

IntegraSpec™ XL Spectrometers for Process-Control Applications

DATA SHEET



True Process-Spectroscopy, Now Feasible and Affordable

Near-infrared analyses of organic gases, liquids, and solids are well-established tools to measure composition and purity for industrial QA/QC and environmental safety. However, traditional FT-NIR analyzers, designed primarily for laboratory use, are too large, too delicate, and too costly to deploy effectively on process lines and for point-of-use material inspection. And smaller diode-array process systems

compromise resolution, speed, calibration transfer, and other aspects of performance. Today, the cost of installation, maintenance, and operation for process-analytical systems far exceeds the analyzer cost. Axsun's IntegraSpec XL platform meets the ultimate process challenge – drastically reducing the total cost of measurement. Readily configured as rugged, low-cost systems, this powerful platform can be integrated into the process stream without extensive investment in plant maintenance and training, or capital including real estate, fiber cabling, environmental and regulatory compliance, and method development.

Product Description

The IntegraSpec XL platform is a pre-dispersive NIR spectrometer with a tunable laser-based light source, integrated wavelength and amplitude references, and detector. It addresses the breadth of NIR spectroscopic process applications in monitoring vapor, liquids, and solids in transmission and diffuse reflection. The flexible platform accommodates both fiber-to-detector and direct-to-detector sampling configurations.

Supplied by Axsun's Solution Partners

The IntegraSpec XL board-level platform is packaged, supplied, and installed through analytical instrument manufacturers, systems integrators, and process-control product and services suppliers. Axsun partners with world-class companies who offer complete solutions for manufacturing customers in developing and rolling out process-monitoring applications – from sampling hardware to process control and analysis software to installation and training services.

Process-Monitoring Applications

- Chemical Manufacturing
- Petrochemical Manufacturing
- Oil & Gas Refinery Operations
- Specialty Gas Applications
- Food, Beverage, & Dairy Processing
- Semiconductor Manufacturing
- Environmental Testing
- Agriculture Processing



FEATURES & BENEFITS

- Rugged, versatile platform – ideal for point-of-use and in-line process applications
- Spectral sensitivity to 1800 nm addresses a larger portfolio of applications and samples with higher performance
- Field-proven semiconductor device technology enables maintenance-free operation
- Low power consumption for longest-life battery operation
- Proprietary WARM™ Wavelength/Amplitude Referencing Module ensures calibration transfer
- High-speed data acquisition for real-time measurements

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PERFORMANCE SPECIFICATION

Axsun currently offers three models, with different spectral ranges

Model	Part No.	Spectral Range (nm)	Absorption Bands
IntegraSpec XL 110	AXP50073-10	1350-1540	O-H 1 st overtones
IntegraSpec XL 210	AXP50073-20	1540-1800	C-H 1 st overtone
IntegraSpec XL 410	AXP50073-40	1350-1800	O-H & C-H 1 st overtones

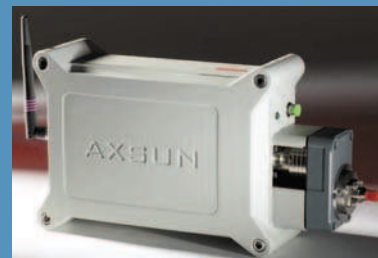
General Specifications

Wavelength Accuracy (Cal. Transfer)	± 0.025 nm
Wavelength Repeatability	0.01 nm
Baseline Stability (24 hours)	± 0.5%
Spectral Resolution	3.5 cm ⁻¹
SNR (250 msec collect, RMS)	>5500:1
Product Dimensions	186 x 120 x 63 mm
Temperature Range	0-55 °C
Power Consumption	11 - 22 W
Electrical Interface	Wireless 802.11b, RS-232, Ethernet 10/100, USB 2.0
Optical Interface	Excitation: polarization-maintaining fiber, FC/APC Collection: multimode fiber, SMA905
Software Interface	Microsoft® ActiveX®

(Specifications are subject to change without notice)

CLASS 1 LASER PRODUCT

PRODUCTS FOR APPLICATION DEVELOPMENT



NIR Analyzer XL



Liquid Transmission Probe



Gas/Liquid Accessory Kit

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