

VIS  
HIGHLY SENSITIVE

# Transmissive Grating Spectrometer

The Renegade Visible Spectrometer utilizes Torrent Photonics' breakthrough technology in transmissive gratings by providing higher sensitivity compared to traditional reflective grating spectrometers. Our ability to manufacture all components aside from the sensor showcases Torrents' ability to create vertically integration solutions.

## Product Overview:

Renegade's coupled design and manufacturability makes it a versatile solution for OEM analytical devices that demand high sensitivity and low footprint. Utilizing a transmissive grating made on fused silica substrate, the Renegade delivers optimal throughput and custom firmware options allows for ease of integration.

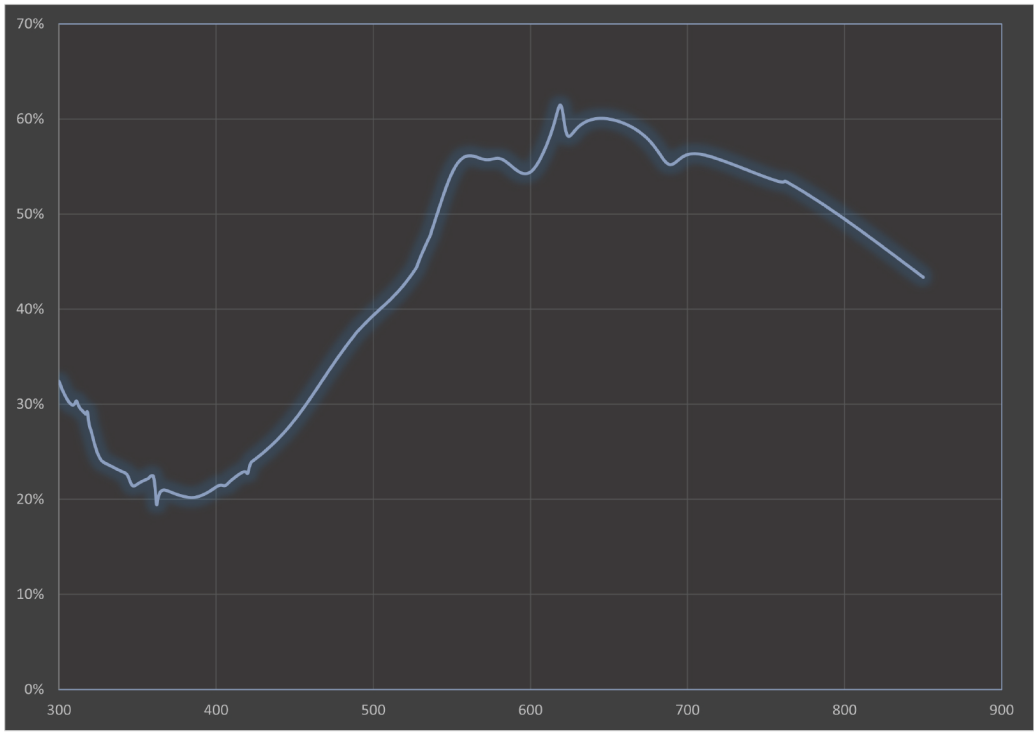
## Features:

- Environmentally stable and robust design
- Compact & customizable for OEM solutions
- UV sensitive transmissive grating
- Repeatable — low unit-to-unit variation
- High sensitivity



**Renegade VIS**  
350 to 790nm

# Transmissive Grating Efficiency



COMPACT  
HIGH-PERFORMANCE  
**OEM-Ready for  
Analytical Devices**

## Renegade VIS Specifications

Wavelength Range	350-790nm
Optical Resolution	1.2nm FWHM
Integration Time	200us to 10s
Dynamic Range	5000:1
Input Fiber Connector	SMA
Signal to Noise Ratio	300:1
Detector	Hamamatsu-S15796
Grating	1250 lpmm Fused Silica transmission grating
Pixels	1024
Entrance slit	20um
Numerical aperture	0.22NA
Stray Light (Monochromatic Input)	0.012% (at +/- 10 x FWHM from peak)
Operating Temperature Range	Non-condensing: 0°- 50°C
Dimensions	65 x 45 x 20mm including connector
Weight	100g
Vertical Resolution	65,000
Inputs/Outputs	SPI or USB, custom options available
Trigger Modes	Internal or external source, single, multiple accumulate, multiple average
Power Consumption	3.3V 60mA

**Contact our engineers to discuss your application**  
888-725-8605 • sales@torrentphotonics • torrentphotonics.com