# *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)**  This portable detection system is designed for the rapid identification of trace amounts of explosives and narcotics in field conditions. Suitable for law enforcement, border security, forensic analysis, and emergency response, it provides reliable, real-time results with minimal training and low operational burden.  **Key Features:** • **Compact & Field-Ready:** Lightweight and easily deployable, suitable for mobile or stationary use. • **Flexible Detection Technology:** Ion Mobility Spectrometry (IMS, non-radioactive) or equivalent Raman/fluorescence-based methods. • **Fast Response:** Delivers results in as little as 8 seconds (IMS) or within 5 minutes (alternative technologies). • **Trace-Level Sensitivity:** Detects substances at nanogram concentration. • **Swab-Based Sampling:** Uses single-use sampling swabs; ≥50 included per kit. • **Autonomous Operation:**  – ≥4 hours for IMS-based systems  – ≥8 hours for alternative platforms, with hot-swappable batteries. • **Intuitive Interface:** Color touchscreen (≥6") with physical buttons for glove operation. • **Multilingual Support:** Interface and user manual in English or Ukrainian (Ukrainian preferred). • **Robust Data Handling:** USB required; Bluetooth/Wi-Fi recommended for real-time transfer and reporting. • **Environmental Protection:** IP54 minimum for IMS; up to IP65 and MIL-STD-810G for ruggedized models. • **Operating Temperature:** –10°C to +50°C. • **Power Supply:** Rechargeable Li-ion battery and AC adapter (230V, 50 Hz); optional vehicle adapter. • **Optional Features:** Integrated/external printer, barcode scanner, onboard documentation tools.  **Operational Requirements:** • **Training:** Basic operator training covering device use and routine maintenance. • **Warranty:** Minimum 2-year warranty with service support and component replacement for manufacturing defects.  **Target Substances:** • **Explosives:** RDX, TNT, PETN, TATP, HMX, and related compounds. • **Narcotics:** Cocaine, heroin, fentanyl and analogues, amphetamines, THC, and others.  **Applications:** • **Security & Law Enforcement:** On-site screening at checkpoints, borders, and public venues. • **Forensic Use:** In-field identification to support evidence collection. • **Incident Response:** Rapid assessment of unknown substances during emergencies or inspections. |  |  |  |
| **9** | **Portable FTIR Spectrometer (Smiths Detection HazMat ID Elite or equivalent)**  The Portable FTIR Spectrometer is a high-performance, compact chemical identifier designed for fast, accurate identification of unknown solids and liquids in forensic, security, and field applications. Using Fourier Transform Infrared (FTIR) Spectroscopy, this device quickly detects a wide range of substances, including explosives, narcotics, chemical warfare agents, toxic industrial chemicals, and suspicious powders. The device is engineered for use in harsh environments, ensuring reliable performance and rapid decision-making.  **Key Features:**   * Rapid Analysis: Delivers results in less than 1 minute per sample, facilitating quick response times in critical situations. * Wide Detection Range: Capable of identifying a broad spectrum of substances, including explosives, narcotics, chemical warfare agents, toxic chemicals, and powders. * Built-in library of at least 7000 substances * Durability: Designed to withstand challenging environments with resistance to dust and water ingress, ensuring dependable operation under demanding conditions. * User-Friendly Interface: Features a color LCD display for high visibility and easy navigation, ensuring effective operation in all lighting conditions. * Long Battery Life: Powered by a rechargeable lithium-ion battery, offering a minimum of 4 hours of continuous operation. * Data Management: USB support for convenient data transfer, enabling seamless integration into forensic workflows. * Reliable Operation: Operates efficiently in a wide range of temperatures and weather conditions, making it ideal for field use.   **Technical Specifications:**   * Technology: Fourier Transform Infrared (FT-IR) Spectroscopy for precise chemical identification. * Analysis Time: Not more than 1 minute per sample, providing rapid results for immediate action. * Battery Life: Minimum 4 hours of continuous operation on a single charge. * Power Supply: Rechargeable lithium-ion battery. * Display: LCD color display with high resolution for clear visibility in various conditions. * Data Export: Supports USB data transfer for easy integration into systems. * Operating Conditions**:** Reliable in a wide range of temperatures and weather conditions, suitable for various field and emergency situations.   **Applications:**   * Forensic Investigations: Ideal for identifying explosives, narcotics, and hazardous chemicals at crime scenes, assisting law enforcement and forensic teams in evidence collection. * Field Operations: Perfect for on-site analysis in security, safety, and emergency response scenarios, providing real-time chemical identification. * Chemical Identification: Critical tool for identifying hazardous substances in environmental, emergency, and forensic assessments.   **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. |  |  |  |
| **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. |  |  |  |