



## TWR Mini Source

### Two Way Ranging “Live” Source of Radiation

#### TWR Mini Source Features:


- **NEW** Configurable Isotopic mix of up to 5 isotopes from ANSI N42.34-2021 library  
Simulated point source of radiation – omni directional
- **NEW** Configurable neutron output in neutrons per second
- Automatic detection of source by instrument/Rad Tag
- Dynamic response of simulator instrument to source based on  $1/r^2$
- Select output from (10) customizable pre-configurations via pushbutton or SCC
- Background only output option
- Quick deployment in indoor or outdoor setting
- 100' range of detection
- Configurable gamma source activity  
26 $\mu$ Ci to 26,000Ci Cs-137 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
- Select from custom combinations of isotopes for RID capable SIM-Teq training instruments
- Configure dose rate “activity” at 1 foot
- 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 Name / Part Number	TWR Mini Source (Two-Way Ranging Source) / 235401
Physical Dimensions	81.8mm x 20.8mm x 51mm (3.22in x 0.8in x 2in)
Weight	66 grams (2.3 oz)
Display	<ul style="list-style-type: none"> <li>• RGB LED Power/Info Indicator [Green = Power On, Red = Batt Low, Blue = Info/Fully Charged]</li> <li>• 10x White LED Indication: Battery Level Indication &amp; Configuration Output indication</li> </ul>
Controls	<ul style="list-style-type: none"> <li>▪ Power Pushbutton: (&gt;) 2 second press = power On/Off,</li> <li>▪ Output and Battery Level Pushbutton: <ul style="list-style-type: none"> <li>▪ (&lt;) 2 second press = advance to next default output level, 10x</li> <li>▪ (&gt;) 2 second press = Battery level indication</li> </ul> </li> </ul>
Power Requirements	<ul style="list-style-type: none"> <li>• 3.7V rechargeable lithium battery with USB-C recharging port, <ul style="list-style-type: none"> <li>▪ Battery life: &gt;8 hours at 68°F (+20°C)</li> <li>▪ AC/DC wall adapter, 120VAC/5VDC (included)</li> <li>▪ USB C charge cord (included)</li> </ul> </li> </ul>
Environmental	<ul style="list-style-type: none"> <li>• High strength ABS plastic case</li> <li>• Water and Drop Resistant</li> <li>• Temperature Range <ul style="list-style-type: none"> <li>▪ High Temp: +85°F (+29°C) Operating</li> <li>▪ Low Temp: -40°F (-40°C) Operating</li> </ul> </li> </ul>
Wireless Communication	<ul style="list-style-type: none"> <li>• IEEE 802.15.4, 2.4 GHz, 0.44 mW</li> <li>• UWB (ultra-wide band) 6.5 GHz (6.2-6.7 GHz), &lt;0.001 mW</li> </ul>
EMI	<ul style="list-style-type: none"> <li>• FCC Part 15 Subpart B, Class A; Pending</li> <li>• Industry Canada RSS -220 Issue 1; Pending</li> <li>• EU;  Pending</li> </ul>
Supported Features	<ul style="list-style-type: none"> <li>• Provides detectable simulated gamma/X-ray and <b>NEW</b> neutron radiation <ul style="list-style-type: none"> <li>▪ Omni-directional emission – emulates unshielded point source</li> <li>▪ Training instrument's measurement display follows 1/r<sup>2</sup> principle based on distance to source</li> </ul> </li> <li>• (10) Configurable source strength at 1 foot: 26μCi – 26,000Ci (Cs-137) = 0.1 mR/hr to 99,000 R/hr, and <b>NEW</b> Neutrons n/sec</li> <li>• Pre-configurable – retains <i>last</i> configured source strength settings</li> <li>• Unique Identification ID for remote selection</li> <li>• <b>NEW</b> Configurable mix of up to 5 isotopes from ANSI N42.34-2021 library</li> <li>• Background only output option</li> <li>• “Soft Off” remote control</li> </ul>
Range of Operation	<ul style="list-style-type: none"> <li>• Simulated gamma/neutron radiation is detectable to approximately 100 ft. line of sight. Depending upon material composition, obstructions may reduce operational distance.</li> <li>• Remote wireless connection with SCC is approximately 100 ft line of sight. Depending upon material composition, obstructions may reduce operational distance.</li> </ul>
SCC Application	Simulation Control Center (SCC) application runs on Windows 10/11 <sup>®</sup> PC with SIM-Teq USB Dongle. Features include; <ul style="list-style-type: none"> <li>• Remotely observe, manage and control all SIM-Teq devices at any time</li> <li>• <b>NEW</b> Customize 10x TWR Mini source configurations by selecting up to 5 isotopes and percentage mix from complete ANSI N42.34-2021 library + Gamma dose rate + Neutron (n/sec)</li> </ul>

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

**SIM-Teq Features:**

- Easy to set up.
- SCC application operates on any Windows 10/11<sup>®</sup> PC with a USB Dongle and up to 40 simulator training devices and up to 10 TWR Sources at one time
- Training instructor remotely views and controls simulated radiation levels, alarms, and fault conditions as observed by a trainee operating the connected device.