



ZETA-G-UMTS

3G / UMTS Industrial Modem with GPIO & GNSS

General Description



The ZETA-G-UMTS is an industrial modem designed for connecting equipment to the 3G/UMTS & 2G / GSM cellular network. It has a 7 band HSPA+ and quad band GPRS cellular engine, providing worldwide coverage in addition to cutting edge GPS for tracking or location based applications.

The device offers a high level of functionality in a compact "plug and play" housing, providing a GPS interface, RS232 & USB serial data interfaces in addition to a 10-way GPIO connector, which offers a secondary TTL serial port, general purpose IO and an ADC.

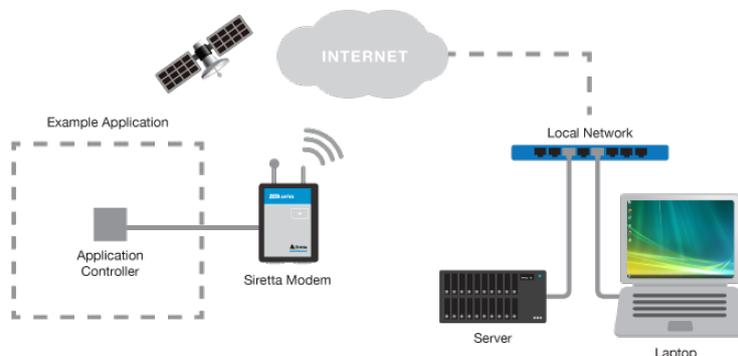
It is ideal for integrating in to a wide range of IoT tracking applications with reliable and stable data connectivity.

Features

2G GSM	3G UMTS	GPRS Enabled	CSD Dialup	SMS Enabled	EU Coverage	GNSS Position	
RS232 Serial	USB Serial	GPIO Interface					
>_ Embedded	FOTA Update	AT Commands	IP Services	SIM Toolkit	Win Linux/Mac	5-24V Industrial	-40 +80 deg C

Featured Applications

- » CCTV
- » Environmental Monitoring
- » Asset Tracking
- » Telematics
- » ANPR
- » Food and Beverage





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General Features

- » 7 Bands UMTS/HSPA+: 800/850, 900, AWS, 1700, 1900, 2100MHz
- » 4 Bands GSM | GPRS: 850/900/1800/1900MHz
- » SMS text and PDU message mode
- » SIM Access Profile
- » SIM Application Tool Kit 3GPP TS 51.014
- » Control via standard AT commands 3GPP TS7.005.27.007
- » Extended AT command set
- » Serial port multiplexer 3GPP TS27.010
- » IP stack with TCP and UDP protocol
- » Sensitive GPS Receiver
- »

Interfaces

- » 1 x RS232 serial port interface (5-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
- » 5 x GPIO
(Input 0-42V, Output 0-3.3V)
- » 1 x ADC (0-42V)
- » 1 x RS232 secondary serial port (3-wire TTL)
- » 3 x external LED status indicators (Blue, Red, Green)

Environmental

- » Dimensions: 93mm x 67mm x 28mm
- » Weight: 107 grams
- » Extended Temperature Range: -40 to +85 deg C

Data

- » HSPA category 6 in uplink and up to category 14 in downlink
- » Uplink up to 5.76 Mbps
- » Downlink up to 21.0 Mbps (high-end variants)
- » Downlink up to 7.2 Mbps (low-end variants)

Approvals and Compliance

- » CE

Sensitivity

Output power

- » Class 4 (2 W, 33 dBm) @ GSM 850 /900
- » Class 1 (1 W, 30 dBm) @ GSM 1800 /1900
- » Class 3 (0.25 W, 24 dBm) @ UMTS
- » Class E2 (0.5 W, 27 dBm) @ EDGE 850 /900
- » Class E2 (0.4 W, 26 dBm) @ EDGE 1800 /1900

Sensitivity

- » - 111 dBm @ UMTS
- » - 109 dBm @ GSM 850 /900 MHz
- » - 110 dBm @ DCS1800 /PCS1900 MHz

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)

GPS/GLONASS Receiver

- » SUPL 1.0, L1 1575.42 MHz, Datum WGS-84
- » High sensitivity for indoor reception, better than -165dBm with A-GPS
- » GPS Cold Start Autonomous (acquisition sensitivity) -147dBm
- » GPS Hot Start Autonomous -161dBm
- » GPS tracking mode -166 dBm
- » Supports multi-channel GPS
- » GPS NMEA 0183 O/P format
- » Positional Accuracy: 3m
- » Time to first fix from
Cold Start 42s
Warm Start 30s
Hot Start: 1.8s