

Microvolume UV/Vis Nano Spectrophotometer – MSTQZVX211SWISS



Microvolume UV/Vis Nano Spectrophotometer – MSTQZVX211SWISS ? Why MSTQZVX211SWISS Is Ideal for Your Lab

- **Ultra-low sample consumption:** Uses just **0.5–2.0 µL** per measurement — perfect when working with precious or limited biological samples DNA, RNA, proteins, microbial cultures .
- **No dilution needed — direct measurement:** Eliminates dilution steps, saving time and reducing sample-handling errors, which improves accuracy and reproducibility.
- **Stand-alone operation:** Built-in 7" capacitive multi-touch screen and Android-style interface mean you don't need a separate computer — measures and stores data on a single unit.
- **Fast results:** Measurement is completed in less than **6 seconds**, speeding up workflows and ensuring rapid turnaround.
- **High sensitivity & broad usability:** Suitable for nucleic acids dsDNA, ssDNA, RNA , proteins e.g. BSA, IgG, Lysozyme , and microbial OD/OD600

measurements — versatile for molecular biology, biochemistry, microbiology labs.

- **Precision & reliability:** Delivers high wavelength and absorbance accuracy, offering confidence in quantitative results — critical for research, QC, and publication-grade data.

These features address common lab pain-points — sample scarcity, long preparation times, need for accuracy, and streamlined data workflow — making MSTQZVX211SWISS a smart investment for modern laboratories.

Technical Specifications

Model: MSTQZVX211SWISS

Sample Volume: 0.5 μ L ~ 2.0 μ L _

Path Optical Length: 0.05 mm, 0.2 mm, 1.0 mm _

Light Source: Xenon flash lamp flicker lifetime > 10⁷ cycles _

Detector: 2048-element CMOS silicon array _

Wavelength Range: 180–910 nm _

Wavelength Accuracy: \pm 1 nm _

Wavelength Precision: \pm 0.2 nm _

Spectral Resolution: \approx 1.5 nm FWHM @ Hg 253.7 nm _

Absorbance Precision: 0.002 Abs _

Absorbance Accuracy: \pm 1% at 7.332 Abs, 260 nm _

Absorbance Range equivalent to 10 mm path : 0.04 – 300 A; For OD600 cuvette mode: 0 – 4.0 A _

Nucleic Acid Detection Range: dsDNA: 2–15,000 ng/ μ L; ssDNA: 1.32–9,900 ng/ μ L; RNA: 1.6–12,000 ng/ μ L _

Protein Detection typical : A280: 0.04–750 mg/mL; BSA: 0.06–1,119 mg/mL; IgG: 0.03–547 mg/mL; Lysozyme: 0.015–284 mg/mL _

Detection Time: < 6 seconds _

Sample Pedestal Material: 304 Stainless Steel and Quartz Fiber _

Power: DC 12 V, 4 A; Operational Power: 48 W; Standby Power: < 6.5 W _

Dimensions W x D x H : 270 x 210 x 196 mm _

Weight: ~3.4 kg _

Benefits & How This Solves Laboratory Pain-Points

- **Minimal sample waste, maximum value:** For labs working with rare or expensive samples e.g. purified DNA/RNA, protein extracts, limited cell cultures , using only 0.5–2 µL dramatically conserves material.
- **Time-saving & efficient workflow:** Quick measurement <6s without dilution or separate PC — ideal when handling large numbers of samples or tight schedules.
- **Accurate, reproducible quantification:** High wavelength/absorbance precision reduces variability — critical for experiments needing reproducible concentration measurements e.g. nucleic acid quantification, protein assays .
- **Versatility:** Whether you need to measure nucleic acids, proteins, microbial OD600, or general absorbance — one instrument covers a broad range of applications.
- **Compact & space-efficient:** With small footprint and light weight, it fits easily into crowded lab benches and can be moved if needed.
- **Simplified data management:** On-board data storage, USB export, and optional printer support simplifies record-keeping and integration into lab data workflows. _

Summary

The **MSTQZVX211SWISS Microvolume UV/Vis Nano Spectrophotometer** is a powerful, precise, and efficient instrument designed to meet the demanding needs of modern research and analytical labs. By combining ultra-low sample volume requirements, rapid measurement, broad detection ranges, and stand-alone ease of use, it solves common pain-points — sample scarcity, time constraints, and data accuracy — helping labs streamline nucleic acid, protein, and microbial analysis with confidence and reliability.