

WP 785 ER Raman Spectrometer Series

Extended range, excellent resolution



FEATURES AND BENEFITS

100-3600 cm^{-1} range

f/1.3 input to capture more light

Superior optical design based on patented transmissive VPH grating

>10x greater sensitivity vs f/4

TEC cooling option for best SNR

Fiber coupled & free space models

Compact, robust & configurable

Excellent thermal stability

We've added more range to one of our most popular high efficiency spectrometers to give you more sensitivity, better SNR, and faster measurements in a compact footprint – for measurement of Raman bands well beyond the fingerprint region. Collect, keep, and detect more light with our f/1.3 input, high transmission VPH gratings, and diffraction-limited optics. Our build-to-print options for resolution, detector cooling, and sample coupling allow you to configure an extended-range spectrometer with the exact performance you need.

Wasatch Photonics offers the expertise & testing to find your optimal Raman solution. Contact us to get started!

WP 785 ER Raman Spectrometer Series

STANDARD PRODUCT SPECIFICATIONS & OPTIONS

The configuration options for our build-to-print 785 nm extended range Raman spectrometer include slit size (resolution), sample coupling, and detector cooling. We offer TEC-regulated and TEC-cooled detector options, allowing you to balance your required signal to noise (SNR) and temperature stability with cost for the best possible value.

OPTICAL			
DETECTOR COOLING OPTIONS >		Regulated	TEC Cooled
Wavenumber Range (λ_{ex} = 785 nm , with longpass filter)		100 - 3600 cm^{-1}	200 - 3350 cm^{-1}
Resolution (FWHM)	10 μm slit	6 cm^{-1}	7 cm^{-1}
	25 μm slit	7 cm^{-1}	9 cm^{-1}
	50 μm slit	12 cm^{-1}	13 cm^{-1}
f-number (f/#)		1.3	
Connector (fiber coupled models only)		SMA 905	

DETECTOR & ELECTRONICS			
DETECTOR COOLING OPTIONS >		Regulated	TEC Cooled
Hamamatsu Detector		S16010-1006 CCD	S16011-1006 CCD
Detector Temperature		10°C	-15°C
Detector Temperature Stability		$\pm 0.2^\circ\text{C}$	$\pm 0.1^\circ\text{C}$
Active Pixels		2048	1024
Pixel Size		14 x 14 μm	24 x 24 μm
Integration Time		3 ms - 60 s	8 ms - 60 s
Maximum Sample Frequency		285 Hz	45 Hz
Communications		USB 2.0 Type B connector	

MECHANICAL & ENVIRONMENTAL	
Fiber or Free Space Coupled	
Size	24.0 x 13.5 x 7.1 cm
Weight	3.0 kg
Power Consumption	<500 mA @ 12 V
Operating Temperature	0°C to 40°C, non-condensing

Custom options available upon request



WP-PS_WP785ER-Raman_24Jul20