



# @ANY900 ZIGBEE USB DONGLES



## USB Dongles, Based on 868/915 MHz @ANY900-1/900-2 RF Modules for IEEE 802.15.4/ ZigBee® Wireless Mesh Networking Applications

@ANY900 Dongle is a handy USB extension that enables an easy access to mobile and portable devices. @ANY900 Dongle provides reliable USB connectivity and is widely used for monitoring and control of wireless network systems. Based on @ANY900-series modules, @ANY900 Dongles make 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, @ANY900 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.

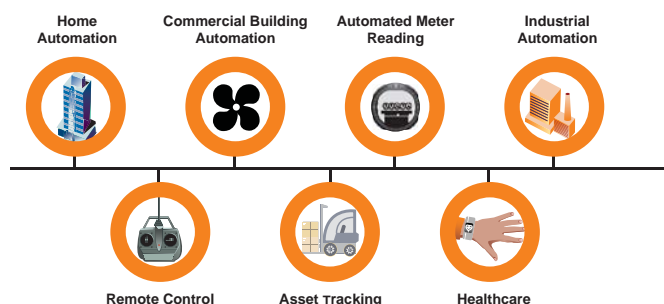
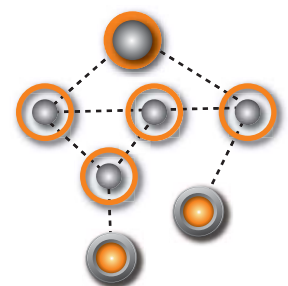


Key Features	Benefits
Outdoor range: 500m for AT-ANY 900-1 USB and up to 5km for AT-ANY 900-2 USB with external antenna	Scalable range optimization according to application
US and European and Chinese Sub-1 GHz ISM bands	Excellent wall penetration and propagation performance in noisy environment
USB hosted	Easy integration into various IT infrastructure
Data rate: up to 1 Mbit/s	Avoids data rate penalty for Sub-1 GHz band operation
Network topology: Point-to-Point, Star, Tree, Mesh (IEEE802.15.4 and ZigBee Pro supported)	Flexible network options for every application
Smart MAC Suite for easy prototyping and quick setup	No embedded programming skills required
Integrated JTAG interface	Easy in-circuit programming, debugging and firmware upgrade with optional JTAG hardware
256 kByte additional data storage capacity with built-in flash memory	Hardware features Over-The-Air functionality and supports mobile data storage/capturing

### 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 +10 dBm
Receiver Sensitivity (PER 1%)	up to -110 dBm
Data Rate	up to 1 Mbit/s
Frequency	European ISM Band from 863 to 870 MHz North American ISM Band from 902 to 928 MHz Chinese ISM Band from 779 to 787 MHz
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;"><b>@ANY900USB</b></p>
Part Numbers	AT-ANY900-1-USB, AT-ANY900-2-USB
Availability	In production

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

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