

# SVC

## HR-768si

### High Resolution Field Portable Spectroradiometer

The SVC HR-768si produces the same superior data quality and high spectral resolution as the SVC HR-1024i, while covering the spectral range from 350nm to 1900nm. The onboard LCD provides the scientist with an instantaneous graphic display of the measurement without need for a separate computer or PDA. The internal digital camera captures the image of the target area for reference during data analysis, while the built-in GPS acquires the location of the instrument and writes the coordinates to memory.

The durable SVC HR-768si incorporates two Bluetooth radios. The first is used to facilitate instrument control and data transfer to a notebook computer, tablet or PDA. The second Bluetooth is provided to communicate with external sensors such as single wide-band or narrow multi-band downwelling detectors. The SVC HR-768si is engineered to be the central device integrating target images, GPS location, time and external sensor inputs with high resolution spectral data.

The use of 100% linear array detectors ensures excellent wavelength stability, while the thermoelectrically cooled InGaAs detector array provides superior radiometric stability. Every design element of the SVC HR-768si reflects a complete understanding of the demands of field data collection. Fixed foreoptics and hard-mounted internal spectrometer elements provide a robust optical path. This ensures the SVC HR-768si will deliver reliable data under the most demanding field campaigns for years to come. The internal CPU enables a full day's data to be taken without an external computer, allowing the operator to concentrate on the subject and produce full spectral acquisitions with associated images in seconds. The system is available with optional foreoptics, spheres and fiber optic bundles that are easily changed in the field. All system components are furnished in a durable, waterproof field case.

#### Rugged PDA with Bluetooth

The SVC HR-768si 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-768si is an extremely durable, reliable, and lightweight unit. It is waterproof and drop resistant to IP67 and MIL-STD-810F ratings and provides up to 10 hours operation 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 and USB ports provide optimum connectivity in the field or in the lab. The Bluetooth wireless communication streamlines field data collections, operating up to 100 meters. SVC offers other optional, rugged laptops, tablets and mobile devices.



**SVC** Spectra Vista Corporation

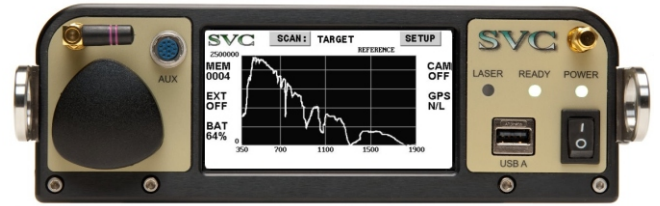
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# SVC *HR-768si*<sup>TM</sup>

<b>Spectral Range</b>	350-1900 nm
<b>Internal Memory</b>	1000 scans
<b>Channels</b>	768
<b>Linear Array</b>	(1) 512 Si, 350-1000 nm (1) 128 InGaAs, 1000-1900 nm
<b>Spectral Resolution (FWHM)</b>	3.5 nm, 700 nm 9.5 nm, 1500 nm
<b>Bandwidth (nominal)</b>	1.5 nm, 350-1000 nm 3.8 nm, 1000-1900 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>	7.8 lbs., 3.5 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
<b>Radiometric Calibration Accuracy (NIST Traceable)</b>	± 5% @ 400 nm ± 4% @ 700 nm ± 5% @ 1500 nm
<b>Dark Current Correction</b>	automatic
<b>Spectrum Averaging</b>	automatic/selectable
<b>Operating Environment</b>	
<b>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 8 channel (optional) sensor suite
- Provides exceptional spectral resolution across the full spectral region
- Incorporates 100% linear array technology and cooled InGaAs detector for superior wavelength and radiometric stability
- State of the art linear array provide low noise (improved data) across the 350 nm to 1900 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
- Ocean Color Studies
- Ground Truthing
- Industrial QC and Process Control
- Surface Color Measurements

