Formfactor

- 1 The weight of the Device should not exceed 590 g (1.3 lbs)
- The size of the Device should not exceed 160 mm x 85 mm x 28 mm (6.2 in x 3.3 in x 1.1 in) 2.

Operating

- It should be possible to operate the Device with one hand 1.
- 2 The Device should support Quick Scan to initiate a measurement with no more than two button press after login
- 3. The Device should not need any adaptors for measuring through different containers
- 4. The Device should have an autofocus mechanism with a liquid lens
- The Device should have a start-up time of no more than 20 seconds 5.
- The Device should have a scan time of no more than 5 seconds 6.

Localization

1 The user interface and user manuals of the Device should be provided in English and local language

Certifications

- The Device should comply with and be IP-67 certified 1
- 2 The Device should comply with and be MIL-STD810G certified for shock and vibration

Integration and connectivity

- The Device should support Android Team Awareness Kit (ATAK) for integration 1
- 2 The Device should support connection via USB, Wi-Fi, and Bluetooth 5.1
- 3. The Device should be accompanied by a smartphone app, adding camera, GPS coordinates with map location, adding notes, and generate reports
- 4. The Devices should be able to be remotely controlled through mobile app
- The Device should have an open Application Programmers Interface (API) for integration 5.

Raman specification

- The Device should have a laser with an excitation wavelength of 785 nm 1.
- The Device should have a laser with a manually adjustable output level of up to 300 mW 2.
- 3. The Device should have a spectral range of 400-2300 cm-1
- 4. The Device should have a spectral resolution of 8-10 cm-1
- The Device should be equipped with a CMOS sensor for the Raman measurement 5.

Operating conditions

- The Device should support an operating temperature range from -20°C to +50°C 1.
- The Device should support an operating humidity range of 5-90% 2.

Battery

- 1 The Device should have a built-in Li-Ion battery not accessible by the user
- The battery time of the Device should support 12 hours of typical use without recharging 2.

Measurements

- 1 The Device should not have a touch-screen but only buttons to operate the Device with gloves
- The Device should have a manually adjustable delayed measurement function of up to 15 minutes for measure-2. ments from a safe distance
- 3. The Device should be able to measure samples of a minimum of 0.3 ml (liquids) or 4 mg (powder)

System

- 1 It should be possible to create and export reports of measurements made
- 2. It should be possible to customize the reports
- 3 The Device should support the export of measurements in the following formats: .txt, .csv, .jcamp

Substances

- 1. The Device should support substances from libraries for Narcotics, Explosives, Hazardous chemicals, CWA, **Biotoxins, and Pharmaceuticals**
- 2. The libraries of the Device should contain at least 17,000 substances
- The Device should support the creation of user-defined libraries on the Device 3.
- 4. Library updates should be available free-of-charge for a period of 5 years

Warranty

The Device should come with a minimum of 5-year warranty

SERSTECH

Copyrights @ SERSTECH 2024