



## ZETA-GEP-LTE4 (EU)

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



### General Description

The ZETA-GEP-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 networks. The modem has a full global GNSS receiver which supports GPS, Glonass, BeiDou, QZSS and Galileo. It operates in a low power state due to its intelligent power saving design, making it ideal for use in industrial IoT applications.

The ZETA-GEP-LTE4 (EU) can 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.

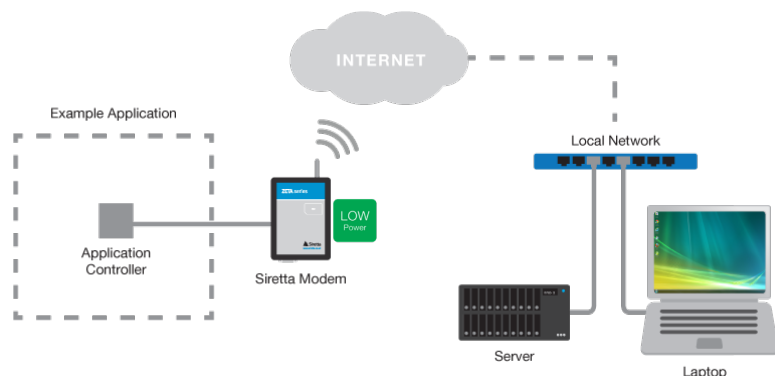
The powerful C development environment reduces redundancy, lowers system component costs, allowing developers to maximise the power of their application directly on the device, whilst eliminating the need for an external microcontroller. It means the ZETA-GEP-LTE4 (EU) lends itself to rapid proof-of-concept and time to market, with low risk and maximum scalability, offering intelligence and decision making at the cloud edge.

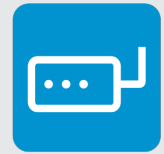
### Features

2G GSM	3G UMTS	4G LTE	LTE Cat 4	GPRS Enabled	CSD Dialup	SMS Enabled	GNSS Position	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
- » Environmental Monitoring
- » Asset Tracking
- » Telematics
- » ANPR
- » Agriculture
- » Security Systems
- » Food and Beverage





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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
- » Supports GPS, Glonass, Beidou, Galileo, QZSS

### 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 SMA female GPS 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

### Approvals and Compliance

- » CE

### Data

- » LTE Category 4
- » Uplink up to 50 Mbps
- » Downlink up to 150 Mbps

### 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)

### GNSS Sensitivity Characteristics

- » Standalone or MS Based Tracking:  
Typ. -162.3dBm  
Acquisition: -157.5dBm  
Cold Start: -157.5dBm
- » TTFF(Time To First Fix):  
Hot: 1.1 secs  
Warm: 22.1 secs  
Cold: 29.94 secs

### 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)