TORONTECH

HYPERSPECTRAL IMAGING CAMERAS

New Series of Hyperspectral Imaging Cameras from Torontech

Torontech offers a cutting-edge and competitively priced FigSpec-series of Hyperspectral Imaging Cameras. Designed for precision and versatility, these cameras open new horizons in various fields, providing unparalleled imaging capabilities. Whether you're in agriculture, medical diagnostics, environmental monitoring, or material analysis, Torontech's FigSpec-Series Hyperspectral Imaging Cameras are here to transform your workflow.

What is Hyperspectral Imaging?

Hyperspectral imaging (HSI) captures and processes information from across the electromagnetic spectrum. Unlike conventional cameras, which capture images in three color bands (red, green, and blue), hyperspectral cameras collect data across hundreds of spectral bands. This technology allows for the identification and analysis of materials based on their spectral signatures, making it an invaluable tool in numerous applications.

Why Choose Torontech's Hyperspectral Imaging Cameras?

Torontech is committed to delivering high-quality imaging solutions that meet the needs of diverse industries. Our Hyperspectral Imaging Cameras are designed with the latest technology to provide exceptional performance and reliability. With Torontech, you gain a partner dedicated to innovation, quality, and customer satisfaction.

Available Models:

- Portable Hyperspectral Cameras - FS-1Q Series
- Hyperspectral Camera -FS1X Series (Line Scan)
- Hyperspectral Camera -FS-17

- High Speed Hyperspectral Sorting System: FS-18/19
- Hyperspectral Imaging Cameras – FS2X-Series
- Hyperspectral Imaging Cameras – FS27
- Microscopic Hyperspectral Imaging System
- PTZ Hyperspectral Measurement System
- FS60/62UAV Hyperspectral Measurement System
- FS-50 Series Multispectral Camera

Conclusion

Explore the potential of hyperspectral imaging with Torontech's new series of Hyperspectral Imaging Cameras. Revolutionize your processes, enhance your research, and achieve new levels of precision and efficiency. For more information and to discover how our Hyperspectral Imaging Cameras can benefit your industry, visit our website or contact our sales team.

Compare Hyperspectral Imaging Camera Options

Side-by-side overview of Torontech FigSpec-series hyperspectral cameras and measurement systems for lab, field, UAV, and sorting applications.

Core Hyperspectral Cameras

Feature	Portable Hyperspectral Cameras (FS-1Q Series)	Hyperspectral Camera (FS1X Series, Line Scan)	Hyperspectral Camera (FS-17)

Primary purpose	Field-ready hyperspectral capture for mobile and portable workflows	Line-scan hyperspectral imaging for continuous inspection and moving targets	General hyperspectral imaging for research and applied analysis workflows
Best for	Agriculture scouting, environmental surveys, on-site inspection, and rapid capture	Industrial inspection, production lines, sorting, and conveyor-based applications	Labs and teams needing a versatile hyperspectral camera for broad use cases
Imaging style	Portable capture (mobility focused)	Line scan (continuous acquisition)	General hyperspectral imaging (model dependent)
Typical setup	Handheld or portable rig for field deployment	Mounted over a line with controlled motion and lighting	Bench or tripod-based setup for controlled acquisition
Decision driver	Need mobility and faster setup across multiple sites	Need continuous inspection with consistent motion and repeatable results	Need a flexible general-purpose hyperspectral option for varied projects
How to choose	Choose when your workflow is field-first and portability matters most	Choose when you must image moving material or run conveyor workflows	Choose when you want a stable lab platform and broad applicability
Selection tip	If you travel to samples or sites often, start here	If your sample moves and you need speed plus consistency, line scan is the right fit	If you are building a baseline hyperspectral workflow, start with this category

High-Speed Hyperspectral Sorting

Feature	High Speed Hyperspectral Sorting System (FS-18/19)
Primary purpose	Real-time hyperspectral sorting for high-throughput industrial separation workflows
Best for	Recycling, food grading, minerals, and industrial sorting where speed and accuracy both matter
Why it matters	Hyperspectral data can classify materials by spectral signature, enabling smarter separation than RGB-only systems
Decision driver	Need high-speed classification and sorting based on material composition, not just color
Selection tip	If you are building a hyperspectral sorting line, this is the dedicated option

Hyperspectral Imaging Camera Families

Feature	Hyperspectral Imaging Cameras (FS2X-Series)	Hyperspectral Imaging Cameras (FS27)
Primary purpose	Flexible hyperspectral camera family for research and applied inspection	Hyperspectral camera option for projects needing expanded capability (model dependent)
Best for	Teams that want a scalable camera family to match different application needs	Programs needing a dedicated FS27 platform for specific workflows

Feature	Hyperspectral Imaging Cameras (FS2X-Series)	Hyperspectral Imaging Cameras (FS27)
Typical use cases	Agriculture, environmental monitoring, medical diagnostics, and material analysis	Similar hyperspectral applications where FS27 is the preferred configuration
Decision driver	Need a camera family approach with multiple configurations over time	Need an FS27 option aligned to your workflow and performance target
Selection tip	If you want one platform family that can scale with projects, start here	If your team has defined FS27 requirements, choose this option

Specialized Systems (Microscopy and PTZ Measurement)

Feature	Microscopic Hyperspectral Imaging System	PTZ Hyperspectral Measurement System
Primary purpose	Hyperspectral imaging at microscopic scale for detailed material characterization	PTZ-based hyperspectral measurement for remote, wide-area, or variable-angle capture
Best for	Materials science, microstructure research, biomedical imaging, and fine feature analysis	Environmental monitoring, remote measurement, facility monitoring, and observation workflows
Typical setup	Microscope-integrated or lab microscope station	Mounted PTZ system with remote positioning and measurement workflow

Feature	Microscopic Hyperspectral Imaging System	PTZ Hyperspectral Measurement System
Decision driver	Need hyperspectral insights at small scales that standard cameras cannot resolve	Need flexible viewing angles and remote control for measurement at distance
Selection tip	If your target is microscopic features or fine composition mapping, choose this	If you need wide-area monitoring and controlled viewing, PTZ is the right fit

UAV Measurement and Multispectral Options

Feature	FS60/62UAV Hyperspectral Measurement System	FS-50 Series Multispectral Camera
Primary purpose	UAV-ready hyperspectral measurement for aerial mapping and field surveys	Multispectral imaging for faster, simpler spectral workflows with fewer bands
Best for	Agriculture mapping, environmental monitoring, land assessment, and remote sensing	Users who want spectral insights with simpler capture and processing than HSI
Data type	Hyperspectral (many spectral bands)	Multispectral (selected bands)
Decision driver	Need aerial hyperspectral mapping to classify materials at scale	Need a simpler alternative when full hyperspectral detail is not required
Selection tip	If your work is mapping large areas and spectral detail matters, choose UAV HSI	If you want faster deployment and simpler analysis, multispectral is often enough

APPLICATIONS

Agriculture and Food Industry:

- Crop Health Monitoring: Assess crop health and detect diseases early by analyzing the spectral signatures of plants.
- Soil Composition Analysis: Evaluate soil properties and optimize the use of fertilizers and water.
- Food Quality Control: Ensure food safety and quality by detecting contaminants and assessing the freshness of produce.

Environmental Monitoring:

- Water Quality Assessment: Monitor pollutants and assess water quality in real-time.
- Air Quality Monitoring: Detect and analyze airborne pollutants and gases.
- Land Use and Vegetation Mapping: Track changes in land use and monitor vegetation health.

Medical Diagnostics:

- Tissue Analysis: Differentiate between healthy and diseased tissue, aiding in early diagnosis and treatment planning.
- Wound Healing Monitoring: Assess wound healing progress and detect infections early.
- Non-invasive Diagnostics: Perform non-invasive diagnostics for skin conditions and other medical applications.

Industrial and Material Analysis:

- Mineral and Mining Industry: Identify and map mineral deposits with high precision.
- Quality Control in Manufacturing: Detect defects and ensure product quality in manufacturing processes.
- Chemical Analysis: Perform detailed chemical analysis of materials in various industries.

FEATURES

- **High Spectral Resolution**: Capture detailed spectral information across a wide range of wavelengths.
- **Fast and Accurate Imaging**: Achieve high-speed imaging with precise spectral accuracy.
- **Robust and Durable Design**: Built to withstand harsh environments and provide reliable performance.
- **User-Friendly Interface**: Easy to operate with intuitive software for data analysis and visualization.
- **Portable and Compact**: Lightweight and portable design for field and laboratory use.

TORONTECH.com

TORONTECH

Torontech Inc.
251 Consumers Road, Suite 1200
Toronto, Ontario, M2J 4R3, Canada

Phone: +1 416 368 2721 | Fax: +1 416 981 7652
Email: info@torontech.com

Torontech, LLC
601 Brickell Key Drive, Suite 700
Miami, FL 33131, USA

Toll-Free: 1-866-383-7919
Email: sales@torontech.com

Torontech ME FZE
Meydan Grandstand, 6th Floor,
Meydan Road, Nad Al Sheba,
Dubai-261440, UAE

Phone: +971 488 19252
Email: me@torontech.com

USA | Canada | EU | UAE | GCC | KSA | India | Africa | Latin America | Asia