# ULSi : Integrated Miniature Spectrometer

The same quality Avantes is well-known for, now in an easy-to-install package: the ULSi is the ideal choice for any system integrator. Fiber optic spectrometers have been integrated into many end-user systems in almost all areas of research and detection. Now Avantes releases its first completely integrated spectrometer: one housing including the optimum Ultra Low Straylight optical bench and a miniaturized version of our flexible AS5216 electronics board. The ULSi is available with the three best-selling detectors Avantes offers: the Sony ILX554B with 2048 pixels, the Sony ILX511 with 2048 high pixels for extra sensitivity and the Toshiba TCD1304 high resolution 3648 pixels. The same wide range of slits, gratings and other options available in the mainline spectroscopy lineup are also available for the ULSi.

## Technical Data

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| Microprocessor | Coldfire, 5216, 32 bit, 64 MHz |
| Memory | 512 KB Flash Memory, 64KB RAM |
| A/D converter | 16 bit, 2 channels for video signal |
| Integration time | 2 μs - 10 minutes (detector dependent) |
| Data Transfer speed | Detector dependent 1-5 ms |
| USB interface | 2.0 high speed, 480 Mbps |
| RS-232 interface | Baudrate 115200 bps |
| Digital IO | 36 pin Samtec connector, 2 Analog in, 2 Analog out, 3 Digital in, 12 Digital out, trigger, synchronization |
| Power supply | Default USB power, 350 mA 12 VDC, reverse polarity protection, 350 mA |
| Temperature range | 0- 55 ºC |
| Dimensions, weight | 90 x 120 x 35 mm, 580 gr. |

*Note: For optical specifications see AvaSpec-ULS3648 and AvaSpec-ULS2048(L)*

## Ordering Information

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| AvaSpec-ULSi2048-USB2 | • OEM integrated ultra-low stray-light optical bench, 75 mm focal length, 2048 pixel CCD detector, specify grating, wavelength range and options |
| AvaSpec-ULSi3648-USB2 | • OEM integrated ultra-low stray-light optical bench, 75 mm focal length, 3648 pixel CCD detector, specify grating, wavelength range and options |
| AvaSpec-ULSi2048L-USB2 | • OEM integrated ultra-low stray-light optical bench, 75 mm focal length, 2048 pixel CCD detector, specify grating, wavelength range and options |