

## ZMC - MMS OEM SPECTROMETER



A compact spectrometer, ready use, no power needed. ZMS spectrometer contains MMS series spectral sensors.

A new design supporting board is built inside which give a sophisticated communication and spectral acquisition function.

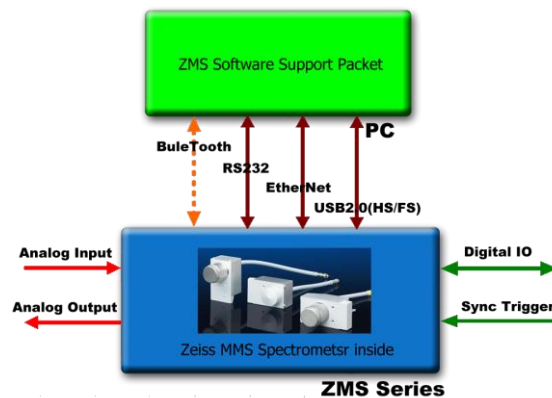
A rigid and light, not heavy alloy case helps you can use it in anywhere.

- HANDHELD
- PORTABLE
- OEM MACHINE EASY INSTALLED
- LAB –USE
- CLEAN ROOM USE

### Inside ZMS :

1. A spectral sensor, any MMS model
2. PCB board
3. Fiber cable
4. All kinds of communication ports

### Communication ports:



## Specification

Model	ZMS UV	ZMS 1 UV-VIS	ZMS 1 NIR	ZMS UV-VIS1	ZMS UV-VIS2
Spectral sensor	MMS UV	MMS 1 UV-VIS	MMS 1 NIR	MMS UV-VIS1	MMS UV-VIS2
wavelength	195-390 nm	360-900 nm	400-1100 nm	190-720nm	250-785nm
<b>Diode Array Detector</b>					
Model	HAMAMATSU S3904				
Spectral range	200-1000				
Pixel	256				
Spectral area	25 x 2500 $\mu\text{m}^2$				
<b>Optical Data</b>					
Optical entrance	70um				
Grating	flat field holographic concave grating				
	1084 l/mm	366 l/mm	366 l/mm	366 l/mm	366 l/mm
Input	SMA905				
<b>Spectral performance</b>					
Optical resolution	0.8nm	3.3nm	3.3nm	2.2nm	2.2nm
SNR	5000:1				
ADC	16 Bit				
Integration time	10ms - 5000ms				
Stray light	0.3 % (Deuterium lamp, Signal at 240 nm with NaI-solution (10g/l) )	< 0.8%( with Halogen lamp, Signal at 450 nm with filter GG 495)	< 0.8%( with Halogen lamp, Signal at 450 nm with filter GG 495)	< 0.3 %(with Deuterium lamp, as transmission at 365 nm with NaNO <sub>2</sub> -solution (50 g/l))	< 0.3 %(with Deuterium lamp, as transmission at 365 nm with NaNO <sub>2</sub> -solution (50 g/l))
Linearity	> 99.8%				
Wavelength drift	$\leq 0.005\text{nm/K}$	< 0.02 nm/K	< 0.02 nm/K	$\leq 0.006\text{nm/K}$	$\leq 0.006\text{nm/K}$
<b>Electronic characteristic</b>					
Power consumption	150mA / 5VDC				
Power plug	USB / POWER PORT				
Communication port	RS232、USB、EtherNet、Bluetooth(Options)				
Communication speed	RS232: 115200 b/s USB: 480 Mb/s EtherNet: 100Mb/s Blue tooth: 115200 b/s				
control register	10 GPIO				
Analog input	2channel, 0-5V analog input (Options) 2channel, 0-5V/4-20mA analog output (Options)				
Trigger type	4types (software、external electric、edge-triggered、timer)				