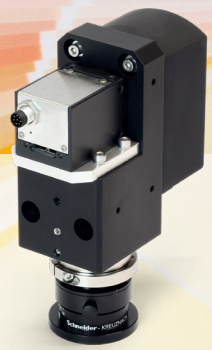
HORIBA

CC55 VIS NIR

Line Scan Hyperspectral Camera

High resolution, Compact & Cost effective
For precise industrial quality inspection

- Compact footprint
- High resolution (1900x1023 pixels)
- Excellent imaging quality
- Robustness and thermal stability
- Easy integration for industrial process
- Cost effective



CC55 VIS NIR HSI Camera
SpecSheet

VIS NIR Hyperspectral Imaging for Industrial Quality controls

The compact **HORIBA CC55 Hyperspectral Imaging Camera** delivers **rapid, high-precision inspection for industrial quality control, sorting, and grading**.

In **line-scan mode**, it captures full hyperspectral data across the **VIS-NIR range** (350–1050 nm) with **robust, cost-effective** reliability.

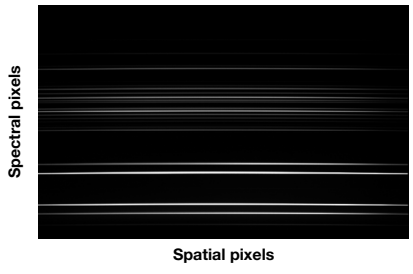
Its **high resolution and superior image quality boost efficiency** for color verification, food quality controls, and real-time product inline analysis.

Specifications	HSI CC55 VIS-NIR	
Typical applications	Reflectance, absorbance, fluorescence	
Measurement Type	Pushbroom (line-scan mode)	
Spectral range	350-1050 nm	
F number	F/2.3	
Spectral resolution	3.0 nm typical (with 25 µm slit width)	
Spatial resolution	< 8µm (without lens)	
Straylight	0,10%	
Wavelength Accuracy	<0.1 nm	
Optical interface	C-mount or custom upon request	
Lens	12mm in standard (Optional: 16 mm, 24 mm, 50 mm or custom upon request)	
Sensor	CMOS	
Spectral sampling/pixel	0.69 nm/pix	
Spectral pixels	1023	
Spatial pixels	1900	
pixel size	5.86 µm	
SNR max	177	
Dynamic range	72.9 dB	
Readout noise	6.16e	
Full well capacity	31414e	
Camera Interface	USB 3.0	GigE
Frame rate (full frame)	159 fps (8bit) 129 fps (12bit)	83 fps (8bit) 65 fps (12bit)
Binning	1, 2, 4	1, 2, 4
Power	5V, 2,8W at 159 fps	12V or 24V, 2,3W at 53 fps
Software	API for raw data grabbing	
Operating temperature range	15°C to 45°C	
Storage Condition	-20°C to 60°C	
Dimension (without lens)	45x99x82 mm	
Weight (without lens)	420 g	

Performance

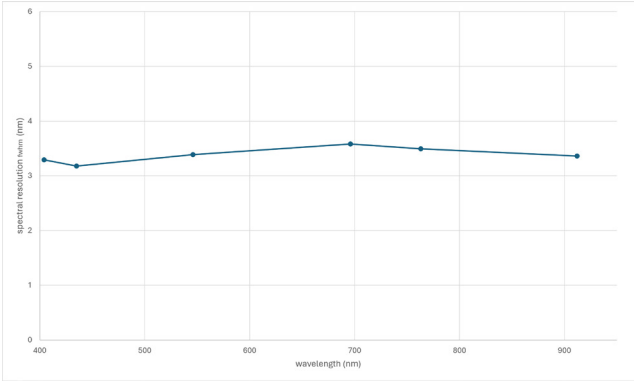
High Image Quality & Industrial-Grade Performance:

- Excellent spectral fidelity across the full VIS NIR range



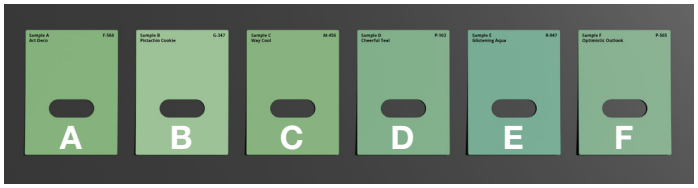
Mercury-Argon Spectrum of CC55 VIS NIR

Spectral resolution (slit 25µm)

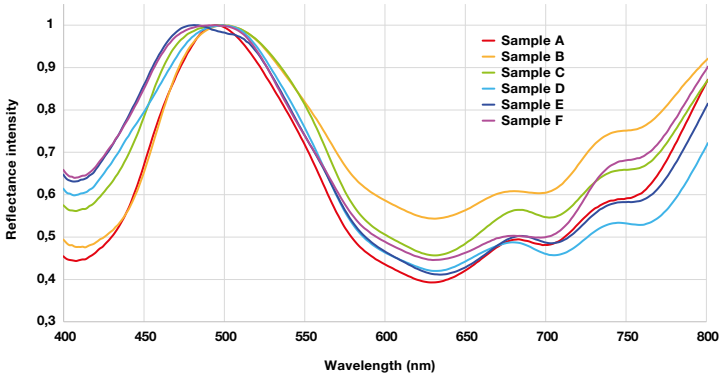


Application Example – Color Inspection with HSI
Use case: Color reference chart inspection with CC55 HSI camera

- Differentiation of subtil color differences (pigments, homogeneity, aging)
- Enables automated pass/fail decisions in real-time industrial paint manufacturing



Real RGB image

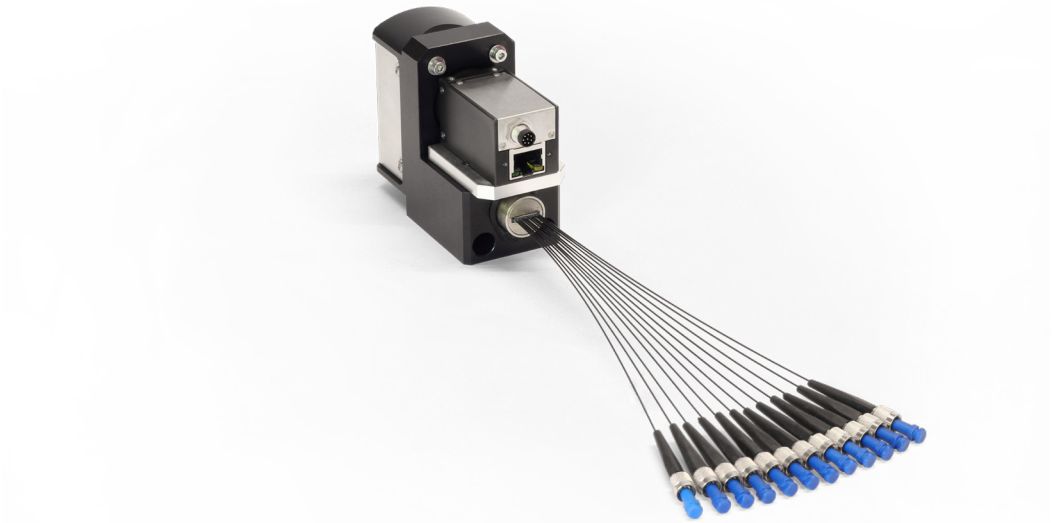


HSI Spectral information

Options
With over **30 years of experience as a trusted OEM partner**, HORIBA is a recognized leader in **gratings, spectrometers, and hyperspectral solutions** for industrial applications. We offer **a range of standard optical platforms as well as fully customized designs**.

The HORIBA CC55 hyperspectral imaging platform can be tailored with different inputs (Lens, reflective optics, fiber or direct slit), opto mechanical designs or cameras to achieve the requested performances.

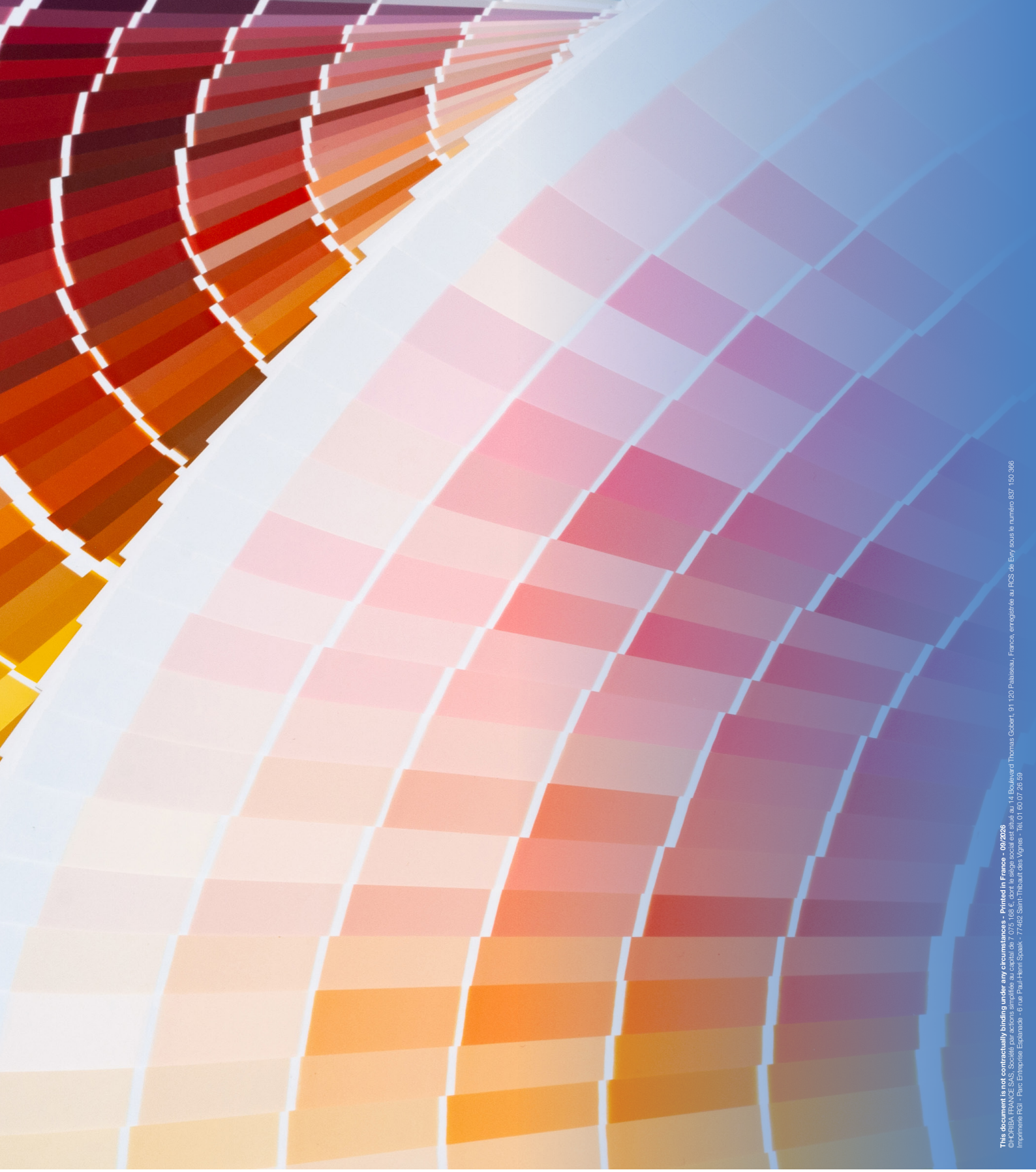
For more information on customization options, please contact the HORIBA expert team.



Multispectral CC55 camera for life sciences applications:
Adapted to high-throughput screening, cell viability assays, and
biochemical analysis requiring real-time, non-destructive measurements

Conformity / Norms and compliance

HORIBA green policy
HORIBA has a strong and responsible environmental commitment with sustainable solutions through innovative eco-friendly technologies and designs.



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