



# Sapphire Tags



## Ultra Wideband Active Tags

Sapphire Tags are Ultra Wideband (UWB), transmit-only devices that communicate with Sapphire DART and DIMENSION Real-Time Location Systems and Sapphire VISION RFID Readers. Each tag has a unique ID that can be associated with a specific asset.

Sapphire tag transmissions are extremely short in duration permitting thousands of tags to be simultaneously localized or detected. The short durations are key to the exceptionally long battery life of the UWB tag. For example, the T651-1x1-401 (1x1 Asset tag with a once per second update rate) can be used to continuously track an asset for over 7.5 years.

Tags are powered with a 3V coin cell battery (user-replaceable) and transmit at a pre-programmed rate. The standard transmission rate is one transmission per second. Factory programmable options are available ranging from once every 5 seconds to as often as 200 times per second to enable a wide range of real-time personnel and asset tracking and RFID applications.

Three standard form factors are currently available: 1x1 Asset, Mini-Badge and Micro Asset tag.

## Sapphire Operating Specs

**Frequency of Operation:** FCC Part 15.250 (5.925-7.250 GHz)

**Typical Locate Range\*:** 150 Feet (Indoors), 650 Feet (Outdoors)

\*In optimal conditions.

	1x1 Asset Tag T651-1x1	Mini-Badge Tag T651-BDG	Micro Asset Tag T651-MIC
<b>Size*</b>	1.05" x 1.65" x 1.15"	1.66" x 0.28" x 2.92"	0.44" x 1.58" x .83"
<b>Weight</b>	12 gm (0.42 oz)	18 gm (0.63 oz)	8.4 gm (0.3 oz)
<b>Battery</b>	CR2032	CR2032	CR1632
<b>Mounting</b>	Screw Holes	Badge Clip	Varies by application

\* All sizes shown reflect the size of the tag enclosure.



## SAPPHIRE TECHNOLOGY FEATURES:

- Real-time location accuracies better than 30cm (12 inches)
- Tag battery life in excess of 7.5 years at once per second blink rates
- Tag read ranges over 200 meters (650 feet) line of sight
- Superb performance in high multipath (dense metallic) environments
- Fully extensible to large scale deployments
- Fast intuitive setup
- Frequency of operation FCC Part 15.250 (5.925-7.250 GHz)
- Unmatched tag throughput - up to 5000 tags/second
- Fast tag transmission rates - up to 200 times/second

For more information please contact us at 1-301-528-1745 or visit us at [www.multispectral.com](http://www.multispectral.com).

