Amphenol

LTE CAT1 Module

Overview

A1310EA is the LTE Cat 1 module which supports wireless communication modes of LTE-TDD/LTE-FDD/ GSM/GPRS. It supports maximum 10Mbps downlink rate and 5Mbps uplink rate.

A1310EA supports multiple built-in network protocols, supports drivers for main operation systems (USB driver for Windows, and Linux etc.) and software function.

A1310EA integrates main industrial standard interfaces, with powerful expansibility, including abundant interfaces such as UART, USB, I2C, GPIO, which is suitable for main IoT applications such as telematics, surveillance devices, CPE, industrial routers, and remote diagnostics etc.

Key Feature

➢ -40°C to +85°C, industrial-grade
➢ TCP/IP/UDP/MQTT/HTTP(s)/FTP IoT protocols
➢ Compact size: 29.0mm × 30.0 mm × 2.6 mm

Key Benefit

➢ LCC+LGA form factor with abundant interfaces
➢ Suitable for LTE and GSM networks
➢ Abundant software functions: FOTA, LBS, SSL

Application Interfaces

◆ Power Supply
◆ USB2.0 Interface
◆ UART Interfaces
◆ MMC/SD Interface
◆ USIM Interface
◆ GPIOs

◆ ADC
◆ One channel LDO Power Output
◆ PCM Interface
◆ I2C Interface
◆ SPI Interface
◆ Analog Audio Interface

Features

Feature	Implementation
Power supply	Single supply voltage 3.4 ~ 4.2 V, recommend 3.8 V.
Power saving	Current in sleep mode : <3 mA
3GPP Standards	Rel.13 1bis
Radio frequency bands	FDD-LTE: B1, B3, B5, B7, B8, B20, B28 TDD-LTE: B38, B40, B41 GSM: B3, B8
Data Transmission Throughput	GPRS multi-slot class 12: 85.6 kbps (UL). 107 kbps (DL). FDD-LTE: 10 Mbps (DL), 5 Mbps (UL).
Antenna	GSM/LTE main antenna BT/WiFi antenna GNSS antenna (Optional)
GNSS	Optional GNSS engine (GPS, GLONASS and GALILEO)
BT	Support Bluetooth 4.2/BLE
WiFi Scan	Support WiFi scan
SMS	MT, MO, CB, Text and PDU mode SMS storage: USIM card or ME(default) Transmission of SMS alternatively over CS or PS.
USIM interface	Support identity card: 1.8 V / 3 V
USIM application toolkit	Support SAT class 3, GSM 11.14 Release 98 Support USAT
Phonebook management	Support phonebook types: DC,MC,RC,SM,ME,FD,ON,LD,EN
Audio feature	Support PCM interface Only support PCM master mode and short frame sync, 16-bit linear data formats
UART interfaces	Main UART: A full modem serial port by default Baud rate: 9600 bps to 3.6Mbps (default:115200 bps) Can be used as the AT commands or data stream channel Support RTS/CTS hardware handshake Multiplex ability according to GSM 07.10 Multiplexer Protocol
SD	Support SD Cards with 3.3 V on SD port
USB	USB2.0 high speed interface
Certification	CE,ROHS,REACH,GCF*
Firmware upgrade	Firmware upgrade over USB interface
Temperature range	Normal operation temperature: -30℃ ~ +75℃ Extended operation temperature: -40℃ ~ +85℃ Storage temperature -40℃ ~ +90℃

*- On going