



VIS AND UV/VIS SPECTROPHOTOMETERS



ANALYTICAL INSTRUMENTS

New generation of VIS and UV/Vis spectrophotometers
color touch screen display, spectrum scan on-board¹,
USB flash drive recovery

PASSION - EXPERIENCE - PERFORMANCE - COMFORT - CONVENIENCE



Smart design

A modern design, simple, compact, with all the most common features available directly on the interface. ONDA Touch Series is the perfect instrument for your lab bench top in term of space and solidity



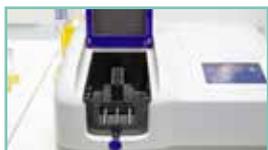
Touchscreen

A 5" TFT high definition color display for a new level of experience
Easy interface, build-in features (photometry, quantitation, spectrum scan¹)
In addition to File management, System Utility and Performance verification



Connectivity and Storage

USB Flash drive connection for data and methods recovery
PC remote control², RS-232 port for micro printer connection, Internal memory to save your methods and data



Easy access, easy maintenance

Removable front panel, anticorrosive material holder, leaky hole inside sample compartment: all designed to protect the instrument from accidental spills, time wear and damage



Lamp room

Removing the top panel for easier and faster access to the source compartment, allows directly control, check of alignment and lamp replacement



Multi language

Select the language of your preference and improve your experience with Onda Touch instruments

English, German, Spanish, French, Italian, Portuguese

¹ Spectrum feature available only on SCAN models
² optional software required

Applications



Brewery



Winery



Food & Beverage



Process water



Drinking water



Bottled water



Waste water



Vegetable Oil/fat



Sugar industry



Bacterial cell number

THE NEXT GENERATION OF VIS AND UV/VIS SPECTROPHOTOMETERS

New User Interface

With the new user interface the ONDA Touch series spectrophotometers are ideal for laboratory routine quality control, excellent for applications in education. Work with these innovative instruments as with your smartphone or tablet and enjoy the intuitive, icon-based menu.



Photometry

Basic photometric measure:
Absorbance
Transmittance
Energy



Quantitation

Creation of calibration curve from standard solutions
Comfortable calibration of customized methods



Spectrum Scans¹

High-precision live scans
Analysis and automatic peak detection



File Management

Save, delete or copy data and methods on internal memory and USB flash drive. Import/export to CSV and TXT files



System utility

System calibration, lamp management, date/time, memory, multi-language



Performance verification

Regularly check the instrument functionality for the quality assurance of your results

| | | | | | |
|--|------------------------|--|--------------------|--|----------------------------|
| | Internal memory | | USB flash drive | | Data transfer USB ↔ device |
| | Export to CSV file | | Export to TXT file | | Data point/Peak detection |
| | Print data and methods | | Calibration Curve | | Method Detail |

Calibration Report

All Onda Spectrophotometers are supplied with a **Calibration Report** executed according to ISO 17025 requirements, for measuring with traceability.

On the **Calibration Report** are reported:

- Wavelength accuracy
- Photometric accuracy
- Stray light test
- Measurement uncertainty
- Traceability statement

CERTIFICATE OF CALIBRATION

Test Standard for Instrument Performance Validation. Performed with Certified Reference Materials (CRM, GSP, Ph.Eur.)

Test of Colouro per la Validazione delle Prestazioni dello Strumento. Esempio con Materiali di Riferimento Certificati (CRM, GSP, Ph.Eur.)

Spectrophotometer: UV/VISIBLE
Model: ONDA UV-20 SCAN
Serial Number: 1001000000
Wavelength range: 190-1000 nm
Spectral bandwidth: 2 nm ± 20%

Environmental Conditions
Temperature: 21.6 °C
Test Date: 09/11/2018

1. Wavelength Accuracy
Potassium Chloride 12g/l solution, traceable to NIST SRM 999c

| Wavelength (nm) | Specification (%) | Y.R. (Transmittance) |
|-----------------|-------------------|----------------------|
| 220 | ±0.20% | 0.00% |

2. Stray Light
Potassium Chloride 12g/l solution, traceable to NIST SRM 999c

| Wavelength (nm) | Specification (%) | Y.R. (Transmittance) |
|-----------------|-------------------|----------------------|
| 220 | ±0.20% | 0.00% |

3. Photometric Accuracy
Optical Density (Abs)

| Reference Material | UV200 | 222 | 231 | UV50 | 227 | 231 |
|----------------------|--------|--------|--------|--------|--------|--------|
| Wavelength (nm) | 220 | 222 | 231 | 227 | 231 | 231 |
| Y.R. ¹ | 0.9518 | 0.6478 | 0.3214 | 0.8722 | 0.7489 | 0.7489 |
| Y.R. ² | 0.9501 | 0.6468 | 0.3203 | 0.8715 | 0.7480 | 0.7480 |
| Y.R. ³ | 0.9500 | 0.6465 | 0.3203 | 0.8715 | 0.7480 | 0.7480 |
| Expanded uncertainty | 0.0020 | 0.0020 | 0.0020 | 0.0020 | 0.0020 | 0.0020 |

2: Y.R. = Specified value - 2: Y.R. = Test Result - 0: Spec = Y.R. - 0.4: Y.R.

Traceability:
All calibration is performed with one of a series of reference materials. The reference material is tested and confirmed with a reference spectrophotometer. The instrument is tested and confirmed to perform to the manufacturer's written specification over the analytical range used for the reference material calibration.

The following reference and procedures are used in the quality performance procedures relating to the qualification of the spectrophotometer performance:
Absorbance: Small Quantity Assay Glass Spectrophotometer to NIST SRM 929a
Potassium Chloride 12g/l solution to NIST SRM 999c
Wavelength: Reference Grade Glass to NIST SRM 670
Stray Light: Potassium Chloride NIST SRM 999c

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2018/07/31

LIBRERIA (p) - SPARTACORTE-COSMETICI-CHEMICA-DATA LOGGER-SPECTROFOTOMETRI-CENTROLOGIC-SCUOLA INCUBATORI



UV-31 SCAN

UV/Visible Spectrophotometer

190 – 1100 nm

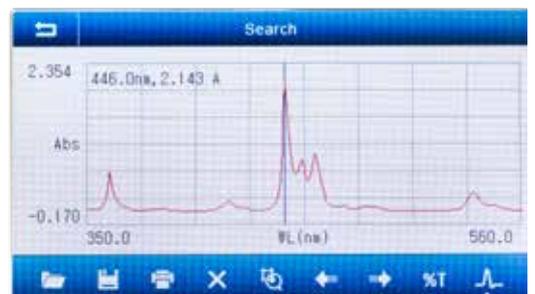
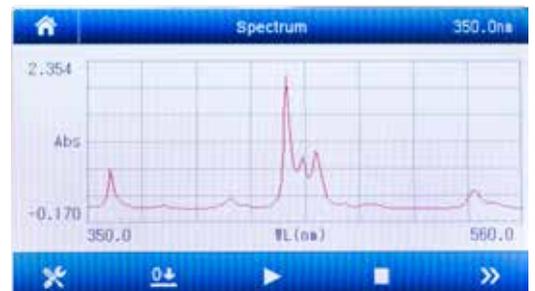
2 nm bandwidth

Scan speed 4200nm/min



UV-31 Scan is the complete scanning UV-Vis spectrophotometer, ideal for high level educational, the best choice in precision for your qualitative and quantitative analysis. High level of accuracy for sensible detections.

- *Low level of stray light for high linearity performance*
- *Photometry, quantitation, spectrum scan*
- *Self-calibration system at each switching on*
- *Preheating countdown*
- *USB flash drive for data and methods recovery*



Spectrum scan and detection of peaks

| Part No. | Description |
|----------|---|
| 11000082 | ONDA TOUCH UV-31 SCAN Spectrophotometer, TOUCH SCREEN color display, range 190 - 1100 nm, bandwidth 2 nm, single beam, flash memory USB port, multilanguage OS. Functions: photometric, quantitation, SPECTRUM scan , file management. Including 4 optical glass cells, 2 quartz cells , 10mm 4-cell holder, power cable, dust cover, USB flash drive and Calibration Report |



V-11 SCAN

Visible Spectrophotometer

320 – 1100 nm

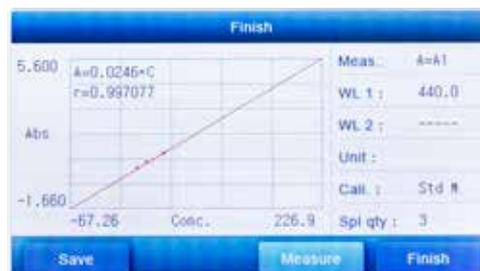
4 nm bandwidth

Scan speed 4200nm/min



V-11 Scan is the scanning Visible spectrophotometer, ideal for high level colorimetric analysis, quantitative detections and qualitative control in the visible range.

- *Photometry, quantitation, spectrum scan*
- *Self-calibration system at each switching on*
- *Preheating countdown*
- *USB flash drive for data and methods recovery*



Easy calibration with the online instructions



| Part No. | Description |
|----------|--|
| 11000062 | ONDA TOUCH V-11 SCAN Spectrophotometer, TOUCH SCREEN color display, range 320 - 1100 nm, bandwidth 4 nm, single beam, flash memory USB port, multilanguage OS. Functions: photometric, quantitation, SPECTRUM scan , file management. Including 4 optical glass cells , 10mm 4-cell holder, power cable, dust cover, USB flash drive and Calibration Report |



UV-21

UV/Visible Spectrophotometer

195 – 1050 nm

4 nm bandwidth



UV-21 is the UV-Vis spectrophotometer, ideal for routine analysis and quantitative detections. The functionality of **basic photometry** and **quantitation** make it the perfect instruments for fast and accurate analysis in many application fields.



| Part No. | Description |
|----------|--|
| 11000072 | ONDA TOUCH UV-21 Spectrophotometer, TOUCH SCREEN color display, range 195 - 1050 nm, bandwidth 4 nm, single beam, flash memory USB port, multilanguage OS. Functions: photometric, quantitation, file management. Including 4 optical glass cells, 2 quartz cells, 10mm 4-cell holder, power cable, dust cover, USB flash drive and Calibration Report |



V-10 Plus

Visible Spectrophotometer

325 – 1000 nm

4 nm bandwidth



V-10 Plus is the Visible spectrophotometer for colorimetric application and routine measurements, widely used in basic photometry, **OD600** in microbiological application and wine color analysis. Solid design and high quality components ensures excellent performance.

ONDA V-10 Plus is supplied with **Basic Software for PC** (Windows based OS) for the remote control of the device; the application range is expanded to **kinetic** measurement, improving data analysis and file management.

In combination with the optional **ONDA ProWine Color Software for PC** it is the best aid for fast and accurate color analysis of wine (**Chromatic Characteristics OIV-MA-AS2-07B**)

| Part No. | Description |
|----------|---|
| 11000052 | ONDA V-10 Plus Spectrophotometer, including: 4 optical glass cells, 4-position cell holder, power cable with EU plug, Basic PC software, dust cover, Calibration Report |

ONDA VIS AND UV/VIS SPECTROPHOTOMETERS

| Technical Specification | UV-31 SCAN | UV-21 | V-11 SCAN | V-10 PLUS |
|--------------------------------------|--|-----------------|------------------|---|
| Spectrophotometer | UV-VIS | | VIS | |
| Optical system | Single beam | | | |
| Light source | Tungsten-Halogen / Deuterium Lamps | | Tungsten-Halogen | |
| Detector | Silicon photodiode | | | |
| Spectral bandwidth (nm) | 2 | 4 | 4 | 4 |
| Wavelength range (nm) | 190 - 1100 | 195 - 1050 | 320 - 1100 | 325 - 1000 |
| Wavelength accuracy (nm) | ±0.8 | ±1.0 | ±1.0 | ±2 |
| Wavelength repeatability (nm) | ±0.2 | ±0.4 | ±0.2 | ±0.8 |
| Wavelength resolution (nm) | 0.1 | 0.1 | 0.1 | 0.1 |
| Photometric range | -0.3 to 3 Abs / 0 to 200 %T / 0 to 9999.9 Conc | | | |
| Photometric accuracy | ±0.5 %T at 0 - 100 %T | | | |
| Photometric repeatability | ±0.2 %T at 0 - 100 %T | | | ±0.3 %T at 0 - 100 %T |
| Photometric resolution (Abs) | 0.001 | | | |
| Stability | ±0.002 Abs/hr (at 500nm after 2hours warmup) | | | |
| Stray light | <0.1 %T | <0.2 %T | <0.1 %T | <0.3 %T |
| Display | 5 inches color touchscreen display, fixed, 480x272 px | | | LCD display 128x64 px |
| Keypad | touchscreen | | | Membrane keypad |
| Standard cell holder | 4 positions, 10mm path square cells, manual holder | | | |
| Sample compartment | Accessible from top and front | | | Accessible from top |
| Basic photometry | ✓ | ✓ | ✓ | ✓ |
| Quantitation | ✓ | ✓ | ✓ | ✓ |
| Spectrum scan | ✓ | - | ✓ | - |
| File management | ✓ | ✓ | ✓ | - |
| System management | ✓ | ✓ | ✓ | - |
| Performance verification | ✓ | ✓ | ✓ | - |
| Connectivity | USB-A (flash drive) USB-B (PC connection) ¹ RS-232 (printer) ² | | | USB-B (PC connection) Serial port (printer) ² |
| Memory | 236 kB (internal memory) expandable with USB flash drive ³ | | | 200 raw of data |
| Languages | English, Spanish, French, German, Italian, Portuguese | | | English |
| Dimensions WxDxH (mm) | 456 x 360 x 185 | | | 490 x 360 x 210 |
| Weight (kg) | 10.7 | | 10.5 | 12 |
| Power supply | 100 - 240 V AC, 50/60 Hz | | | |
| Power consumption (W) | 120 | | 75 | |
| Warranty | 2 years ⁴ | | | |
| Part number | 11000082 | 11000072 | 11000062 | 11000052 |

¹ Optional PC software required

² Optional thermal printer required

³ USB flash drive included with ONDA Touch series

⁴ On electronic and optical part (light source excluded)

DISTRIBUTED BY:



Certified manufacturer
ISO 9001