

Thermo Scientific Nicolet Summit FTIR Spectrometer Family

Reach the peak of productivity

Compact, capable, and connected

The Thermo Scientific™ Nicolet™ Summit™ FTIR Spectrometers deliver reliable data by minimizing the steps needed to measure and identify materials – all in a rugged, compact footprint. Nicolet Summit instruments can be interfaced with via an integrated Windows® computer or a USB cable. An optional touchscreen interface helps save space and simplify analysis even further.

- Fast, trusted results – the Nicolet Summit FTIR Spectrometers are designed with the Thermo Scientific™ LightDrive™ Optical Engine to improve data reproducibility and results; each instrument is tested and shipped to you with factory-verified specifications, guaranteeing actual, not “typical” or “achievable,” performance
- Streamlined workflows – the Thermo Scientific™ OMNIC™ Paradigm™ Software Suite provides automated workflows for performance verification and regulatory compliance; workflows can be easily developed in OMNIC Paradigm Software using a new, visual workflow builder
- Real-time feedback – a unique LED LightBar indicates how well your sample matches a reference spectrum and provides feedback on instrument status
- Worry-free ownership – a multi-year warranty on the laser, source and interferometer backed by Unity™ Lab Services* provides unmatched confidence

We partner with you to help create your testing solutions for today, and provide the support to deliver results you can count on for years to come. The Nicolet Summit FTIR Spectrometer is available in three models: LITE, X, and PRO.

*Only available in North America and selected European countries. Qualified dealer network support available outside these regions.

	Nicolet Summit LITE	Nicolet Summit X	Nicolet Summit PRO
LightDrive Optical Engine (laser, source, interferometer)	•	•	•
Warranty on LightDrive laser, source and interferometer	5-year	10-year	10-year
OMNIC Paradigm Software	•	•	•
Pharmacopeia workflows	•	•	•
Detector	LiTaO3	DTGS	TEC-DTGS
Included library/reference spectra	850	5,000	10,000
User Interface	USB	USB	Integrated Windows 10 Computer
Wi-Fi enabled			•
Touchscreen available			•
Internal motorized aperture			•



Summit LITE – Basic FTIR for periodic testing with outstanding results.



Summit X – Flexible, easy-to-use, high performance FTIR to keep your line moving.



Summit PRO – The highest performance in an integrated, space-saving design.

Specifications

Spectral Range	8,100–350 cm ⁻¹ optimized, extended mid-infrared KBr beamsplitter with hydration protection
Spectral Resolution (Without aperture/card)	<ul style="list-style-type: none"> Summit LITE Spectrometer – better than 0.6 cm⁻¹ Summit X Spectrometer – better than 0.5 cm⁻¹ Summit PRO Spectrometer – better than 0.45 cm⁻¹ (superior line shapes)
Signal-to-noise	<ul style="list-style-type: none"> Summit LITE Spectrometer – 14,000:1 (peak-to-peak, one minute, @ 4 cm⁻¹ spectral resolution transmission) Summit X Spectrometer – 56,000:1 (peak-to-peak, one minute, @ 4 cm⁻¹ spectral resolution transmission)
Wavenumber Precision	0.001 cm ⁻¹ at 2,000 cm ⁻¹
Wavenumber Accuracy	0.05 cm ⁻¹ at 2,000 cm ⁻¹
Ordinate Linearity (ASTM E1421)	<0.15 %T deviation from 0.0%T
Infrared Source (LightDrive)	Pre aligned Non-migrating hotspot, single-point source for unmatched data reproducibility User replaceable and with electronic stabilisation
Laser (LightDrive)	Solid-state, temperature controlled diode laser with long lifetime
Interferometer (LightDrive)	Dynamically aligned interferometer with KBr/Ge mid-infrared beamsplitter optimized for highest spectral throughput. Free from mirror tilt alignment.
Detector	<ul style="list-style-type: none"> Summit LITE Spectrometer – lithium tantalate (LiTaO₃) Summit X Spectrometer – fast-recovery deuterated triglycine sulfate (DTGS) Summit PRO Spectrometer – thermoelectrically cooled (TEC) DTGS for maximum detector response linearity
Size (W x H x D)	<ul style="list-style-type: none"> LITE, X, and PRO (without touchscreen) configuration: 34 cm x 24 cm x 32 cm; (13.3 in. x 9.6 in. x 12.7 in.) Summit PRO with touchscreen: 53 cm x 43 cm x 32 cm; (20.8 in. x 17.0 in. x 12.7 in.)
Weight	<ul style="list-style-type: none"> Summit LITE Spectrometer – 9.6 Kg (21 lbs) Summit X Spectrometer configuration – 10.9 Kg (24 lbs) Summit PRO Spectrometer configuration with touchscreen – 12.6 Kg (27.8 lbs)
Power Consumption	100-240 VAC, 47-63 Hz, 110 W
User Interface/Connection	Summit LITE and Summit X Spectrometers: <ul style="list-style-type: none"> USB, LAN connection to laptop computer Summit PRO Spectrometer: <ul style="list-style-type: none"> Integrated touchscreen for local control on the instrument (optional) Mini-display port connection to monitor Ethernet connection to laptop computer Wireless/Remote control via WLAN (optional)
LightBar	Multi-colored LED bar displays system status and spectral library match value/QCheck result
Background collection	<ul style="list-style-type: none"> Standard background collection (i.e., user initiated) Smart Background collection (background collected while instrument is idle)
Desktop Software	<p>The Nicolet Summit FTIR Spectrometers are powered by OMNIC Paradigm Software. Desktop software features include:</p> <ul style="list-style-type: none"> Dashboard/Home screen for quick access of recent work Visual, drag and drop workflow creator with example templates Live displays of data collection and spectral data preview Connectivity to OMNIC Anywhere Cloud-based Application Smart Background feature cuts measurement time by 50% Advanced instrument health information tracking (optional) Flexible, one-click library creation Pre-defined reporting templates exportable to Microsoft Office Suite Multi-component search and contamination analysis functionality Full spectral processing and analysis tools (baseline correction, smoothing, Kramers-Kronig, Normalize, spectral math, peak area, peak height, etc...) Quantification prediction for Beer's Law, PLS, CLS, etc... Automated workflow creator based on spectral processing history

Touchscreen Software	<ul style="list-style-type: none"> • Multi-point, ultra-responsive touchscreen display • Simplified visual layout for streamlined applications • Screen tap simplicity to run dedicated workflows and analyses • Spectral viewer with basic processing tools (i.e., peak area)
OMNIC Security Suite Software	<ul style="list-style-type: none"> • Full Security Administration software with permission and access rights validation • Digital signature and electronic data security compliant • Database infrastructure for advanced tracking and complete audit trail • Audit Manager software with spectral process and system audit trail viewer
Performance Verification and Regulatory Compliance	<ul style="list-style-type: none"> • Automated performance verification tests (ASTM E1421) to meet customer GLP requirements • System suitability tests for complete, customizable system performance assurance • Internal NIST-traceable 1.5 mil polystyrene film (serialized) • Compliant with latest pharmacopeia methods (Ph. Eur, USP, JP, and CP) • 21 CFR Part 11 compliance available, including installation and operation qualification (IQ/OQ)
Sampling Accessories	Open center focused sample compartment provides compatibility with Nicolet iS5 iD accessories and hundreds of other third-party accessories with auto recognition. ATR sample module has electronic pressure sensor and records details in data file. Microscope, TGA DSC/ STA hyphenation
Optical Housing	All optics are sealed in a metal alloy chassis for enhanced durability, robustness, and moisture control
Serviceability	<ul style="list-style-type: none"> • User-replaceable components (without opening cover): Desiccant, power supply, sample compartment windows, infrared source • No manual alignment required • Service contracts available from Unity™ Lab Services or qualified dealer network
Warranty	<ul style="list-style-type: none"> • 1 year on complete system, 5 years on Thermo Scientific™ Everest™ Diamond ATR • Summit LITE – 5 years on interferometer, laser and source • Summit X & Summit PRO – 10 years on interferometer, laser and source
Atmospheric compensation, Humidity and Vapor Protection	<ul style="list-style-type: none"> • Very less effect of carbon dioxide and water. No need for reference spectra • Tightly sealed and desiccated optical compartment with protective KBr windows • Optional ZnSe windows available for environments with excessive humidity • Rechargeable desiccant cartridges with humidity indicator. Desiccant replacement at 25°C and 90% of RH
Diagnostics	<ul style="list-style-type: none"> • Continuous electronic monitoring of multiple spectrometer components with temperature and humidity sensors • Diagnostic status displayed on LightBar
Training and Help	Free online training videos and help articles, including unpacking, getting started, and advanced applications
Operating Systems	Microsoft® Windows® 10 (64-bit)

LABINDIA
 ANALYTICAL
 WHERE COMMITMENT IS CULTURE

www.labindia-analytical.com / For Enquiries: sales.mfd@labindia.com
 Labindia Analytical Instruments Pvt. Ltd.

HEAD OFFICE:

Thane: 201, Nand Chambers, LBS Marg, Near Vandana Cinema, Thane (W) - 400 602.
 Tel.: +91-22-6908 6000 / 6908 6110 E-mail: sales.mfd@labindia.com

thermo scientific