

## **GCA-07W** Digital Geiger Counter



# Only Our NRC Certified Geiger Counters Give Proven Accurate and Reliable Measurements

Not all Geiger Counters are the same? Many manufacturers are happy to compete on price, none of them want to compete with us on quality or accuracy.

Why? Because our NRC-ready to be "NRC Certified" Digital Geiger Counters can pass ANSI-STD N323A Calibration. Our NRC certified Geiger counters are sent to an independent licensed nuclear laboratory, conforming to Nuclear Regulatory Commission NRC regulations 10-CFR-34 and 10-CFR-35, where it passes the strict ANSI-STD N323A calibration standards.

## Our NRC Certification tells you the Geiger counter is as accurate as "accurate" can be!

With an NRC-certified Geiger counter, your radiation reading reports are authoritative and acceptable to governmental agencies.

#### **Product Features**

- DETECTS AND MEASURES: Alpha, Beta, X-ray and Gamma radiation.
- NRC CERTIFICATION READY NRC certification can only be given by U.S. Government licensed laboratory. The NRC certificate certifies that the radiation reading from the Geiger counter is accurate.
- COUNTING RESOLUTION AND RANGE: 1 Count Per Minute (CPM) 10000 Counts Per Second (CPS)
- RADIATION RESOLUTION AND RANGE: 0.001 mR/hr resolution / 1000 mR/hr Range (Imperial measurements); 0.01 uSv/hr resolution - 10 mSv/hr range (Metric)
- DETECTOR SENSITIVITY: Detects Alpha particles above 3 MeV in energy. GM tube has a thin mica window that allows alpha radiation to be detected. Beta radiation above 50 KeV; X-Ray and Gamma radiation above 7 KeV
- EASY TO READ LCD SCREEN with numeric display, intuitive function switches, software for printing out the results in a bar-graph format, low battery power indicator, and more!
- MOBILE, HANDHELD OPERATION: Case size 7.5" x 4.1" x 1.25". 9 Volt battery (not included) powered for mobile operation. A 110 VAC to 9V Wall transformer power supply is included.

The GCA-07W Digital Geiger Counters are NRC certification ready instruments.

The GCA-07W Geiger counter has an external wand that houses an LND 712 Geiger Mueller tube. The external wand makes it easier to search materials and surfaces for radioactivity.

#### **Applications:**

Education - Classroom demonstrations and nuclear experiments.

Emergency Services and Domestic Preparedness for nuclear accidents.

Compliance Verification and Radiation Screening for wastes and other materials.

#### Simple to Use:

Front switches allow easy use to set and read Digital Geiger counter. The LCD Display is a 16 character by 2 line that provides an easy-to-read digital output.

Imperial/Metric Switch selection allows GCA-07W Geiger counter to measure and convert radiation (counts per second) into in mR/hr (imperial) or mSv/hr (metric).

#### Time selection switch selects one of three operating modes:

- Counts Per Second (CPS) Real Time Display of Counts and Radioactivity
- 3-Second Average Counts Per Second (AVG) Average provides smoothing function similar to analog meters.
- Counts Per Minute (CPM) mode. For checking and measuring low level and background radiation.

All Digital Geiger Counters are factory calibrated and are NRC ready to insure an accurate measurement. NRC certification is available at an additional cost through the manufacturer.

**Data Output Jack:** Outputs either Serial Data (default) or TTL logic pulse for each radioactive particle detected. Jumper switch selection. The serial output, outputs a two-byte TTL serial signal that is the counts per second. For use with a USB/TTL adapter cable (not included) to our Windows PC Geiger Counter Graphing program (not included) for charting and recording the measured radiation over time.

**Secondary indicators**: audio (clicks) and visual (LED) included. Also includes a headphone jack and a power jack for external power.

The GCA-07 series detects background radiation as well as NORM (Naturally Occurring Radioactive Materials) and **TENORM** (Technologically Enhanced Naturally Occurring Radioactive Materials) objects in your environment.

Images SI Inc., manufacturing electronic instruments and kits for over 25 years.



Images Scientific Instruments, Inc.

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### **Again - Why Our NRC Certification is Important!**

While many Geiger counter manufacturers claim high accuracy for their Geiger counter, it simply is not true.

It is not enough to say an instrument is calibrated, or has an accuracy of 1%, 5%, 10%, or 20% because without a legitimate standard calibration reference, a claim of accuracy is meaningless.

Fortunately, there is a government approved Geiger Counter calibration standard, it is the ANSI-STD N323A. Passing this calibration standard certifies the accuracy of your Geiger counter instrument. The ANSI-STD N323A calibration should only be performed by a government licensed nuclear laboratory conforming to the Nuclear Regulatory Commission (NRC) regulations 10-CFR-34 and 10-CFR-35.

Without passing the ANSI-STD N323A calibration, you cannot be sure of any claim that a Geiger counter accuracy is valid. Below is a picture of a certification label for one of our Digital Geiger Counters. After passing ANSI-STD N323A calibration, a certification label is attached to the Geiger counter and this certification is valid for one full year.

If a manufacturer states their Geiger counter is accurate, ask, "Can your Geiger Counter pass ANSI-STD N323A calibration?" If not, their Geiger counter probably cannot pass this approved calibration standard. But many times, a representative will hedge their answer and state that the N323A calibration is expensive and is not "currently" offered as an option. Ask, "If I purchase your model and send the unit out for ANSI N323A calibration will it pass? And if it fails calibration, can I return the Geiger counter for a refund?" Their answer will tell you what you need to know to make a sound purchasing decision.

\* All GCA-07 and GCA-06 series of digital Geiger counters manufactured by Images SI Inc. can be NRC certified to their accuracy.

The new standard in radiation measurement.