rich hardware interfaces to meet different needs.

In response to the key needs of industries such as data transmission and CPE, this module can be expanded to support analog voice functions, as well as hardware interfaces such as Ethernet, SDIO, and PCIe. It is a powerful 4G communication tool for the data transmission and routing industry.

■ LCC+LGA 30×30 package, compatible with ME3630&GM510

■ Support LTE FDD/LTE TDD/WCDMA/GSM

■ Chip adopts 22nm process, better supply chain

■ Support FTP/HTTP FOTA

■ Support rich hardware interfaces: PCM/AUDIO/USB/UART/SDIO/I2C/SPI/USIM/ RMII/RMGII/ADC

■ Support multiple network protocols: TCP/UDP/FTP/ HTTP/MQTT

■ Support ECM/PPP/RNDIS

■ Comprehensive certification

LCC+LGA Package

Compatible design

LTE FDD/ TDD/ WCDMA/GSM

Low power consumption low cost

Multiple network protocols

Industrial grade reliability

Certification

FOTA

Note: The product pictures are for reference only, please refer to the actual product!
Content marked * is under development.

LTE/WCDMA/GSM Module

GM510-V3

◆Domestic core   ◆Low cost

◆High performance   ◆Multi-functions

GM510 Series

PID	Band	Diversity	Flash	OS
C1AS	LTE FDD: B1, B3, B5, B8	No	128Mb NOR flash	Linux+ WebUI
C1AL	LTE TDD: B34, B38,B39,B40, B41	Yes	1Gb NAND flash	RTOS
C1BS	WCDMA: B1,B8 GSM: B3, B8	Yes	128Mb NOR flash	RTOS
E1BS	LTE FDD: B1,B3,B7,B8,B20 LTE TDD: B38, B41 WCDMA: B1,B8 GSM: B3, B8	Yes	128Mb NOR flash	RTOS

Attributes

- Package: LCC +LGA (80 LCC pins + 82 LGA pins)
- Pin-to-Pin compatible with ME3630
- Dimensions: 30 × 30× 2.5mm

Electrical and Sensitivity

- Transmit Power :
    - LTE: 23 ±2.7dBm (Power Class 3)
    - WCDMA: 24 +1/-3dBm (Power Class 3)
    - GSM900 : 33±2dBm (Power Class 4)
    - GSM1800: 30±2dBm (Power Class 1)
- Receive characteristics :
    - Rx Diversity
- Power Supply :
    - 3.4V ~ 4.5V(3.8V is recommended)

Data Rate

- LTE
    - LTE FDD 50Mbps(UL) / 150 Mbps(DL)
    - LTE TDD 30Mbps(UL) / 130Mbps(DL)
- UMTS
    - HSPA+ 21Mbps(DL)
    - HSUPA 5.76Mbps(UL)
    - WCDMA 384Kbps(DL) / 384Kbps(UL)
- GSM
    - EDGE 236.8 Kbps(UL) / 236.8 Kbps(DL)
    - GPRS 85.6 Kbps(UL) / 85.6 Kbps(DL)

Temperature Range

- 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 High speed (480 Mbps)
- UART X2
- ADC
- SIM interface (1.8/3.0V)
- SPI
- I2C
- Main & Diversity Antenna
- LED
- Reset & Power-on
- WAKEUP-IN & WAKEUP-OUT
- PCM&AUDIO
- SDIO
- RMII/RGMII(RMII: 1.8V/3.3V; RGMII: 1.8V)

Applications

- Support FOTA/UART/USB Update
- Protocol support : TCP/UDP/FTP/ HTTP/HTTPS/FILE/MQTT
- Support ECM/RNDIS/PPP data connection
- Supports low-power applications: USB selective suspend/remote wake-up
- Support   enhanced AT commands
- Support Android 4.x/5.x/6.x/7.x/8.x/9.x RIL driver
- Supports USB driver under Linux
- Support Windows 7/8/10
- Support SoftAP*
- Support TR069*

Certification

- SRRC/CTA/CCC
- CE*