

## ACTE POXA Bluetooth Low Energy module

Welcome to the POXA BLE module from ACTE.

ACTE introduces POXA1601, is a cost-effective Bluetooth® Low Energy Profile Module.

POXA-1601 is a Single Mode Bluetooth® Low Energy Profile Module, which utilizes CSR1010 – The new generation Bluetooth® low energy chipset from CSR. The module in a 16 x 23 x 2.3mm small form factor is equipped with one PCB antenna, which is designed specifically for the rapid development of cost-effective Bluetooth® low energy applications. Its superb performance 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.

POXA1601 is GATT-based profile ready. Its preloaded profile allows, either, host user application without the need of microcontroller or be an interface on a host for variant application. The module is can be powered from a standard 3V coin cell battery for space-constrained installation.

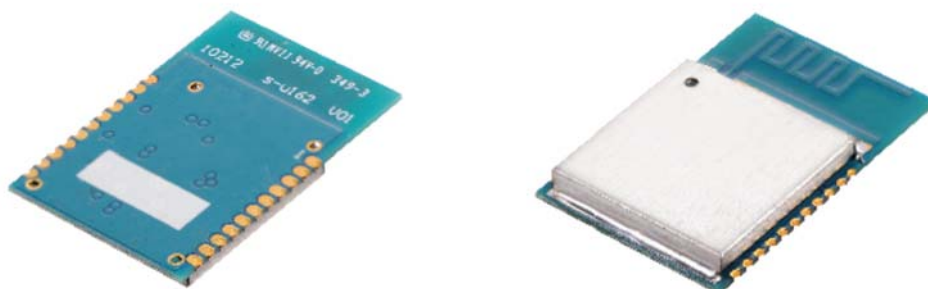
The POXA1601 is compatible with the latest iOS and Android phones. Bluetooth® device developers can now easily build BLE Profile Compliant devices.

### BLE Module Features:

- Dimension 16 x 23 x 2.3 mm; SMD
- Discoverable/Connectable with iOS and Android
- Automatically stores Bluetooth address of the last paired device, for quick reconnection
- Integrate Bluetooth® band antenna
- Support for Bluetooth® v4.0 specification host stack including ATT, GATT, SMP, L2CAP, GAP
- Operation mode /Wake-up interrupt (optional)
- Host Interface: UART
- 5 GPIO, 3 Analogue general purpose I/O
- Evaluation Kit is available

### Available Embedded Profile

- Proximity Profile (i.e. distance and link loss alert for child care)
- Find Me Profile (i.e. finding misplaced objects)
- Future coming Profile: SPP, Lighting



## BLE Module Specification:

|                           |                         | POXA1601   |
|---------------------------|-------------------------|--|
| <b>Hardware</b>           |                         |  |
|                           | Bluetooth® Solution     | CSR1010  |
|                           | Supply Voltage          | 1.8V to 3.6V@20mA max. (Typical: 3V)                             |
|                           | Current Consumption     | RX / TX mode:16mA@ peak current (Typ.)<br>Deep Sleep: 5µA (Typ.) |
|                           | Working Temperature     | 20 °C to +75 °C  |
|                           | Storage Temperature     | -30 °C to +85 °C   |
|                           | Dimension               | 16 x 23 x 2.3 mm, SMD type                                       |
|                           | Weight                  | 1.3 g  |
| <b>RF Characteristics</b> |                         |  |
|                           | Frequency               | 2402 - 2480MHz, 2MHz spacing                                     |
|                           | Bluetooth Version       | 4.0 (single mode)  |
|                           | Antenna Type            | On PCB Bluetooth® band antenna                                   |
|                           | Output Power            | 7.5dBm   |
|                           | Receiver Sensitivity    | -92.5dBm typical   |
|                           | RF Data Rate/Modulation | 1Mbps, GFSK, 250KHz deviation                                    |
|                           | Host Interface          | 1 x UART   |

Evaluation Kit is now available!



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