	oreXpress	Sectral evolution	Sectral evolution Cartesian
	oreXpress	oreXplorer	oreXpert
Spectral Range	350-2500nm	350-2500nm	350-2500nm
	2.8nm (350-1000nm)	2.7nm (350-1000nm)	1.5nm (350-1000nm)
Spectral Resolution	8nm @ 1500nm	5.5nm @ 1500nm	3nm @ 1500nm
	6nm @2100nm	5.8nm @2100nm	3.8nm @2100nm
Spectral Sampling Bandwidth	Data output reported in 1nm increments 2151 channels reported	Data output reported in 1nm increments 2151 channels reported	Data output reported in 1nm increments 2151 channels reported
Si Detectors	512 element Si array (350–1000nm)	1024 element Si array (350–1000nm)	TE-cooled 1024 element Si array (350–1000nm)
InGaAs Detectors (TE-cooled)	256 element extended wavelength array (1000–1900nm)	512 element wavelength array (1000 – 1630nm)	512 element wavelength array (1000 – 1630nm)
	256 element extended wavelength array (1900-2500nm)	512 element extended wavelength array (1630-2500nm)	512 element extended wavelength array (1630-2500nm)
Minimum Scan Speed	100 milliseconds	100 milliseconds	100 milliseconds
Wavelength Reproducibility	0.1nm	0.1nm	0.1nm
Wavelength Accuracy	±0.5 bandwidth	±0.5 bandwidth	±0.5 bandwidth
Communications Interface	USB, Bluetooth	USB, Bluetooth	USB, Bluetooth
Size	8.5x 12x 3.5 in (21.6x30.5x8.9 cm)	12.4x8.7x4.4 in (31.5x22.9x38.7cm)	12.4x8.7x4.4 in (31.5x22.9x38.7cm)
Weight	8.9 lbs (4 kg)	14 lbs (6.3 kg)	14 lbs (6.3 kg)
Battery	External Lithium ion; 7.4V	External Lithium ion; 7.4V	External Lithium ion; 7.4V
Battery Operation	Minimum 3 hour operation	Minimum 3 hour operation	Minimum 3 hour operation



# Gold, Copper, Lithium, Nickel,...

# **Field Portable Spectrometers** for Real-time Mineral Analysis

#### 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.

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# SPECTRAL EVOLUTION

### We help you find all these and more !!!

### We help you find what you are looking for...

#### Identify minerals in the field in real time

With Spectral Evolution portable spectrometers and the EZ-ID software, geologists can measure and identify samples in seconds, and cover more ground in less time than by using traditional field methods. They can identify different mineral phases, work up mineral alteration maps, and more accurately identify mineral pathfinders for vectoring to ore deposits.

Our selection of probes and light sources allows you to analyze minerals in a variety of shapes and sizes such as core samples, chips, and powders. You can even identify small veins with our 3mm spot-size mini-probe.

With the **EZ-ID mineral identification software** you can:

- Instantly match a target scan against libraries of more than 1,100 known minerals
- Select match regions to focus on particular spectral features and mineral unmixing
- Use scalars to better understand crystallinity changes, alteration patterns and geochemical conditions
- Interface with prediction engines for quantitative chemometrics analysis.

#### Looking for Gold, Silver, Copper, Nickel, Lithium, Uranium?

Our portable spectrometers and mineral software libraries will identify minerals across a wide range of deposit types including epithermals, porphyries, kimberlites, carbonate hosted base metals, shear veins, skarns, and disseminated systems.

### **Maximize efficiency and throughput**

With real-time mineral identification in the field, you can explore more territory and make more informed decisions on where to drill and maximize exploration outcomes.

In the core shack you can map alteration and eliminate unnecessary assays on cores that show no potential, reduce the time logging takes and build a digital archive of your results.

## **Portable, Rugged, and Accurate Spectrometers**

### **Rugged & Portable for Field Use**

The oreXpress, oreXplorer and oreXpert spectrometers are specifically designed for the harsh requirements of field use. A rugged design with no moving optical components means reliability for field operation. All spectrometers are **portable** and can be carried in a backpack. A **wireless Bluetooth** connection allows you to interface with a tablet or laptop, for real-time analysis in the field. A lithium-ion battery provides a geologist with hours of data collection in the field.

#### When accuracy matters

The oreXpress provides quick reliable mineral analysis with a standard resolution of 3nm.

features.

The oreXpert is the highest resolution spectrometer on the market. Its 1.5nm resolution allows the distinction of features that help with unmixing and identification of trace minerals.





Our rugged 8" screen tablet runs on Windows 10 and comes loaded with DARWin spectral acquisition software.

t connects to the spectrometer via Bluetooth or USB for instant data visualization and analysis in the field.



Our 3 and 10mm spot-size contact probes are rugged and reliable, with built-in 5W halogen light sources and an ergonomic design for comfortable field use.

They are interchangeable and compatible with all Spectral **Evolution spectrometers.** 



The benchtop reflectance probe has a scratchresistant sapphire window and a sample compactor for working with chips and powders.



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- The oreXplorer delivers higher resolution and sensitivity for identifying hard-to-unmix minerals with similar

The ILM-660 is a 40W tungstenhalogen illumination source with a removable sapphire window and petri dish for samples.

