



## Serstech Arx mkII+



Experience enhanced simplicity, speed, and precision with the new Serstech Arx mkII+.

Upgraded with artificial intelligence for improved chemical identification, Arx mkII+ is designed in close collaboration with field operators. It features one-hand, single-button operation for efficient use in any environment. Fully compatible with the TraSERSwab and SERS kit.

The new Serstech Arx mkII+, combined with our upgraded 2025 firmware, delivers enhanced performance across a growing library of over **24,000 substances**, including narcotics, explosives, TICs, and CWAs. Built for professionals who require speed, accuracy, and precision.

**Powered by AI.** Arx mkII+ uses artificial intelligence to improve identification accuracy in low concentrations. The integrated Deep Scan function enhances sensitivity, detecting trace levels and ensuring confident results when every second counts.

With **ChemDash Mobile**, users can send case reports wirelessly from the field. For secure operations, Wi-Fi and Bluetooth can be fully disabled.

Built for mission-critical environments. Arx mkII+ is the only handheld Raman device fully compatible with military networks via **ATAK**. The interface is streamlined for speed and reliability, optimized for use with tactical gloves.



# Serstech Arx mkII+

## Instrument Specifications

Instrument type	Ai powered Handheld Raman spectrometer
Weight	590 g (1.3 lb)
Size	160 mm x 85 mm x 28 mm (6.2 x 3.3 x 1.1)
Laser excitation wavelength	785 nm
Laser output power	Max 300 mW, user adjustable
Barcode reader	Yes, QR and most common barcode formats
Max spectral range	400 cm <sup>-1</sup> to 2300 cm <sup>-1</sup>
Auto-focus	Yes, 0-4 mm
Spectral resolution	8-10 cm <sup>-1</sup>
Detector type	Linear CMOS
Display	3.5" Transflective TFT with LED backlight, Night-vision mode
Internal memory	More than 100 000 measurements
Data export formats	txt, .csv, .jcamp
Connectivity	USB-C, Wi-Fi (2.4 GHz), Bluetooth 5.1
Battery	Rechargeable - more than 12 hours of typical use
Operating temperature	-20°C to +50°C (-4°F to 122°F)
Storage temperature	-30°C to +50°C (-22°F to 122°F)
Start-up time	Less than 20 sec. in room temperature
Relative humidity	5-90%.
Scan time	Most substances less than 5 sec
Exposure	Auto-exposure or manual exposure, 0.001 – 60 sec
MTBF	50 000h
Approvals	CE, IEC 60529 IP67, MIL-STD-810G 514.6 (vibration), MIL-STD-810G 516.6 (functional shock), SWGDRUG category A compliant for presumptive testing, g, 21 CFR part 11 compliant (Instrument and ChemDash) ATAK

## Accessories and Optional Components

Included accessories	Vial holder, watertight case, protective cap with calibration target, sample vials, USB-C cable, AC adapter 5 VDC/1 A USB for charging
Software included	ChemDash Lite. Optional software: ChemDash Pro and ChemDash mobile (iOS & Android)
Available libraries	Explosives, Narcotics, Chemical Warfare Agents, Hazardous materials, Pharmaceuticals, Biotoxins, User defined libraries. Total number of substances more than 24 000

## Functionality and Features

Type of samples	Solid, liquids, powders, and tablets
Mixture analysis	Yes
Deep scan	Enables identification of very small quantities within complex mixtures
Fluorescence reduction	Built-in algorithms reduce fluorescence interference from challenging substances
Ai Functions	Machine learning for improved substance identification
Features	Auto-focus, QuickScan, User authorization, Event logging, Scan delay, User-defined libraries, User-added substances and Night-vision mode
Supported languages:	Arabic, Chinese, English, French, German, Indonesian, Italian, Japanese, Korean, Polish, Romanian, Spanish, Swedish, Ukrainian, and Vietnamese. Additional languages on request