Siretta
Enabling Industrial IoT

ZETA-NLP-LTE1 (EU)
Ultra Low Power 4G / LTE Category 1 Industrial Modem

ZETA Series
SIM
Siretta
Enabling Industrial IoT
www.siretta.com

General Description

The ZETA-NLP-LTE1 (EU) is a cutting edge, extremely low power industrial modem. It will connect equipment to the European LTE Cat 1 network which is 100% compatible with the existing LTE infrastructure. The modem also provides fallback connectivity to the existing European 3G / UMTS and 2G / GSM cellular networks. The modem is able to operate in an extremely low power state which makes it ideal for use in industrial IoT applications today and for long term future developments.

The unique feature of the ZETA-NLP-LTE1 (EU) allows it to run in an ultra low power state due to its intelligent power saving design. Additionally the range offers interface options including legacy RS232 for connection to existing equipment and a high speed USB interface.
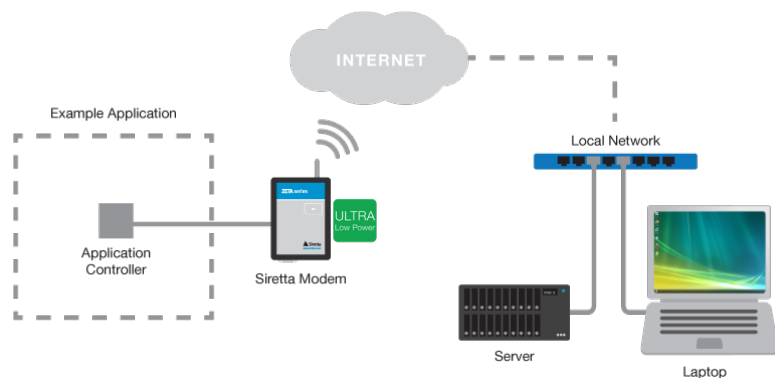
The powerful C development environment reduces redundancy and lowers system component costs, allowing developers to maximise the power of their application directly on the device and eliminating the requirement for an external microcontroller. As a result the ZETA-NLP-LTE1 (EU) lends itself to rapid proof-of-concept developments with minimal investment, providing fast time to market and maximum scalability.

Features

2G GSM	**3G** UMTS	**LTE** NB IoT	**GPRS** Enabled	**CSD** Dialup	**SMS** Enabled	**EU** Coverage	**ULTRA** Low Power
RS232 Serial	**USB** Serial	**VoLTE** Capable					
CODE Embedded	**FOTA** Update	**AT** Commands	**IP** Services	**SIM** Toolkit	**Win** Linux/Mac	**5-42V** Industrial	**TEMP** -40 to +85

Featured Applications

- » Digital Signage
- » Car Parking Payment
- » Kiosks
- » Security Systems
- » Gaming Machines
- » Healthcare
- » Elevator Systems
- » ATMs
- » Payment Systems
- » Energy Utilities
- » Water Utilities

INTERNET

Example Application

Local Network

Application Controller

ULTRA Low Power

Siretta Modem

Server

Laptop

Rev 1.0

General Features

» 6 Bands: 4G / LTE:
  B1(2100), B3(1800), B7(2600), B8(900), B20(800), B28A(700) MHz

» 3 Bands: 3G / UMTS
  B1(2100), B3(1800), B8(900) MHz

» 2 Bands: 2G / GSM | GPRS:
  B3(1800), B8(900)

» LTE FDD Category 1

» 3GPP release 9 compliant

» VoLTE Support

» SIM Application Tool Kit 3GPP TS 51.014

» Control via AT commands according to 3GPP

» TS27.005, 27.007 and Telit Custom AT commands

» IPv4/IPv6 stack with UDP/TCP/FTP/SMTP protocol

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)

Environmental

» Dimensions: 93mm x 67mm x 28mm

» Weight: 90 grams

» Extended Temperature Range: -40 to +85 deg C

Data

» LTE Category 1
  Uplink up to 5 Mbps
  Downlink up to 10 Mbps

Approvals and Compliance

» CE

Sensitivity

Typical sensitivity levels are as follows:

» 106 dBm @ 2G

» 111 dBm @ 3G

» -101 dBm @ 4G FDD (BW=5 MHz)

Output Power

Typical values for Max output level are as follows:

» 2G (GSM):
  LB: Class 4(2W, 33dBm)
  Class E2(0.5W,27dBm@EDGE)
  HB: Class 1(1W, 30Bm)
  Class E2(0.4W, 26dBm@EDGE)

» 3G (WCDMA):
  Class 3(0.25W, 24dBm)

» TD-SCDMA:
  Class 3(0.13W, 21dBm)

» 4G (FDD & TDD):
  Class 3(0.2W, 23dBm@1RB)

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)