### Specifications

<table>
<thead>
<tr>
<th></th>
<th>oreXpress™</th>
<th>SR-6500</th>
<th>RS-5400</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Spectral Range</strong></td>
<td>350–2500nm</td>
<td>350–2500nm</td>
<td>350–2500nm</td>
</tr>
<tr>
<td><strong>Spectral Resolution</strong></td>
<td>2.8nm (350–1000nm)</td>
<td>1.5nm (350–1000nm)</td>
<td>2.5nm (350–1000nm)</td>
</tr>
<tr>
<td></td>
<td>8nm @ 1500nm</td>
<td>3nm @ 1500nm</td>
<td>5.5nm @ 1500nm</td>
</tr>
<tr>
<td></td>
<td>6nm @ 2100nm</td>
<td>3.8nm @ 2100nm</td>
<td>5.8nm @ 2100nm</td>
</tr>
<tr>
<td><strong>Spectral Sampling Bandwidth</strong></td>
<td>Data output reported in 1nm increments; 2151 channels reported</td>
<td>Data output reported in 1nm increments; 2151 channels reported</td>
<td>Data output reported in 1nm increments; 2151 channels reported</td>
</tr>
<tr>
<td><strong>Si Detectors</strong></td>
<td>512 element Si array (350–1000nm)</td>
<td>1024 element Si array (350–1000nm)</td>
<td>1024 element Si array (350–1000nm)</td>
</tr>
<tr>
<td><strong>InGaAs Detectors</strong></td>
<td>256 element extended wavelength array (1000–1900nm)</td>
<td>512 element extended wavelength array (1000–1630nm)</td>
<td>512 element extended wavelength array (1000–1630nm)</td>
</tr>
<tr>
<td></td>
<td>256 element extended wavelength array (1900–2500nm)</td>
<td>512 element extended wavelength array (1630–2500nm)</td>
<td>512 element extended wavelength array (1630–2500nm)</td>
</tr>
<tr>
<td><strong>FOV Options</strong></td>
<td>Fiber mount only 1,2,3,4,5,8,10°</td>
<td>Fiber mount only 1,2,3,4,5,8,10°</td>
<td>Fiber mount only 1,2,3,4,5,8,10°</td>
</tr>
<tr>
<td><strong>Minimum Scan Speed</strong></td>
<td>100 milliseconds</td>
<td>100 milliseconds</td>
<td>100 milliseconds</td>
</tr>
<tr>
<td><strong>Wavelength Reproducibility</strong></td>
<td>±0.1nm</td>
<td>±0.1nm</td>
<td>±0.1nm</td>
</tr>
<tr>
<td><strong>Wavelength Accuracy</strong></td>
<td>±0.5 bandwidth</td>
<td>±0.5 bandwidth</td>
<td>±0.5 bandwidth</td>
</tr>
<tr>
<td><strong>Communications Interface</strong></td>
<td>USB, Bluetooth</td>
<td>USB, Bluetooth</td>
<td>USB, Bluetooth</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>8.5 x 12.3 x 3.5 in (21.6 x 30.5 x 8.9 cm)</td>
<td>12.4 x 7.4 x 4.4 in (31.5 x 19 x 11 cm)</td>
<td>12.4 x 7.4 x 4.4 in (31.5 x 19 x 11 cm)</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>7.3 lbs (3.31 kg)</td>
<td>11 lbs (4.99 kg)</td>
<td>11 lbs (4.99 kg)</td>
</tr>
<tr>
<td><strong>Battery</strong></td>
<td>External Lithium ion; 7.4V</td>
<td>External Lithium ion; 7.4V</td>
<td>External Lithium ion; 7.4V</td>
</tr>
<tr>
<td><strong>Battery Operation</strong></td>
<td>Minimum 3 hour operation</td>
<td>Minimum 3 hour operation</td>
<td>Minimum 3 hour operation</td>
</tr>
</tbody>
</table>

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**About SPECTRAL EVOLUTION**

Established in 2004, SPECTRAL EVOLUTION is a leading manufacturer of laboratory and handheld portable spectrometers, spectroradiometers and spectrophotometers for lab and field applications in mining, remote sensing, materials identification and QC, satellite calibrations, and more. Visit us at: [www.spectralevolution.com](http://www.spectralevolution.com)

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oreXpress, SR-6500 and RS-5400 are essential tools for accurate mineral identification and analysis

oreXpress™, SR-6500 and RS-5400 spectrometers deliver the benefits of a full range NIR spectrometer to the geologist in the field. With an oreXpress, SR-6500 or RS-5400 geologist can get an accurate idea of what they are looking at, quickly scan samples, and cover more ground in less time and at less expense than using traditional field methods. They can identify different mineral phases, work up forensics on an area, and understand more clearly what’s there.

The oreXpress features a rugged design with no moving optical components for reliable field operation. The RS-5400 delivers higher resolution and high sensitivity. The SR-6500 delivers ultra-high resolution to more accurately see additional features that help with unmixing and identification.

With EZ-ID™ real-time mineral identification software, the oreXpress, SR-6500 and RS-5400 facilitate identification of critical alteration minerals for better interpretation and a more profitable approach to drilling. Targeting the most promising areas before drilling begins can eliminate unnecessary drilling costs and quickly pay back the investment on the oreXpress, SR-6500 or RS-5400.

Used in a core shack, the oreXpress, SR-6500 and RS-5400 can eliminate unnecessary assays on cores that show no potential and reduce the time logging takes and allow geologists to build a digital archive.

What are you looking for?
Use the oreXpress, SR-6500 or RS-5400 with EZ-ID to identify minerals across a range of deposit types including epithermals, porphyry, kimberlites, carbonate hosted base metals, shear veins, skarns, and disseminated systems.

Gold
Low sulfidation deposits: ilite, kaolinite, chlorite, illite/smectite, bournonite, montmorillonite, zeolite, quartz, calcite, hematite
For high sulfidation: alunite, opal, dickite, pyrophylite, diaspore, jennite, tourmaline, calcite, goethite, jarosite, hematite
For orogenic gold: muscovite, paragonite, muscovite, roscoelite, ilite, kaolinite, quartz, siderite, ankerite, calcite, dolomite, carbonates

Copper
Porphyry copper: tourmaline, muscovite, alunite, kaolinite, jarosite, goethite, hematite, chalcanthite
Oxidized BMA (leach cap): mica, jarosite, alunite, kaolinite
Oxidized phyllic: alunite, kaolinite, jarosite, copper sulfate overprinting muscovite
Potassic: muscovite, montmorillonite, sodium alunite

Nickel
Nickel in latent ore deposits: nickeliferous limonite, goethite, smectite, montmorillonite, garnierite

Uranium
Uraninite, sericite, dickite, chlorite, kaolinite, illite, pyrite, clinochlore
Our field spectrometers and spectroradiometers save your scans as ASCII files for use with 3rd party software such as:

- GRAMS is a software suite for visualizing, processing, and managing spectroscopic data with tools to capture, process, and report data, plus a graphical multivariate analysis tool for qualitative and quantitative analysis.

- TSG® is a tool for geological analysis of spectral reflectance data of minerals, rocks, and soils. With this software you can organize all your data as part of a project data set for more effective analysis.

oreXpress, SR-6500 and RS-5400 Ultra-high Resolution Spectrometer
The SR-6500 has the highest resolution available in a field spectrometer:
- 1.5nm @ 350-1000nm
- 3.0nm @ 1500nm
- 3.8nm @ 2100nm
High resolution and high sensitivity allow a geologist to see more features in a scan for more accurate mineral identification, unmixing of multi-mineral samples, and better mineral analysis. The large scan at right shows a sample (blue line) matched to a high resolution library spectra (red line) of talc with match regions set up for the most prominent features. The inset shows a closeup of the talc sample scan (in blue) taken with the SR-6500 showing a triplet at 1400nm versus a scan taken with a standard field spectrometer (in green), showing a single absorption feature.

oreXpress, SR-6500 and RS-5400 are the instruments of choice for fast and accurate core logging. Spectra can be collected and minerals identified in real-time with EZ-ID or stored for later chemometric analysis using 3rd party software.

Many accessories are available including the benchtop reflectance probe with a scratch resistant sapphire window and a sample compactor for working with chips and powders, and the ILM-660 for use with the SR-6500.

oreXpress, SR-6500 and RS-5400 spectrometer packages include optional SPECTRAL EVOLUTION EZ-ID mineral identification software that allows a geologist to compare a target scan against a spectral library (USGS or optional SpecMIN or GeoSPEC High Resolution Library), or build a custom, special purpose library. With EZ-ID, you can compare unknown mineral samples to a library, using various algorithms to provide more accurate matches. You can select different spectral regions depending on the absorption features of interest and view multiple match region score columns. EZ-ID also provides spectral scalars to better understand crystallinity changes, alteration patterns and geological conditions. With EZ-ID, a geologist can scan and identify samples very rapidly—this is an exceptional tool for core shack logging as well as field measurements. EZ-ID is available with the following libraries:
- USGS: 469 spectra for 229 minerals
- SpecMIN: 1528 spectra for 494 minerals
- GeoSPEC High Resolution Library: 688 spectra for 237 minerals

Aluminum oxide-based mineral contact probe
10mm or 3MM (Miniprobe) contact probes
Benchtop reflectance probe with sample compactor
ILM-660 illumination source and sample holder for use with the SR-6500
Backpack for field measurements
Lithium-ion batteries for field power
Foam lined Pelican case for shipping

www.spectralevolution.com

With the ALGIZ® 8X rugged tablet it is easy for one person to carry and operate in the field for rapidly collecting spectra on outcrops, blast hole chips, and hand samples. The ALGIZ 8X operates DARWin LT software and runs on Windows 10.