# *ANNEX II + III:* TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

**Contract Title: Supply of border control and forensic equipment for EUAM Ukraine**

**Lot 1: Kits and devices for detection of narcotic substances and explosives**

**Publication reference: EUAM-24-75, Lot 1**

**Column 1-2 should be completed by the Contracting Authority**

**Column 3-4 should be completed by the tenderer**

**Column 5 is reserved for the evaluation committee**

Annex III - the Contractor's technical offer

The tenderers are requested to complete the template on the next pages:

* Column 2 is completed by the Contracting Authority shows the required specifications (not to be modified by the tenderer),
* Column 3 is to be filled in by the tenderer and must detail what is offered (for example the words “compliant” or “yes” are not sufficient),
* Column 4 allows the tenderer to make comments on its proposed supply and to make eventual references to the documentation.

The eventual documentation supplied should clearly indicate (highlight, mark) the models offered and the options included, if any, so that the evaluators can see the exact configuration. Technical offers that do not permit to identify precisely the models, their type, brand, article numbers and the specifications may be rejected by the evaluation committee.

The offer must be clear enough to allow the evaluators to make an easy comparison between the requested specifications and the offered specifications.   
Link to the website where the description of the proposed model exists is not acceptable. It is obligatory to add the detailed description of specification offered.

Where the tenderer has offered an “equivalent” item to a brand and model indicated in these technical specifications, it will be the tenderer’s responsibility to prove the claimed equivalence, for example by appending to his offer for the respective item a comparison table with the features and functionalities of the item mentioned by its brand name and model in these specs and the corresponding features and functionalities of the product offered by the tenderer.

| **Item number** | **Specifications Required** | **Specifications Offered**  **(Brand, model, technical characteristics of the offered item)** | **Notes, remarks,**  **ref to documentation** | **Evaluation Committee’s Notes** |
| --- | --- | --- | --- | --- |
| **1** | **Opiates + Amphetamines Substance Test**  *(Or, if unavailable, a multi-substance test capable of detecting various drugs including opiates and amphetamines)*  A preliminary screening test designed to detect the presence of opiates (opium and its derivatives) and amphetamines (including their derivatives) in a sample. The test produces results through a color change, which can be compared against the color chart provided in the package for easy interpretation.  **The test kit should include:**   * At least 10 ampoules for conducting tests * At least 10 spatulas for sample handling * 1 set of clear instructions for use (Preferably Ukrainian language, if not available - English)   **Shelf-Life Requirement:** At the time of delivery, the remaining shelf life of the product must be at least 2/3 of the total shelf life, but not less than 1 year from the delivery date. |  |  |  |
| **2** | **Cocaine substance test**  *(or if it is not available - multi-substance test for the detection of multiple drugs incl. cocaine)*  A preliminary test for the detection of the presence of COC - cocaine and cocaine-based drugs (e.g. crack) in a sample, that delivers results through a color change, which corresponds to the color chart included in the package.  **The test kit should include:**   * At least 10 ampoules for conducting tests * At least 10 spatulas for sample handling * 1 set of clear instructions for use (Preferably Ukrainian language, if not available - English)   **Shelf-Life Requirement:** At the time of delivery, the remaining shelf life of the product must be at least 2/3 of the total shelf life, but not less than 1 year from the delivery date. |  |  |  |
| **3** | **Synthetic Cathinones Substance Test**  *(Or, if unavailable, a multi-substance test capable of detecting various drugs including synthetic cathinones)*  A preliminary screening test designed to detect the presence of synthetic cathinones in a sample. The test produces results through a color change, which can be compared against the color chart provided in the package for easy interpretation.  **The test kit should include:**   * At least 10 ampoules for conducting tests * At least 10 spatulas for sample handling * 1 set of clear instructions for use (Preferably Ukrainian language, if not available - English)   **Shelf-Life Requirement:** At the time of delivery, the remaining shelf life of the product must be at least 2/3 of the total shelf life |  |  |  |
| **4** | **Cannabis Substance Test**  *(Or, if unavailable, a multi-substance test capable of detecting various drugs including cannabis products)*  A preliminary screening test designed to detect the presence of cannabis products (such as marijuana, hashish, hash oil, etc.) in a sample. The test delivers results through a color change, which can be compared against the color chart included in the package for easy interpretation.  **The test kit should include:**   * At least 10 ampoules for conducting tests * At least 10 spatulas for sample handling * 1 set of clear instructions for use (Preferably Ukrainian language, if not available - English)   **Shelf-Life Requirement:**  At the time of delivery, the remaining shelf life of the product must be at least 2/3 of the total shelf life |  |  |  |
| **5** | **Portable Narcotic Field-Testing Kit (SIRCHIE NARK II Port-A-Kit or equivalent)**  **Description:** A portable, compact kit for the rapid presumptive identification of narcotics in the field. The kit includes reagent ampoules, sample collection tools, and interpretation charts for easy on-site testing.  **Purpose:** For the preliminary identification of narcotics during field operations or initial crime scene investigations.  **Contents:**   * Reagent Ampoules: Pre-packaged chemical reagents for various narcotics, each ampoule clearly labeled and designed for single-use to ensure contamination-free testing:   + *Marquis Reagent: For Opium Alkaloids detection;*   + *Ehrlich’s Reagent: For LSD detection;*   + *Scott Reagent Modified: For Cocaine, HCI, Crack detection.*   + *Mecke’s Reagent: For heroin and morphine detection.*   + *Duquenois-Levine Reagent: For Marijuana, Hashish, Hash Oil, THC detection.* * Acid Neutralizer (not less than 30 ml); * Sterile Sampling Tools: Disposable spatulas for collecting small, representative samples of the suspected substance; * Color Interpretation Chart: A guide detailing the color changes corresponding to various controlled substances, allowing for easy on-the-spot identification; * Protective Gloves: Nitrile gloves to prevent direct contact with potentially harmful substances during testing; * Sealable Evidence Bags: Tamper-evident bags for storing the remaining sample or evidence after testing; * Carrying Case. * 1 set of clear instructions for use (Preferably Ukrainian language, if not available - English)   **Safety Features:**   * Non-toxic reagent chemicals ensure safe use. * Breakable glass ampoules minimize risk of spillage or exposure. * Presumptive testing only, with laboratory confirmation recommended for final identification.   **Shelf-Life Requirement:**  At the time of delivery, the remaining shelf life of the product must be at least 2/3 of the total shelf life | - |  |  |
| **6** | **General Explosive Detection Kit (DROPEX + Kit or equivalent)**  **Description:** A versatile, reliable, and user-friendly detection kit designed for the identification of a wide range of explosives. Ideal for both field and laboratory applications, this portable kit provides immediate, accurate results through a simple color change reaction. It is easy to use, requiring no special training, making it perfect for a wide range of users, from security personnel to forensic analysts.  **Key Features:**   * Immediate results via a simple color change reaction. * Capable of detecting trace amounts of explosives at nanogram levels. * Convenient and easy to use, with no special training required. * Suitable for use in a variety of environments, from field operations to laboratory analysis. * Long shelf life and durable reagents, designed to withstand various environmental conditions. * Safe to use, with no risk of accidental detonation when handled properly.   **The reagents in this kit are designed to detect a wide range of explosives, including:**   * Polynitro-Aromatics: Such as TNT (Trinitrotoluene), DNT (Dinitrotoluene), Picric Acid, and DDNP (Dinitrophenylpropane). * Nitrate Esters and Nitramines: Including compounds like Semtex, RDX/C4 (Cyclonite), HMX (Hexogen), and PETN (Pentaerythritol Tetranitrate). * Inorganic Nitrate Compounds: For substances like ANFO (Ammonium Nitrate Fuel Oil) and Ammonium Nitrate. * Bromates and Chlorates: Such as Potassium Chlorate and Potassium Permanganate. * Peroxide-Based Explosives: For detecting substances like TATP (Triacetone Triperoxide) and HMTD (Hexamethylene Triperoxide Diamine). * Urea Nitrate: Specifically for Urea Nitrate.   **Applications:**   * Screening suspicious packages and cargo * Detection at border areas * Forensic analysis and investigations * General safety and security operations   **Additional requirements:**   * 1 set of clear instructions for use (Preferably Ukrainian language, if not available – English * At the time of delivery, the remaining shelf life of the product must be at least 2/3 of the total shelf life |  |  |  |
| **7** | **Universal Portable Device for the Detection of Narcotic and Explosive Substances (IDenta Aerochamber Suitcase IDT 0100 or equivalent)**  *(If a universal device for detecting both narcotics and explosives is unavailable, two separate devices—one for narcotics detection and the other for explosives detection—may be offered, with a similar working principle)*  This portable device is designed for the detection of narcotic and explosive substances, including even trace amounts. It is suitable for screening various materials, including:   * Containers, large surfaces, and other large objects * People, clothing, packages, vehicles, aircraft, and pallets * Non-metallic and metallic items, as well as different types of packaging materials (e.g., plastic, cardboard, fabric)   **Minimum Kit Contents**:   * Handheld cordless device with a rechargeable battery (operating for a minimum of 4 hours on a single charge) * Extra rechargeable battery for continuous use (providing at least 4 hours of operation) * 230V charger (compliant with Ukrainian electrical standards) * 12V car charger for mobile use * Electricity adapter (if required for use in Ukraine) * Carrying case for easy transport and storage (compact and rugged for easy transport and storage) * Pocket-size magnifier/viewer for identifying micro-particles (with at least 5x magnification) * Instructions for use in English and/or Ukrainian (preferred), outlining operation, maintenance, and troubleshooting instructions * Disposable sterile gloves * Accessories for sample collection (if necessary for operation)   **Electrical Specifications**:   * Mains voltage and frequency: 230V, 50 Hz (Ukrainian standard) * Operating Battery: Rechargeable lithium-ion battery (min. 4-hour operational time)   **Key Features**:   * Portable and compact design, enabling rapid deployment in the field * Cordless operation (battery-powered) for ease of use and flexibility in various environments * Multi-functional, suitable for screening a variety of materials * High sensitivity for detecting trace amounts of narcotics and explosives * Durable construction to withstand harsh environments and extreme conditions * User-friendly, allowing quick and efficient operation by field personnel   **Additional Notes:**   * The device weight should not exceed **5 kg**. * The warranty period should be **no less than 2 years**. * The device may operate in conjunction with express tests to detect even trace amounts of drugs and explosives. However, devices that use a different technology and do not require additional express test kits, while offering equivalent performance characteristics, will also be considered compliant. * If any express tests are necessary for the functioning of the device to detect explosives and detect narcotic substances, they shall be included in the kit (no less than 5 pcs of *General Screening Explosive* and no less than 5 pcs of *General Screening Drugs* express tests per set).   *General Screening Explosive Express Tests* Must be capable of detecting a broad range of explosives, including but not limited to:   * + TNT, DNT, Tetryl, Composition B, PETN, NG, EGDN, Nitrocellulose, Smokeless Powder, RDX, C-4, HMX, R-Salt, Semtex-H, Potassium Nitrate, Sodium Nitrate, Ammonium Nitrate, Urea Nitrate, ANFO, Black Powder, Detasheet.   *General Screening Drugs Express Tests* Must be capable of detecting a broad range of narcotic substances, including but not limited to:   * + Heroin, Cocaine & Crack, LSD, Psilocybin, Amphetamine, Methamphetamine, Benzedrone, Buphedrone, MABP, Carfentanyl, Cathinone, DMT, Pentylone, PMA, PMMA, EAPB, Fentanyl, Ketamine, mCPP, MDMA, MDPBP, MDPV, Mephedrone, Methadone, Methcathinone, Methylone, Mexedrone, MPA, PCP, Pentedrone.   **Shelf-Life Requirement:**  At the time of delivery, the remaining shelf life of each Express Test must be at least 2/3 of the total shelf life |  |  |  |
| **8** | **Portable Explosives and Narcotics Trace Detector (Smiths Detection IONSCAN 600 or equivalent)**  **1. General Description**  Compact, field-deployable trace detection system for rapid identification of explosives and narcotics. Designed for use by law enforcement, border control, forensic teams, and emergency responders.  **2. Applications**  Security & Law Enforcement – Screening at checkpoints, border crossings, and public venues  Forensic Operations – On-site substance identification to support evidence collection  Incident Response – Rapid field assessment of unknown materials  **3. Key Features**  Detection Technology: Ion Mobility Spectrometry (IMS), non-radioactive  Analysis Time: ≤25 seconds  Sensitivity: Detects trace-level quantities of explosives and narcotics  Sampling: Swab-based  Weight: ≤11 kg  Display: High-resolution color touchscreen (≥4")  Language Support: Interface and manual in English or Ukrainian (preferred)  Battery: Provides continuous operation, with hot-swappable capability for extended use; ≥1 hot-swappable rechargeable battery  Power Supply: Rechargeable battery and AC adapter (compatible with standard mains voltage, e.g., 230V, 50 Hz).  Connectivity: At least one of the following: USB 2.0 or higher, Ethernet, Wi-Fi or Bluetooth (if available)  Data Handling: Local data storage with capability for data export via USB or network connection; real-time transfer optional  **4. Target Substances**  Explosives: RDX, TNT, PETN, TATP, HMX, and related compounds  Narcotics: Opioids (heroin, fentanyl, and analogues), stimulants (cocaine, amphetamines), cannabinoids (THC, synthetic cannabinoids), other controlled substances  **5. Operational Requirements**  Training: At least basic operator training covering device operation and user-level maintenance (Ukrainian-language training preferred)  Warranty: Minimum 2-year warranty with service support  Optional: Integrated or external printer  **6. Standard Delivery Kit**  Detector unit  ≥1 hot-swappable rechargeable battery  AC power adapter (230V, 50 Hz)  ≥50 single-use sampling swabs  Operator’s manual (English or Ukrainian - preferred) |  |  |  |
| **9** | **Portable FTIR Spectrometer (Smiths Detection HazMatID Elite or equivalent)**  **1. General Description**  Portable FTIR Spectrometer is a high-performance, compact chemical identifier for rapid identification of unknown solids and liquids. Based on Fourier Transform Infrared (FTIR) spectroscopy, the device enables in-field detection of a broad range of substances, including explosives, narcotics, chemical warfare agents, toxic industrial chemicals, and unknown powders. Engineered for field conditions, the system provides reliable operation and supports rapid decision-making in forensic, security, and emergency response environments.  **2. Applications**  • Forensic Investigations – Substance identification at crime scenes (e.g. explosives, narcotics, hazardous materials).  • Field Operations – On-site screening in law enforcement, customs, and emergency situations.  • Chemical Analysis – Identification of hazardous substances in environmental, security, or forensic assessments.  **3. Key Features & Technical Specifications**  • Detection Technology: Fourier Transform Infrared (FTIR) Spectroscopy.  • Analysis Time: ≤1 minute per sample.  • Built-in library: with at least 7000 substances.  • Substance Coverage: Detects explosives, narcotics, CWAs, TICs, and unknown powders.  • Display: Color, high-resolution, anti-reflective display; ≥ 4 inches.  • Form Factor: Compact, portable; suitable for handheld or mobile field use.  • Power Supply: Rechargeable lithium-ion battery; minimum 3.5 hours of continuous operation per charge.  • Connectivity: At least one of the following: USB 2.0+, Wi-Fi, Bluetooth, or Ethernet.  • Data Storage: Internal memory or memory card for storing results.  • Environmental Protection: IP54 or higher.  • Operating Conditions: at least from –10°C to +50°C.  • Interface Language: Interface and manual in English or Ukrainian (preferred).  **4. Operational Requirements**  • Training: At least basic operator training covering device operation and user-level maintenance (Ukrainian-language training preferred)  • Warranty: Minimum 2-year warranty with service support and replacement of components in case of manufacturing defects.  • PPE Compatibility: Device must be operable while wearing gloves.  **5. Standard Delivery Kit**  • Portable FTIR Spectrometer unit.  • ≥1 rechargeable lithium-ion battery.  • AC power adapter (230V, 50 Hz).  • USB or memory card adapter for data export.  • Carrying case.  • Operator’s manual (English or Ukrainian preferred). |  |  |  |
| **10** | **Portable Raman Spectrometer (Rigaku Progeny 1064 nm or equivalent)**  The Portable Raman Spectrometer is a high-performance analytical tool designed for the rapid and non-destructive identification of a wide range of substances, including explosives, narcotics, hazardous materials, and chemicals. Ideal for both field and laboratory applications, it ensures precise substance detection with minimal sample preparation.  **Key Features:**   * Compact & Portable: Lightweight design, making it ideal for both field and laboratory use. * High Precision Detection: Utilizes a 1064 nm laser for enhanced Raman signal excitation and minimal interference from fluorescence, ensuring accurate identification of substances, even in complex matrices. * Wide Substance Detection: Capable of identifying explosives, narcotics, chemical warfare agents, hazardous chemicals, and suspicious powders. * Comprehensive Spectral Library: Equipped with an extensive Raman spectral library for reliable identification of a variety of materials. * User-Friendly Software: Includes intuitive software for easy data acquisition, analysis, and integration with existing systems. * Portable Power Supply: Operates with rechargeable lithium-ion batteries for on-the-go analysis in remote locations, with long battery life for continuous operation. * Durable Construction: Designed to withstand demanding environments with a rugged protective case for safe transport and operation in harsh conditions. * Efficient Connectivity: Supports USB and Wi-Fi for easy data export and remote access to analysis results.   **Technical Specifications:**   * Detection Technology: Handheld Raman Spectroscopy with 1064 nm excitation wavelength. * Analysis Time: Provides rapid results in less than 1 minute per sample. * Battery Life: Supports at least 4 hours of continuous use on a single charge. * Power Supply: Rechargeable lithium-ion battery. * Display: Color touchscreen for easy viewing in various lighting conditions. * Connectivity: USB and Wi-Fi support for data transfer and remote connectivity. * Operating Conditions: Reliable performance in a wide range of environmental conditions, from extreme temperatures to challenging weather. * On-Board Camera: Includes a digital camera for capturing images of materials and samples during analysis.   **Applications:**   * Forensic Investigations: Rapid and accurate identification of explosives, narcotics, and hazardous materials at crime scenes. * Field Operations: Ideal for on-site screening and analysis for security, safety, and law enforcement. * Environmental Monitoring: Perfect for environmental assessments and chemical identification in the field, offering non-invasive and real-time analysis. * Regulatory Compliance: Facilitates compliance with safety and regulatory standards in manufacturing, transportation, and emergency response.   **Operational Requirements:** • **Training:** Basic operator training covering device use and maintenance. • **Warranty:** Minimum 2-year warranty with service support and component replacement for manufacturing defects. |  |  |  |