



**MIRION**  
TECHNOLOGIES

Radiation. **Safety.**

# TWR Source

Two Way Ranging “Live”  
Source of Radiation



Nuclear  
Power



Homeland  
Security  
& Defense



Industrial and  
Manufacturing



Healthcare



Labs and  
Education

## OVERVIEW

The TWR (Two Way Ranging) Source provides a simulated point source of gamma radiation that is omni-directional. The source is configured by setting the exposure rate at 1 Ft (30 cm) up to 99,999 R/hr. The TWR Source is detectable by any SIM-Tag™ instrument (may require Rad Tag). The TWR Source has a small form factor and internal rechargeable battery that allows easy deployment.

## KEY FEATURES

- Simulated point source of radiation – omni directional
- Automatic detection of source by instrument
- Dynamic response of simulator instrument to source based on  $1/R^2$
- Quick deployment in indoor or outdoor setting
- 100' range of detection
- Configurable dose rate at 1 foot from source

Health Physics Division

## MECHANICAL CHARACTERISTICS

- Dimensions: 4.5” x 2.75” x 1”
- Weight: 180 grams (6.4 oz)
- High strength water resistant plastic case

## ENVIRONMENTAL CHARACTERISTICS

- Temperature Range
  - High Temp – +113°F (+45°C) Operating / +160°F (+71°C) Storage
  - Low Temp - +23°F (-5°C) Operating / -40°F (-40°C) Storage
- Humidity - 85% Relative Humidity at 84°F (29°C)

## OPERATING CHARACTERISTICS

- Display: Multicolor LED indicates: on/off, battery status (+50%, +25%, less than 25%), connection status during configuration, programming status
- Single pushbutton – power On/Off
- High strength water resistant plastic case
- Wireless Communication: IEEE 802.15.4, 2.4 GHz, 18 mW
- Range of Operation:
  - Simulated gamma radiation is detectable to approximately 100 ft. line of sight. Depending upon material composition, obstructions may reduce operational distance.
  - Remote wireless connection with SCC is approximately 100 ft line of sight. Depending upon material composition, obstructions may reduce operational distance.

## ELECTRICAL CHARACTERISTICS

- Power Requirements: 3.7V rechargeable lithium, mini-USB recharging port
- EMI: FCC Part 15 Subpart B, Class B; FCC ID: PENDING
- Industry Canada RSS -210; IC: PENDING

## RUN SEAMLESS TRAINING EXERCISES

- Two Way Ranging technology continually measures distance from simulator instrument to adjust rate and dose automatically
- Sources are small and easy to conceal
- No complicated setup - place source, turn on and start exercise
- Configure measured dose rate at 1’ using SCC to change “activity”
- Deploy multiple sources and train with multiple devices simultaneously
- Swap between automatic response to TWR sources to manual control with SCC

## SIM-TEQ™ FEATURES

- Easy to setup.
- Multiple models of survey instruments and dosimeters supported
- Wireless direct control of devices through SCC or automatic response of devices to TWR “live” sources.
- Free SCC software updates provided via Microsoft Windows Store.

### > GERMANY - HAMBURG

T: +49 40 85193 0 | E: info-de@mirion.com

### > USA - SMYRNA, GEORGIA

T: +1 770 432 2744 | E: info-us@mirion.com

### > FRANCE - LAMANON

T: 1234567890 | E: info-fr@mirion.com

### > FINLAND - TURKU

T: +358 2 4684 600 | E: info-fi@mirion.com

### > CHINA - SHANGHAI

T: +86 21 6180 6920 | E: info-cn@mirion.com

Copyright (c) 2015 Mirion Technologies, Inc. or its affiliates. All rights reserved. Mirion, the Mirion logo, and other trade names of Mirion products listed herein are registered trademarks or trademarks of Mirion Technologies, Inc. or its affiliates in the United States and other countries. Third party trademarks mentioned are the property of their respective owners.