

## MARSS Responder Specifications

### Detector Unit

#### Physical

Size: 3.6 in x 4.9 in x 8 in (width x height x length)

Weight: 4.5 lbs

#### Power (Selectable)

Battery: 10 high-capacity "AA" NiMH, option to operate with "AA" standard Alkaline batteries

Optional External Power: 12V DC

#### Communication (Selectable)

Wired: 9-pin RS-232 serial port

Wireless: via Bluetooth™ - internally powered, FCC compliant, with external antenna

#### Visual (LED) and Audible Indicators

- Power On
  - Charging
  - External power supply
  - Neutron warning/alarm
  - Gamma warning/alarm
- Warning alarms indicated by blinking, alarm levels by solid on
- Audible, switched speaker and earphone

#### Detectors

Gamma: Co-Planar Grid (CPG) Cadmium Zinc Telluride (CZT) Detector

Size: 15mm x 15mm x 7.5mm  
Resolution: 3.2-4.2% @ 662 keV

Neutron: Cylindrical <sup>3</sup>He Neutron Detector

Gas Pressure: 15,200 (Torr)  
Cathode Material: Stainless Steel  
Maximum length: 4.41/111.9 (inch/mm)  
Effective Length: 2.50/63.5 (inch/mm)  
Maximum Diameter: 0.50/12.7 (inch/mm)  
Effective Diameter: 0.45/11.4 (inch/mm)  
Operating Temperature: -40 to +100 (F)  
Effective Volume: 6.51 (cm<sup>3</sup>)  
Thermal Neutron Sensitivity: 15.5 (cps/nV)

Optional External Detector:

A MHV connector allows for a pulse-based detector (such as NaI) to be used in lieu of the internal detector.



### Rugged PDA

#### Physical

Size: 16.5 cm x 9.5 cm x 4.5 cm (6.5 in x 3.75 in x 1.75 in)

Weight: 0.49/17 (kg/oz)

Processor: 400 MHz Intel PXA255 Xscale CPU

Memory: 64 MB high-speed SD-RAM

Battery: Internal 3800 mAh NiMH

Operating Temperature: -30°C to +60°C

