Headwall is the proud recipient of these honors and more...

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VISION SYSTEMS DESIGN 2020 Innovators Awards GOLD

2020 Innovators Awards LaserFocusWorld PLATINUM HONOREE

Headwall

Hyperspec MV.X™ VNIR

A fully integrated hyperspectral imaging system

FEATURES

- High performance spectrometer
- For use in the VNIR (400-1000nm) range
- Compatible with perClass Mira® Stage and Software
- Fully integrated with an on-board processor
- Compact, dust-resistant, water-tight housing

DATASHEET

REV0124

DATASHEET

HYPERSPEC MV.X™ VNIR
A fully integrated hyperspectral imaging systemn

AUTOMATE TEDIOUS TASKS

Packaged in a compact, dust-resistant, and watertight housing, the **Hyperspec® MV.X™** is designed to be used in advanced machine vision, quality monitoring, and process analytical applications. This rugged solution can be installed in both inside and outside production environments.

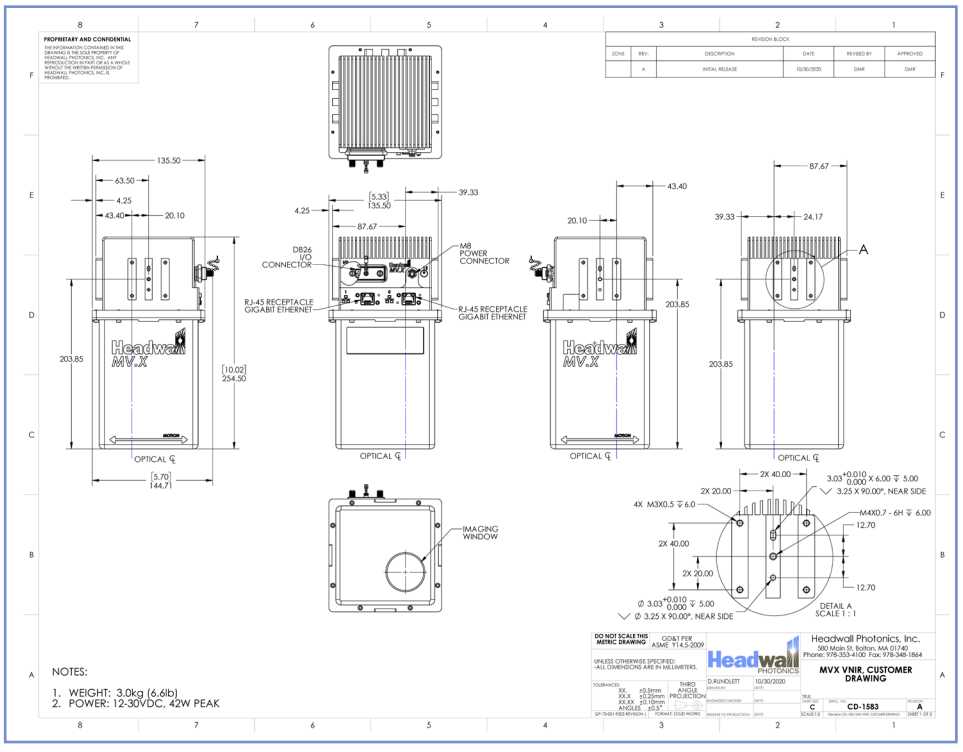
The award-winning Hyperspec® MV.X™ introduces to the industry a fully integrated hyperspectral imaging (HSI) system that enables users to realize the value of spatial and spectral information in industrial applications like automated sorting, quality inspection, authenticity verification, and process monitoring.

Hyperspectral imaging (HSI) has been gaining ground as a technique that enables food processors to apply advanced automated sorting and inspection solutions to alleviate some of the most tedious and labor-intensive tasks. Collecting highly resolved spectral information for each pixel in the image enables the detection of slight differences in color or composition to improve sorting and grading decisions.

Spectral data collected in the VNIR (400–1000nm) range helps detect or quantify features that traditional vision techniques cannot see. Hyperspectral systems have historically faced significant hurdles in industrial deployment due to the need to handle vast amounts of raw data as well as cope with the complexity of model development. Headwall's MV.X platform overcomes these obstacles by combining a high-performance spectrometer with powerful embedded computing to extract actionable results in real time.

SPECIFICATIONS	
Wavelength Range	400 – 1,000 nm
Spectral Bands[1]	301
Spatial Pixels	1020
Camera Technology	CMOS
Pixel Pitch	5.86 µm
Aperture	f/2.5
Dispersion/Pixel	1.75 nm
Entrance Slit Width	20 µm
FWHM Slit Image	6 nm
ADC Bit Depth	12-bits
Interface(s)	• GenICam, WebSocket • MQTT, RS-232/422, and 5V TTL in development
Weight	3 kg / 6.6 lbs (with 24mm lens)
Dimensions (without lens)	255 x 136 x 136 mm / 10.0 x 5.4 x 5.4 in
Power Input	12–30 VDC
Operational Temp Range	0 – 50 °C / 32 – 122 °F
Storage Temp Range	-10 – 60 °C / 14 – 140 °F

[1] Higher frame rates attainable with certain configurations



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