

# Raman Spectrometer for Identification of Chemical and Biological Threat Agents, Explosives and Drugs ChemExpert-T



Fully certified by Federal Security Service

✓ IEC 63085:2021



Identification of biological threat agents



Identification and recognition of hazardous chemical agents



Recognition of explosives (including liquid explosives)



## Handheld Raman spectrometer ChemExpert-T

Multifunctional analytical device that provides identification of about 15 000 different chemicals in liquid, solid or powdered state, including explosives, chemical and biological threat agents, etc.

It is possible to analyze substances through transparent and colored glass, translucent plastic packaging. This allows identification of potentially hazardous objects (biological toxins, poisonous substances) without interacting with the substance, sampling and breaking the packaging.

## Scope of application

Inspection of hand luggage, baggage and personal belongings of individuals and other tangible objects:

- at transport infrastructure facilities for the purpose of recognizing and identifying substances for which a ban or restriction on movement into the transport security zone has been established;
- at heavily trafficked facilities (theaters, concert halls, stadiums, educational, medical institutions, etc.);
- at restricted facilities of the defense industry and fuel and energy complex, including nuclear fuel cycle facilities.

# Raman Spectrometer for Identification of Chemical and Biological Threat Agents, Explosives and Drugs

## ChemExpert-T



### Specifications

Overall dimensions (LxWxH)	270x170x130 mm
Weight with a battery	3 kg
Battery life	up to 8 h
Analysis time	5 to 60 sec
Operating principle	Raman spectroscopy
Objects for analysis	liquids, powders, solids, including those in transparent packaging
Taking measurements	without interaction with the substance, e.g. through a sealed container
Identifiable substances	<ul style="list-style-type: none"> <li>- hazardous chemical agents (toxic, poisonous, chemically active substances, etc.) - 98 items;</li> <li>- hazardous biological agents - 20 items;</li> <li>- explosives - 102 items (including 19 items of liquid explosives);</li> <li>- combustible and flammable substances - 30 items;</li> <li>- illicit drugs, psychotropics and their precursors - 57 items;</li> <li>- chemical and pharmaceutical products - more than 10 000 items;</li> <li>- water, soft drinks and alcohol.</li> </ul>
Identification results notification signal	<ul style="list-style-type: none"> <li>- displaying information about the identification results on the display;</li> <li>- communication of information on identification results via wired or wireless communication channel (if there is an established connection).</li> </ul>
Computer communication interfaces	Ethernet, USB, Bluetooth, Wi-Fi
Output data format for logging and exchange XML	XML

