



**Kenya Bureau of
Standards**

Standards for quality life

KEBS/T004/2021/2022

30TH SEPTEMBER, 2020

TO: ALL INTERESTED BIDDERS

REF: ADDENDUM – NO. 3 KEBS/T004/2021/2022- SUPPLY, DELIVERY, INSTALLATION AND USER TRAINING OF TESTING LABORATORY EQUIPMENT.

The Kenya Bureau of standards wishes to provide the following clarifications:

1. RELATIONSHIP WITH THE PRINCIPAL TENDER DOCUMENT

Save where expressly amended by the terms of this addendum, the Principal Tender Document shall continue to be in full force and effect.

The provision of this addendum shall be deemed to have been incorporated in and shall be read as part of the Principal Tender Document.

Clarification as per the Technical Specifications: Appendix No. B

- 1. We wish to seek clarifications regarding the supply of Global Navigation Satellite Receiver (GNSS) Lot as outlined below: Page 190; item No.93; Global Navigation Satellite Receiver (GNSS) The mentioned specifications are specific to Piktime System receivers. Different manufacturers have different specifications for GNSS receivers that can be used for similar operations. Kindly put standard specifications to enable bidders with other brands to participate and Global Navigation Satellite Receiver (GNSS) currently, there are different GNSS receivers for different applications. Each application requires a different set of accessories and software. For example, survey grade GNSS require field software for data collection, office software for data processing and specific accessories for field data collection like tripod, GNSS antennae pole, batteries, and chargers among others. Kindly specify some of the applications areas for the GNSS receiver or intended use so that we submit our request according to your requirement.*

RESPONSE:

The GNSS receiver to be procured is specifically a time and frequency transfer receiver. The specifications for timing receivers are similar on operation characteristics other than hardware and software configurations. The basic common requirements is to observe GPS, GLONASS and Galileo signals, have input and output ports for 1PPS and standard frequency like 1,5, or 10 MHz, be able to process both phase and code observations and output data in the recommended formats. The specifications from other brands are even more superior in some aspects. It is the responsibility of the bidder to participate if meets specifications of a timing receiver

The GNSS receiver to be procured is specifically a time and frequency transfer receiver. The receiver has to have an application software to output data in CGGTTS and RINEX formats that are recommended in the timing field. All manufacturers sell receivers with the application soft wares as a package and most don't even mention the basic application soft wares in their specifications. It is the bidder's responsibility to supply a fully functional GNSS receiver and with connectivity to a computer/LAN as per the manufacturer's configuration.

- 2. Page 190; item No.93; Global Navigation Satellite Receiver (GNSS) The specifications have not mentioned any requirement for accessories, field software and office software. This may lead to some bidders only quoting for the GNSS receivers as stated in the specifications without any software and accessories. If required, kindly specify what accessories and software should accompany the GNSS receivers.*

RESPONSE:

A time and frequency transfer GNSS receiver operates in a laboratory set up and is rack mounted. As explained above, the application software is implied in the usage for it to output data in the specified formats and on for the user to operate remotely via a computer since most do not have buttons/knobs for control. Two accessories, compatible standard antenna and cable are mentioned in the specifications. There are no field accessories and software.

- 3. Page 190; item No.93; Global Navigation Satellite Receiver (GNSS) the total number of GNSS receivers requested is 1 pc. However, a standard GNSS receiver comes in a set of Base and Rover with standard accessories. Kindly clarify on the quantities required.*

RESPONSE:

A standard time and frequency transfer receiver comes as a unit and not base and rover. The only major accessory is a standard compatible antenna and cable

- 4 .Page 190; item No.93; Global Navigation Satellite Receiver (GNSS) The calibration certificate mentioned is from a Centre affiliated with CCTF of BIPM. Kindly leave this open so that calibration certificates from other equipment manufacturers can be submitted.*

RESPONSE:

The GNSS receiver to be procured shall be used in a National Calibration Laboratory to contribute to the International Time (the Coordinated Universal Time {UTC}). Any laboratory participating must have their equipment traceable to UTC through calibration by a laboratory/institution contributing to UTC. Any equipment manufacturer can have the equipment calibrated by a laboratory/institution contributing to UTC. This requirement cannot be left out.

5. Item 95: Integration sphere, The specification lists a Digi lumen flux meters in detail. Under the title "other attachments" there are listed various accessories such as CM 10 colorimeter, AC and DC sources and a CAS 140CT spectrometer. But there are not given any details on the voltage / current requirements for the DC and AC sources.

RESPONSE:

Bidders are advised to use the revised specification on page 4 for item 95 and ignore the one issued earlier.

ITEM	QUANTITY	SPECIFICATIONS	
Integrating Sphere	1	Equipment for luminous flux measurement of light sources by comparison with a standard lamp	%
		Construction according to DIN 5032 Section 1 and CIE publication No. 84 "The Measurement of Luminous Flux"	
		Metal frame construction with swiveling mechanism to open sphere	16
		Light tight mechanical lock	8
		Flexible adjustment bar to connect our lamp holders	8
		3 burning positions (2 vertical, 1 horizontal), clamping device for fixing holders in pendent, upright, and horizontal position	8
		Coated inside with our BaSO4 photometer paint with Lambertian white diffusing surface, reflectance 80%with variation of reflectance < 1.5% in wavelength range 400 to 700 nm	8
		Diameter: 1 meter	12
		Sphere material: Aluminium	8
		Thermometer: Digital, resolution 0.1°C	8
		Universal flange prepared to install several photometer heads for V (λ) and tristimulus colorimeter head	8
		Baffle to be shifted	2
		Auxiliary lamp	2
		Instruction manual	2
		Stable stand	2
		Thermometer	2
		Adjustment bar for positioning sample	2
		Supplied with a calibration certificate from an ISO/IEC 17025 accredited calibration laboratory	2
		Installation and training	2
		Pass mark 90%	100
Digital Photometer	1	Digital Photometer	
		Precision photometer head with Si-photopic detector	8
		Diameter of light sensitive area: 12 mm	6
		Superior V(λ)-approximation, class L (highest accuracy) or A (high accuracy) according to DIN 5032Section 7, DIN-EN 13032-1	4
		Thermostatic stabilization of photometer head to approx. 35°C ± 0.1°C	6
		Diffuser built-in flush with inner surface of sphere	4
		Electronic, microprocessor-controlled display unit	8
		4 1/2-digit LED seven segment display	4
		Ranging auto/manual or remote programmable	6
		Fixed lux calibration, freely selectable lumens calibration	4
		Attenuator: Adjustable factor 0.001...99.99	4
		Approx. 5 readings/s, automatic average creation for alternating light	6
		Interface: Serial RS 232	8
		Power supply: International wide range power supply80...270 V, 40...400 Hz	4
		Power consumption: Max. 20 W	6
		Dimensions: (W x H x D) 291 x 88 x 199 mm	4
		Weight: 2 kg	4
		Display range: 10-3 lm (last digit) to 2 x 105 lm	4
		Flux and spectral calibration bulbs	4
		Installation and training	2
		Supplied with a calibration certificate from an ISO/IEC 17025 accredited calibration laboratory	4
		Pass mark 90%	100

6. In case a spectrometer like the CAS 140CT shall be quoted with item 95, it does not make any sense to quote a Digi lumen 9500 flux meter nor does it make sense to quote a CM colorimeter as the spectroradiometer determines all quantities: photometric (lumens), spectral (spectral power distribution, CRI, peak wavelength, dominant wavelength etc.) and colorimetric (color coordinates such as x-y-Y and CCT).

RESPONSE:

Spectroradiometer shall be requested for in a different tender


7. Please give us more precise understanding what you wish to accomplish with that sphere and to adjust the specification accordingly. Our Sphere, is specifically designed for automotive light bulbs and other automotive light sources. For automotive light bulbs, lumens (luminous flux) is most important to be determined.

RESPONSE:

We wish to do luminous flux measurements using the integrating sphere and illuminance measurements using the digital photometer. We are not limited to automotive light bulb measurements.

8. Please note the date for tender opening and closing has been extended from 6th October, 2021 to 12th October, 2021.

ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME



MANAGING DIRECTOR

