

DOCUMENT NO. KP1/7B.2/TSM/ST/09/010-1



Kenya Power

ACOUSTIC IMAGING CAMERA - SPECIFICATION

A Document of the Kenya Power & Lighting Co. Ltd
OCTOBER 19, 2026



Kenya Power

TITLE:
**ACOUSTIC IMAGING CAMERA
SPECIFICATIONS**

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0.1 CIRCULATION LIST

COPY NO.	COPY HOLDER
1	Snr Engineer, Sub-transmission, Central Office.
2	Manager, Transmission, Central Office.

0.2 AMENDMENT RECORD

Rev No.	Date (YYYY-MM-DD)	Description of Change	Prepared by (Name & Signature)	Approved by (Name & Signature)
0	2026-10-19	New issue	Eng. Alistair Akute	Eng. George Korir

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FOREWORD

This specification has been prepared by the Transmission Department of The Kenya Power and Lighting Company Limited (KPLC) and it lays down requirements for an Acoustic Imaging Camera.

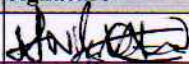
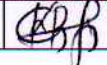
The Acoustic Imaging Camera offers state-of-the-art acoustic imaging system specifically engineered for non-destructive testing (NDT) within demanding industrial environments. The system provides an advanced, highly reliable solution for predictive maintenance teams tasked with identifying compressed air and gas leaks, tracking localized mechanical bearing wear, and classifying high-voltage electrical partial discharges (PD). By overlaying precise acoustic data maps on top of live optical streams, the system enables KPLC maintenance engineers to safely survey wide facility boundaries, eliminate energy losses, and avoid costly unscheduled downtime.

There are no other specifications in this series.

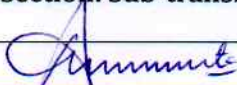
This specification stipulates the minimum requirements for an Acoustic Imaging Camera acceptable for use in the company and it shall be the responsibility of the supplier and manufacturer to ensure that the offered design is of the highest quality and guarantees excellent service to KPLC, good workmanship and good engineering practice in the manufacture of the Equipment for KPLC.

Users of Kenya Power specifications are responsible for their correct interpretation and application.

The following are members of the team that developed this specification:

Name	Department	Signature
Nicodemus Ondigo Otores	Transmission	 19/10/2025
Callen Buruchara	Distribution / Live Line	 19/10/2025

1. SCOPE

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1.1. This specification is for an Acoustic Imaging Camera for use by KPLC company's Transmission Department.

1.2. The specification covers requirements, design, tests and inspection and schedule of Guaranteed Technical Particulars of an Acoustic Imaging Camera.

2. NORMATIVE REFERENCES

The following standards contain provision which, through reference in this text, constitute provisions of this specification. For dated editions the cited edition will apply; for undated editions the latest edition of the referenced document shall apply.

IEC 60529 (Degrees of Protection Provided by Enclosures): Governs the IP54 rating of the camera chassis. This certifies that the device is protected against harmful dust deposits (Ingress Protection 5x) and splashing water from any direction (Ingress Protection x4)

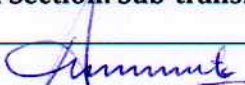
IEC 60068-2-6 (Environmental Testing - Vibration): Validates the camera's structural integrity under steady vibration stress (2g sweep testing) to ensure internal components do not loosen during transport or industrial use.

EC 60068-2-27 (Environmental Testing - Shock): Validates mechanical ruggedness against sudden drops or impacts (**25g shock testing**), ensuring the chassis, screen, and sensor grid remain operational after industrial bumps.

IEC 61010-1 (Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use): Ensures the **90–264V AC power charging system** is safely insulated, preventing electrical shocks, short circuits, or overheating risks for the operator during recharging.

IEC 61326-1 (Electrical Equipment for Measurement, Control, and Laboratory Use - EMC Requirements): Certifies that the camera's high-frequency processors, Bluetooth, and USB-C data transmission are immune to industrial electromagnetic interference (EMI) and will not emit radiation that disrupts other factory machinery.

IP64 when in use with top covers open.

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IP67 when the case is closed for transport, it is dust-tight and protected against temporary immersion in water

3. DEFINITIONS AND ABBREVIATIONS

For this specification the definitions and abbreviations given in the reference standards shall apply together with the following abbreviations.

3.1. ABBREVIATIONS

EMC: Electromagnetic Compatibility

KPLC- Kenya Power and Lighting Company Limited

ISO – International Organization for Standardization.

IEC- International electrotechnical commission

LCD - Liquid Crystal Display

Kg –Kilogram

KV - Kilovolt

EHV - Extra High Voltage

USB- Universal Serial Bus

MEMS - Micro-Electro-Mechanical Systems.

4. REQUIREMENTS

4.1.0 Technical Specifications

4.1.1 Acoustic Sensor Grid: Shall be 124 low-noise MEMS digital microphones for optimized beamforming performance, designed in alignment with standard IEC 60268-4 (methods of measurement for multichannel microphone characteristics and digital audio output interfaces).

4.1.2 Acoustic Operational Bandwidth: Shall be 2 kHz to 130 kHz wideband frequency capture functionality. (Note: Traditional audible sound parameters of IEC 61672 do not apply due to the extended ultrasonic range up to 130 kHz).

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- 4.1.3 Standoff Detection Distance:** Operational range shall stretch from at least 0.3 meters up to 200 meters away from target.
- 4.1.4 Leak Detection Performance:** It shall detect trace leaks down to at least 0.0032 l/min at 2.5 meters and 0.0044 l/min at 6 meters.
- 4.1.5 Directional Target Resolution:** Shall have a high-accuracy angular resolution ranging from 1° down to 0.125°.
- 4.1.6 Acoustic Frame Rate:** Shall be real-time acoustic sound data updates generated at 30 frames per second.
- 4.1.7 Optical Camera Hardware:** Shall be 12-Megapixel high-definition color digital sensor providing clear visual profiles.
- 4.1.8 Field of View (FOV):** Shall be 75° diagonal field of view optimized for comprehensive environmental scans.
- 4.1.9 Power Infrastructure:** Shall be rechargeable with at least 4 hours of continuous use.
- 4.1.10 Charge Input:** Shall be 90–264V AC, 50/60 Hz. The power system and charger interface shall satisfy the safety criteria of IEC 61010-1 (Safety requirements for electrical equipment for measurement, control, and laboratory use).
- 4.1.11 Data Capture & Logging:** Shall be at least 128 GB onboard storage supporting .jpg images, .nlz sound layers, and 5-minute video files.
- 4.1.12 Physical & Chassis Rating:**
- **Ingress Protection:** Enclosure shall be certified to an IP54 rating in strict compliance with IEC 60529 (Degrees of protection provided by enclosures).
 - **Environmental Resilience:** Equipment shall undergo environmental validation following IEC 60068-2-6 (Vibration testing at 2g) and IEC 60068-2-27 (Shock testing at 25g) to guarantee structural stability across the operating temperature range of -10°C to 50°C.
- 4.1.13 Operational Software:** The system must include multi-use Windows-based PC software that enables data downloading, analysis, creation of equipment library, and performance of trend analysis to guide maintenance decisions. This software must be provided without any additional or recurring licensing fees.
- 4.1.14 Data Export & Wireless:** Shall have USB, Bluetooth, and Type-C interfaces for synchronizing results with a computer and software. The overall assembly and data

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transmission components must meet IEC 61326-1 (EMC requirements for electrical equipment for measurement, control, and laboratory use).

4.1.15 Display: Shall have at least 5-inch high-resolution, sunlight-readable color LCD.

4.1.16 Carrying case: A hard case designed to protect the instrument and all accessories during transport

4.2.0. TRAINING

4.2.1 Training at the manufacturer's premises

- The successful bidder/manufacturer shall arrange to conduct a Factory Acceptance Test for the manufactured acoustic imaging camera. The Factory Acceptance Test shall include training on the acoustic imaging camera for four (4) KPLC engineers/technicians. At least two (2) of the engineers/technicians shall be sub-transmission users.
- The manufacturer shall plan adequate time for the training, which shall be conducted by the manufacturer's expert.
- The supplier shall meet all the costs of the factory training.

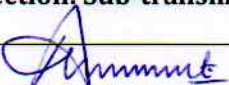
4.2.2 Local Training

- Following delivery of the acoustic imaging camera, the manufacturer shall conduct training in Nairobi, Kenya. The training shall be conducted in one session of 20 KPLC engineers/technicians and shall last at least three (3) days including field demonstrations.
- The supplier shall meet all the costs for conducting the local training, including local accommodation and transport for their training staff. The supplier shall provide all the training materials including notes.

4.3.0 Laptop and Mobile phone accessories

4.3.1 Laptop Requirements for Data Analysis & Software Operations

- **Processor (CPU):** Shall be an Intel Core i7 / AMD Ryzen 7 processor (13th Generation or newer) featuring at least 10 cores and a turbo frequency of up to 5.0 GHz to handle simultaneous multi-channel FFT calculations and multi-sensor overlays.
- **System Memory (RAM):** Shall be at least 32 GB of high-speed DDR5 RAM configured in dual-channel mode to prevent system bottlenecks when rendering dense acoustic heat maps and handling 3D cloud processing.

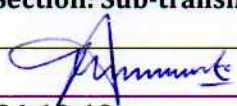
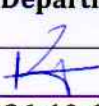
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- **Dedicated Graphics (GPU):** Shall be equipped with a discrete NVIDIA RTX 40-Series graphics card (minimum 6 GB GDDR6 VRAM) to accelerate spatial audio beamforming renderings, sonogram graphics, and smooth frame-by-frame scrubbing of acoustic video files.
- **Storage Subsystem:** Shall feature a minimum of 1 TB NVMe PCIe Gen 4.0 x4 Solid State Drive (SSD) with read speeds of at least 5000 MB/s to ensure fast transfer, reading, and loading of heavy .nlz data packages and video reports.
- **Operating System & Software Compatibility:** Shall come pre-installed with an authentic 64-bit Windows 11 Pro operating system fully compatible with the manufacturer's proprietary, license-free analysis and trend-tracking software suite.
- **Chassis & Display:** Shall feature a ruggedized or premium business-grade chassis with a minimum 15.6-inch high-resolution (Full HD or higher), anti-glare, IPS display with at least 400 nits brightness for outdoor, on-site fieldwork visibility.
- **Connectivity & Interfaces:** Shall include at least one Thunderbolt 4 / USB Type-C port (supporting Power Delivery and DisplayPort), minimum two USB 3.2 Gen 2 Type-A ports, an RJ-45 Gigabit Ethernet port, Wi-Fi 6E, and Bluetooth 5.3 for seamless wireless field data synchronization.
- **Accessories & Protection:** Shall be supplied with a premium, water-resistant protective laptop backpack, an ergonomic wireless mouse, and a heavy-duty, shock-absorbent protective sleeve.

4.3.2 Mobile Phone Requirements for Field Data Aggregation & Companion App Usage

- **Processing Engine:** Shall feature a flagship octa-core mobile processor to process real-time bilinear sound-map interpolation.
- **System Memory (RAM):** Shall feature at least 12 GB of LPDDR5X RAM to ensure fluid multitasking and buffer-free operations during simultaneous audio streaming and optical video processing.
- **Internal Storage:** Total storage capacity shall be a minimum of 256 GB UFS 4.0 flash storage to store and organize high-definition pictures and dense acoustic video logs exported from the camera.
- **Interface & OTG Functionality:** Shall feature a structural USB Type-C port conforming to the USB 3.2 standard (or higher) with native USB On-The-Go (OTG) power-delivery mapping to support hosting external hardware peripherals and active data stream routing.

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- **Ruggedization & Resilience:** Enclosure shall be certified to an IP68 rating in compliance with IEC 60529, ensuring complete dust-tight ingress protection and continuous water immersion resilience during severe substation or field inspections.
- **Battery & Power:** Infrastructure shall feature a minimum 5,000 mAh high-capacity lithium battery supporting fast charging (minimum 45W) to ensure prolonged runtime while powering external connected accessories.
- **Wireless Connectivity:** Integrated network chips must support 5G Sub-6GHz bands, Wi-Fi 6E/7 protocols, and Bluetooth 5.3 to facilitate quick field-to-cloud data uploads and wireless hardware synchronization.
- **Included Accessories:** Shall be delivered with a high-durability, shockproof, military-grade protective phone case and an authentic, high-speed USB Type-C to Type-C data sync cable.

APPENDICIES

A: TESTS AND INSPECTION (Normative)

A.1 It shall be the responsibility of the supplier/manufacturer to test or to have all the relevant tests performed.

Overview of Test Procedures

1. Electro-Acoustic & Beamforming Verification

- **Acoustic Array Calibration (IEC 60268-4):** Performed in an anechoic chamber to verify that all 124 MEMS microphones track sound consistently between 2 kHz and 130 kHz without phase errors.
- **Angular Target Resolution:** Tests the beamforming algorithm's ability to cleanly resolve two distinct ultrasonic sound sources positioned near each other down to a **0.125° resolution threshold**.

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- **Real-time Refresh Rate:** Validates via logic analyzer that acoustic heatmap data updates synchronously over the optical stream at a stable **30 FPS**.

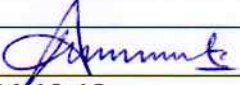
2. Functional Leak & Distance Testing

- **Trace Leak Verification:** Uses a high-precision mass flow controller and a nitrogen needle-valve to generate highly controlled trace leaks (**0.0032 l/min at 2.5m** and **0.0044 l/min at 6m**) to confirm the limits of the software algorithms against environmental room noise.
- **Standoff Range Limits:** Assesses sensor range by verifying target locking at extreme limits, starting directly at **0.3 meters** and going out to a **200-meter** line-of-sight distance.

3. Environmental & Mechanical Stress Testing

- **Ingress Protection (IEC 60529):** Physical chamber testing verifying **IP54 certification** (dust ingress protection via circulating talcum powder and water splash protection via a multi-directional spray apparatus).
- **Vibration and Shock (IEC 60068-2-6 / IEC 60068-2-27):** Shaker table validation to ensure the electronic layout, 3.5-inch LCD, and chassis withstand industrial work settings (**2g sweep vibrations and 25g impact shocks**).
- **Thermal Endurance:** A cyclic hot/cold bake chamber test to ensure internal electronics run continuously from **-10°C up to 50°C** without hardware freezing or performance degradation.
- **Power & Charging Infrastructure (IEC 61010-1):** Validates a continuous **4-hour runtime** exhaustion threshold while charging the battery through a standard universal high-voltage grid input (90–264V AC).

4. Data Integrity & Electromagnetic Compatibility

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- **Data Log Parity:** Full storage stress tests executing continuous high-bandwidth 5-minute video and .nlz data stream layers up to the **128 GB hardware limit**.
- **EMC Interference (IEC 61326-1):** Radiated emissions and immunity verification in an RF chamber to ensure Bluetooth, USB-C communication, and acoustic signal processing don't drop packets when operated near high-voltage industrial machinery.

A.2 On receipt of the Acoustic Imaging Camera, Kenya Power will inspect them and may perform or have performed any of the relevant tests to verify compliance with the specification. The supplier shall replace without charge to Kenya Power, any part on the equipment which upon examination, test or use fail to meet any or all the requirements in the specification.

B: QUALITY MANAGEMENT SYSTEM (Normative)

B.1 The bidder shall indicate the delivery time of the equipment

C: DOCUMENTATION AND DEMONSTRATION (Normative)

C.1 The bidder shall submit its tender complete with technical documents for tender evaluation. The technical documents to be submitted (all in English language) for tender evaluation shall include the following:

- Fully filled clause by clause guaranteed technical particulars (GTP) signed by the manufacturer.
- Copies of the Manufacturer's catalogues, brochures, drawings giving all relevant dimensions, and technical data;
- Bidder's warranty and guarantee; subject to 12 months from date of delivery to KPLC stores
- User manual.

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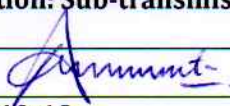
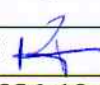
C.2 The bidder (supplier) shall submit the following documents/details to The Kenya Power & Lighting Company for approval before manufacture:

- a) Fully filled clause by clause guaranteed technical particulars (GTP) stamped and signed by the manufacturer, agent or dealer.
- b) Product manuals, operation manuals and brochures,
- c) All documentation necessary for safety of the product.
- d) Packaging details (including packaging materials).

C.3. The supplier shall submit recommendations for use, care, storage and routine inspection/testing procedures, all in the English Language, during delivery of the Acoustic Imaging Camera to KPLC stores.

C.4. Instrument Marking and Product Labeling Specifications

- **Nameplate Permanence:** The Acoustic Imaging Camera body **shall** be marked legibly, indelibly, and permanently in the English language. The character height for primary data points **shall** not be less than 4 mm.
- **Mandatory Labeling Details:** In accordance with KPLC instrument standards, the nameplate **shall** be forged, stamped, or laser-etched onto the camera chassis before delivery, containing the following details:
 1. Name or trademark of the manufacturer and country of origin.
 2. Type, model number, and unique hardware serial number.
 3. Batch number and month/year of manufacture.
 4. Nominal operating voltage, frequency, and maximum power consumption ratings.
 5. Ingress Protection (IP) rating and compliance standards.
 6. The prominent statutory inscription: "**PROPERTY OF K.P. & L. CO. PLC**".

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D: GUARANTEED TECHNICAL PARTICULARS (Normative)

To be filled and signed by the Bidder and submitted together with relevant copies of the Manufacturer's catalogues, brochures, drawings, technical data, for tender evaluation, all in English Language)

Tender No.

Bidder's name and Address.....

Clause number	KPLC Requirement	Bidder's offer	Comments
Manufacturer's Name			
Country of Manufacture			
Name and model Number			
4.1.1	Acoustic Sensor Grid: Shall be 124 low-noise MEMS digital microphones for optimized beamforming performance, designed in alignment with standard IEC 60268-4 (methods of measurement for multichannel microphone characteristics and digital audio output interfaces).		
4.1.2	Acoustic Operational Bandwidth: Shall be 2 kHz to 130 kHz wideband frequency capture functionality. (Note: Traditional audible sound parameters of IEC 61672 do not apply due to the extended ultrasonic range up to 130 kHz).		
4.1.3	Standoff Detection Distance: Operational range shall stretch from at least 0.3 meters up to 200 meters away from target.		
4.1.4	Leak Detection Performance: It shall detect trace leaks down to at		

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Clause number	KPLC Requirement	Bidder's offer	Comments
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4.1.5	Directional Target Resolution: Shall have a high-accuracy angular resolution ranging from 1° down to 0.125°.		
4.1.6	Acoustic Frame Rate: Shall be real-time acoustic sound data updates generated at 30 frames per second.		
4.1.7	Optical Camera Hardware: : Shall be 12-Megapixel high-definition color digital sensor providing clear visual profiles.		
4.1.8	Field of View (FOV): Shall be 75° diagonal field of view optimized for comprehensive environmental scans.		
4.1.9	Power Infrastructure: Shall be rechargeable with at least 4 hours of continuous use.		
4.1.10	Charge Input: Shall be 90–264V AC, 50/60 Hz. The power system and charger interface shall satisfy the safety criteria of IEC 61010-1 (Safety requirements for electrical equipment for measurement, control, and laboratory use).		
4.1.11	Data Capture & Logging: Shall be at least 128 GB onboard storage supporting .jpg images, .nlz sound		

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Clause number	KPLC Requirement	Bidder's offer	Comments
	layers, and 5-minute video files.		
4.1.12	Physical & Chassis Rating: • Ingress Protection: Enclosure shall be certified to an IP54 rating in strict compliance with IEC 60529 (Degrees of protection provided by enclosures). • Environmental Resilience: Equipment shall undergo environmental validation following IEC 60068-2-6 (Vibration testing at 2g) and IEC 60068-2-27 (Shock testing at 25g) to guarantee structural stability across the operating temperature range of -10°C to 50°C.		
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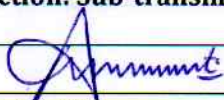
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 Kenya Power	TITLE: ACOUSTIC IMAGING CAMERA SPECIFICATIONS	Doc. No.	KP1/7B.2/TSM/ST/09/010-1
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Clause number	KPLC Requirement	Bidder's offer	Comments
4.1.14	Data Export & Wireless: Shall have USB, Bluetooth, and Type-C interfaces for synchronizing results with a computer and software. The overall assembly and data transmission components must meet IEC 61326-1 (EMC requirements for electrical equipment for measurement, control, and laboratory use).		
4.1.15	Display: Shall have at least 5-inch high-resolution, sunlight-readable color LCD.		
4.1.16	Carrying case: A hard case designed to protect the instrument and all accessories during transport		
4.2.1	Training at the manufacturer's premises - The successful bidder/manufacturer shall arrange to conduct a Factory Acceptance Test for the manufactured acoustic imaging camera. The Factory Acceptance Test shall include training on the acoustic imaging camera for four (4) KPLC engineers/technicians. At least two (2) of the engineers/technicians shall be sub-transmission users. - The manufacturer shall plan adequate time for the training, which shall be		

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Clause number	KPLC Requirement	Bidder's offer	Comments
	conducted by the manufacturer's expert. The supplier shall meet all the costs of the factory training.		
4.2.2	Local Training - Following delivery of the acoustic imaging camera, the manufacturer shall conduct training in Nairobi, Kenya. The training shall be conducted in one session of 20 KPLC engineers/technicians and shall last at least three (3) days including field demonstrations. - The supplier shall meet all the costs for conducting the local training, including local accommodation and transport for their training staff. The supplier shall provide all the training materials including notes.		
4.3.1	Laptop Requirements for Data Analysis & Software Operations Processor (CPU): Shall be an Intel Core i7 / AMD Ryzen 7 processor (13th Generation or newer) featuring at least 10 cores and a turbo frequency of up to 5.0 GHz to handle simultaneous multi-channel		

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Clause number	KPLC Requirement	Bidder's offer	Comments
	FFT calculations and multi-sensor overlays. • System Memory (RAM): Shall be at least 32 GB of high-speed DDR5 RAM configured in dual-channel mode to prevent system bottlenecks when rendering dense acoustic heat maps and handling 3D cloud processing. • Dedicated Graphics (GPU): Shall be equipped with a discrete NVIDIA RTX 40-Series graphics card (minimum 6 GB GDDR6 VRAM) to accelerate spatial audio beamforming renderings, sonogram graphics, and smooth frame-by-frame scrubbing of acoustic video files. • Storage Subsystem: Shall feature a minimum of 1 TB NVMe PCIe Gen 4.0 x4 Solid State Drive (SSD) with read speeds of at least 5000 MB/s to ensure fast transfer, reading, and loading of heavy .nlz data packages and video reports.		

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Clause number	KPLC Requirement	Bidder's offer	Comments
	• Operating System & Software Compatibility: Shall come pre-installed with an authentic 64-bit Windows 11 Pro operating system fully compatible with the manufacturer's proprietary, license-free analysis and trend-tracking software suite. • Chassis & Display: Shall feature a ruggedized or premium business-grade chassis with a minimum 15.6-inch high-resolution (Full HD or higher), anti-glare, IPS display with at least 400 nits brightness for outdoor, on-site fieldwork visibility. • Connectivity & Interfaces: Shall include at least one Thunderbolt 4 / USB Type-C port (supporting Power Delivery and DisplayPort), minimum two USB 3.2 Gen 2 Type-A ports, an RJ-45 Gigabit Ethernet port, Wi-Fi 6E, and Bluetooth 5.3 for seamless wireless field data synchronization. • Accessories & Protection: Shall be supplied with a		

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Clause number	KPLC Requirement	Bidder's offer	Comments
	premium, water-resistant protective laptop backpack, an ergonomic wireless mouse, and a heavy-duty, shock-absorbent protective sleeve.		
4.3.2	Mobile Phone Requirements for Field Data Aggregation & Companion App Usage • Processing Engine: Shall feature a flagship octa-core mobile processor to process real-time bilinear sound-map interpolation. • System Memory (RAM): Shall feature at least 12 GB of LPDDR5X RAM to ensure fluid multitasking and buffer-free operations during simultaneous audio streaming and optical video processing. • Internal Storage: Total storage capacity shall be a minimum of 256 GB UFS 4.0 flash storage to store and organize high-definition pictures and dense acoustic video logs exported from the camera. • Interface & OTG Functionality: Shall feature a structural USB Type-C port conforming to the USB 3.2 standard (or higher) with native USB On-The-Go (OTG) power-delivery		

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Clause number	KPLC Requirement	Bidder's offer	Comments
	mapping to support hosting external hardware peripherals and active data stream routing. • Ruggedization & Resilience: Enclosure shall be certified to an IP68 rating in compliance with IEC 60529, ensuring complete dust-tight ingress protection and continuous water immersion resilience during severe substation or field inspections. • Battery & Power: Infrastructure shall feature a minimum 5,000 mAh high-capacity lithium battery supporting fast charging (minimum 45W) to ensure prolonged runtime while powering external connected accessories. • Wireless Connectivity: Integrated network chips must support 5G Sub-6GHz bands, Wi-Fi 6E/7 protocols, and Bluetooth 5.3 to facilitate quick field-to-cloud data uploads and wireless hardware synchronization. • Included Accessories: Shall be delivered with a high-durability, shockproof, military-grade protective phone case and an authentic, high-speed USB Type-C to Type-C data sync cable.		

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Kenya Power

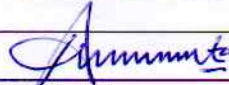
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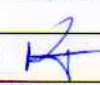
Bidder's Name, Signature, Stamp and Date

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