HORIBA Scientific

OEM Spectrometer and Camera Products

You drive. We deliver.

NEXT »

Optical Spectrometers and Camera Systems for OEM Industrial Applications

Miniature Spectrometers • Scientific-grade Cameras • Holographic Gratings

HORIBA Scientific is a market leader in CCD spectrometers, diffraction gratings, and scientific cameras. Our OEM division offers spectroscopy and imaging solutions that will exceed your next-generation requirements and consistently outperform the competition. That includes:

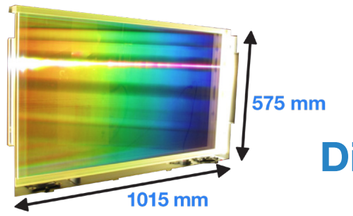
• Better Stray Light performance due to the integration of our aberration-corrected holographic concave gratings

• Superior SNR attributable to higher full well, combined with lower read noise on our CCD and CMOS optimized electronics

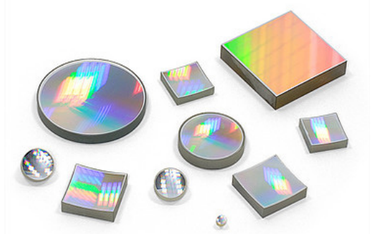
Our technology portfolio spans VUV to near-infrared wavelengths, and our global team of highly experienced project managers and engineers work closely with you to understand your product requirements and business needs. Together we will deliver innovative and cost-effective volume spectroscopy and imaging solutions for your most challenging industrial applications.

NEXT »

HORIBA Scientific - Our OEM Products & Capabilities



Custom Master Optical Diffraction Gratings



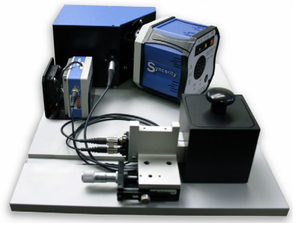
Diffraction Gratings Replicas

Spectrometers

Optical assemblies
with pre-aligned sensors
(CCD,PDA,
CMOS, InGaAs)

Mini Spectrometers

with CCD, PDA, CMOS, INGAAS
and with HORIBA OEM Electronics



Spectroscopic Engines and Complete Systems

RAMAN systems,
cuvette and flow cell based

Monochromators & Double Monochromators

Multispectral Spectrometers

Multiple fiber input / multi-track
spectroscopy as in Quad

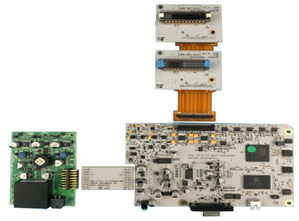
Hyperspectral Systems

with HORIBA camera
or customer provided
(Push-broom configurations)

Imaging Spectrometers with CCD or Scientific CMOS

Cameras: Spectroscopic Deep-cooled Scientific Cameras

1D and 2D CCD & INGAAS
FI, BI and more



OEM Electronics

for Opto-sensors from PD,
to CCD to sCMOS sensors

Imaging Cameras

Uncooled and cooled with FI and
BI high end scientific CMOS

VUV / Far UV Spectrometers

and BI CCD vacuum and
N2-purged cameras

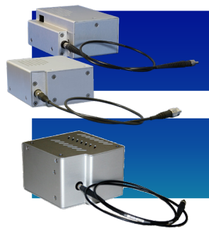
CLICK
any of the items on this page for more information.

NEXT »

Links to HORIBA OEM Spectrometers, Multispectral, Hyperspectral and Scientific Camera Products

Miniature Spectrometers CCD or CMOS based (UV-VIS-NIR)

(Single Spectrum One-Fiber Channel)



- MiniVS70
- VS70

MultiTrack & Hyperspectral POLISPECTRA® Imaging Spectrometers

(Multi-Spectra / Multi-Fibers)

- DUAL & QUAD Channels Spectrometers
- DUAL vs. QUAD Spectrometers
- M116 Multichannel 8-16-32 input fibers / spectra
- H116 Hyperspectral for push-broom configuration

Mini RAMAN Spectrometers and FULL compact Raman systems

(with Flow cell, probe...)

- HIGH END Deep-cooled CCD
- LOW END / MINI Uncooled CCD

Scientific Cameras CCD and CMOS

(Uncooled to Deep-cooled)

- UV-VIS CCD (Deep-cooled)

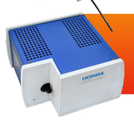
- VIS-NIR CCD (Deep-cooled)

- Scientific CMOS Imaging Camera (Uncooled)

OES Spectrometers

(also used for Reflectometry)

- OES-Star (HIGH END – TE-cooled)



- VS70 (AFFORDABLE)

VUV Spectrometers and VUV Cooled Cameras

- VU90 CCD System for FUV

- Syncerity VUV

CLICK any of the items on this page to see more information on the product listed.

NEXT »

To find out more about OEM Products:

All OEM Products
Spectrometers
Cameras and Gratings

All OEM Spectrometers
Including PoliSpectra® family and VUV

Selection criteria between a Retail Optical Spectroscopy and an OEM Solution

Best Selling Miniature Spectrometers for OEM Industrial Applications

Fiber-coupled USB Spectrometers:

MiniVS20 Spectrometer with Linear UV-VIS CMOS or NIR INGAAS Sensor

OEM hand-held spectrometer covering 190 to 1,700 nm for various low stray light applications
- Aberrations-corrected concave holographic grating options
- VIS configuration featuring a 1.7" x 1.9" x 2" size combined with full F/2.3 optics for high signal-to-noise
- High throughput, compactness and long term reliability

MiniVS70 VIS Spectrometer with FI CMOS or BI CCD

NEW miniaturized VS70 configuration
- Based on high performance aberration-corrected concave gratings fitted with a custom order-sorting filter to eliminate higher orders
- Low cost combined with high performance and low stray light
- Long term opto-mechanical stability and choice of front-illuminated linear CMOS or back-illuminated CCD sensors

VS70 UV-VIS-NIR Spectrometer with Uncooled / TE-cooled CCD

Compact versatile most popular VS70 OEM Spectrometer and OES configurations
- Based on high performance aberration-corrected concave gratings with full F/2.3 aperture
- Affordable, high throughput, robust and stable
- Electronics drivers ranging from **USB-2 to Ethernet and EtherCAT**

CiCi-Raman-NIR with Scientific Camera Optimized for 785 nm

Most compact OEM Raman spectrometer with aberration-corrected holographic grating
- Covers 150-3,300 cm^{-1}
- High efficiency and low stray light
- Available in F/2.3 and in compact F/5 configurations
- -50º C deep-cooled scientific CCD camera with minimized etaloning and high NIR QE

PoliSpectra® Quad Spectrometer for Simultaneous Acquisition of 4 VIS Spectra

CCD spectrometer for simultaneous acquisition from 4 fiber inputs (470-730 nm)
- High-speed electronics (as fast as <1.5 msec readout time for 4 spectra)
- QUAD-channels high throughput system (f/2.3) and ultra-low stray light
- Industrial low-light applications from low light fluorescence to reflectance

PoliSpectra® M116 8-32 Channel MultiTrack UV-VIS-NIR CMOS Spectrometer

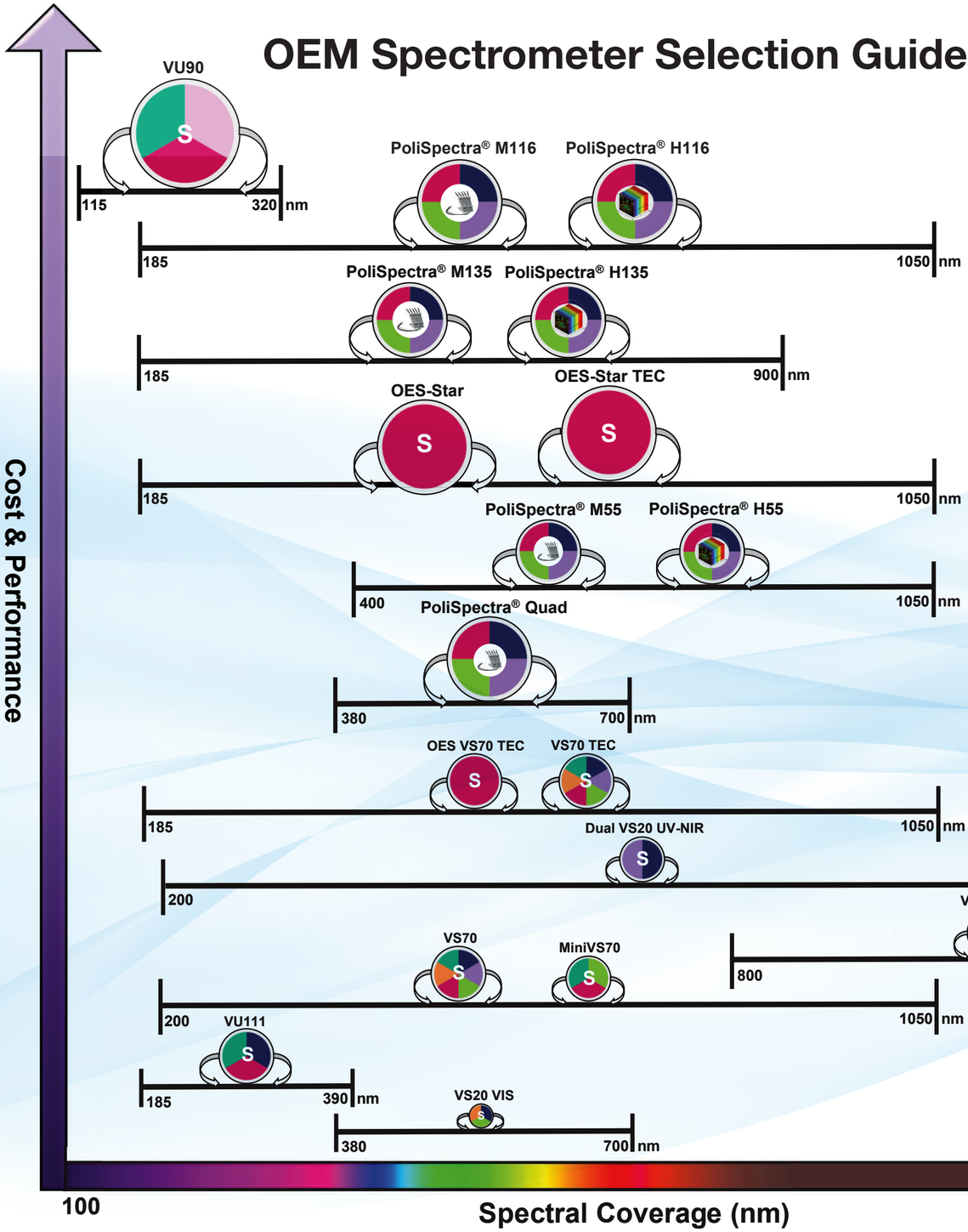
Fiber-coupled multi-spectra system with 8 to 32 channel simultaneous measurements
- Concentric optical design with UV extended spectral range provides minimized crosstalk
- High throughput USB-3 system featuring a fast 2D scientific BI CMOS running at 94 to188 frames per second, acquiring 8, 16 or 32 simultaneous spectra (2048 pixels per spectrum)

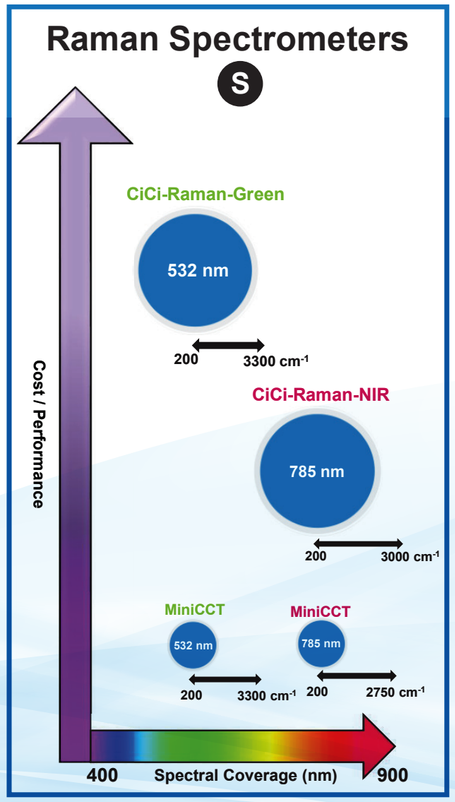
PoliSpectra® H116 Imaging Spectrometer for Hyperspectral Work from UV to NIR

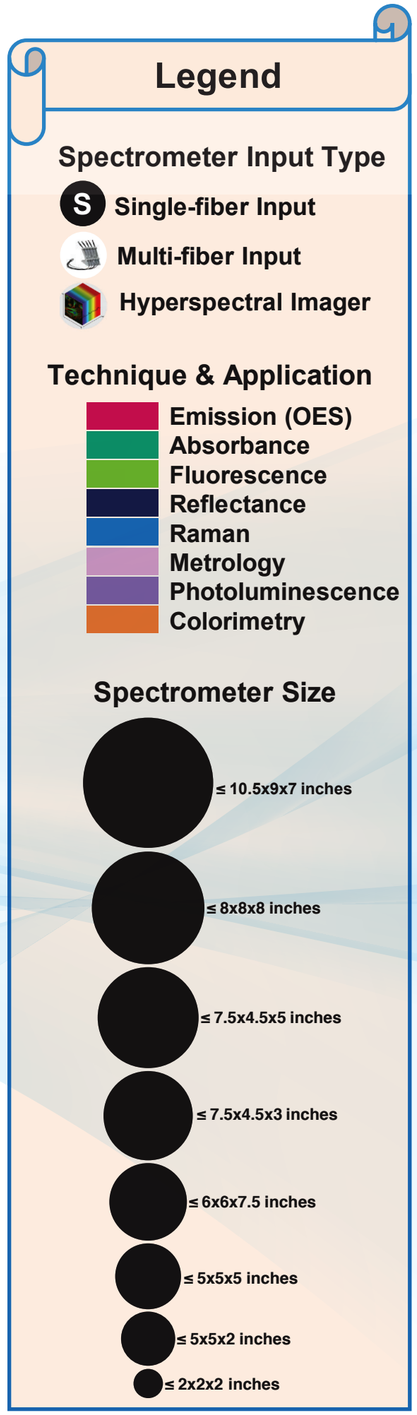
Ultra-high performance rugged spectrometer for hyperspectral imaging with a 2D sCMOS Camera
- For line-image scanning, in a push-broom hyperspectral configuration
- High throughput, USB-3 system featuring a fast 2D scientific BI CMOS with rolling shutter, running at 94 (HDR) to 188 (Standard Mode) frames per second (2048 pixels per spectrum)

NEXT »

OEM Spectrometer Selection Guide







NEXT »

Optical Spectrometers and Camera Systems for OEM Industrial Applications

HORIBA Scientific's Original Equipment Manufacturing (OEM) division is one of the many beneficiaries of the company's recent relocation to a state-of-the art, 132,000 square foot facility in Piscataway, New Jersey.

The company has made enormous investments in capital equipment and facilities for the development, production and quality assurance of the instruments made by the OEM division.

"It's like night and day," Nicolas Vezard, Vice President of the Gratings and OEM Spectroscopy Division said. "We have large production clean rooms and more engineering labs and can take on more development projects."

The OEM division supplies optical components, including diffraction gratings, compact spectrometers and scientific cameras to manufacturers that incorporate the components into their own products.

Its instrument products include miniature CCD, CMOS and PDA spectrometers, monochromators, imaging spectrographs, imaging and linear cooled CCDs, detectors and sources. Most of the time, the OEM products are "optical engines" integrated in larger systems, under the hood and hidden from view.

HORIBA increased OEM instrument production capacity by the move to the larger space at 20 Knightsbridge Road.

Fast prototyping capabilities have been added, as well with the additional space. Product support has been greatly enhanced with the additional room to accommodate more manpower.

The larger space will allow OEM to hire more engineers specialized in optics, mechanical, sensors, electronics, firmware and software, all of whom will increase capacity as well.

Before entering any of the new 100K clean rooms (ISO8), an air shower bathes you in a jet stream before you enter one of the many clean rooms in the facility, where special protective footwear and headwear is mandatory to control dust and contaminants levels.

For OEM instrument and scientific camera manufacturing, HORIBA has added 8,100 square feet of 100K Clean rooms (ISO 8), c 550 square feet of 10K (ISO 7) clean rooms and 700 square feet of 1K clean rooms (ISO 6), and much more clean environment production space.

The company made enhancements to environmental controls, including humidity and temperature. Automated doors separate temperature and humidity controlled areas.

The company boosted electrostatic discharge (ESD) controls, with special equipment and floors, chairs and benches protecting from any discharge that might otherwise damage sensitive equipment.

The OEM division also added a large number of assembly and automated test fixtures. Every instrument production unit has its own production floor and mini stock room.

The grating production area got all new equipment from exhaust hoods and clean air hoods to ovens, zygo and vacuum coating equipment.

The OEM division automated procedures and processes through these investments. The division greatly expanded its ability to enhance quality control/quality assurance.

The additional space also allows the company to maintain a larger inventory for its spectrometers and components to meet urgent customer needs.

Shipping and receiving, as well as its GEO SAP, are separate from HORIBA Instruments' retail customers to protect OEM client confidentiality.

The new OEM facility took almost two years to build, from its initial conception to final completion.

"All fixtures, production equipment and pilot batches have been thoroughly qualified in our new facility," Vezard said.

Our first customer audits have taken place and our visitors are very impressed with the OEM capability and the cleanliness of our new facility," Vezard added.

OEM offerings target high volume industrial customers. The HORIBA Instruments OEM division makes products for the biotech and medical fields, agriculture and food segment, semiconductor industry, the defense and security sector, process control in industry, sorting of waste and other materials, analytical and environmental analysis fields and other applications with optical sensors, spectroscopy and imaging.

NEXT »

HORIBA Scientific

horiba.com/OEM and horiba.com/OSD for more information

Research or OEM mass production

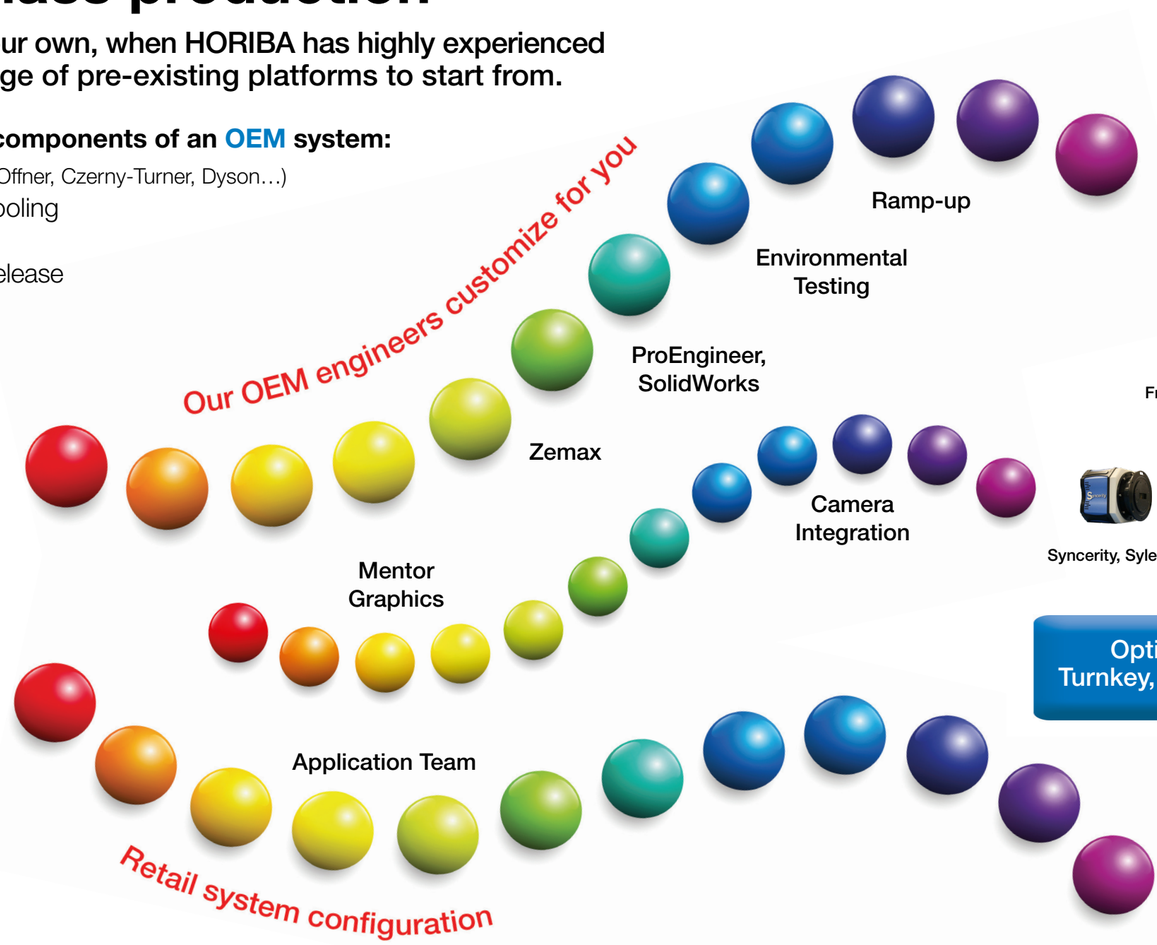
Why design a spectrometer system on your own, when HORIBA has highly experienced engineers, design tools and a broad range of pre-existing platforms to start from.

HORIBA Design/Engineering Teams for all components of an OEM system:

- Optical simulations (Concave grating spectrograph, Offner, Czerny-Turner, Dyson…)
- Mechanical design and CCD/CMOS sensor cooling
- Electronics/camera design
- From prototyping to performance validation & release

Your specifications and application requirements

You drive.
We design & deliver.



HORIBA Retail Solutions from OSD (Optical Spectroscopy Division)
from standard spectroscopy components to turnkey custom systems

- Spectroscopy components such as spectrometers and deep-cooled CCDs
- Custom turnkey solutions for various spectroscopies
  - Raman • Reflectance/Transmittance • Dark Field Scattering • Electroluminescence • Photocurrent • Photoluminescence • PL Lifetime
- Full-featured software or software development kit (SDK, including LabVIEW™ VIs)
- Installation, service and experienced application support

OEM: Customized Solutions for Industrial Volume Applications

Mass Volume Production

Spectroscopy & Imaging Cameras

From uncooled linear cameras to deep-cooled 2D cameras with CCD, EM, sCMOS or INGAAS sensors

Syncerity, Sylent and Synapse cameras are designed and manufactured in New Jersey

Optical Spectroscopy Systems & Solutions: Turnkey, Purpose-built, Modular & Custom Solutions

Retail Solutions

NEXT »

For more information visit

horiba.com/oem

Contact us in one of our centers of excellence	USA & Canada	Japan	Europe & Asia
	OEM.US@horiba.com	OEM.JAPAN@horiba.com	OEMSALES.JYFR@horiba.com
	+1 732 494 8660 Ext. 7733	+81 (75) 313 8121	+33 (0) 1 69 74 72 00