

SPM64 Multispectral Sensor Developer Kit

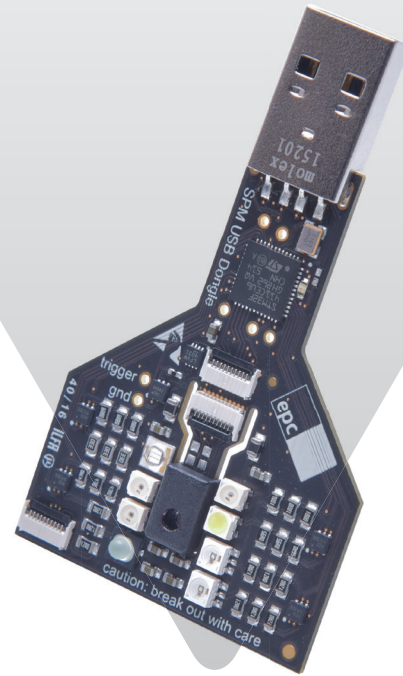
Developer kit for the Viavi-ESPROS Multispectral Sensor

Viavi Optical Security and Performance Products (OSP) and ESPROS Photonics Corp (EPC) have collaborated to provide customers with a development kit for a family of novel, high performance spectral sensors and imagers currently in early market test and development.

The kit includes the spectral sensor, various illumination sources, a computer interface, and user software to control the sensor and collect data. Two versions of the kit are available:

- VIS – Broadband visible: 400 – 900 nm, 64 channels
- NIR – Silicon-NIR: 775 – 1075 nm, 64 channels

The kit is intended for customers interested in developing applications for multispectral sensing, or customers who want to evaluate this new sensor technology for applications they have already developed on other platforms.

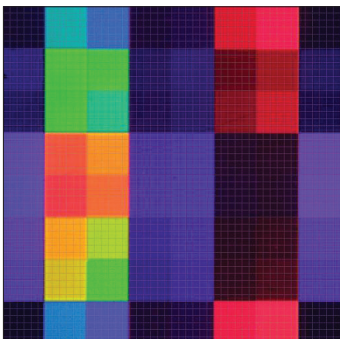


Key Benefits

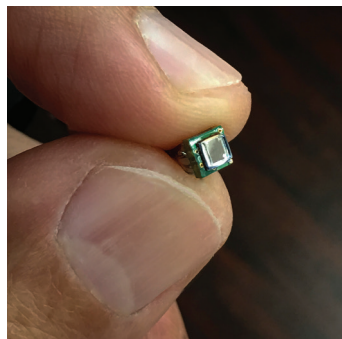
- USB dongle configuration with various light sources and snap-off sensor board
- GUI (graphical user interface) software for control, configuration, and data capture
- Two versions available—Broadband visible and Silicon-NIR

Applications

- Color measurement
- Multispectral imaging
- Biometrics, health and fitness
- Ambient light analysis
- Characterization of food, feed, agricultural products, and pharmaceuticals
- Printing and photography
- Oil and fuel quality analysis
- Process control
- Factory automation
- Graphics



Multispectral Filter Array

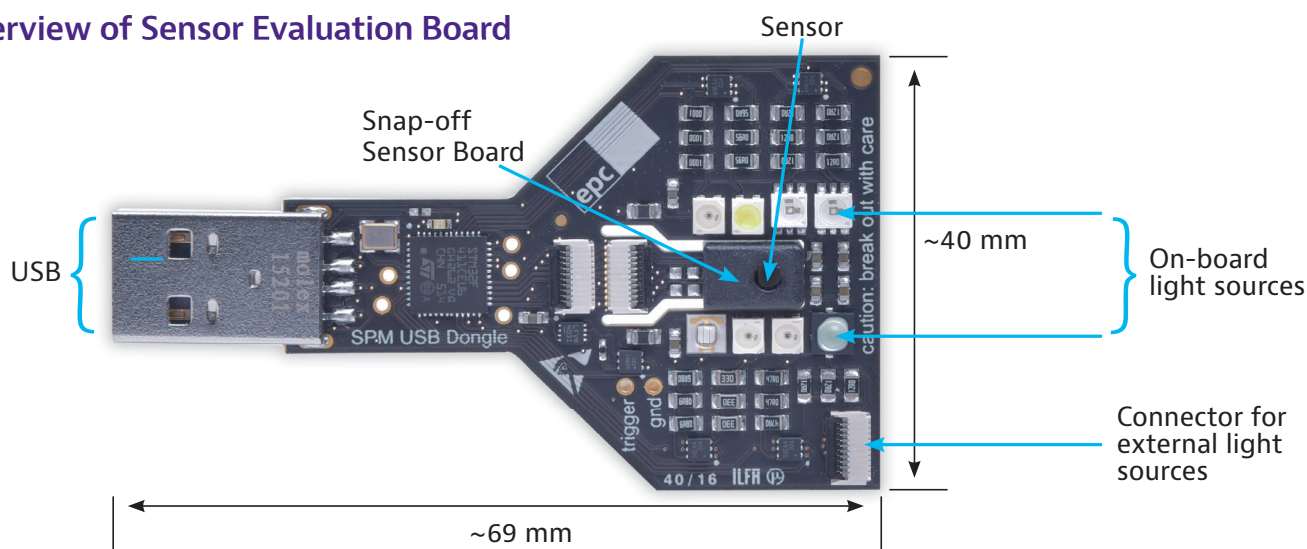


Multispectral Sensor Chip

Specifications

Optical	Specification—VIS	Specification—NIR
Wavelength range	387 – 903 nm	776 – 1064 nm
Number of channels	64	64
FWHM (typical, normal incidence)	30 nm @ 400 nm; 17 nm @ 800 nm	1.5 nm @ 775 nm; 4nm @ 1054 nm
Maximum recommended angle of incidence f/# of cone (min.) NA of cone (max.)	42 degrees f/0.75 0.67	20 degrees f/1.5 0.33
Filter configuration	8x8	8x8
Filter pitch	110x110 microns	110x110 microns
Active sensor area	870x870 microns	870x870 microns
Light sources	LEDs 1 each UV, blue, green, red, 850nm, 940nm, white, broadband NIR	
Electrical	Specification—VIS	Specification—NIR
Computer interface	USB Type A 2.0	
Detector	CCD array 80x70 pixel, backside illuminated, 100% fill factor	
Power	USB powered, 5V, 500mA max	
Included remote cable	500 mm ribbon cable	
Remote trigger	Yes	
Remote light sources	Up to 4 (in parallel)	
Mechanical	Specification—VIS	Specification—NIR
Dimensions – main board	Approx. 40 x 69 x 6 mm	
Dimensions – sensor board	Approx. 17 x 8 x 3 mm	
Detachable sensor board	Snap off and connect with included 500 mm ribbon cable	
Software & User Interface	Specification—VIS	Specification—NIR
Bit depth	8 bits per channel	
Output file format	.csv data set with header containing event information	
Output file header content	Sample ID, integration time, number of scans, timestamp, device ID	
Output file data	Wavelength, measured counts (0-255)	
Software API	For automation and real-time analysis	

Overview of Sensor Evaluation Board



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Product specifications and descriptions in this document are subject to change without notice.



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