



Multispectral Solutions, Inc.[®]
A Tradition of Excellence in Innovation

Operational Description

The PAL651 1x1 Tag, Equipment Under Test (EUT), is a wireless ultra wideband (UWB) tag which is designed for use in real-time inventory and tracking of indoor/outdoor assets. Applications for the tag include hospitals, warehouses, sea freight, supermarkets, retail stores, robotic vehicles, manufacturing and security. Utilizing MSSSI's patented ultra wideband (UWB) technology, the PAL651 1X1 tag facilitates real-time 2-D and/or 3-D tracking to a resolution of one foot or better. Much higher resolutions can be achieved with software averaging techniques. With the use of short pulse, UWB technology, the tag transmissions are highly immune to multipath effects which plague other wireless tagging solutions (e.g., spread spectrum) designed for indoor/outdoor operation. The individual tags are programmed with unique ID codes which are used for inventory and tracking. Because of the unique properties of UWB technology, the tags have an extremely long battery life of better than five years. Once the tag was activated at MET Laboratories, it remained active for the duration of testing.