



# CDI 2 HANDHELD RAMAN ANALYZER

A cost-effective and easy-to-use handheld substance identification system

## SPECIFICATIONS

CDI 2 handheld analyzer is ergonomic and easy to use. You are only one push away from identifying a sample. Results are ready in less than 15 seconds. CDI 2 weighs less than 6.5lbs/3kg and takes advantage of USB and Bluetooth connectivity.

CDI 2 is the right choice for quality control tasks, identification of unknown samples, use in outdoors, warehouses, production areas, and transport terminals. CDI 2 portability allows analysis of standard size samples eliminating the need for breaking initial packaging in order to take smaller samples. CDI 2 is also good for express screening with high-throughput of samples thanks to less-than-15-seconds standard measuring time.

### Main Highlights

1. **Identifies up to 4 compounds** and their relative percentage within the mixture
2. **Identification of substances that are as little as 10% from overall mixture**
3. **Measurement time is less than 15 seconds**
4. **Measurements through transparent packaging** (e.g.: baggies, packages, evidence bags, blisters, glass ampoules)
5. **Extensible libraries for wide use**

Easy to use software enables identification of unknown substances, quantitative analysis, and quality control. End-users can create measurement reports and custom spectra libraries at glance. Coda Devices offers exclusives, narcotics, and pharmaceuticals spectral libraries. Supplementary software packages and spectral libraries from Grams Thermo and S.T. Japan are available for in-depth spectra analysis and processing.



Identification of four components in a mixture in less than 15 seconds

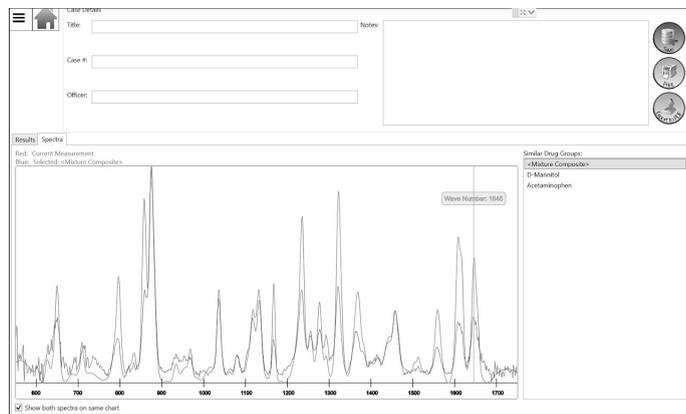


### Main Features

- Versatile**
  - Identifies a wide range of chemical substances:
    - Narcotics and pharmaceuticals
    - Plastics and polymers
    - Explosive compounds
    - Toxic agents
- Extensible**
  - 3,600 pharmaceuticals
  - 200 narcotics/cutting agents
  - Seamless library update
  - User-friendly and easy-to-use way to add spectra
- Fast**
  - No sample preparation
  - Results are ready in about 15 seconds
- Cost-effective**
  - No consumables
  - 27,500 USD incl. VAT

## Specifications

|                            |  |
|----------------------------|--|
| <b>Weight</b>              | 3kg / 6.6lb  |
| <b>Dimensions</b>          | 27.8 x 26.8 x 6cm / 11 x 10.6 x 2.4in  |
| <b>Libraries</b>           | - 3,600 pharmaceuticals<br>- 200 narcotics/cutting agents<br>- Coda Devices and S.T. Japan libraries |
| <b>Export data format</b>  | CSV, Excel© Spreadsheets, PDF  |
| <b>Data transfer</b>       | USB  |
| <b>Software languages</b>  | English, Russian, Chinese, Spanish, Portugal, Vietnam, Thai  |
| <b>Spectral range</b>      | 500 - 1,800 $\text{cm}^{-1}$   |
| <b>Spectral resolution</b> | 6 - 8 $\text{cm}^{-1}$   |
| <b>Laser wavelength</b>    | 785 nm $\pm$ 0.5 nm  |
| <b>Analyzed square</b>     | 1.5 $\text{mm}^2$  |
| <b>Production</b>          | California, USA or<br>Moscow, Russia   |



Acetaminophen spectra example

## Company and Technology

Coda Devices is an international company founded in 2015 with the single purpose of developing and manufacturing Raman-based solutions for analyzing the chemical composition of substances. Coda Devices headquarter is located in Menlo Park, California as well as the US production facilities. R&D centre along with local production situated in Moscow, Russia.

CDI 2 is based on Raman spectroscopy, optical spectroscopy method that exploits scattering of light. This method is based on a property of molecules to scatter laser light inelastically. Frequencies of inelastically scattered light bare "fingerprints" unique to compound's molecules. Thus allowing identifying compound itself.

This exclusive to Coda Devices technology is based on coded multi-slits aperture (US Patent No. 7,301,625,7,505,130). It can significantly improve the sensitivity of a spectrometer and at the same time reduce production and final costs.

Handheld Raman Analyzer CDI 2 is up to a number of tasks, including:

- controlling quality of input, intermediate and final products by confirming components' concentrations are within determined ranges (pharmaceutical and polymer industries, jewellery and attribution of work of art)
- identifying unknown substances (forensic science, chemistry, security, biology, geology and material science)
- defining concentrations of known compounds (R&D in a pharmaceutical, chemical and polymer industries)