



Environmental
Instruments
Canada Inc.

CT007-F

A rugged, affordable radiation contamination detector that measures alpha, beta and gamma

Features

- Alpha, beta, gamma detector
- Low cost, compact, lightweight
- Response range from 0 to 20,000 $\mu\text{Sv/h}$ and above
- Simple single-button local operation with display
- Connects to GammaGuard via Bluetooth Low Energy (BLE)
- State of the art solid state detector
- Rich user interface provided by smartphone display
- Capable of logging data to the smartphone



Introduction

The CT007-F is a compact alpha, beta, gamma detector. This makes it suitable for identifying radioactive contamination. Unlike pancake Geiger-Mueller tube based instruments, it is light, compact, and durable. The CT007-F is sensitive enough to pick up the radiation from household items, but can still measure up to dangerous levels. It is easy to use and can even connect wirelessly to your phone. The phone provides a rich user interface and allows for time and date stamped data logging with GPS coordinates. The data can be logged to a file on your phone as well as optionally being logged to RadResponder.

On the back is the sensor with an alpha/beta shield. This shield can be closed to take gamma only measurements, or opened to reveal the sensor window and take alpha and beta readings. This shield also keeps the sensor safe during transport.

CT007-F runs on 2 standard AAA batteries.



Specifications (SN 100 and above)

Indicated Use: Contamination frisking, sample counting and surveying

Detector: Plastic scintillator and silicon photomultiplier

Measurement Units: User selectable (μSv , mRem or counts.)

Window: 4.2 cm^2 active area alpha, 5 cm^2 beta/gamma, aluminized mylar protected by aluminum screen

Sensitivity: ~ 200 CPM/ $\mu\text{Sv/h}$ (Cs-137)

Range: 0 to 20,000 $\mu\text{Sv/h}$, 2 Rem/h, 4,000,000 CPM (and higher but with reduced accuracy)

Response Time: User selectable from 1 to 30s or Auto. Display updates every second

Background: ~ 12 CPM

Local Display: 2.2 x 1.2 cm OLED. Font size automatically adjusts to display as many digits as needed.

Local Controls: One push button – short press ($< 2\text{s}$) to toggle screens; long press ($> 2\text{s}$) to enter/exit Sleep mode

Wireless Communication: Bluetooth Low Energy connecting to GammaGuard.

Batteries: 2 standard AAA batteries

Operating Time: 300 hours connected to GammaGuard, 130 hours if using local display.

Size: 5 x 9 x 2.4 cm (2 x 3.5 x 0.9 in.)

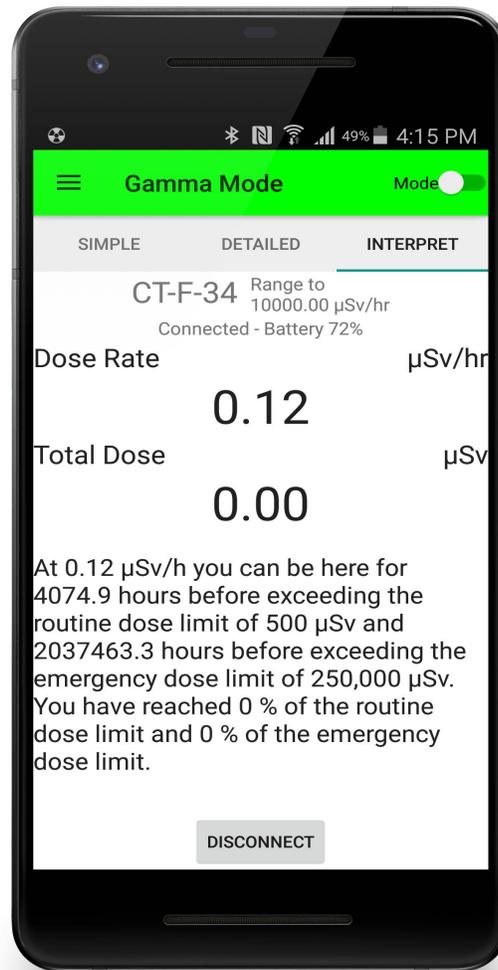
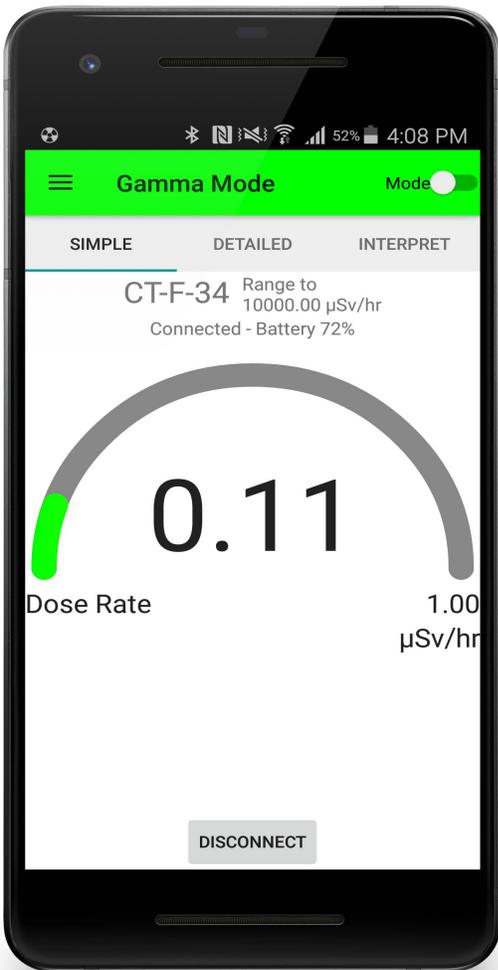
Weight: 80 g (including batteries)

The GammaGuard System

The CT007-F, like many of our other radiation detection instruments, connects to our smartphone application, GammaGuard.

The GammaGuard App:

- Provides a large, easy to read display.
- Has the ability to interpret readings for non-technical users.
- Uses one consistent user interface across all CT007 series detectors, so that there is only one system to learn.
- Can automatically save data to a file and upload data to a central database, facilitating coordinated incident response.
- Alerts the user to elevated radiation levels, even when you are performing other tasks and GammaGuard is running in the background.
- Displays the radiation level remotely when the CT007 series detector is up to 40 m away.
- Changes background from green, to yellow, to red, to indicate low, elevated, and high levels of radiation.



For more information
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