



TWR Source

Two Way Ranging “Live”
Source of Radiation

TWR 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

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 foot 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

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Specifications:

Model Number	TWR Source (Two-Way Ranging Source)
Physical Dimensions	73mm x 117mm x 22mm (2.875in x 4.625in x .875in)
Weight	180 grams (6.4 oz)
Audible Output	None
Display	Multicolor LED indicates: on/off, battery status (+50%, +25%, less than 25%), connection status during configuration, programming status
Controls	Single pushbutton – power On/Off
Power Requirements	<ul style="list-style-type: none"> • 3.7V rechargeable lithium battery with micro-USB recharging port, <ul style="list-style-type: none"> ▪ Battery life: >8 hours at 68°F (+20°C) ▪ AC/DC wall adapter, 120VAC/6VDC (included) ▪ Micro-USB charge cord (included)
Construction	High strength water resistant plastic case
Environmental	<p>Temperature Range</p> <ul style="list-style-type: none"> ▪ 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)
Wireless Communication	<p>IEEE 802.15.4, 2.4 GHz, 0.44 mW</p> <p>UWB (ultra-wide band) 6.4 GHz (6.2-6.7 GHz), <0.001 mW</p>
EMI	<ul style="list-style-type: none"> • FCC Part 15 Subpart B, Class A; verified • Industry Canada RSS -220 Issue 1; verified • EU; CE
Supported Features	<ul style="list-style-type: none"> • Provides detectable simulated gamma/X-ray radiation <ul style="list-style-type: none"> ▪ Omni-directional emission – emulates unshielded point source ▪ Training instrument’s measurement display follows 1/r² principle based on distance to source • Pre-configured – retains <i>last</i> configured source strength setting • Unique Identification ID for remote selection • Configurable source strength at 1 foot: 1.0 mR/hr to 99,000 R/hr • “Soft Off” remote control
SCC Application	<p>Manual configuration via Simulation Control Center (SCC) application available from Windows Store, runs on Windows 10[®] tablet with SIM-Teq™ USB Dongle. Features include;</p> <ul style="list-style-type: none"> ▪ Manual adjustment of dose rate output at 1 foot ▪ Remote pairing of up to 8 training meters to each auto-respond to up to 8 TWR sources
Range of Operation	<ul style="list-style-type: none"> • 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.

The SIM-Teq[®] System is a wireless training network of simulated dosimeters, survey meters, and TWR Sources managed and controlled by the Simulation Control Center (SCC) application.

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.