QUAKELOGIC

DATASHEET

HYPERSPECTRAL REFLECTANCE IMAGING SYSTEM

QL-HyperBench

Benchtop push-broom reflectance imaging for VNIR and SWIR hyperspectral cameras, with stage, lighting, calibration and software in one system.



SCANNING

Linear stage + tower

Push-broom line scan

ILLUMINATION

8 halogen fixtures

Flood-light assembly

SOFTWARE

Acquisition + analysis

Operating licenses included

WARRANTY

3 years

Issued by QuakeLogic Inc.

CUSTOMER SATISFACTION 100% GUARANTEED

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QL-HyperBench Reflectance System

Benchtop Hyperspectral Reflectance Imaging System







BENCHTOP HYPERSPECTRAL REFLECTANCE IMAGING PLATFORM

The QL-HyperBench Reflectance System is a benchtop platform for push-broom reflectance imaging with the QL-HyperSpec VNIR and SWIR cameras. A linear scanning stage and tower carry the camera over the sample under an eight-fixture halogen lighting assembly, while a white calibration reference and the included acquisition and analysis software turn each scan into calibrated reflectance data. It is supplied with a configured workstation laptop, virtual training and remote technical support.

- **Complete system.** Stage, lighting, calibration reference, software and laptop are supplied together, so data collection starts without sourcing third-party components.
- **Calibrated output.** Radiometric and dark-current correction with white-reference normalization give comparable reflectance data from scan to scan.
- **One platform for VNIR and SWIR.** Both QL-HyperSpec cameras mount on the same scanning tower and run from the same software.
- **Supported ownership.** Three-year written warranty issued by QuakeLogic Inc., remote technical support, and virtual training until users complete the workflow independently.

STANDARD FEATURES »

- Linear Scanning Stage
- Scanning Tower
- Eight-Fixture Halogen Lighting
- White Calibration Reference
- Data Acquisition Software
- Data Analysis Software
- Operating Licenses
- UL-Recognized Power Supply
- Communication Cables
- Connection Cables
- U.S. Power Cord
- Workstation Laptop
- Operating Manuals
- Training Materials
- Virtual Training
- Remote Technical Support

KEY FEATURES

- Linear scanning stage with tower carries the camera over the sample, producing consistent push-broom reflectance scans for repeatable laboratory imaging.
- Eight-fixture halogen flood-light assembly illuminates the scan field with broadband light for VNIR and SWIR reflectance capture.
- Compatible with both QL-HyperSpec VNIR and QL-HyperSpec SWIR cameras, so one platform serves visible-to-shortwave-infrared imaging.
- White calibration reference provides the reflectance standard used to normalize each scan for quantitative, comparable spectral measurements.
- Included acquisition software operates the camera and scanning stage together, coordinating stage motion with line-scan capture.
- Included analysis software processes hyperspectral data cubes, from calibrated reflectance imagery through spectral analysis.
- Radiometric and dark-current correction convert raw sensor output into calibrated reflectance imagery.
- Universal-input 24 VDC power supply with switch-selectable 90–132 or 180–264 VAC input and a U.S.-compatible cord.
- Workstation laptop with 16-inch touchscreen, 64 GB RAM and 512 GB SSD, configured for acquisition and processing.

PRODUCT FEATURES

Imaging Cameras
QL-HyperSpec VNIR and QL-HyperSpec SWIR compatible · Push-broom reflectance scanning

Scanning Assembly
Linear scanning stage with tower

Illumination
Eight-fixture halogen flood-light assembly

Calibration
White calibration reference included · Radiometric and dark-current correction

Software
Data acquisition software for camera and stage · Hyperspectral data analysis software · Operating licenses included

Power & Electrical Safety
UL-recognized 24 VDC power supply (UL File E183223) · U.S.-compatible cord and plug · Assembled system UL-evaluated and labeled before shipment

For more information about the features, specifications, and available configurations of the QL-HyperBench Reflectance System, please contact QuakeLogic.

SYSTEM CONFIGURATION

COMPONENT	CONFIGURATION
Scanning Assembly	Linear scanning stage with tower
Illumination	Eight-fixture halogen flood-light assembly
Calibration Reference	White calibration reference
Acquisition Software	Included, camera and stage control
Analysis Software	Included, hyperspectral processing
Software Licenses	Operating licenses included
Power Supply	UL-recognized, 24 VDC, 14.6 A
Workstation	Laptop, 16-in touchscreen, 64 GB RAM, 512 GB SSD
Cables	Communication and connection cables, U.S. power cord

POWER & ELECTRICAL SAFETY

SPECIFICATION	VALUE
AC Input Range	90–132 VAC or 180–264 VAC, switch-selected
Input Frequency	47–63 Hz
U.S. Operating Configuration	120 VAC, 60 Hz
DC Output	24 VDC, 14.6 A
Power Supply Listing	UL-recognized component (UL File E183223)
Electrical Safety	Assembled system UL-evaluated and labeled before shipment

INCLUDED SERVICES

DELIVERY & SETUP

Configured and functionally tested before shipment, then delivered with setup guidance and remote commissioning support.

VIRTUAL TRAINING

Live virtual training on setup, calibration, acquisition and processing, continuing until users complete the workflow independently.

WARRANTY

Three-year written warranty issued by QuakeLogic Inc. on the system; the workstation laptop carries a minimum two-year warranty.

DOCUMENTATION

Operating manuals, processing guidance, training materials, and UL evaluation records for the assembled system.

TECHNICAL SPECIFICATIONS

SPECIFICATION	DESCRIPTION
System Type	Benchtop hyperspectral reflectance imaging platform
Camera Compatibility	QL-HyperSpec VNIR and QL-HyperSpec SWIR
Scan Method	Push-broom line scan
Scanning Assembly	Linear scanning stage with tower
Illumination	Eight-fixture halogen flood-light assembly
Calibration Reference	White calibration reference included
Data Acquisition Software	Included, camera and stage operation
Data Analysis Software	Included, hyperspectral processing
Software Licenses	Operating licenses included
Correction Functions	Radiometric and dark-current correction
Camera Interface	USB 3.0
Accessories	Communication and connection cables

SPECIFICATION	DESCRIPTION
Power Supply	UL-recognized switching supply
DC Output	24 VDC, 14.6 A
AC Input Range	90–132 / 180–264 VAC, switch-selected
Input Frequency	47–63 Hz
U.S. Operating Configuration	120 VAC, 60 Hz
Power Connection	U.S.-compatible cord and plug
Electrical Safety	Assembled system UL-evaluated and labeled before shipment
Workstation Laptop	16-in touchscreen, 64 GB RAM, 512 GB SSD
Training	Live virtual training, included
Technical Support	Remote: operation, software, troubleshooting
System Warranty	Three years, issued by QuakeLogic Inc.
Laptop Warranty	Minimum two years

Images are representative. Specifications describe the standard QL-HyperBench Reflectance System configuration.



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VIEW PRODUCT

QuakeLogic Inc. is a California-based engineering and technology company supplying measurement, testing and monitoring systems to universities, government agencies and industry.

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