

A technology enterprise realizing innovation value,
building a Chinese brand for spectroscopic instruments.



广东星创众谱仪器有限公司
GUANG DONG SPECTRASTAR INSTRUMENTS CO., LTD.

星创众谱

智能光谱快检专家

Expert on quick calibration of intelligent spectrum



抖音二维码



公众号二维码

广东星创众谱仪器有限公司
GUANG DONG SPECTRASTAR INSTRUMENTS CO., LTD.
Address: Floors 1-2, Building A4, No. 3 Keyan Road, Science City, Guangzhou
Telephone: 020-82557037
After-sales Service: 400-8038080
Website: www.spectrastar.com.cn

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I am determined to industrialize spectral rapid inspection technology!

- ◆ Academician of the Chinese Academy of Sciences
- ◆ Pioneer of near-infrared spectroscopy technology in China
- ◆ Honored contributor to the light radiation measurement for China's first nuclear explosion
- ◆ One of the pioneers in the history of modern Chinese science
- ◆ Chairman of the Company



The year 1963.

The first infrared spectrometer in China.



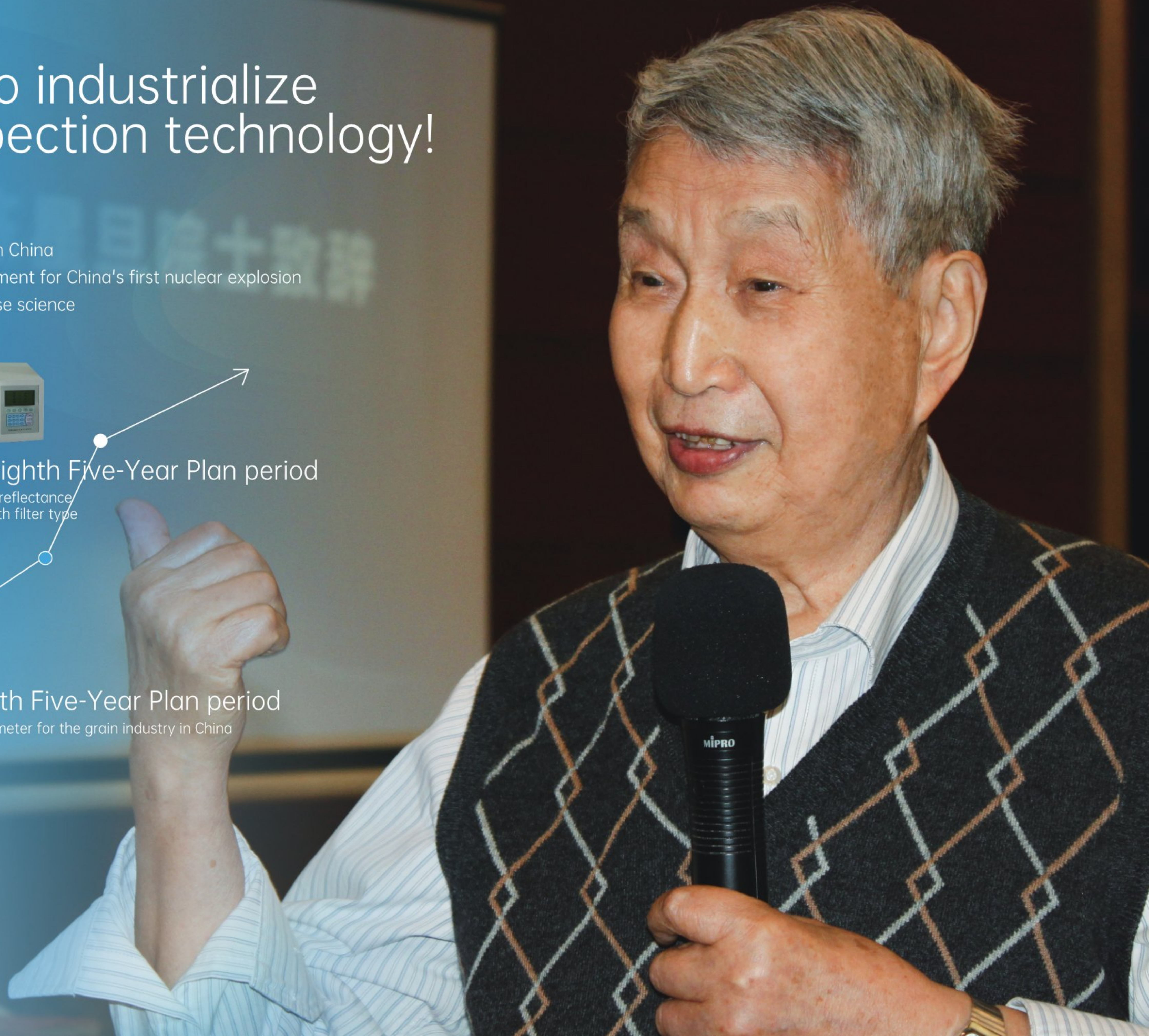
During the Eighth Five-Year Plan period

Near-infrared diffuse reflectance spectrum analyzer with filter type



During the Seventh Five-Year Plan period

The first near-infrared spectrometer for the grain industry in China



About us



GUANG DONG SPECTRASTAR INSTRUMENTS CO., LTD. is a technology-driven innovative enterprise integrating the research and development, manufacturing, sales, and service of spectroscopic instruments.

Chairman Chen Xingdan (Academician of the Chinese Academy of Sciences) is a leading authority in China's applied optics sector. He has made pioneering, internationally advanced achievements in radiation metrology, spectroscopy, spectral technology, and short-wave optics. As the first in China to develop infrared and near-infrared spectrometers, he has received multiple prestigious awards, including First and Second Class Prizes from the Chinese Academy of Sciences and a Second Class Prize for National Science and Technology Progress. His work has also been featured at international expositions.

Since its establishment, the company has successively obtained a number of honors and qualifications, including Guangdong Province New Type R&D Institution, Guangzhou City Key Laboratory, National High-Tech Enterprise, and "Specialized and Sophisticated" (High-Growth, High-Tech, Four-New) Enterprise. It has taken the lead in establishing multiple provincial and municipal industry alliances, such as the Guangdong Food Safety Industry Technology Innovation Alliance. The company has developed three main product series: food safety testing, grain quality testing, and industrial testing. Food safety testing instruments can be used for the rapid determination of drug residues, heavy metals, illegal additives, toxic substances, and microorganisms in food and agricultural products. Near-infrared testing instruments can be used for rapid analysis of grains and oil crops in multiple stages such as breeding, acquisition, processing, and storage. Industrial testing instruments can be used for real-time detection in product manufacturing.

Guided by the core values of "Scientific Precision, Pioneering Spirit, Responsibility, and Dream Realization," the company is committed to applying technological innovation to major public wellbeing initiatives. We focus on accelerating the transformation and industrialization of technologies like intelligent spectral rapid inspection, breaking foreign monopolies, filling domestic gaps, and building a Chinese brand for spectroscopic instruments. Our technology is applied to quality and safety assurance in sectors such as grain and oil, food, pharmaceuticals, and textiles. For government agencies, it helps establish food safety regulatory systems, creating a robust "protective net." For enterprises, it enables quality and safety control, reducing risks and improving efficiency. For the public, it safeguards the quality and safety of everything on people's plates.

01 Near-Infrared (NIR) Product Series



02 Food Safety Product Series



Honorable Mention

- ☆ Guangdong Province New Type R&D Institution
- ☆ Guangzhou City Key Laboratory
- ☆ Leading Unit of the Guangdong Food Safety Industry Technology Innovation Alliance
- ☆ National High-Tech Enterprise
- ☆ Guangdong Workstation of the Near-Infrared Spectroscopy Branch, China Instrument and Control Society (Hosted by the Company)
- ☆ Guangdong Province "Specialized and Sophisticated" SME

- ☆ Second Prize of the Guangzhou Division, 8th China Innovation and Entrepreneurship Competition
- ☆ Guangzhou "Specialized and Sophisticated" (High-Growth, High-Tech, Four-New) Enterprise
- ☆ GB/T 27925-2011 Five-Star Brand Certification
- ☆ Leading Unit of the Guangzhou Food Safety Technology Innovation Alliance
- ☆ Leading Unit of the Guangzhou Spectroscopic Instruments Technology Innovation Alliance
- ☆ Industrial Enterprise Above Designated Size

- ☆ Governing Board Member Unit of the Guangdong Food Safety Institute
- ☆ Governing Board Member Unit of the Guangdong Food Safety and Quality Association
- ☆ Governing Board Member Unit of the Near-Infrared Spectroscopy Branch, China Instrument and Control Society
- ☆ Governing Board Member Unit of the Food Quality and Safety Testing Instruments and Technology Application Branch, China Instrument and Control Society

- 6 items Invention patents
- 21 items Utility model patents
- 21 items Design patent
- 29 items Software copyrights



Near infrared series products

01 G3200
Near-Infrared Grain Analyzer

Grain Analyzer is suitable for the rapid, non-destructive, and multi-parameter quantitative analysis of grains such as wheat (flour), soybean (powder), corn, paddy rice, brown rice, and rapeseed. It can be used at various stages including grain acquisition, storage, processing, and breeding, providing a fast detection method for grain quality assessment. The instrument is applicable in different settings, including laboratories, production workshops, and field sites.



Testing Parameters

Wheat: Moisture, Protein, Wet Gluten, Test Weight (optional)

Paddy: Moisture, Protein, Amylose

Brown Rice: Moisture, Protein, Amylose

Rapeseed: Moisture, Protein, Oil Content

Corn: Moisture, Starch, Protein

Flour: Moisture, Protein, Ash Content

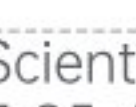
Soybean: Moisture, Protein, Oil Content

Soybean Powder: Moisture, Protein, Oil Content

Main Technical Specifications

Spectral range: 680-1050nm
Resolution: Better than 4nm
Optical path adjustment: 4mm, 6mm, 18mm, 25mm, 29mm
Detector: Silicon diode array
Measurement mode: Transmission
Instrument dimensions: 587* 379* 516mm

Advantages and Features

-  Superior Performance: Spectral resolution better than 4nm
 -  Automation: Automatic optical path adjustment for quicker and easier switching of sample measurement modes
 -  Breeding Support: Enables analysis with small sample volumes, suitable for breeding applications
 -  Integrated Design: Built-in test weight module for a streamlined design and a wider range of available detection models
 -  Traceability: Can interface with grain and oil traceability management platforms at various levels
 -  Efficient and Rapid: Measures multiple parameters of a sample simultaneously in just 1-3 minutes, significantly shortening the analysis cycle
 -  Scientific Accuracy: Utilizes patented sample introduction technology to automatically collect 5-25 (adjustable) sub-samples for analysis. Combined with advanced optimization algorithms, it enhances the precision and stability of the measurement results.
 -  Non-destructive: Analyzes whole grain samples without the need for grinding
 -  User-Friendly Operation: Features a 10.1-inch capacitive touch screen and an intelligent operating system, easily mastered with minimal training.
 -  Intelligent Analysis: Equipped with dedicated analysis software offering functions such as self-diagnosis, model calibration, wavelength calibration, testing, and automatic report generation.
 -  Intelligent Monitoring: Includes intelligent monitoring software with features like battery level indication, temperature and humidity monitoring, automatic sample temperature calibration, and adaptive spectral balancing.

02 G3020 Near-Infrared Grain Analyzer

The G3020 Near-Infrared Grain Analyzer is suitable for the rapid, non-destructive, and multi-parameter quantitative analysis of grains such as wheat (flour), soybeans, corn, and paddy rice across multiple stages including procurement, storage, and processing. It provides a fast and reliable method for grain quality evaluation and identification. The instrument can be applied in different settings, including laboratories, production workshops, and field sites.

Testing Parameters:

Wheat: Moisture, Protein, Wet Gluten
Paddy: Moisture, Amylose, Protein
Brown Rice: Moisture, Protein, Amylose
Soybean: Moisture, Protein, Oil Content
Corn: Moisture, Starch, Protein
Flour: Moisture, Protein, Ash Content



Main Technical Specifications

Detection Method	Near-infrared spectroscopy transmission technology	Spectral Range	680-1050nm
Spectral Dispersion	Fixed grating, no moving parts	Resolution	Better than 7 nm
Measurement Time	<3min	Optical Path Adjustment	6mm、18mm、29mm
Operating Temperature	-10°C~40°C	Detector	256-pixel silicon photodiode array detector
Operating System	Intelligent operating system	Measurement Mode	Transmission; up to 25 subsamples can be analyzed in a single measurement
Detection Method	Near-infrared spectroscopy transmission technology	Instrument Dimensions	360*250*300mm



03 G1200 Portable Grain Analyzer

The G1200 Portable Grain Analyzer is suitable for the rapid, non-destructive, and multi-parameter quantitative analysis of grains such as soybeans, wheat, maize, and rice during various stages including procurement, storage, and processing. It provides a rapid testing method for grain quality evaluation and identification. The instrument can be used in a variety of settings, including laboratories, processing workshops, and field environments.

Testing Parameters

Wheat: Moisture, Protein, Wet Gluten
Paddy: Moisture, Protein, Amylose
Brown Rice: Moisture, Protein, Amylose
Soybean: Moisture, Protein, Oil Content, Water-soluble protein
Corn: Moisture, Starch, Protein

Main Technical Specifications

Detection Method	Near-infrared spectroscopy transmission technology	Operating System	Intelligent operating system
Spectral Dispersion	Fixed grating, no moving parts	Operating Temperature	-10°C-40°C
Detector	256-pixel silicon photodiode array detector	Instrument Dimensions	210*300*228mm
Wavelength Range	Including 700-1050 nm	Battery	15 Ah high-capacity lithium battery
Measurement Time	<2min	Weight	<8kg
Display	7-inch capacitive touch screen		



Product Advantages

-  Digital Management: Enables centralized remote service management for the group, enhancing supervision and control.
-  Traceability: Can be integrated with grain and oil traceability management platforms at various levels.
-  Online Diagnostics: The instrument is equipped with online diagnostic capabilities.
-  Compact and Portable: The instrument features a built-in handle and a compact body, making it easy to carry.

G1200 Series Products

The G1200 Series Products are suitable for the rapid, non-destructive, and multi-parameter quantitative analysis of grains such as soybeans, wheat, corn, and rice during various stages, including procurement, storage, and processing. They provide a fast and reliable method for grain quality evaluation and identification. The instruments can be used in a variety of settings, including laboratories, production work-shops, and field environments.



Main Technical Specifications

Detection Method	Near-infrared spectroscopy transmission technology	Operating Temperature	-10℃-40℃
Spectral Dispersion	Fixed grating, no moving parts	Instrument Dimensions	210*300*228mm
Detector	256-pixel silicon photodiode array detector	Battery	15 Ah high-capacity lithium battery
Wavelength Range	Including 700-1050 nm	Weight	<8kg
Display	Capacitive Touch Screen		

04 G1200-A Portable Soy Protein Analyzer

Sample: Soybeans
Analyzed Parameters:
Protein, Moisture, Fat, Water-soluble Protein
Operating System: Intelligent Operating System
Measurement Time: < 60 S

05 G1200-C Portable Wheat Analyzer

Sample: Wheat
Analyzed Parameters: Moisture, Protein, Wet Gluten
Operating System: Intelligent Operating System
Measurement Time: < 3 M

06 G1200-F Portable Corn Analyzer

Sample: Corn
Analyzed Parameters: Moisture, Protein, Starch
Operating System: Intelligent Operating System
Measurement Time: < 2 M

07 G1200-P Portable Rice Free Fatty Acid Analyzer

Sample: Paddy Rice, Brown Rice
Analyzed Parameters:
Free Fatty Acid Value, Moisture, Protein, Amylose
Operating System: Intelligent Operating System
Measurement Time: < 2 M

G1030 Series Products

The G1030 Series instruments are suitable for the rapid, non-destructive, and multi-parameter quantitative analysis of grains such as soybeans, wheat, and maize during various stages including procurement, storage, and processing. They provide a fast and reliable method for grain quality evaluation and identification. The instruments can be used in a variety of set tings, including laboratories, production workshops, and field environments.



Main Technical Specifications

Detection Method	Near-infrared spectroscopy transmission technology
Spectral Dispersion	Fixed grating, no moving parts
Detector	256-pixel silicon photodiode array detector
Wavelength Range	Including 700-1050 nm
Battery	Removable Lithium Battery
Display	Capacitive Touch Screen
Weight	<8kg
Operating Temperature	-10℃-40℃
Instrument Dimensions	210*393*228mm

09 G1030-C Portable Wheat Gluten Analyzer

Sample: Wheat
Analyzed Parameters:
Protein, Moisture, Wet Gluten
Measurement Time: < 90 S

08 G1030-A Portable Soy Protein Analyzer

Sample: Soybeans
Analyzed Parameters:
Protein, Moisture, Fat, Water-soluble Protein
Measurement Time: < 60 S

10 G1030-F Portable Corn Moisture Analyzer

Sample: Corn
Analyzed Parameter: Moisture
Measurement Time: < 2 M

11 IN6000 Near-Infrared Online Analyzer

The IN6000 Near-Infrared Online Analyzer is an online near-infrared spectrometer capable of non-destructive analysis of granular, powdered, pasty, and opaque samples. It is widely used in industries such as agriculture, food, chemical, pharmaceutical, brewing, dairy, feed, and tobacco. The instrument enables real-time multi-component detection of products on production lines, providing critical information for process control and quality monitoring.



Detection Scope

The analyzer is suitable for rapid, non-destructive, multi-parameter quantitative analysis of samples in industries such as feed and tobacco, across multiple stages including procurement, storage, and processing. It provides a fast and reliable method for sample quality evaluation and identification. The instrument can be used in a variety of settings, including laboratories, production workshops, and field sites.



Feed



Pharmaceutical



Tobacco



Brewing



Agriculture



Dairy



Chemical



Food

Product Advantages



Fully Automatic Operation: Supports 24-hour unattended operation.



Robust Core Components: Dustproof, waterproof, and explosion-proof design ensures safe and reliable performance.



Rapid Detection: Up to 30 scans per second with real-time prediction of results.



Long Service Life: Light source lifespan exceeds 10,000 hours.



Reagent-free and Non-destructive: No chemical reagents required, environmentally friendly, enabling non-destructive analysis.



High Speed and Efficiency: Fast, efficient, and highly reproducible measurements.



Highly Customizable: Offers comprehensive online near-infrared solutions tailored to specific requirements.

Main Technical Specifications

Operating Conditions	-10°C to 40°C, humidity ≤ 85%	Spot Size	Diameter 10 cm @ 250 mm working distance
Light Source Lifetime	10,000 hours	Safety & Protection	Complies with EMC, explosion-proof, and IP65 standards
Spectral Range	900~1700nm	Weight	≤18kg
Spectral Resolution	15nm@1550nm	Dimensions	401*300*223mm
Wavelength Stability	< 0.2 nm/year	Power Supply	AC 220V / 50 Hz
Measurement Speed	30 samples/second	Software Functions	Automatic wavelength calibration, instrument self-diagnosis, automatic white reference, model calibration
Communication	Data transfer and remote control via RJ45 wired network or WiFi (external antenna), with remote setup and protection capabilities		

12 G5010 Near-Infrared Online Grain Analyzer

The G5010 Near-Infrared Online Grain Analyzer is suitable for online detection of grains such as soybeans, wheat, maize, paddy rice, and polished rice during various stages including procurement, storage, and processing. It enables rapid, non-destructive, multi-parameter quantitative analysis, providing a fast and reliable method for grain quality evaluation and identification.



Optional Analyzed Parameters:

- Wheat: Moisture, Protein, Wet Gluten
- Paddy Rice: Moisture, Protein, Amylose
- Polished Rice: Moisture, Protein, Amylose
- Soybeans: Moisture, Protein, Fat, Water-soluble Protein
- Maize: Moisture, Starch, Protein

Main Technical Specifications

Detection Method	Near-infrared spectroscopy	Display	Intelligent Touch Screen
Spectral Dispersion	transmission technology	Operating Temperature	-10℃~40℃
Detector	256-pixel silicon photodiode array detector	Instrument Dimensions	342*233*160mm
Wavelength Range	Including 700-1050 nm	Weight	<7kg



P1010 Series Products

The P1010 Series Products are suitable for rapid, non-destructive, multi-parameter quantitative analysis of rapeseed, soybean meal, and rice bran during various stages, including procurement, storage, and processing. They provide a fast and reliable method for quality evaluation and identification. The instruments can be used in a variety of settings, including laboratories, production workshops, and field sites.

Main Technical Specifications

Detection Method	Near-infrared spectroscopy transmission technology	Display	Capacitive Touch Screen
Spectral Dispersion	Fixed grating, no moving parts	Operating Temperature	-10℃~40℃
Detector	256-pixel InGaAs Linear Array Detector	Instrument Dimensions	390*260*350mm
Wavelength Range	Including 900-1700 nm	Battery	Removable Lithium Battery
Measurement Time	< 60 seconds	Weight	<14kg



13

P1010-D
Portable Rapeseed Analyze

Analyzed Parameters:
Moisture, Protein, Oil Content, Erucic Acid

14

P1010-B
Portable Soymeal Analyzer

Analyzed Parameters:
Moisture, Protein, Fat

15

P1010-M
Portable Rice Bran Analyzer

Analyzed Parameters:
Moisture, Ash, Fiber, Fat, Protein, Acid Value



Food safety products

01 A1000 Qualified Edible Agricultural Products Intelligent Certification Terminal

The device includes a detection module, identity authentication module, data processing module, and wireless communication module. It can detect a wide range of residues and contaminants in food products, including agricultural and sideline products, aquatic products, and livestock and poultry products. Detectable substances include veterinary drug residues, antibiotic residues, pesticide residues, illegal additives, toxins, and heavy metals. The device is capable of issuing certificates of compliance for edible agricultural products.

Target Users: Planting bases, edible agricultural product manufacturers, farmers' cooperatives, family farms, wholesale markets, and similar enterprises.

Sample Types: Vegetables, fruits, livestock and poultry, eggs, and aquaculture products.



Main Technical Specifications

Operating System	Intelligent Operating System
Functional Modules	Spectrophotometric Detection Module, Colloidal Gold Detection Module, and Fluorescence Immunochromatography Detection Module
HD Display	15.6-inch high-definition screen with 1920 × 1080 resolution
Instrument Dimensions	482mm*300mm*192mm
Detection Modules	Spectrophotometric Detection Module (24 channels), Colloidal Gold Detection Module (2 channels), Fluorescence Immunochromatography Detection Module (2 channels)



Advantages and Features

The product features a 15.6-inch large high-definition LCD screen, making operation simple and convenient.

In addition to the standard spectrophotometric detection module (24 channels) and colloidal gold detection module, a fluorescence immunochromatography detection module is added, enhancing the product's versatility.

Equipped with dual authentication via ID card recognition and fingerprint recognition, facilitating supervision of testing personnel.

Optional blockchain-based information management module for secure data handling.

Traceability integration with food safety regulatory platforms.

Built-in high-speed automatic adhesive label printer, enabling convenient printing and application of compliance certificates.



Software Interface

Certificate Template

02 M1200 Food Safety Analyzer

It can simultaneously detect most indicators in foods, including veterinary drug residues, pesticide residues, illegal additives, toxins, and heavy metals in agricultural and sideline products, aquatic products, livestock and poultry products, etc.



03 F1020-A Rapid Pesticide Residue Tester

It is suitable for the detection of organophosphorus and carbamate pesticide residues in vegetables and fruits. Based on the enzyme inhibition method (GBT 5009.199-2003), it determines whether pesticide residues in samples exceed the standard by inhibition rate.



N

ear infrared instrument management platform

Product Functions

- ◆ Supports remote instrument management, including firmware upgrades and related operations.
- ◆ Provides online instrument location management for clear visibility of all deployed devices.
- ◆ Quickly view total detection data rankings by province.
- ◆ Real-time monitoring of instrument usage status and troubleshooting.
- ◆ Integrates various grain quality grade ratio data, continuously enriching the model database.
- ◆ Users can register accounts on the platform to monitor and manage their own instruments at any time.
- ◆ Manage testing devices and upload data via mobile applets, further enhancing quality supervision.

Software System Requirements

- ◆ Operating System: Windows 7, Windows 10
- ◆ Hardware Requirements: Minimum 128 MB RAM, at least 1 GB hard disk space, Pentium 586 or higher CPU
- ◆ Runtime Environment: VC++ 2017 runtime libraries



Cloud Platform Display



Mobile App Display

S

ervice user

01 【Government Departments】

The Grain Bureaus under the Henan Provincial Grain Administration cover 68 counties, Sichuan Province covers 27 counties, and Shanxi Province covers 9 counties. In addition, multiple local Grain Bureaus, Agriculture and Rural Affairs Bureaus, Animal Husbandry Bureaus, and grain storage facilities in Qinghai Province, Heilongjiang Province, Hubei Province, Guangxi Zhuang Autonomous Region, Guangdong Province, Tibet Autonomous Region, Inner Mongolia Auto-

02 【Public Institutions】

National Academy of Grain and Material Reserves, Wuhan Testing Center of the National Grain Administration, Tsinghua University, Sun Yat-sen University, Tianjin University, Wuhan University, South China University of Technology, South China Agricultural University, Jinan University, Henan University of Technology, Chinese Academy of Agricultural Sciences, Guangdong Agricultural Equipment Research Institute, Jiangsu Academy of Agricultural Sciences, Guangdong Institute of Food Industry, Heilong Agricultural Ecology Experimental Station of the Chinese Academy of Sciences, and others.

03 【Corporate Users】

COFCO Group Zhongfang Grain & Trade (Heilongjiang) Co., Ltd. and 10 other companies, China Grain Reserves Corporation, Xiamen Xiangyu Agricultural Products Co., Ltd., Heilongjiang Jiusan State Farm Jiarun Grain & Trade Co., Ltd., Heilongjiang Beidahuang Agriculture Co., Ltd., Heilongjiang Donghai Grain & Oil Co., Ltd., Jiamusi Zhongyiheng Agricultural Products Co., Ltd., Henan Sanjianle Food Co., Ltd., Zhejiang Top Cloud Agricultural Technology Co., Ltd., Henan Luoyang Yuanshi Food Co., Ltd., Guangdong Yuehai Feed Group, Guangdong Nongzhidao Agriculture & Animal Husbandry Technology Co., Ltd., Lide Lino Biotechnology (Beijing) Co., Ltd., Guangzhou Annor Technology Co., Ltd., Zhengzhou Huazhou Group Co., Ltd., Foshan Haitian Flavoring & Food Co., Ltd., Guizhou Moutai Co., Ltd., and others.



Corporate advantage

01

Independently Developed by an Academician Team

02

Rapid Product Iteration

03

Exquisite Product Quality

04

Comprehensive and Thorough Operation Training

05

Professional and Timely After-Sales Service

06

High-Quality Value-Added Services

07

Strong After-Sales Service Network

The Adjuster



Maintenance and Upkeep Preventive Measures

- ◆ All products receive remote guidance for installation and commissioning until the equipment operates normally.
- ◆ Remote training on product operation and support for troubleshooting are provided.
- ◆ Regular follow-up visits by professional after-sales personnel ensure the instruments remain in optimal working condition.
- ◆ 24*7 online service is available.

Warranty Service Peace of Mind Guarantee

- ◆ During the warranty period, for any damage not caused by human factors, our company provides free technical support and repair services.
- ◆ Fault response time: 2 hours, with a technical solution provided within 24 hours.
- ◆ All replaced damaged parts and components are genuine original materials.
- ◆ Dedicated after-sales technical service personnel are deployed across all regions nationwide to ensure fast, efficient, and high-quality service.
- ◆ Service Hotline: 400-8038080, providing hardware and software technical support.