

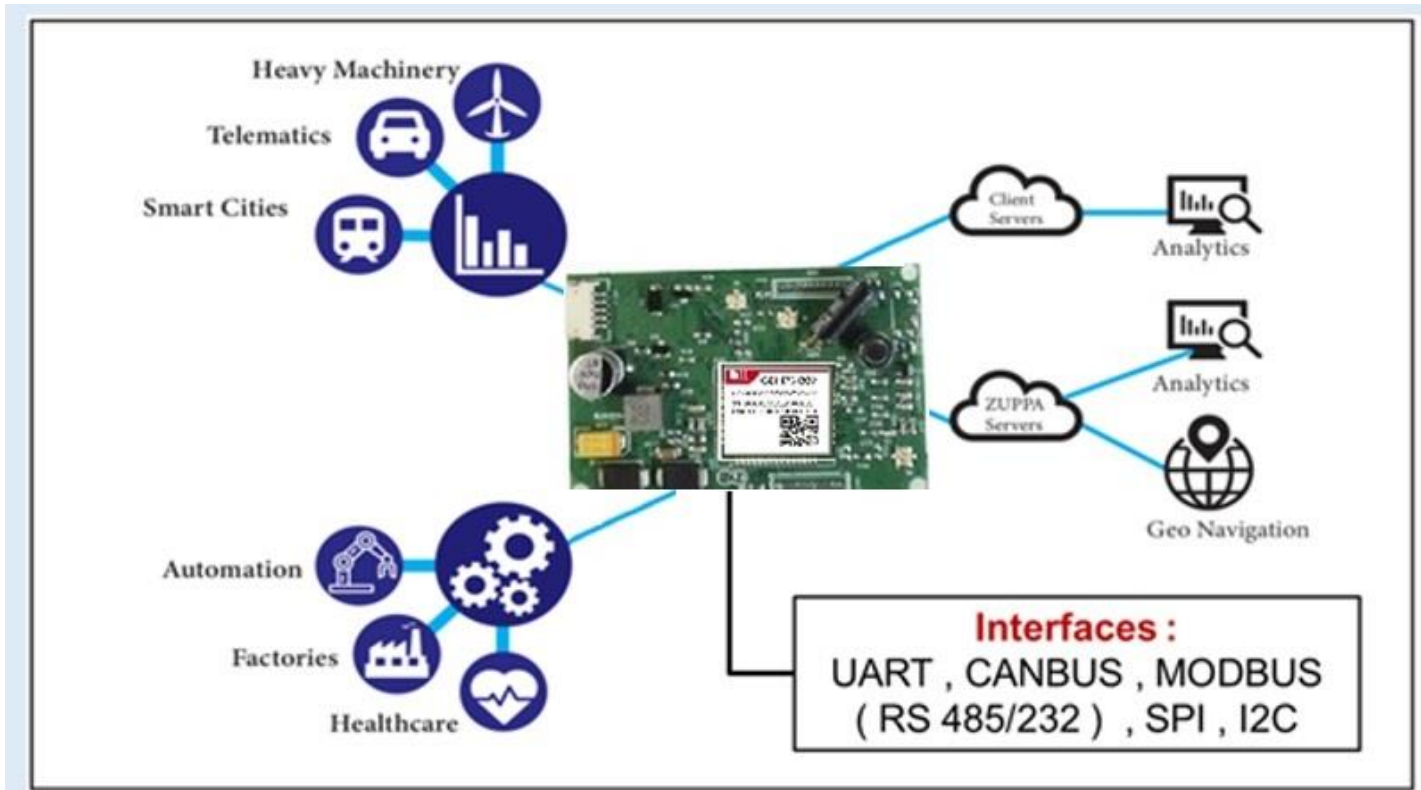


ZUPPA 4G Telematics CAT 4 - LTE Datasheet

Vehicle Telematics & Internet of Things (IoT) are key components of Industrial Revolution

4.0 that involves acquiring DATA from Machines / Generators, Environment, Vehicles, infrastructure, industrial applications and a range of external conditions to enhance the quality of life and optimize utilization of resources.

ZUPPA's Telematics has been developed as Integrated platform from Design to Manufacturing as a Geo Location Platform that works equally well for both Static and Dynamic applications.



Eg. The same device works equally well in monitoring temperature, humidity, door opening fuel on a Reefer Vehicle as it does in monitoring the same parameters in a Cold Store.

ZUPPA 4G Telematics has been expanded to cover a range of applications delivering significant value to our customers:

Vehicle Telematics: AIS 140 VLTD, Bike Tracker, Reefer Truck Monitoring, Connected EV Cluster, Tractor, Construction Equipment working Time, Railway Tracker

IoT: MODBUS Connected Device for PLC's of Industrial machines, Cold Storage Monitoring Solution, Remote Switch for Automating Generators, Remote monitoring of Chiller Plants, IR Temperature Dongle for COVID. Hyper Local Weather Station.

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Plot No. 60, 2nd main road, VGP Layout part – 3, Palavakkam, Chennai – 600041, TN

CIN : U51420TN2005PTC057286, TIN : 33910863376, GST : 33AAJCS7323L1Z3

ZUPPA 4G Telematics CAT 4 - LTE



- IEEE2221 Standard
- CE
- TUV Certified

Features

- AIS 140 Compliant Hardware and Communication Protocols
- Supported Protocol: TCP, HTTP, FTP, MQTT (Customised)
- Multiple Server Connection upto 6 servers
- AIS Standard Compliant Data Packet Configuration
- OTA configuration using Server and SMS
- Future Regulation and Customer requirement Configurable.
- OBDII Automatic Communication Protocol Interfaces: J139, OBDII, CAN Protocol Stack.
- AIS Compliant Connectors
- Ignition, Main Power Sense

Specifications

- Input Voltage Source: 12V/ 24V (DC)
- Internal Battery: +3.7V 1050 mah Lithium-Ion Battery
- Casing: IP-67 Rugged Casing, Weather and Water Proof
- Communication: GSM/GPRS-4G
- Flash Logging Capability: Standard AIS140 40,000 logs
- GPS Positional Accuracy: 1.5 to 2.5 m
- Temperature range: -40° C to 85° C

Log Data

- Time in minutes since engine start
- Current Consumption and Life
Internal Battery: 4-6 hours at 100mA Consumption
External Power: 1Amp consumption (for charging)
- Analog I/P Channel: 2
- Digital I/P Channel: 4
- Digital O/P Channel: 2 (VDD Supply Voltage)
- Default Log Interval: 30 seconds (Configurable via GPRS/GSM)
- Lowest Configurable Log Interval: 2 seconds

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Connectivity Features

Bluetooth Version 4.0, GPRS Support -YES, USB Support -YES, USB Type - Mini USB - Type B, USB 2.0 (OTG), UART, SPI, RS485 and CAN 2.0

MCU and GSM unit



- Cortex - M4 Controller
- UMTSS Bands - B1(2100), B8(900), B5(850)
- MIMO - Yes
- LTE Bands - B1 (FDD 2100), B3 (FDD 1800), B7 (FDD 2600), B8 (FDD 900), B20 (FDD 800DD), B5 (FDD 850, B38 (TDD 2600), B40 (TDD 2300), B41 (TDD 2500)
- GSM/ Edge Bands - B8 (800), B3 (1600)
- Form Factor - mPCle - full size, mPCle
- Technology - LTE CAT 4
- Antenna Connectors - IPEX MHF/U.FL
- GNSS Technology - GPS, GLONASS
- MAX DL Speed - 150mbps
- MAX UL Speed - 50mbps
- Chipset - Qualcomm MDM9607-0
- Operating Temperature Range -40°C to -85°C
- SIM Interface - Through miniPCle connector

Interfaces:

UART/2, SPI/1, I2C/1, I/P: 4, O/P: 2, RS 485/RS 232 Support / MODBUS, CAN, Ethernet

RS 232, RS 485 Transceivers

- **For Fault-Tolerant Applications**

MAX3430: $\pm 80V$ Fault-Protected, Fail-Safe, 1/4 Unit Load, +3.3V, RS-485 Transceiver MAX3440E–MAX3444E: $\pm 15kV$ ESD-Protected, $\pm 60V$ Fault-Protected, 10Mbps, Fail-Safe, RS-485/J1708 Transceivers

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CAN Protocol

- Fully compatible with the “ISO 11898” standard
- High speed (up to 1 Mbaud)
- Very low Electro-Magnetic Emission (EME)
- Differential receiver with wide common-mode range for high ElectroMagnetic Immunity (EMI)
- An unpowered node does not disturb the bus lines
- Transmit Data (TXD) dominant time-out function
- Silent mode in which the transmitter is disabled
- Bus pins protected against transients in an automotive environment
- Input levels compatible with 3.3 V and 5 V devices
- Thermally protected
- Short-circuit proof to battery and to ground
- At least 110 nodes can be connected

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