



## ZETA-NSP-LTE1 (EU)

### Low Power 4G / LTE Category 1 Industrial Modem

#### General Description



The ZETA-NSP-LTE1 (EU) is a cutting edge, 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 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.

Additionally the range offers interface options including legacy RS232 for connection to existing equipment and a high speed USB interface.

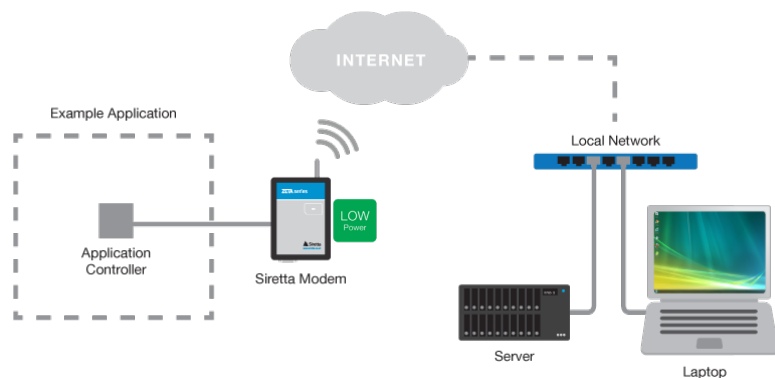
The powerful C development environment reduces redundancy and lowers system component costs, allowing developers to maximise the power of their application directly on the device and eliminating the requirement for an external microcontroller. As a result the ZETA-NSP-LTE1 (EU) lends itself to rapid proof-of-concept developments with minimal investment, providing fast time to market and maximum scalability.

#### Features

2G GSM	3G UMTS	LTE Cat 1	GPRS Enabled	CSD Dialup	SMS Enabled	EU Coverage	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





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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 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 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)