

# PACTO SPECTROMETERS



## COMPACTLINE



Meet the Pacto, a lightweight spectrometer optimized for the best performance in system integration. The Pacto is compatible with Avantes light sources, accessories, and AvaSoft software.

**POWERFUL.  
VERSATILE.  
COMPACT.**

## PACTO SPECTROMETERS

To make the Pacto suitable for everyone, we offer three variations to match your application's needs.

### 1. Pacto

Available with 2048 or 4096 pixel detector, and USB-powered with strengthened pigtail

### 2. Pacto Link

Allows you to use a different communication protocol (RS232 or SPI) for smooth integration

### 3. Pacto Bench Only

The Bench Only let's you combine our optical engine with your own electronics

## WHY THE PACTO?

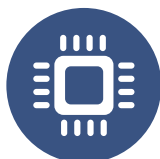
- Compact size
- Improved optical bench design
- Smooth product or system integration
- Produced with AvaMation for unsurpassed inter-instrument reproducibility & scalability
- Outstanding stray light performance
- Strong signal-to-noise ratio
- USB-powered with pigtail
- Multiple variations available

## APPLICATIONS & INDUSTRIES

The Pacto is suitable for a wide variety of applications and industries. Such as, but not excluded to;



**Agriculture & Food**  
Food Sorting  
Precision Agriculture



**Semiconductor**  
Thin Film Coating  
End-Point Detection



**Environmental**  
Contamination &  
Pollution Monitoring



**(Bio)Medical**  
Blood Analysis  
Cancer Detection



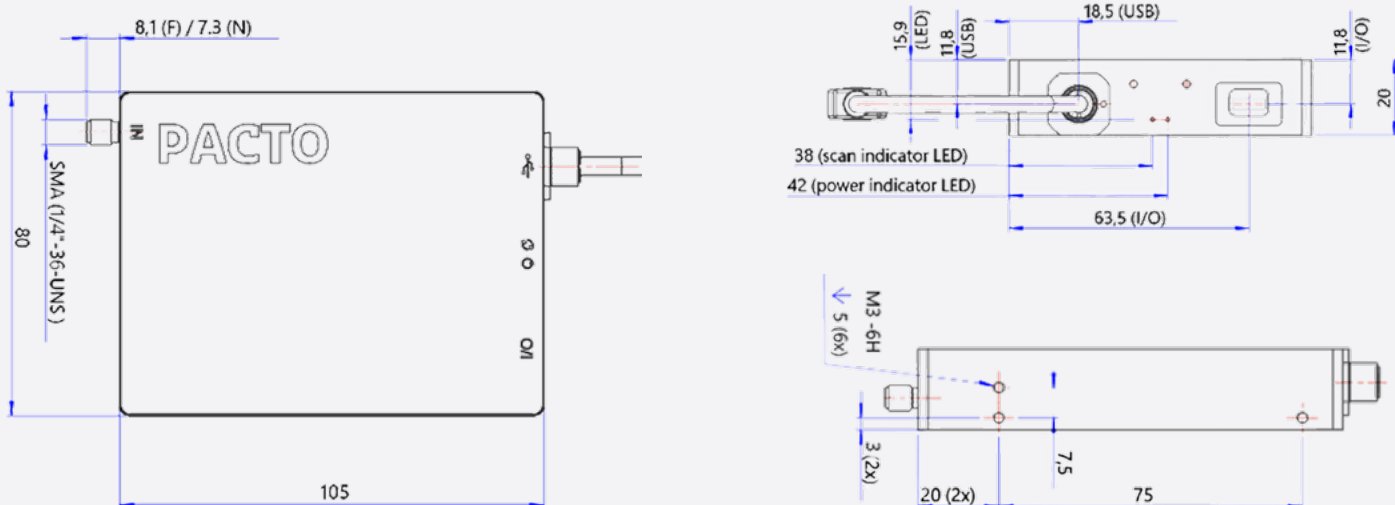
**System Integration**  
Integrate into your  
product or system

## SPECIFICATIONS PACTO

The information on this page relates to the USB-powered Pacto. Scan the QR-code below for the specifications of all Pacto variants.

	Pacto 2K	Pacto 4K
Optical Bench	Symmetrical Czerny-Turner design, 75 mm focal length; Pacto bench	
Wavelength range	200 - 1100 nm	
Stray light	0.1 - 1% (typical value 300l/mm, blaze 250nm < 0.3%)	
Sensitivity	365.000	261.000
Detector	HAM S11639, CMOS linear array, 2048 pixels (14x200 µm)	HAM S13496, CMOS linear array, 4096 pixels (7x200µm)
Signal/Noise	375:1	365:1
Dynamic Range	4500	
Dark noise	15 cnts	
AD converter	16-bit, 6 MHz	
Integration time	9 µs – 30 s	
Interface	USB 2.0 (480Mbps) / pigtailed (38cm) USB-A	
Sample speed on-board averaging	1.15 ms /scan	1.19 ms/scan
Data transfer speed	1.15 ms /scan	1.19 ms/scan
Digital I/O	5 bidirectional programmable I/O; 1 Analog out, 1 Analog in, 1x5V	
Dimensions, weight	105 x 80 x 20 mm, 277,5 grams	
Power supply	Default USB power, 500 mA	
Temperature range	5-55 °C	

## DIMENSIONS



## FULL PRODUCT OVERVIEW & SPECIFICATIONS

Scan the QR-code for the full Pacto overview, grating options, ordering options, and more. Discover the flexibility of the Pacto and find your ideal variation.

Discover all our empowering spectroscopy solutions on our website [www.avantes.com](http://www.avantes.com)

*We reserve the right to make changes without prior notice. While every effort has been made to ensure all information in this document is accurate, Avantes accepts no liability for any inaccuracies.*