Siretta

Enabling Industrial IoT

ZETA-NEP-LTEM (GL)
Low Power 4G / LTE Category M / NB IoT Industrial Modem with GPIO

General Description

The ZETA-NEP-LTEM (GL) is a cutting edge, low power industrial modem with general purpose interfaces. It will connect equipment to the new global LTE Cat M and NB IoT networks as they become available, and also provides backwards compatibility to the existing global 2G / GSM cellular network. The modem operates in a low power state thanks to it's intelligent power saving design, making it ideal for use in industrial IoT applications today, and for long term future developments.

The ZETA-NEP-LTEM (GL) can also monitor general purpose inputs and drive full specification outputs. Interface options include legacy RS232 for connection to existing equipment, and a high speed USB interface.
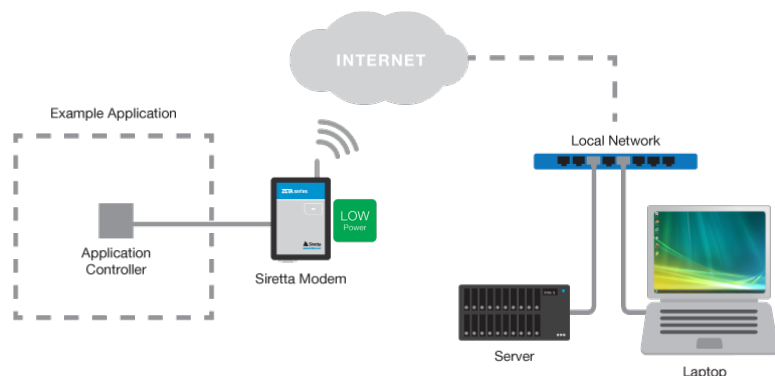
The powerful C development environment reduces redundancy and lowers system component costs, allowing developers to maximise the power of their application directly on the device and eliminating the requirement for an external microcontroller. The ZETA-NEP-LTEM (GL) lends itself to rapid proof-of-concept developments with minimal investment, providing fast time to market and maximum scalability, offering intelligence and decision making at the cloud edge.

Features

2G GSM	**LTE** Cat M	**LTE** NB IoT	**GPRS** Enabled	**GL** Coverage	**LOW** Power
RS232 Serial	**USB** Serial	**GPIO** Interface	**RS232** Debug	**ADC** Interface	**EDGE** Intelligence
CODE Embedded	**FOTA** Update	**AT** Commands	**IP** Services	**SIM** Toolkit	**Win** Linux/Mac	**5-42V** Industrial	**TEMP** -40 to +85	**eDRX** Low Power	**PSM** Low Power

Featured Applications

- » Access Control Systems
- » Car Parking Payment
- » Environmental Monitoring
- » Vending Machines
- » Agriculture
- » Tank Monitoring
- » Alarm Panels
- » Industrial Sensors
- » Automatic Meter Reading
- » Utilities

Example Application / INTERNET / Local Network / Application Controller / Siretta Modem / LOW Power / Server / Laptop

General Features

- » 13 Bands:
  B1(2100), B2(1900), B3(1800), B4(AWS1700), B5(850), B8(900), B12(700), B13(700), B18(800), B19(800), B20(800), B26(850), B28(700)
- » 4 Bands GSM | GPRS:
  B2(1900), B3(1800), B5(850), B8(900)
- » LTE UE Category M1/NB1
- » 3GPP release 13 compliant
- » Half Duplex FDD
- » 3GPP Rel. 12 Power Saving Mode (PSM)
- » 3GPP Rel. 13 Discontinuous Reception (eDRX)
- » 3GPP Rel. 13 Extended coverage
- » SIM Application Tool Kit 3GPP TS 51.01
- » Control via AT commands according to 3GPP
- » TS27.005, 27.007 and customized AT commands
- » IPv4/IPv6 stack with TCP and UDP protocol
- » OMA Lightweight M2M (LWM2M)

Interfaces

- » 1 x RS232 serial port interface (9-wire)
- » 1 x USB 2.0 FS
- » 1 x RJ12 power connection (5 - 42V)
  Nominal supply 12V
  Power on & power off control
- » 1 x SMA female cellular antenna connector
- » 1 x SIM card reader (push-push) 3V, 1.8V
- » 3 x external LED status indicators (Red, Green, Blue)

Includes GPIO (10-way connector)

- » 3 x General Purpose Inputs (0-42V)
- » 2 x General Purpose Outputs (0-42V @1A)
- » 1 x Analogue to Digital Converter ADC (0-42V)
- » 1 x RS232 secondary serial port (3-wire)
- » 1 x PSU Output @ Vcc

Environmental

- » Dimensions: 93mm x 67mm x 28mm
- » Weight: 90 grams
- » Extended Temperature Range: -40 to +85 deg C

Data

- » LTE Category M1
  Uplink up to 375 kbps
  Downlink up to 300 kbps
- » LTE Category NB1
  Uplink up to 62.5 kbps
  Downlink up to 21 kbps
- » EGPRS
  Uplink up to 236 kbps
  Downlink up to 296kbps

Approvals and Compliance

- » CE
- » FCC

Sensitivity

Output Power

- » All Bands: (LTE) CAT-M1:
  Class 3   23dBm (+-2dB)
- » All Bands: (LTE) CAT-NB1:
  Class 3   23dBm (+-2 dB)
- » Bands: GSM850, GSM900: GPRS (GMSK):
  Class 4   33dBm (+-2 dB)
- » Bands: GSM850, GSM900: EDGE (8PSK):
  Class E2   27dBm (+-2 dB)
- » Bands: DCS1800, PCS1900: GPRS (GMSK):
  Class 4 30dBm (+-2 dB)
- » Bands: DCS1800, PCS1900: EDGE (8PSK):
  Class E2 26dBm (+-2 dB)

Application Resources and Drivers

AppZone C

- » Programming language: C
- » IDE: Eclipse
- » Dedicated File System: 5MB
- » Separate App. RAM Space: 2MB

USB Drivers

- » Windows 7/8/10 driver support
- » Linux native support (CDC ACM)

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Siretta](#):
  [ZETA-NEP-LTEM (GL) STARTER KIT](#)