

# SVC

## HR-768i™

### High Resolution Field Portable Spectroradiometer

Superior data quality provided by the SVC HR-768i coupled with the ability to collect and review data without an external computer make the SVC HR-768i one of the best instruments available for field applications. The internal CPU coordinates the spectral data collection as well as functions provided by the internal GPS, onboard digital camera and second Bluetooth radio for communication with external sensors. The SVC HR-768i is the basis of the multi-sensor data collection system.

The use of 100% linear array detectors ensures excellent wavelength stability, while the thermoelectrically cooled InGaAs and extended InGaAs detectors provide superior radiometric stability.

Fixed foreoptics and hard-mounted internal spectrometer elements combine to produce a robust and efficient optical path, ensuring reliable data under the most demanding field conditions. The internal CPU enables a full day's data to be acquired, displayed and recorded with no external computer. The SVC HR-768i firmware/software automatically record the longitude, latitude and time of day from the internal GPS receiver, and a digital photograph is stored as a separate linked file for each spectral measurement. This greatly eases record keeping in the field while providing positive, coded identification for subsequent data analysis.

The SVC HR-768i, weighing only 8.5 pounds, is the lightest and the most portable field spectroradiometer providing this full range of features.

The system is available with optional foreoptics and fiber optic bundles that are easily changed in the field. The spectroradiometer system is furnished in a durable, waterproof field case.

#### Rugged PDA

The SVC HR-768i is furnished with two versions of SVC's proprietary software. One operates with PCs and laptop computers running Windows Operating Systems. The second supports PDAs running operating systems including Windows Mobile. The rugged PDA provided with the SVC HR-768i is an extremely durable, reliable, and lightweight unit. It is waterproof and drop resistant to IP67 and MIL-STD-810F ratings and provides 10+ hours per charge.

The compact size and sunlight readable display contribute to ease of operation when acquiring and reviewing collected spectral data. Non-volatile flash memory guards against the loss of valuable field data while the RS-232 port provides optimum connectivity in the field or in the lab. The Bluetooth wireless communication streamlines field data collections. SVC offers other optional, rugged laptops, tablets and mobile devices.

**SVC** Spectra Vista Corporation

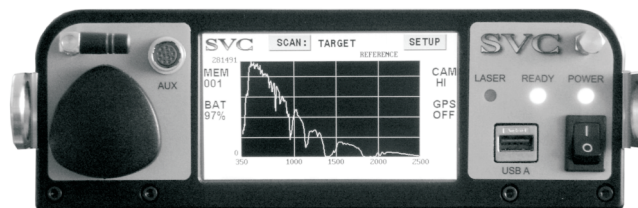
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# SVC *HR-768i*™

<b>Spectral Range</b>	350-2500 nm
<b>Internal Memory Channels</b>	1000 scans 768
<b>Linear Array</b>	(1) 512 Si, 350-1000 nm (1) 128 InGaAs, 1000-1890 nm (1) 128 Extended InGaAs, 1890-2500 nm
<b>Spectral Resolution (FWHM)</b>	≤ 3.3 nm, 700 nm ≤ 16 nm, 1500 nm ≤ 14 nm, 2100 nm
<b>Bandwidth (nominal)</b>	≤ 1.5 nm, 350-1000 nm ≤ 7.6 nm, 1000-1890 nm ≤ 5.0 nm, 1890-2500 nm
<b>Minimum Integration</b>	1 millisecond
<b>FOV</b>	4° standard, 8° or 14° optional 25° optional armored fiber optic
<b>Head Size</b>	8.75" x 11.5" x 3.0" 22 cm x 29 cm x 8 cm
<b>Instrument Weight</b>	8.5 lbs., 3.8 kg
<b>Battery Type</b>	7.4 V lithium ion
<b>Battery Life</b>	3 hours approx.
<b>Digitization</b>	16 bit
<b>Wavelength Repeatability</b>	0.1 nm
<b>Noise Equivalent Radiance (1.0 sec scan)</b>	≤ 0.8 x 10 <sup>-9</sup> W/cm <sup>2</sup> /nm/sr @ 700 nm ≤ 1.2 x 10 <sup>-9</sup> W/cm <sup>2</sup> /nm/sr @ 1500 nm ≤ 1.2 x 10 <sup>-9</sup> W/cm <sup>2</sup> /nm/sr @ 2100 nm
<b>Radiometric Calibration Accuracy (NIST Traceable)</b>	± 5% @ 400 nm ± 4% @ 700 nm ± 7% @ 2200 nm
<b>Dark Current Correction Spectrum Averaging</b>	automatic automatic/selectable
<b>Operating Environment Humidity</b>	to 90% RH, non-condensing
<b>Temperature</b>	-10° to +40° C
<b>Sighting</b>	diode laser



**WATERTIGHT  
FIELD CASE**



**STAND-ALONE INSTRUMENT CONTROL PANEL**

## Features

- One half the size and weight of other field spectroradiometers
- Full spectral measurements can be acquired in 1 second
- Internal digital camera captures scene of target area
- Internal GPS provides time and location coordinates for each data file
- QVGA sunlight readable touch screen provides graphic data display
- Dedicated Bluetooth can receive data from 16 channel (optional) sensor suite
- Provides good spectral resolution across the full spectral region
- Incorporates 100% linear array technology and cooled InGaAs detectors for superior wavelength and radiometric stability
- State of the art linear arrays provide low noise (improved data) across the 350 nm to 2500 nm range
- Fixed foreoptics ensure a reliable optical path
- Critical optical components are hard mounted to the spectrometer platform
- Provides fast, full spectral measurements with no moving gratings
- Internal 32-bit CPU allows measurements to be acquired and viewed without an external computer
- Designed for minimal set-up & warm-up time
- Internal memory stores 1000 measurements
- Supplied with rugged PDA and Bluetooth for wireless operation
- Field-changeable fiber optic light guide options available
- Integral, removable Lithium Ion battery enhances mobility (no power cord)
- Optional Foreoptics, Fiber Optic Light Guides, Reflectance Probe, Cosine Receptors, Back Pack, Reflectance Panels, Spheres, and Computers are available

## Applications

- Vegetative Stress Analysis
- Forestry Analysis
- Land and Crop Management
- Marine and Wetland Studies
- Environmental Monitoring
- Geological Studies
- Drill Core Analysis
- Ground Truthing
- Industrial QC and Process Control
- Surface Color Measurements

