



@ANY2400 ZigBee USB Dongle

USB Dongle, based on 2.4 GHz @ANY2400 RF Module for IEEE 802.15.4/ZigBee® Wireless Mesh Networking Applications

@ANY2400 Dongle is a handy USB extension that enables an easy access to mobile and portable devices. @ANY2400 Dongle provides reliable USB connectivity and is widely used for monitoring and control of wireless network systems. Based on @ANY2400 module, the @ANY2400 Dongle makes integration a breeze, while the built-in chip antennas enable rapid design-in, requiring no RF knowledge and benefiting from the standard USB interface. Depending on firmware used, @ANY2400 Dongle allows access to modules AT-Command line interface via virtual COM port. Provided JTAG interface allows in-circuit programming, as well as debugging. On request, A.N. Solutions offers development of customer-specific firmware and applications for the host system.



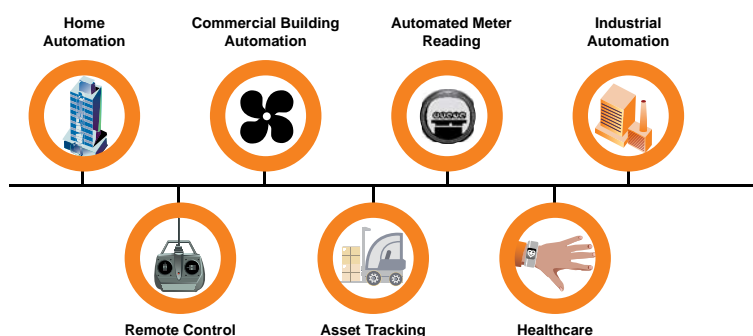
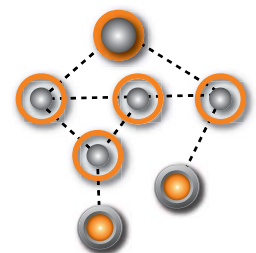
Key Features	Benefits
Outdoor range: up to 2500 m*	Best-in-class range
USB hosted	Easy integration into various IT infrastructure
Network topology: Point-to-Point, Star, Tree, Mesh (IEEE802.15.4, IEEE802.15.4b and ZigBee Pro supported)	Flexible network options for every application
Smart MAC Suite for easy prototyping and quick setup	No embedded programming skills required
Built-in ceramic chip antenna	Rapid design-in
Integrated JTAG interface	Easy in-circuit programming, debugging and firmware upgrades
256 kByte data storage capacity with built-in flash memory	Hardware features Over-The-Air functionality and supports mobile data storage/capturing
Software-controlled RF output power	Optimum balance between range and current consumption

* - Line of sight (LOS), based on simulation and range measurements

Embedded Software

A.N. Solutions applies the same modular approach in software, as it does in hardware. The various embedded software components are designed to interoperate seamlessly and can be easily mixed-and-matched depending on the exact needs of a client. The following @ANY software components are available:

- **@ANY Smart MAC Suite ("SMS")** offers easy control of @ANY platform's functionality via AT commands supporting all IEEE 802.15.4-based functions, as well as facilitates the addition of numerous custom features. The software suite is provided in two different versions, **SMS Base** and **SMS Pro**:
 - **@ANY SMS Base** version provides some basic functionality designed for simple network topologies and evaluation purposes. It can be used to set up Coordinator - End device (star, peer-to-peer) topologies.
 - **@ANY SMS Pro** version facilitates development of complex applications and supports additional Tree topologies with static routing, based on IEEE 802.15.4 MAC layer. This allows a large number of versatile example applications. **SMS Pro** also provides additional features like data broadcasting and full function device functionality. The data redirect feature enables users to set up tree network topologies. Finally, **SMS Pro** is designated to be a code base for customer requested extensions.
 - Both version will be complemented by **@ANY SMS Monitor**, a simple, user-friendly GUI for network monitoring and application-driven extensions.
- Mesh networking topologies supporting dynamic routing schemes, based on IEEE 802.15.4 that are compliant to **ZigBee® PRO**, **6LoWPAN**, as well as **Wireless HART**, can be implemented and customized on request.





RF Characteristics	
Max Output Power	up to +18 dBm (Equivalent Isotropic Radiated Power)
Receiver Sensitivity (PER 1%)	up to -101 dBm
Data Rate	up to 2 Mbit/s
Frequency	2.4 GHz
Data Encryption	AES128
Microcontroller Characteristics (AVR ATmega)	
On-Chip Flash Memory Size	128 kBytes
On-Chip RAM Size	8 kBytes
On-Chip EEPROM Size	4 kBytes
On-Module Data Memory	256 kBytes
Physical/Environmental Characteristics	
Size	80 x 17 x 5 mm
Weight	20 g
Operating Temperature Range	-40°C to +85°C
Block Diagram	<p style="text-align: right;">@ANY2400USB</p>
Part Number	AT-ANY 2400-1 USB
Availability	In production

IMPORTANT NOTE: All data contained herewith are preliminary data only.

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