Siretta
Enabling Industrial IoT

ZETA-NEP-LTE4 (EU)

Low Power 4G / LTE Category 4 Industrial Modem with GPIO

General Description

The ZETA-NEP-LTE4 (EU) is a cutting edge, low power industrial modem with general purpose interfaces. It will connect equipment to the European LTE Cat 4 network and provide backwards compatibility to the existing European 3G / UMTS and 2G / GSM cellular networks. 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-LTE4 (EU) can also monitor general purpose inputs and drive full specification outputs. Other interface options include legacy RS232 for connection to existing equipment, and a high speed USB interface.

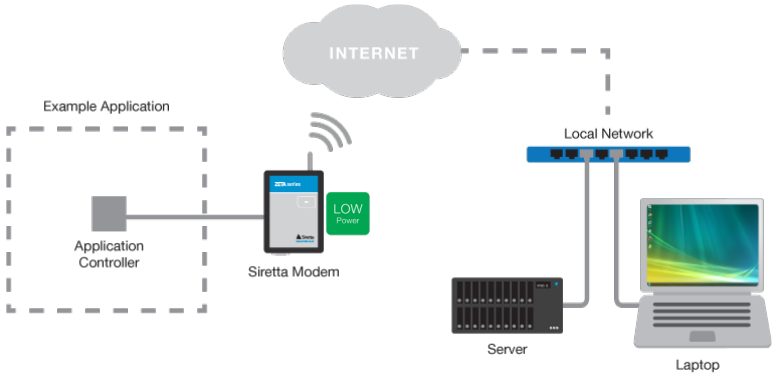
The powerful C development environment reduces redundancy and lowers system component costs, allowing developers to maximise the power of their application directly on the device and eliminating the requirement for an external microcontroller. As a result the ZETA-NEP-LTE4 (EU) lends itself to rapid 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
- 3G UMTS
- 4G LTE
- LTE Cat 4
- GPRS Enabled
- CSD Dialup
- SMS Enabled
- EU Coverage
- LOW Power
- RS232 Serial
- USB Serial
- GPIO Interface
- RS232 Debug
- ADC Interface
- EDGE Intelligence
- VoLTE Capable
- CODE Embedded
- FOTA Update
- AT Commands
- IP Services
- SIM Toolkit
- Win Linux/Mac
- 5-42V Industrial
- TEMP -40 to +85

Featured Applications

- CCTV
- Video Surveillance
- Car Parking Payment
- Kiosks
- Smart Cities
- Alarm Notification Systems
- Infotainment Systems
- Environmental Monitoring
- Traffic Control Systems



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Rev 1.0

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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 4
» 3GPP release 10 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)

Includes GPIO (10-way connector)

» 3 x GPI: Inputs (0-42V)
» 2 x GPO: Outputs (0-42V @1A)
» 1 x ADC (0-42V)
» 1 x RS232 secondary serial port (3-wire TTL)
» 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 4
Uplink up to 50 Mbps
Downlink up to 150 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 follow:

» 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)

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