Wireless Module
Ubiot GH201

High speed / Low power consumption / Covering global frequency band LTE module

The GH201 series is the latest generation of high-performance, low-power M2M wireless communication modules that can support up to LTE Cat4. On the same motherboard, it is compatible and supports the global mainstream standards and the global mainstream radio frequency bands. Customers can choose the corresponding frequency bands and models according to specific market needs, and we can also customize the roaming frequency bands required by customers. It Supports global mainstream positioning system GNSS(GPS, BEIDOU,GALILEO,GLONASS). Its size is only 29mm*32mm*2.5mm, which effectively helps customers reduce product size and optimize product cost.

GH201 adopts LCC package which is easier to solder and can realize rapid production through standard SMT equipment. It provides a reliable connection method, especially suitable for automated, large-scale, low-cost modern production. SMT technology also enables GH201 to have high reliability to meet application requirements of complex environments.

With its compact size, ultra-low power consumption and ultra-wide operating temperature range, the GH201 is ideal for M2M applications. It is often used in wireless meter reading, smart city, security, asset tracking, smart home appliances, agriculture and environmental monitoring and many other industries to provide comprehensive SMS and data transmission services.

Main Advantage

• LTE CAT4 standard data modules for various M2M and IOT applications
• Supports global LTE, UMTS/HSPA+ and GSM/GPRS/EGPRS
• Supports LTE with a maximum downlink rate of 150 Mbps and an uplink rate of 50 Mbps
• Support GNSS global positioning
• Ultra-thin LCC package ideal for compact device applications
• The CPU supports Cortex-A7, the main frequency is 1.3GHz, which meets the requirements of high-performance computing
• Pins are compatible with multiple manufacturers' models, easy and efficient to select

LCC LCC Package	**CAT4** LTE CAT4	**GPU** Qualcomm MDM9X07
USB2.0	**I/O** Rich Extended IO	Compatible with Global Frequency Bands
Wide Temperature Range	Compatible with Five/seven-Mode	Embedded Multiple Protocol Stacks

GH201 Specifications

Band Information

GH201-A for Northern America
FDD-LTE: B2/B4/B5/B12/B13/B17
WCDMA: B2/B4/B5

Data

FDD-LTE
MAX 150Mbps(DL)/50Mbps(UL)

TDD-LTE
MAX 130Mbps(DL)/30Mbps(UL)

DC-HSPA+
MAX 42Mbps(DL)/5.76Mbps(UL)

Key RF Metrics

Output power
Class3 (23dBm±2dB) for FDD-LTE
Class3 (23dBm±2dB) for TDD-LTE
Class3 (24dBm+1/-3dB) for WCDMA

Sensitivity
FDD B2: -100dBm(10M)
FDD B4: -100dBm(10M)
FDD B5: -101dBm(10M)
FDD B12: -102dBm(10M)

FDD B13: -102dBm(10M)
FDD B17: -102dBm(10M)
WCDMA B2: -110dBm
WCDMA B4: -110dBm
WCDMA B5: -112dBm

Voice

Speech codec modes
HR/FR/EFR/AMR/AMR-WB

Echo Arithmetic
Echo Cancellation/Noise Reduction

Main Function

USB Driver
Windows XP/7/8/10,
Anroid4.x/5.x/6.0/7.0/8.0

Protocols
TCP/UDP/PPP/FTP/HTTP/DTMF
Firmware Update via USB

YUNTION

GH201 Specifications

General Characteristics

3GPP E-UTRA R9	**BW** 1.4/3/5/10/15/20Mhz	**Temperature Range** -40℃~+85℃
Size 32.0*29.0*2.5mm	**Power Supply Range** 3.3V~4.3V,3.8V Typ.	**3GPP TS27.007 and Enhanced AT Commands**
Package LCC package	**Weight** 5.3g	

Interface

USB2.0 with High Speed up to 480Mbps	2 UARTs (including 1 Debug)
Digital Audio through PCM/I2S	RESET*1
1.8V/3.0V USIM Card	PWRKEY*1
Status Indicator*2	ADC*2
Antennas*3(Main, Diversity(opt.),GNSS)	SDIO*2(for WIFI, SD card)

Certification

* Represents under development