

# ILT560

## Miniature, portable spectroradiometer series



The ILT560 comes with a SMA905 receptor as standard, allowing it to be used with all of the ILT950 spectroradiometer accessories including the R4 Right angle adapter, mini and standard diffusers, fiber optics, 2, 5 and 10 inch integrating spheres.

Each input optic requires its own unique calibration.

Standard and optional accessories can be combined to allow measurement of total flux (W,lm), irradiance (W/cm<sup>2</sup>), radiance (W/sr/cm<sup>2</sup>), colorimetry, luminance (cd/m<sup>2</sup>), illuminance (lux).

Specifications			
ILT 560A	350 - 900 nm		
ILT560A-RAA4	250-900 nm (dual source calibration)*		
ILT 560	360 - 900 nm		
ILT 560-I	600-1100 nm		
	<b>ILT560A</b>	<b>ILT560</b>	<b>ILT560-I</b>
Stray light		<0.2%	<0.2%
AD converter	16 bit, 2 MHz	16 bit, 2 MHz	16 bit, 2 MHz
Signal/Noise	600:1	200:1	200:1
Integration time	0.5 ms – 10 seconds	1.05 ms - 10 minutes	1.05 ms - 10 minutes
Interface	USB 2	USB 2.0 (480 Mbps)	USB 2.0 (480 Mbps)
Power supply	USB power	USB power	USB power
Dimensions	91x60x 34.5	95 x 68 x 20	95 x 68 x 20
Temperature range	5 to 350 °C	0-550 °C	0-550 °C
CCD	2048	2048	2048
Resolution	1 nm	1.2 nm	< 1 nm
Slit	25 micron	50 micron	25 micron
Software	XP, Win7, Win8, Win10	XP, Win7, Win8, Win10	XP, Win7, Win8, Win10
Radiometric accuracy		200 nm - 350 nm: ±20% ** >350 nm - 450 nm: ±10% ** >450 nm - 900 nm: ±5%	
* Note: Dual range calibration with D <sub>2</sub> and QTH light source is strongly recommended for broadband measurements encompassing UV below 350 nm due to low output of the QTH lamp which increases the difficulty of accurate UV calibration ** Requires dual source calibration upgrade to assure radiometric accuracy in the UV			

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### SpectriLight III – ILT560 and ILT950 series control & analysis software

SpectriLight™ III is a LabVIEW based software package for Windows that allows you to acquire spectral and color data.

The new version of SpectriLight™ III has additional calculations for metamorphism, and 2 and 20 degree observer. The new overlay feature allows the user to compare the base reading to current readings. Wavelength range, integration time, scan average and other controls can be easily set through pop up windows, menus and tool bars.

Absolute irradiance and chromaticity are calculated instantly.

SpectriLight™ III is LabVIEW based software and can be easily customized for specific OEM applications. For API applications, Multiple DLL's are available.





### Specifications

- Automated time line measurements
- Access multiple calibration files
- Auto-integration simplifies user interactions
- Scan average: 1 to 999 for reduced noise
- Peak find
- Enhanced scaling and zoom features including movable vertical cursors
- Export to ASCII text or directly into Excel. Save screens/scans in multiple formats including .bmp, .jpg, and .png
- Powerful import data wizard can even import data from other spectrometers!

### SpectriLight™ III version 5 new features

- Overlay: allows comparison to baseline reading
- PAR: plant growth calculations
- New color calculation includes 2 and 10 degree observer, and metamorphism

### Optional input optics (others on request)

<p><b>ILT-R2 Radiance optic</b> Specialized fiber optic produces an average field of view of 2 degrees for radiance/luminance measurement of extended sources. Requires ILT-VS950R calibration.</p>	
<p><b>ILT-RAA4 Right angle cosine adapter</b> with approx. 6.9 mm diameter aperture, permits measurement of light sources 90° to the standard fiber. Sold with weighted screw-on handle for more stable detector placement when needed. Excellent cosine response, increases signal transmitted to CCD spectrometer, excellent for lower light, low profile, and small diameter light pattern measurements. Calibration required (sold separately).</p>	
<p><b>ILT-INS50 2-inch Integrating sphere</b> with 2 ports; SMA905 and 5 mm port with lambertian response. For testing mounted and unmounted LEDs, fiber optics and miniature lamps. Provides readout of total flux in watts and lumens, irradiance in W/cm<sup>2</sup>, illuminance in lux, color purity, spectral distribution and color temperature with ILT550 (requires ILT-VS950P calibration). <b>Alternative: ILT-INS125 5-Inch Integrating sphere and ILT-INS250N 10-inch Integrating sphere.</b></p>	
<p><b>ILT-FFOSMA2UV1000</b> 2 meter long, 1000 micron, armored fiber optic light guide. Transmits light from 250 -1050 nm. Strong armored cable adds additional protection against breakage often required for longer fiber lengths.</p>	

Ordering information	
ILT-ILT560A-RAA4	UV-NIR spectroradiometer system with RAA4, 250 - 900 nm "dual source" calibration
ILT-ILT560A-W	UV-NIR spectroradiometer system, 350 - 900 nm
ILT-ILT560	UV - NIR, 360 - 900 nm
ILT-ILT560-I	NIR spectroradiometer system, 600 - 1100 nm