



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

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