



The instrument is designed for portable or backpack application of radiation detection and monitoring in a variety of environments. The system is auto calibrated by natural photo peaks, consisting of a detector unit, integrated with GPS, and a data logger unit based on Android portable devices, such as a smart-phone, a tablet or a notebook. The detector can be equipped with a NaI(Tl) crystal of various volumes ranging from 0.347 liter up to 2 liters.

Benefits

- Recording of full spectra
- Real dose calculation from spectra
- RIID
- Automated synchronisation of data with GPS
- Real-time display of measures data
- Identification of man-made radionuclides
- Light-weight, portable and user-friendly device
- Built in Navigation function

Key Figures

50 keV - 3 MeV

↳ Gamma energy range

0.3L - 1L - 2L

↳ Detector Volumes

Specification Highlights

PGIS-2

- Detector Volume 0.347 L, NaI(Tl) (or BGO optional)
- Integrated GPS (external GPS receiver connection possible)
- Wireless Data Logger – Android based smart phone
- Removable handle
- Weight 5kg (11lb)

PGIS-2-1

- Detector Volume 1 L, NaI(Tl)
- Integrated GPS (external GPS receiver connection possible)
- Wireless Data Logger – Android based smart phone or tablet
- Shock absorbing detector case
- Weight 7.5kg (16.5lb)

PGIS-2-2

- Detector Volume 2 L, NaI(Tl)
- Integrated GPS (external GPS receiver connection possible)
- Wireless Data Logger – Android based smart phone or tablet
- Shock absorbing detector case
- Weight 12kg (26.5lb)



Technical Specification

| | |
|---|---|
| MCA Resolution | 8196 channels (DSP/FPGA Technology) |
| Channels in use | 256/512/1024 |
| Energy detection range | 50 keV to 3 MeV |
| Data handling | Individual detector processing and calibration |
| Differential nonlinearity | <0.1% |
| Integral nonlinearity | <0.01% |
| Gain stabilization | Automatic - Real time stabilization (1sec) |
| Dynamic throughput | Up to 250,000 cps per detector |
| Dead time | Virtually zero, achieved with digital pulse processing |
| Baseline restoration | Digital (IPBR) Individual Pulse Baseline Restoration. The baseline is established for each individual pulse for maximum pulse height accuracy |
| Pulse shaping | Digital Pulse Shaping |
| Pile up Rejection | Digital (<40nS) |
| Data processing | Data complies with NASVD processing requirements. Fully linearized output, the Poisson Distribution is unaffected. |
| Sampling rate | Dynamic mode: 1 sec; or Accumulation mode: selectable time |
| Power | Internal LI-Ion battery - 24 hours run time typical |
| Callibration | Automatic using natural background radiation, multi-peaks algorithm by statistic presence. No radioactive sources required |
| Dimensiond and weight | depends on a confi guration |
| System stabilization | Cold startup - less than 1 min |
| Data output | USB; Bluetooth |
| Radio Nuclide Identifi cation (RIID) | Norm · Industrial · Threat · Medical · Customizable |
| Control | High level of self-diagnostics |
| Software | Real time data acquisition, supporting software for data QC, visualization, export to ASCII (CSV), GIS, XML, or N 42.42 formats |
| Energy Resolution | 7.5% (at 662 keV) |