EGIGATEK eGM-A21 Brief

【CSR1011(MS) based Bluetooth 4.0 LE Single Mode Module】

1. Description

CSR1011 has more GPIO than CSR1010 and eGM-A21 is product from CSR's single mode BLE solution. CSR μEnergy enables ultra low-power connectivity and basic data transfer for applications previously limited by the power consumption, size constraints and complexity of other wireless standards. The CSR μEnergy platform provides everything required to create a Bluetooth low energy product with RF, baseband, MCU, qualified Bluetooth v4.0 stack and customer application running on a single IC.

2. Features

- Bluetooth Low Energy available with CSR1011 QFN
- Bluetooth v4.0 specification
- Single mode Bluetooth low energy
- 7.5dBm Bluetooth low energy maximum TX output power
- -92.5dBm Bluetooth low energy RX sensitivity
- Support for Bluetooth v4.0 specification host stack including:
  ATT, GATT, SMP, L2CAP, GAP
- RSSI monitoring for proximity applications
- <600nA ultra low consumption in dormant mode
- Integrated 32kHz and 16MHz crystal or system clock
- Switch-mode power supply
- Programmable general purpose PIO controller
- 10-bit ADC
- 32 digital PIOs
- 3 analogue AIOs
- UART
- 512KB EEPROM
- Debug SPI
- 3 PWM modules
- Wake-up interrupt

■ 64KB RAM and 64KB ROM
■ Watchdog timer
■ Dimensions:
  eGM-A21A : 13.5 x 16.5 x 1.8 mm
  eGM-A21B/C with antenna : 17.75.0 x 16.5 x 1.8 mm
■ Storage temperature range: -40ºC ~ +85ºC
■ Operating temperature range: -30ºC ~ +85ºC
■ Manufactured in conformance with RoHS

3. Applications

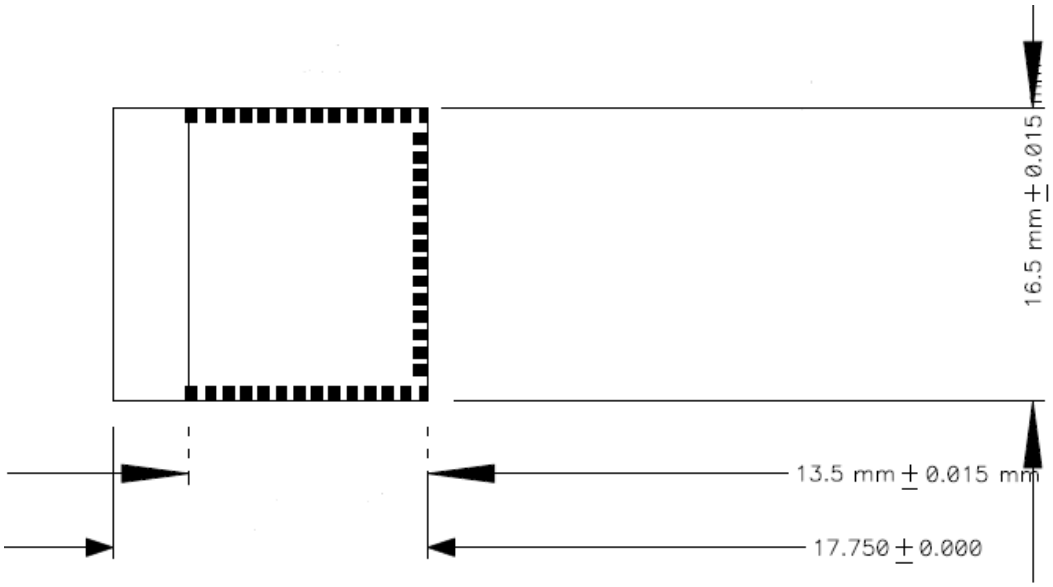
Building an ecosystem using Bluetooth low energy

Bluetooth low energy enables the transfer of simple data sets between compact devices opening up a completely new class of Bluetooth applications such as watches, TV remote controls, medical sensors and fitness trainers.
Bluetooth low energy takes less time to make a connection than conventional Bluetooth wireless technology and can consume approximately 1/20th of the power of Bluetooth Basic Rate. Supports profiles for sensors, watches, HIDs and time synchronization.

Typical Bluetooth low energy applications:

■ Sports and fitness
■ Healthcare
■ Home entertainment
■ Office and mobile accessories
■ Automotive
■ Commercial
■ Watches
■ Human interface devices

4. Dimensions



5. Land Pattern