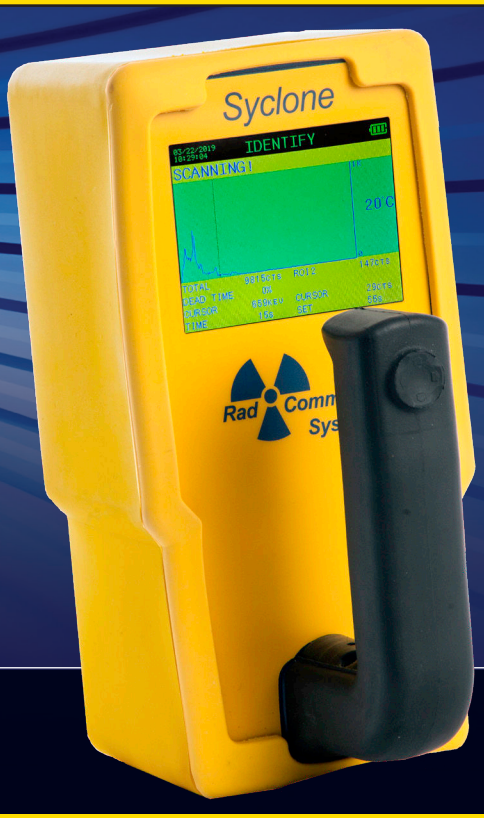
The SYCLONE is a highly sensitive handheld Gamma-Ray spectrometer capable of identifying single or multiple isotopes simultaneously. The SYCLONE also provides the user with various functions such as Search and Find, optional Neutron Detection, Nuclide ID, Dose Rates and accumulated Dose Rate.

- Large isotope library
- Lightweight with longer battery life
- RadView software for integration
- Large backlight display
- Automatic energy stabilization (no check source required)
- Easy to follow menus
- Large internal memory



SYCLONE

PORTABLE GAMMA-RAY SPECTROMETER (WITH OPTIONAL NEUTRON DETECTION)

Detect and identify specific radioactive isotopes in a sample

The SYCLONE Gamma-Ray spectrometer utilizes the highest quality Thallium doped Sodium Iodide crystal, combined with an integral high signal-to-noise ratio PMT and state-of-the-art electronics and embedded micro controller firmware. All of these enhanced features allow the SYCLONE to be one of the most accurate portable Gamma-Ray spectrometers when it comes to identifying specific and/or multiple isotopes even with weak gamma sources. The mechanical assembly of the SYCLONE is robust and designed for field applications where harsh environments are commonplace.

Simplified and Flexible

The SYCLONE operating system utilizes sensible easy to read and follow menus. The multi-position joystick and large LCD backlit display provides easy navigation through menu selections. Detailed spectral information is clearly and precisely displayed so knowledgeable users have the ability to visually identify peaks in the histogram. Various on-screen messages assist the user when immediate attention is required for issues such as preset timing, high radiation levels, alarm settings and warning messages.

Remote SYCLONE PC Spectral Analysis and Data Storage Software

The SYCLONE is equipped with a high capacity internal memory that allows large amounts of data to be stored by record number, date and time. Stored data such as spectral and dose rate information can be easily downloaded to a PC via a mini USB or Bluetooth (optional). The downloaded data can then be displayed and managed with RadComm's exclusive RadView software. Primary features such as the selection and highlighting of Region Of Interest (R.O.I.) details and Zoom In/Out of the gamma energy histogram can be easily performed. The SYCLONE PC software has all the necessary features that will meet the needs of virtually any user.

SYCLONE
PORTABLE GAMMA-RAY SPECTROMETER

Size
- Detector Dimensions: 5.9" H(15cm) x 8.25" L(21cm) x 4" W(10cm)
- System weight: 3.6lbs (1.6kg)
- Detector case: Durable plastic with protective silicone sleeve

Electronics
- Integral PMT with EM shielding
- High speed DSP circuitry with High SNR
- Ultra stable high voltage
- Software adjustable
- Mini USB port. Optional bluetooth
- Battery: Internal Lithium Ion rechargeable.
- Operating time: 8 hrs. Optional external battery pack

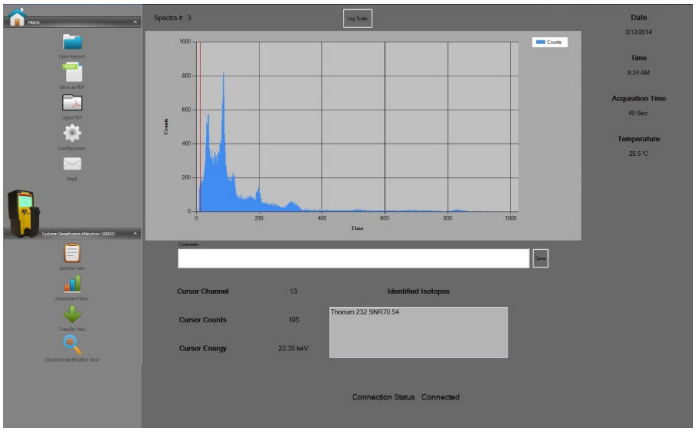
Environmental
- Operating Temperature: -20°C (-4°F) to +60°C (140°F)
- Relative Humidity: 93% non-condensing at 40°C (104°F)
- Shock Resistance: Complies with ANSI N42.34
- EM Compliance: Complies with ANSI N42.34 and CE requirements for safety RFI and EMI directives FCC CFR47, Part 15, Subpart B, Class B compliant

Display
- Backlit RGB color LCD 320x240 resolution
- Viewing area: 3.5"(8.9cm) TFT LCD

Software
- Windows™ based Syclone application software
- Easy to use menu driven interface
- Configurable data storage with backup
- Emailing capability with network connection
- Data storage - 100,000 Dose Rate samples/498 Spectra
- Data format complies with ANSI N42.42
- RadView software for integration

Spectrometer Specifications
- Gamma NaI - Size 1.5" (38mm) x 2" (51mm)
- Geiger-Mueller, size 0.59"(12mm) x 1.9" (45mm)
- Energy Resolution 8.0% or better for of 662 KeV
- Energy Range: 30 KeV to 3.0 MeV (Gamma)
- Optional Neutron Detector - Sensitivity - 5.1 CPS/NV
- System Calibration Software Monitor with Operator Alert
- Accumulate dose up to 5 Sv, custom increase
- Automatic stabilization via internal K-40
- Manual stabilization via 0.25 uCi Cs-137 source
- Gamma Spectrum - 1024 Channels, channel capacity 16 bits
- Correction - non-linear energy calibration
- Preset time - up to 5400 sec.

RadView Analysis Software



RADCOMM
RADIATION DETECTION SYSTEMS

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587-689-6811
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APPENDIX B – NUCLIDE LIBRARIES

The current list of nuclides in the Standard Library are:		
Name	**Label**	**Type of Isotope**
Am-241	Americium-241	I
Ba-133	Barium-133	I
Co-57	Cobalt-57	I
Co-60	Cobalt-60	I
Cs-134	Cesium-134	I
Cs-137	Cesium-137	I
Eu-152	Europium-152	I
Ga-67	Gallium-67	M
I-131	Iodine-131	M
Ir-192	Iridium-192	I
K-40	Potassium-40	N
Np-237	Neptunium-237	S
Pu-239	Plutonium-239	S
Ra-226	Radium-226	N
Tc-99m	Technetium-99m	M
Th-232	Thorium-232	N
Tl-201	Thallium-201	M
U-235	Uranium-235	S
U-238	Uranium-238	N
U-MIX	Uranium-MIX	N

Labels in columns

I= Industrial, M=Medical, S=SNM, N=NORM

The current list of nuclides in the Medical library are:		
Name	**Label**	**Type of Isotope**
Au-198	Gold-198	M
Cr-51	Cromium-51	M
Ga-67	Gallium-67	M
I-123	Iodine-123	M
I-125	Iodine-125	M
I-131	Iodine-131	M
In-111	Indium-111	M
Ir-192	Iridium-192	I
K-40	Potassium-40	N
Ra-226	Radium-226	N
Sn-113	Tin-113	M
Tc-99m	Technetium-99m	M
Th-232	Thorium-232	N
Tl-201	Thallium-201	M
U-235	Uranium-235	S
U-238	Uranium-238	N
V-48	Vanadium-48	M
W-188	Tungsten-188	M

Labels in columns

I= Industrial, M=Medical, S=SNM, N=NORM

The current list of nuclides in the Waste library are:		
Name	**Label**	**Type of Isotope**
Au-198	Gold-198	M
Cr-51	Cromium-51	M
Ga-67	Gallium-67	M
I-123	Iodine-123	M
I-125	Iodine-125	M
I-131	Iodine-131	M
In-111	Indium-111	M
Ir-192	Iridium-192	I
K-40	Potassium-40	N
Lu-177	Lutetium-177	M
Lu-177m	Lutetium-177m	M
Ra-226	Radium-226	N
Sn-113	Tin-113	M
Tc-99m	Technetium-99m	M
Th-232	Thorium-232	N
Tl-201	Thallium-201	M
U-235	Uranium-235	S
U-238	Uranium-238	N
V-48	Vanadium-48	M
W-188	Tungsten-188	M

Labels in columns

I= Industrial, M=Medical, S=SNM, N=NORM

The current list of nuclides in the CustPP01 library are:		
Name	**Label**	**Type of Isotope**
Ar-41	Argon 41	I
Ce-141	Cerium 141	I
Ce-144	Cerium 144	I
Co-58	Cobalt 58	I
Fe-59	Iron 59	M
Kr-88	Krypton 88	I
Nb-95	Niobium 95	I
Rh-106	Rhodium 106	I
Ru-103	Ruthenium 103	M
Sb-124	Antimony 124	M
Sb-125	Antimony 125	M
Xe-135	Xenon 135	S
Zn-65	Zinc 65	M
Zr-95	Zirconium 95	I

Labels in columns

I= Industrial, M=Medical, S=SNM, N=NORM

The current list of nuclides in the USER library are:		
Name	**Label**	**Type of Isotope**
Eu-152	Europium	I
K-40	Potassium 40	N
Mn-54	Manganese	I
Na-22	Sodium	I
Pu-239	Plutonium 239	S
Ra-226	Radium 226	N
U-233	Uranium	S
U-235	Uranium 235	S
U-238	Uranium 238	I
U-mix	Uranium mix	S

Labels in columns

I= Industrial, M=Medical, S=SNM, N=NORM

Note: Currently RadComm has no plans to permit users to modify the libraries as library development is so complex that modifications can easily unbalance the analysis capability of the system and significantly degrade its performance. However we will readily work with users to develop an appropriate library to fulfill their special requirements.