



ASTI-FM 03-11
REV 1/08 JUN 2022

**DOST-ASTI Bids and Awards Committee
Invitation to Bid (Public Bidding)**

IB No:	24-04-4786	Date:	May-09-2024
PR No:	GAA-24-04-19020	Date:	April-08-2024
Source of Funds:			
Total ABC:		Php 3,050,000.00	
Time, Date & Venue of Pre-bid Conference:		May 17, 2024, 9:00 AM at Videoconferencing (MS Teams)	
Time and Date of Submission of Bids:		May 29, 2024, 09:00 AM	
Time, Date & Venue of Opening Bids:		May 29, 2024, 9:30 AM at DOST-ASTI and Videoconferencing (MS Teams)	
Date of availability of Complete Set of Documents:		May 10, 2024	
Deadline of Potential Bidder's Clarifications:		May 20, 2024	
Deadline of ASTI's Supplemental Bid Bulletin:		May 22, 2024	
Delivery Schedule:			

The *Department of Science and Technology (DOST) - Advanced Science and Technology Institute (ASTI)*, through its Bids and Awards Committee (BAC), hereby invites all interested Bidders to submit their bids for the *item/s* listed below. *Section II. Instructions to Bidders (ITB) of the DOST-ASTI Bidding Documents provides information necessary for bidders to prepare responsive bids, in accordance with the requirements of DOST-ASTI. The ITB likewise provides information on bid submission, eligibility check, opening and evaluation of bids, post-qualification, and award of contract.*

Bidding will be conducted through open competitive bidding procedures *using a non-discretionary "pass/fail" criterion as specified in the 2016 revised Implementing Rules and Regulations of Republic Act No. 9184.*

A complete set of *DOST-ASTI Bidding Documents may be acquired by interested Bidders on the date and address given on this document, and upon payment of the applicable fee, pursuant to the latest Guidelines issued by the Government Procurement Policy Board. Further, the DOST-ASTI Bidding Documents may be accessed through the DOST-ASTI website (<https://asti.dost.gov.ph/>).*

For further inquiries, *you may contact the DOST-ASTI BAC Secretariat at telephone number +63 2 8249-8500 / +63 2 8426-9755 local 1206/1212 or send your message to bac-sec@asti.dost.gov.ph .*

Respectfully,

BAYANI BENJAMIN R. LARA
BAC Chairperson

NO.	TECHNICAL SPECIFICATIONS	QTY	UNIT	UNIT PRICE(Php)	TOTAL PRICE(Php)
1	<p>SPECTRUM ANALYZER</p> <p>1. OVERVIEW</p> <p>1.1. The DOST-ASTI is looking for a qualified and competent Service provider for the Supply and Delivery of One (1) Lot Spectrum Analyzer to be used for Project testing and Deployment Activities</p> <p>1.2. The Approved Budget for the Contract is inclusive of all taxes and service charges.</p> <p>2. TECHNICAL REQUIREMENTS</p> <p>2.1. GENERAL SPECIFICATIONS</p> <p>2.1.1. Frequency Range: 9kHz to 9GHz</p> <p>2.1.2. Displayed Average Noise Level (DANL):</p>	1	lot	3050000.00	3,050,000.00

-164 dBm or better (Preamp ON) in order for the spectrum analyzer to measure weak signals (RBW=1Hz)

2.1.3. Spectral Purity-SSB Phase Noise: -123 dBc/Hz (maximum) @ 10 MHz

2.1.4. Amplitude Accuracy: ± 1.3 dB (maximum) @ ≤ 9 GHz

2.1.5. Markers: Up to 12 Markers

2.1.6. Display Type: Full Touchscreen (Capacitive) or with Keypad Combination, with Screen Protector

2.1.7. Display Monitor: at least 10" for better viewing.

2.1.8. Display Resolution: 1280 x 800 pixels for better resolution.

2.1.9. Screen Strength IK08 (protected against a 5 joule impact)

2.1.10. Display Features: Impact resistance and Touch Gestures Support

2.1.11. Resolution Bandwidth (RBW): 1 Hz to 10 MHz

2.1.12. Software: Graphical User Interface (GUI) Control from a PC with Report

2.1.13. Generating Capability

2.1.14. GPS Receiver: Satellite System Supported

2.1.15. Audio Speaker: Internal, External Headphone Supported

2.1.16. USB Cable Interface: any compatible USB cable

2.1.17. Data Storage: Internal (8 GB); USB Flash Drive or SD Card (≥ 1 GB)

2.1.18. VSWR: 1.0 to 2.0 (typical)

2.1.19. Power Supply: AC/DC Power Supply, Car Power Adapter (DC/DC)

2.1.20. Connectors and Cables: Ethernet Cable, SMA Plug to BNC Jack

2.1.21. Adapter with Cable

2.1.22. Battery: Lithium-ion (Li-Ion)

2.1.23. Battery Operation: At least two (2) hours Typical Instrument

2.1.24. Operation on Full Charge

2.1.25. Weight: ≤ 6 kg.

2.1.26. Carrying Case: Soft Case and Large Transit Case with Wheels and Handle

2.2. Inclusive of the following features:

2.2.1. INTERFERENCE FINDER and AM/FM AUDIO DEMODULATION FOR SPECTRUM ANALYZER

2.2.1.1. Setup: Integration Bandwidth, Power Limit, MAX/MIN Level, Volume Audio

2.2.1.2. Tone: 20 Hz to 20 kHz Demod

2.2.1.3. Frequency: Full Range of Instrument

2.2.1.4. Audio Demodulation: AM, USB, LSB, Wideband FM, Narrowband FM

2.2.1.5. Markers: Selectable Demodulation Marker (1 to 12)

2.2.1.6. Audio: Toggle On/Off

2.2.1.7. Volume: 0% to 100%

2.2.1.8. Record Audio: Up to 100,000 s

2.2.1.9. Squelch Level: -120 dBm to +30

dBm

2.2.1.10. Interference Triangulation:

Triangulates on source of interference location using eCompass and digital maps displayed on screen.

2.3. COVERAGE MAPPING FOR SPECTRUM ANALYZER

2.3.1. Measurements: Channel Power, Spectral Density, RSSI, Field Strength, Power Flux Density

2.3.2. Measurement Set-up Map Type: Indoor or Outdoor Frequency (Excluding RSSI): Center/Start/Stop, Frequency Step, Frequency Offset

2.3.3. Span (Excluding RSSI): Span (Manual/Increment 1, 2, 5), Full Span, Last Span, Zero Span

2.3.4. Amplitude: Reference Level (Manual/Auto and Offset), Scale/Division, Y-Axis Unit, Preamp (on/off), Attenuation (Auto/Manual), Field Strength Bandwidth: RBW/VBW (Auto/Manual), VBW Type (Linear/Logarithmic), RBW:VBW Ratio, SPAN:RBW Ratio Mapping Colors: Customizable Amplitude Range Threshold for each color Point Distance or Time Set-up: Repeat Type (1s to 60s), or Distance (1 m to 10,000 m) Save: Setup, KML Points, PNG, Tab Delimited Recall: Setup, KML Points File, Measurement File (fmspa) Antenna: Portable (Rubber Duckie), Nominal Impedance: 50-ohm, Gain: 5dBi (typical), Antenna Kit; Adapter for Antenna Kit; 50Ω

2.4. ANTENNA

2.4.1. Antenna: Directional, Log Periodic – at least 680MHz up to 10 GHz; Nominal Impedance: 50-ohm; Gain: 45dBi (typical) and with Antenna Casing GPS Antenna, Gain: 25dB Item no.2: Interference Hunter

2.5. INTERFERENCE HUNTER

2.5.1. Bandwidth: 9 kHz to 6 GHz

2.5.2. Power: Preamp on 0.6 Watts, Preamp off 0.5 Watts

2.5.3. Preamplifier bandwidth: 10 MHz to 6 GHz

2.5.4. Electronic Compass: Powered from USB; Accuracy $\pm 5^\circ$, nominal; Interface USB

2.5.5. GPS Receiver: Satellites Tracked 12; GPS Locking Time Cold start: 30s; Warm start:

2.5.6. 2s, Position Uncertainty ± 2 meter,

2.5.7. Environmental Operating Temperature -10°C to $+55^\circ\text{C}$; Maximum Humidity 95 %; Altitude 4600 meters; Shock MIL-PRF-28800F Class 2; Storage -40°C to 71°C .

3. TRAININGS

3.1. Inclusive of Free Theoretical and Field-Testing Training

3.2. The winning bidder should conduct a training/workshop about the operation and usage of the equipment to be procured. The training should be conducted within the prescribed delivery period (50 days upon receipt of NTP)

3.3. Estimated no. of participants: 10 persons

3.4. Duration: 1-3 days

3.5. Tentative Venue: DOST-ASTI

3.6. The schedule of training/workshop shall be agreed upon with the End-user.

3.7. All costs, including meals, rental of equipment/venue (if any), supplies (if any) and other requirements related to the training/workshop, will be shouldered by the winning bidder.

4. SERVICE SUPPORT

4.1. Local Service Engineer must be available, capable, and knowledgeable in basic and minor repair and troubleshooting

5. WARRANTY

5.1. Three (3) years for Spectrum Analyzer and One year for the battery

6. Post Qualification

6.1. Trial testing within five (5) working days

7. Delivery

7.1. Fifty (50) calendar days upon issuance of Notice to Proceed (NTP).

8. Others

8.1. It should be noted that the above listed specifications are minimum specifications. Bidders are encouraged to provide better specifications in their bids so long as it does not deviate too much from the intent of the original specifications.

TOTAL APPROVED BUDGET FOR THE CONTRACT (ABC):

Php 3,050,000.00

RESERVATION CLAUSE

The Advanced Science and Technology Institute reserves the right to accept or reject any proposal, to annul the bidding process, and to reject all proposals at any time prior to contract award, without thereby incurring any liability to the affected proponent or proponents.