Remote Monitoring for Business

ALTA Site Survey Tool

General Description

The ALTA® Site Survey Tool helps you plan the placement of ALTA Wireless Sensors by measuring the strength and quality of the radio frequency (RF) signal from an ALTA Gateway. With the Site Survey Tool in hand, you can assess every square foot of your facility or site for the ideal locations to install your sensors. After a quick signal test, the tool's LCD reports the average TRUESIGNAL™ and Pass, Poor, or Fail based on your preferred signal reliability setting. The TRUESIGNAL is calculated from the wireless signal strength and the amount of wireless interference measured at the test location. This data will help you optimize data communications throughout your Internet of Things (IoT) network.

The iMonnit dashboards will also present the data points related to your testing. You can configure the tool's customizable test settings and review an advanced reading log online at iMonnit.com. Choose your signal reliability settings—Mission-Critical, Strong, or Functional—according to your environment, use case, and how frequently and reliably your sensors need to send data.

Example Applications

The ALTA Site Survey Tool helps you plan the deployment of ALTA Wireless Sensors in:

- Environments with expansive open spaces of more than 1,200 feet (400 meters) and fewer obstructions, such as greenhouses, petrochemical plants, agriculture, etc.
- Buildings with extensive concrete, rebar, and square footage, such as high rises, skyscrapers, sports and concert arenas, stadiums, schools, hospitals, churches, etc.
- Warehouses with many obstructions, and shipping container and tractor-trailer yards

We recommend that your complex installations incorporate the ALTA Site Survey Tool to ensure smooth deployment and the most reliable RF network.

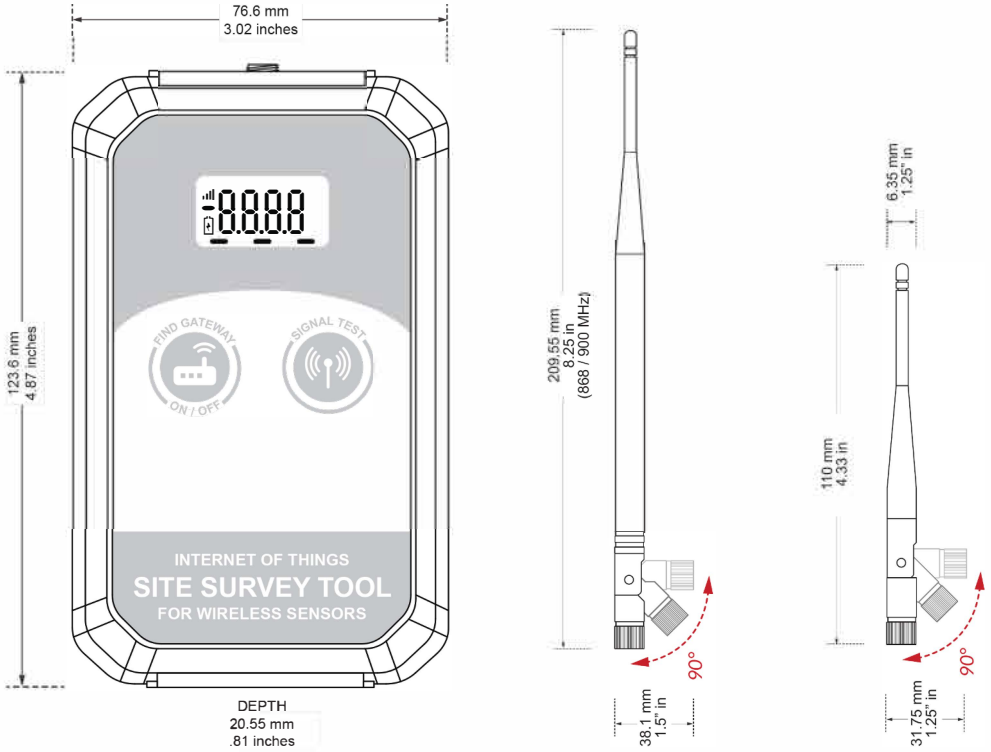
The device may be rented for a monthly fee or purchased.

ALTA Site Survey Tool Technical Specifications	
Power pack	Two replaceable AAA alkaline batteries
Supply voltage	2.0 - 3.8 VDC | Low battery displays if voltage < 2.6 VDC
Current consumption	0.8 µA (sleep mode), 0.7 µA (RTC sleep), 170 µA (MCU idle), 2.5 mA (MCU active), 7.61 mA (radio RX mode), 22.6 mA (radio TX mode)
Battery life	200 hours of active testing
Operating temperature range	-18°C to 55°C (0°F to 130°F) using alkaline -40°C to 85°C (-40°F to 185°F) using lithium
Operating humidity range	5 to 85% RH (non-condensing)
Altitude range (non-pressurized environments)	Operating: -15.2 to 1,982 m (-50 to 6,500 ft) Storage: -15.2 to 3,048 m (-50 to 10,000 ft)
Wireless protocol	ALTA Proprietary Frequency-Hopping Spread Spectrum (FHSS)
Wireless transmission power	50 mW (900MHz), 25 mW (868 MHz), 10 mW (433 MHz)
Wireless antenna type	1/2-wave dipole with RP-SMA connector
Wireless range	1,200+ ft non-line-of-sight (365+ m)*

Security	Encrypt-RF® (256-bit key exchange and AES-128 CTR)
Enclosure	IP-67 enclosure, 76.6 x 123.6 x 20 mm (3.0 x 4.9 x 0.79 inch)
Weight	5.5 oz (155 g)
Certifications	900 MHz product: FCC ID: **ZTL-G2SC1**; IC: **9794A-G2SC1**. 868 and 433 MHz products: **ETSI EN 300 220** V3.2.1 (2018-06); **ETSI EN 301 489-3** V2.2.0. (2021-11) All products tested and comply with: **EN 61010-1**; **EN 55032**: 2015/A11:2020; **EN 55035**:2017/A11:2020

*Actual range may vary depending on the environment.

Device Dimensions



The *larger* articulated antenna is a dipole configuration and emulates the behavior of our industrial sensors with their external antenna. If you plan to buy and install **ALTA industrial sensors**, connect the dipole antenna to the ALTA Site Survey Tool.

The *smaller* antenna is a monopole configuration and emulates our commercial sensor with the wire antennas found on the **ALTA compact coin cell and enterprise (AA battery) sensors**. Please connect this antenna if you plan to deploy any of the ALTA commercial sensors.