

# SupNIR-1000 series

## Portable Near Infrared Analyzer



Supnir-1000 series portable near infrared analyzer is designed to be a portable analyzer for onsite rapid detection, wavelength range covers 600 to 1800nm, compact structural design ,small size, built-in rechargeable battery, large capacity storage device and LCD module. By configuring different measuring attachment, the analyzer can implement rapid detection of no destruction of flake, pellet, pasty, powder and liquid samples in some composition of physical and chemical. It has been widely applied in fruit farming, food quality, scientific research, and other fields.

### ■ Product feature

- Stable and reliable portable solution.
- Rapid analysis, synchronously measure multiple indexes within 30 seconds.
- High accuracy detection, close to the normal analysis accuracy of lab.
- Can implement rapid detection of no destruction on onsite samples.
- Abundant measurement accessories, can realize different sample analysis, convenient to change probes .
- Built-in standard substance, has automatic diagnosis and fault prompts functions.
- Built-in strong storage devices, achieve the analytical data and spectrogram storage.
- Built-in USB interface, Transfer data to the computer directly.
- Configure RIMP software with instrument , can implement upload and download of data, edit and output analytical report, realize network long distance control.
- Easy to operate, can be easily grasped by non technician .
- A variety of power supply methods, 19V DC and built-in lithium battery.
- Small volume, light weight, only 6 kilogram.

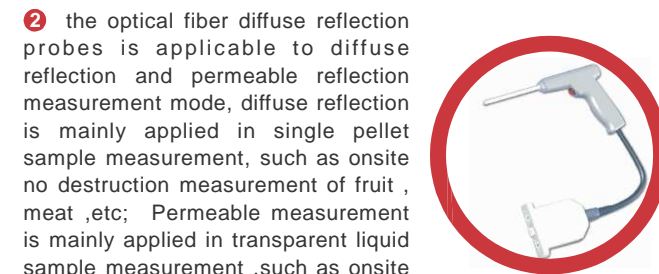


### ■ Abundant measurement accessories

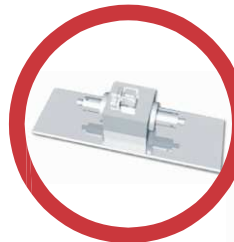
Many kinds of measurement modes can be achieved by connecting the probes and accessories of different types.



① the light source plane diffuse reflection probe is applicable to diffuse reflection measurement modes, can measure the flake, pellet, pasty, powder sample, such as no damage measurement in fruit, plastics, textiles, tobacco etc .



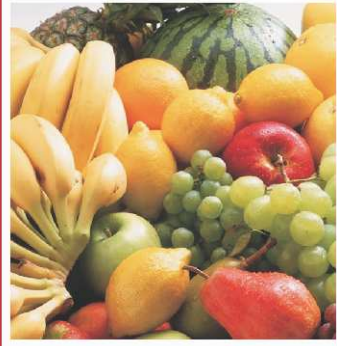
② the optical fiber diffuse reflection probes is applicable to diffuse reflection and permeable reflection measurement mode, diffuse reflection is mainly applied in single pellet sample measurement, such as onsite no destruction measurement of fruit , meat ,etc; Permeable measurement is mainly applied in transparent liquid sample measurement ,such as onsite measurement of edible oil ,fuel etc



③ cell rack, can achieve permeable measurement modes, it is mainly applied in liquid sample measurement.



## ■ Typical Applications



### Fruits

- Cultivation guide
- Quality evaluation
- Fruits classification
- Maturity monitoring



### Circulation quality measurement

- Meat quality measurement
- Edible oil measurement
- Feed measurement



### Tobacco

- Tobacco purchase
- Tobacco formula
- Tobacco processing
- Tobacco planting



### Scientific research

- Fiber detection
- Plastics recycle
- Soil fertility
- Medical substance identification

## ■ Performance parameters

Accessories name	Light source plane diffuse reflection probe	Optical fiber permeable reflection probe	Cell rack
Wave length range	600nm or 750nm	600nm	600nm
Light spot diameter	20mm	2.5mm	1mm
Light length	/	2/5/10mm	1/2/5/10/50mm

## ■ Measurement index

Sample types	Measurement index
Fruit	Sugar degree ,acidity ,hardness, insect pests
Meat	Water, Unsaturated fat, Crude protein
Edible oil	Unsaturated fatty acid, acid agent and Iodine number
Tobacco	Nicotine, water, general sugar , restore sugar, general chlorine, many phenol type, additive ,origin identification, degree classification .
Optical fiber	Each composition content of mix textiles, cotton fiber contains restore sugar, fiber outer oil, fiber dye ability, mercerized degrees of cotton fabric, wool Myelination degrees, cotton fabric finishing agent, second acetic acid cellulose vinegar number, carpet fabric type identification.
High molecular	Molecular, Density, dissolve index, etc stipulation, Remnant monomer, Solvent, additive content, pellet distribution , Mechanics property, recycle waste plastics type identification .
Soil	Water, Organic quality, general nitrogen content ,soil classification.
Medical substance	Crystal State , Pellet diameter, Circulation optical property, density, identification of Chinese medical substance counterfeits ,origin, quality degree

Note: increase measurement types and index based on customer requirement

## ■ Instrument parameter

Product type	SupNIR-1100	SupNIR-1520
Wave length range	600-1100nm	1000-1800nm
Spectrophotometric noise	< 100uA	< 50uA
Wave length precision	0.2nm	0.2nm
Wave length repeatability	±0.05nm	±0.05nm
Spectral resolution	6nm	6nm
Stray light	<0.1%	<0.1%
Detection time	<30seconds	<30seconds
Number of storage models group	6group	4group
Number of simultaneous analysis index	6	6
Storage spectrum	500	500
Storage analysis results	6000	6000
The light source power	Inner 5V/5W, outer 5V/10W	
The light source life span	> 5000 hours	
Communication interface	USB2.0	
Temperature range	(5-35) °C	
Humidity range	(5-85) %	
The light source	19V DC/4.5A or lithium batteries (work continuously for less than eight hours)	
Dimension(lengthxwidthx height)	355mmx278mmx117mm	
Weight	6kg	
Standard spare	Water proof push boxes,19V power adaptor ,the strap, tool , data cable, CD file	



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