technology

Product sheet

HYPERVISION

Hyperspectral cameras

Qtechnology's Hypervision series delivers flexible, high-performance pushbroom hyperspectral imaging for industrial and lab use. Designed for machine builders, vision integrators, and researchers, these cameras offer precise spectral analysis across various wavelength ranges—ideal for agriculture, food grading, plastic sorting, and material recognition.

Both models feature advanced CMOS sensors and high-speed performance for seamless integration into machine vision systems, with compatibility across common vision software.

Hardware	Description
Slit sizes	10 µm, 20 µm (standard), 30 µm
Spectral resolution	6 nm
CPU	AMD Ryzen V1605B (8) @2.000 GHz
GPU	AMD ATI Radeon Vega Series
AI Chip	Hailo-8 Edge
Sensor Interface (AFE)	Kintex-7 XC7K160T (PCIe 2.0 x4)

HYPERVISION 1000 (VIS-NIR)

The Hypervision 1000 is a pushbroom hyperspectral camera covering the visible to near-infrared (VIS-NIR) range from 400–1000 nm. Powered by the Gsense sCMOS sensor, it provides high spectral precision for industrial and research applications.

Applications:

- Agriculture and plant health analysis
- Food grading

HYPERVISION 1700 (VIS-SWIR)

The Hypervision 1700 extends hyperspectral imaging into the short-wave infrared (SWIR) range, covering 430–1700 nm in a single camera unit. Utilizing the IMX990 sensor, it enables enhanced chemical differentiation, making it ideal for applications such as plastic type identification, surface treatment analysis, and bio solutions.

Specifications	Hypervision 1000	Hypervision 1700
Spectral range	400-1000 nm	430 - 1700 nm
Spatial resolution	1884 pixels	1296 pixels
Spectral bands	330	920
Spectral sampling	1.77 nm/pixel	1.38 nm/pixel
Pixel size	6.5 µm	5.0 µm
Maximum frame rate*	250 fps	150 fps
Shutter type	Global/Rolling	Global

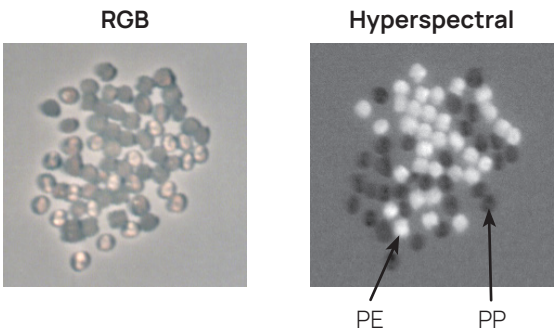
Applications:

- Plastic type identification
- Surface treatment inspection
- Material recognition
- UAV-based imaging

RGB VS HYPERSPECTRAL IMAGE

Our Hypervision system enables plastic type differentiation beyond the capabilities of RGB cameras. In the image, it effectively identifies Polypropylene (PP) and Polyethylene (PE).

Hyperspectral imaging reveals chemical composition differences invisible to the naked eye, aiding in fruit bruise detection, crop stress analysis, water content measurement, and material identification.



Qtechnology A/S
Emdrupvej 28A, 2nd floor I 2100 Copenhagen I Denmark
Phone: +45 3616 6537 I info@qtec.com I www.qtec.com

16.05.2025