

# ZigBee USB Adapter, ProBee-ZU10



## Features

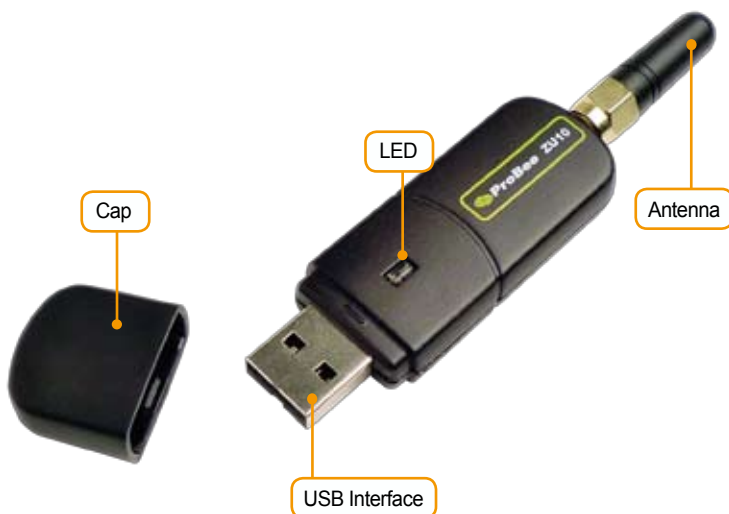
- Fully supports ZigBee 2007 / ZigBee Pro stack
- Integrated 2.4GHz, IEEE 802.15.4-compliant coprocessor
- Various antenna options according to users' requirement, up to 1.6km (1 mile) with optional 5 dBi dipole antenna
- USB 2.0 interface
- Supports remote management features wirelessly such as firmware upgrade and system configuration by using modem AT command set
- Easy to use Windows configuration tool available

The **ProBee-ZU10** is an ZigBee USB adapter with integrated ZigBee core and radio/antenna circuits together with high level software library.

The ZU10 USB Adapter is designed to meet specific requirements to low cost and low power wireless applications such as Home Automation, Smart Energy, Health care, Building Automation and Telecom Services by adopting the ZigBee technology.

Despite of its cost effective and low power consumptions, the ZU10 provides high performance and robust data transfer capability for wide range of applications. The ZU10 can transfer data at up to 250 kbps and reach up to 1.6 km (1 mile) outdoor line-of-sight.

## Exterior



## Applications

- Advanced Metering Infrastructure
- Home Area Networks (HAN)
- Neighborhood Area Networks (NAN)
- Home Automation
- Advanced Lighting, Entertainment, and Climate Control Systems
- Service-based Monitoring, Security, and Awareness Systems
- Commercial Building Automation
- Climate & Lighting Control Systems
- Industrial and Domestic Applications

# ZigBee USB Adapter, ProBee-ZU10

## Specifications

### RF Characteristics

- Frequency Band: 2.4 GHz
- Interface Immunity: DSSS
- Transmit Power: +20dBm E.I.R.P (max.)
- Receiver Sensitivity: -102dBm @1% BER
- RF Data Rate: 250 kbps
- Working Distance: Up to 1.6km using 5 dBi dipole antenna
- Various Antenna Options from standard 1 dBi antenna to 3/5 dBi dipole antenna
- Channels: 14
- Channel Spacing: 5 MHz

### ZigBee Network

- Network topology: Mesh
- Stack profile: ZigBee 2007 / ZigBee Pro
- Network addressing: Channel, PAN ID, EPID

### ZigBee Data Transmission

- Unicasting
- Multicasting
- Broadcasting
- Many-to-One Communication
- Enhanced Reliability based on data retransmission

### ZigBee Security

- Network Layer security with one Trust Center for efficient operation
- 128 bit AES encryption algorithms
- Strong, NIST-approved security

### Power Requirements

- Supply Voltage: 5.0 VDC
- TX Current: 210mA @5.0V (max.)
- RX Current: 65mA @5.0V (max.)
- Sleep Current:  $\leq$  100uA

### Device Management and Configuration

- Configuration Method: AT Commands, ProBee Manager
- Remote Configuration
- Remote Firmware Upgrade using both Cloning and Pass-thru methods
- Supports rich neighborhood device scanning and monitoring using AT commands

### Antenna

- Default Stub Antenna: 1 dBi
- Optional Dipole Antenna: 3/5 dBi
- RP-SMA connector

### Interface

- USB 'A' type Connector
- USB 2.0 Full Speed compatible

### Computer OS Support

- Windows XP/Vista/7 (32/64bit)
- Linux (3rd party driver required)
- MAC OS X (MAC OS X driver required)

### Environmental

- Operating Temperature: -20°C to 70°C
- Storage Temperature: -40°C to 85°C
- Humidity: 90% Non-condensing

### Physical Properties

- Dimension (L x W x H): 70.9 x 22 x 10(mm) / 2.8 x 0.9 x 0.4(in)
- Weight: 10 g / 0.36 oz

**Certification:** FCC, CE, TELEC, KCC

**Warranty:** 3-year limited warranty

## Ordering Information

Part number	Description
ZU10-G01	ProBee ZU10 ZigBee USB Adapter, Exchangeable Antenna

### Optional Accessories

Part number	Description
SAT-G01R	1 dBi Stub Antenna, RP-SMA Plug, Right-hand Thread
DAT-G01R	3 dBi Dipole Antenna, RP-SMA Plug, Right-hand Thread
DAT5-G01R	5 dBi Dipole Antenna, RP-SMA Plug, Right-hand Thread
SEC-G01R	15cm RPSMA Antenna Extension Cable, Right-Hand Thread

For more information,  
please visit us at <http://www.sena.com>

### U.S. / Canada / South America

Tel: 408-448-1997 Fax: 408-907-3738  
Toll Free (US/Canada): 8668-US-SENA (866-887-7362)

### EU / Africa

Tel: +33 (0)1 53 53 16 29 Fax: +33 (0)1 70 24 70 90

### Asia / Pacific

Tel: +82-2-576-7362 Fax: +82-2-573-7710

### Contact us via E-mail

General Information: [info@sena.com](mailto:info@sena.com)  
Sales & Distribution: [sales@sena.com](mailto:sales@sena.com)  
Technical Support: [support@sena.com](mailto:support@sena.com)

**SENA**  
[www.sena.com](http://www.sena.com)