



**Very Low Range  
ENVIRONMENTAL GAMMA COUNTER  
Model # LOGAM/LOGAM-ID**

**DESCRIPTION:** Model **LOW-GAM-ID** is an industrial measurement system. It includes a MCA spectrum analyzer measuring of gamma-emitting radio nuclides. The electronics are microprocessor with color LCD display. The pre-amps are plug in modules allowing change or addition of functions at a later date, and allow rapid repair by module replacement in the field. The modular system is covered by TA's unique exchange warranty system in addition to the full one year warranty. On-site warrantees available in many areas.

**Principal detectors** in this system.

Gamma flux is measured using a MCA analyzer with greater than 1,000 channels. The energy range is user settable. For example the MCA can be set for Gamma energy of 10 KeV to 3 MeV.

**Isotope Identification System**

Peak Detection and Isotope Identification

**TA SMART-PEAK™** Software detects radiation peaks even at very low gamma levels, In the event of high activity and during system calibration, the isotope identifier function takes over and displays the specific radioactive nuclides that constitute the source term.

**ENVIRONMENTAL GAMMA MONITORS**

**ULTRA SENSITIVE VERSATILE**

Designed around spectrum stabilizer TA/Overhoff proprietary technology. These high sensitivity gamma scintillation monitors are far more sensitive, yet physically much smaller than other competing instruments.

**SENSITIVITY**

The OTC LoGam gamma monitors will detect changes of less 1% of ambient terrestrial and cosmic radiation, over a wide temperature range. The standard sensitivity version measures as low as 1 $\mu$ R/h (.01  $\mu$ Sv/h) with good stability.

**TOP OF RANGE**

TOP of measurement range is 2 mR/h (20  $\mu$  Sv/h). Higher levels are available as an option.

**SIZE**

The tripod mounted sensor is compact, measuring 7" [178mm] diameter x 14" [356mm] long, excluding power supply module. The total package weighs only 18 lbs [8.2 kg].

**ENVIRONMENTAL**

The sensor package is waterproof and operates from 0° C to +50° C without drift in zero and change in span sensitivity.

**REMOTE CAPABILITY**

The standard LoGam is AC operated but is often installed in remote locations. Data can be stored at the site of the LoGam on compact flash memory cards or transmitted in real-time via RF link.

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**Data: Analysis-Display and Archive**

In each peak or area of interest, the net counts are automatically converted to dose rate units of uR/hr ( or nano Sv/h) (using the detector efficiencies automatically measured and stored previously by LOGAM-ID semi-automatic self-calibration procedure).

The concentration and total activity released and MDA levels are continuously calculated and recorded. This real time information will alert the notification system. Also, all data is saved to the flash drive in spreadsheet format.

Historical data is easily displayed on-screen (and/or printed out on the included graphics printer) in tabular or graphical format, showing quantitative information as well as trends. Data is recorded frequently so time-resolution is excellent.

Ethernet and USB ports (with security) make it easy to archive and further analyze data.

Continuous, Reliable Data – YES, False Alarms – NO

Our newest systems have multiple layers of protections and redundancy in both the software and the physical act of reporting an alarm, that prevent false alarms. This can include a optional alarm voting system so that alarms will come on only if all the data is consistent and conclusive The data is continuously recorded to allow human interpretation.

Each alarm activates fail-safe relays. Relay contacts are available to user.

Specialized software designed for Gamma Spectrum Detection and user friendly adaptability for your needs.  
Data from the 1024 channel MCA-Multi-channel analyzer is interfaced with a USB or Ethernet port.  
Full SCADA compatibility and SCADA.  
Optional MODBUS or other protocols.

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**AMBIENT TEMPERATURE:** 65 - 100 ° F (wider temperatures ranges optional)  
**OPTIONAL:** Cooler model Cool-33 for detector & sample is used in case of higher sample or ambient temperatures.

**MEASUREMENT, STANDARD SENSITIVITY VERSION**

**MEASUREMENT RANGE** 1-2000  $\mu\text{R/h}$  (0.01–20 $\mu\text{Sv/h}$  wider and/or higher ranges optional)  
**RESOLUTION AND ACCURACY (SPAN)** 10  $\mu\text{R/h}$  [0.1  $\mu\text{Sv/h}$ ]  
**STABILITY AND DRIFT** better than  $\pm 10 \mu\text{R/h}$  ( $\pm 0.1 \mu\text{Sv/h}$ )  
**DISPLAY** Graphic LCD with backlight

**DATA ACQUISITION**

**COMMUNICATION LINK** RS232 Serial Transmission  
**SOFTWARE** Complete user friendly data analysis, display and storage

**POWER**

**LoGam POWER** Li-Ion rechargeable battery pack, operates for 8 hrs with display off. (full charge). Recharges in 4 hours at 7.5V, 1A  
**POWER SUPPLY MODULE (OPTIONAL)** Input: 100-240VAC, 50-60Hz. Output: 7.5VDC, 3A max  
Internal NiMH battery, 6 cells, 9.5Ah. HPIC will operate for 24 hrs at full charge recharges in 8 hrs.

**ENVIRONMENTAL**

**TEMPERATURE, HUMIDITY** 0° C to +50° C, 99% RH  
**ENCLOSURE RATING** IP64, sealed against dust and water spray

**DIMENSIONS AND WEIGHTS**

**SENSOR HOUSING** 5" [127mm] Diameter x 12.6" [320mm] Long  
**SENSOR FRONT PANEL** 6.6" [168mm] Diameter x 0.5" [12mm] Thick  
**TRIPOD MOUNTING PLATE** 25" [635mm] L x 7" [178mm] W x 0.5" [12mm] Thick  
**WEIGHT** 12.5 lbs [5.7 kg]  
**ADJUSTABLE HEIGHT** 38" to 63" [96.6cm to 160cm] 9 lbs [4.1 kg]  
**POWER SUPPLY MODULE** 4.8" [122mm] H x 6.3" [160mm] W x 9.4" [239mm] L 5.5 lbs. [2.5 g]

**OPTIONS: Choose one of the following,**

**RADIO NETWORK** 1500ft [450M] up to 20miles [32.2km]  
**LOCAL DATA STORAGE** Data recording media; CF card, data capacity; 512M  
**SHIELDING AND COLLIMATORS**

**VERY LOW ACHIEVABLE DETECTION LEVELS  
MCA BASED GAMMA SPECTROMETRY COUNTER**