

4G LTE Cat 1 bis Module



4G LTE Cat 1bis Module for Telematics, Asset Tracking & Industrial IoT Applications

Product Description

Our module is an ultra-low power, low-cost LTE Cat 1bis module designed for Telematics, Asset Tracking and Industrial IoT applications. The module consists of a rich set of Internet protocols, industry-standard interfaces and advanced software capabilities, making it suitable for a wide range of M2M and IoT deployments.

Our 4G LTE Cat1 bis module supports all major LTE bands for the Indian market including B1, B3, B5, B8, B40 and B41. The module supports a maximum download speed of 10 Mbps and upload speed of 5 Mbps. With integrated Wi-Fi receiver support, the module also enables indoor location tracking.

Features

- 3GPP Release 14 Cat.1 (single antenna mode) and Cat.1bis compliant
- Frequency Bands: LTE-FDD (B1, B3, B5, B8) and LTE-TDD (B40, B41)
- Data Rates: Maximum DL – 10 Mbps | Maximum UL – 5 Mbps
- Bandwidth Support: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz and 20MHz
- USB 2.0 High Speed interface up to 480 Mbps
- USIM, eSIM and softSIM Interface support
- Main UART for AT communication and Debug UART
- SPI and I2C with configurable data rates
- Digital Audio support through I2S
- 12-bit 4-channel ADC
- General Purpose Inputs and Outputs (GPIOs)

Software Features

- Supports UDP, TCP, DTLS, TLS, SSL, MQTT, CoAP, HTTP(S), RNDIS and PPP protocols
- Cellular-based Global Terrestrial Positioning support
- Indoor location positioning support
- Firmware Upgrade Over-The-Air (FOTA) support
- Operating System: FreeRTOS

Electrical & General Characteristics



Parameter	Specification
Power Supply	3.2 V to 3.8 V
IO Level	3.3 V
Operating Temperature	-35 °C to +75 °C
Extended Temperature	-40 °C to +80 °C
Dimensions	32.00 mm × 29.00 mm × 4.0 mm
Weight	Approx. 8 g

Value Proposition

- Optimized for Telematics and Asset Tracking applications
- Ultra-low power architecture for energy-efficient deployments
- Supports multiple SIM configurations including eSIM and softSIM
- Wide LTE band support for Indian market compatibility
- Compact form factor suitable for space-constrained designs
- Rich software stack and industrial interfaces for rapid integration
- Reliable connectivity for Industrial IoT and M2M applications