



Productivity and Safety through  
Mine-Spec digital applications

# IMPACT

intrinsically **safe**  
wi-fi tag



Self contained unit

Long battery life

IP66 and IS approved

On board motion sensor

Mine Site Technologies' (MST) IMPACT Wi-Fi Tags are a rugged, battery-powered tag that can be attached to personnel, assets, mobile equipment and vehicles, or added onto the ICCL Cap Lamps for added protection against loss or damage. When used in conjunction with MSTs' Wireless Network Switches or Wireless Access Points, it enables tagged items to be accurately located in real-time and in any mining environment from open pit to underground. Tag messages are received and processed by MSTs' Wi-Fi access points, keeping infrastructure costs low and installation simple, tag locations are determined by a unique beaconing method that keeps network impact low and ensures scalability and long battery life.

## SPECIFICATIONS

### PERFORMANCE

- Up to 80m (260 feet)

### RADIO

- 802.11b compliant (2.4 GHz)
- Low frequency receiver for chokepoint detection (125kHz)
- Transmission power: up to +19dBm (~81mW)
- Clear channel sensing avoids interference with wireless networks

### ENVIRONMENTAL

- Temperature: -30°C to +75°C (-22°F to +167°F)
- Humidity: 0 to 100%, condensing
- IP66 rated; the housing is water and dust resistant and includes a rubber lining

### PROGRAMMABILITY

- Transmission interval is configurable, 1 second to 8 hours
- Channel programmable
- Wireless tag programming

### ELECTRICAL

- 3.6V Lithium battery
- Battery life: up to 4 years (dependent on usage scenario and other factors)
- 1 year at 1 transmission per second

### CERTIFICATIONS

#### Radio

- FCC Title 47 Part 15 Sub-part C Intentional Radiators
- FCC Title 47 Part 2 (2.1093) Radio Frequency radiation exposure evaluation portable devices (SAR)

The Intrinsically Safe Wi-Fi Tag is either fully incorporated into, or "talks" to other devices ensuring full data communication and a highly integrated network.



Fig1. ICCL



Fig2. NS50



Fig3. NS40



MST offices and support centers are strategically located in the world's primary mining regions.

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