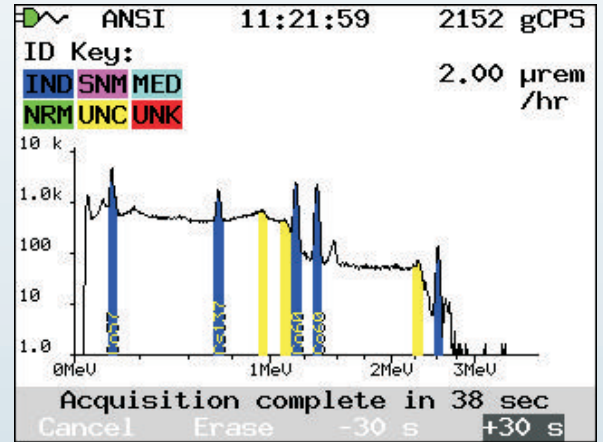
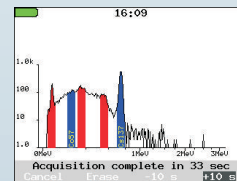


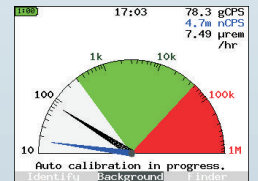
SAM Revealer



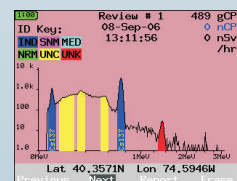
The LaBr₃ Advantage



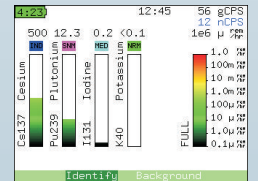
Analysis Mode



Easy Search



GPS Event Stamping



Multiple Isotopes in Real Time

Features

- Industry Leading Spectral Resolution
- No Warm Up or Waiting Period
- One Hand / One Glove Operation
- Network Ready with ANSI N42.42 Data Transmission
- Search and Confirm with One Instrument
- COTS Batteries for Rapid Deployment
- Highest Sensitivity and Response in Real Time
- Operates Accurately in High Background
- Auto Calibration and Stabilization with NORM

Applications

- Homeland Security
- Baggage and Cargo Screening
- Field Confirmation of Pager Alarms
- Customs and Border Protection
- Environmental Protection
- DHS / DNDO Reachback Support (ANSI)
- GPS Enabled Plume or Land Modeling
- GPS Enabled Perimeter Set-Up
- Fixed (Semi-Permanent) Monitoring with ID



2955 Kerner Blvd, San Rafael CA 94901
 Tel: 415-453-9955 Fax: 415-453-9956
www.berkeley-nucleonics.com

BNC**SAM****940**

Confidence factors when identifying radioactive materials are critical to a successful mission. To give your end users an edge over traditional identification methods, the latest in MCA and algorithm technology has been coupled with a new detector material for gamma ray collection. The SAM Revealer comes standard with a 1.5" x 1.5" lanthanum bromide detector (LaBr₃) and the QCC™ statistical enhancement transform which provides background subtraction in real time and therefore the highest degree of sensitivity. The SAM is designed to operate in any background (high or low), including Bremsstrahlung or Compton, with the interference subtracted in real time (one second or less). With this advanced identifier, your spectroscopic data collection, isotope identification and data analysis reporting are all automated with exceptional resolution. This large improvement in resolution also allows quick identification of mixed radionuclides, a typical problem with the overlapping peaks of lower resolution sodium.

Peak Resolution

One critical specification for gamma ray detectors is peak resolution. In nuclear spectroscopy, we often express the resolution as a percentage at 662 keV (cesium). For the SAM Revealer, the typical resolution is 2.8%. This is about 2.5 times better than sodium iodide detectors and therefore allows separation of many closely spaced peaks.



Padded Field Bag



One-Hand Operation

The Lanthanum Bromide Advantage

Because your applications for isotope identification vary, and user skill level varies, we offer several modes of operation. Training requirements are reduced by the handy user interface and color-coded isotope categories. A SAM Revealer Easy-Mode simplifies screening and identification activities. In cases where you are identifying special nuclear material or masked isotopes, enhanced peak separation as found in the SAM Revealer will be helpful in giving you high confidence reporting. For example, separating the conflicting and overlapping lines of multiple sources such as Cs137 and Th232, Cs137 and Ra226 or Co60 and Ra226, is challenging with low resolution detectors (6% or greater). Advanced algorithms can compensate for some of the shortfall, but high resolution from a LaBr₃ detector identification with a high degree of confidence. One of the best advantages of LaBr₃ is clearly seeing the gamma and x-ray peaks of plutonium. The one highly penetrating NaI peak of Pu239 is now clearly separated into three easily recognized peaks with LaBr₃. The first line responder can easily email the SAM Revealer data report (complete with GPS data, ANSI N42.42 compliant) to the appropriate scientific support center for further analysis. These enhanced spectra will be of great value to those responsible for evaluating and responding to critical situations.



Precision Instrumentation since 1963....

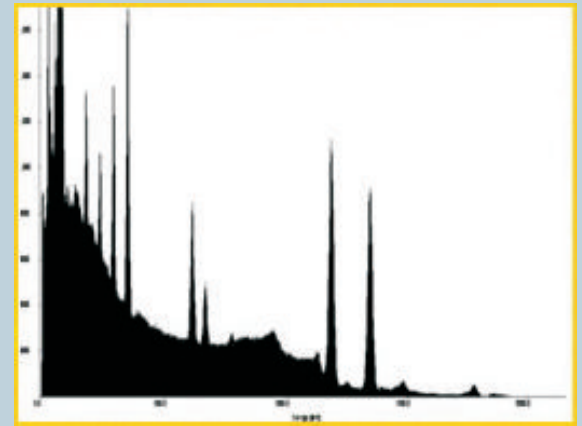
2955 Kerner Blvd, San Rafael CA 94901
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www.berkeleyelectronics.com

BNC**SAM****940**

A Lifetime of Spectroscopy

For over 40 years, Berkeley Nucleonics has worked in the nuclear instrumentation industry. Our earliest NIM instrumentation was used to test and develop multi-channel analyzers. Over the past decade, our application engineers and sales team has deployed thousands of radiation detection systems. Our detection and spectroscopy instrumentation include:

- (GM) Geiger Mueller Tubes
- (CsI) Cesium Iodide
- (NaI) Sodium Iodide
- (LaBr₃) Lanthanum Bromide
- (HPGe) High Purity Germanium
- (CzT) Cadmium Zinc Telluride
- (He3) Compressed Helium
- (Li6) Enriched Lithium



SAM Revealer: Improved Peak Separation for the Spectroscopist, Easy Answers for Interdiction Teams

This breadth of product line in radiation detection systems allows us to collaborate with customers in developing successful programs. In addition to the merits of each material technology, we are available to discuss operational issues, response protocols and reachback support options.

While some homeland security applications can benefit from having a HPGe detector, the large cooling system with long cool down times is not a practical solution for most missions. Checking luggage racks or screening pedestrians, for example, would be awkward using large HPGe systems but can be easily accomplished with the 4 pound SAM Revealer. Berkeley Nucleonics can provide you with a HPGe system for those infrequent situations where added verification is necessary. However, at 1/4 the cost of HPGe identifiers, the SAM Revealer fills a much needed gap in medium-resolution identifiers. Give us a call, we are happy to discuss your application details. 800-234-7858

Specifications

Detector	1.5"x1.5" LaBr ₃
Electronics	DSP MCA, Channel Compression
Power	8ea "AA" Batteries
Data Storage	CF Card, 10,000 Spectra
Temperature	Stabilized 0-50°C
Modes	User, Administrator (Locked)
Library	(SNM, Medical, NORM, ANSI, Industrial, User)
Response Time	<2 seconds, 10X less activity than Background
Energy Range	18 keV to 3MeV
Additional	see www.berkeley-nucleonics.com for full specifications

Ordering Information

Model	Model 940-2L Revealer
Hardware Options	GPS Module/Antenna
Software Options	Resident Mapping, Quantum Enhanced Software