



**DOST-ASTI Bids and Awards Committee  
REQUEST FOR QUOTATION**

<b>Kind of Procurement Activity:</b>	Negotiated Procurement:Small-value Procurement		
<b>Deadline of Submission of Bids:</b>	Sep-11-2023, 2:00 PM		
<b>RFQ No.:</b>	23-09-4508	<b>Date:</b>	September-05-2023
<b>PR No.:</b>	GAA-23-07-17112	<b>Date:</b>	July-05-2023

The Department of Science and Technology (DOST) - Advanced Science and Technology Institute (ASTI), through its Bids and Awards Committee (BAC), intends to procure the enlisted item/s below. Bidders may submit a proposal on any of the lots or items, and evaluation will be undertaken on a per lot or item basis, except otherwise specified in the requirements. Award may be considered for prospective bidder/s proven to be the single/lowest calculated and responsive quotation among all other quotations. Guidelines on the format of quotations and eligibility documents are listed below. Kindly follow the prescribed GUIDELINES to avoid DISQUALIFICATION.

Quotations may be submitted 1) manually to the BAC Secretariat at G/F DOST-ASTI Bldg., UP Technology Park Complex, CP Garcia Ave., UP Campus, Diliman, Quezon City or 2) sent via electronic mail at bac-sec@asti.dost.gov.ph. For further information, please contact the BAC Secretariat at +63 2 8249-8500 loc. 1206/1212.

Thank you.

**BAYANI BENJAMIN R. LARA**  
BAC Chairperson

NO.	TECHNICAL SPECIFICATIONS	QTY	UNIT	UNIT PRICE(Php)	TOTAL PRICE(Php)
1	<p><b>Connector - Female RP-SMA</b></p> <p>1. GENERAL OVERVIEW</p> <p>1.1. The Advanced Science and Technology Institute (ASTI) is seeking qualified and competent bidders for the SUPPLY AND DELIVERY OF TWENTY (20) PC OF FEMALE RP-SMA, to be used in the connecting cable between arQ and LoRa antenna.</p> <p>1.2. The Approved Budget for the Contract (ABC) includes all applicable government taxes and services charges.</p> <p>2. TECHNICAL SPECIFICATIONS</p> <p>2.1. Connector:</p> <p>2.1.1. Style: RP-SMA</p> <p>2.1.2. Type: Plug, Female socket</p> <p>2.2. Termination:</p> <p>2.2.1. Contact: Crimp</p> <p>2.2.2. Shield: Crimp</p> <p>2.3. Cable Group: RG-58, LMR-200, CFD-200</p> <p>2.4. Fastening Type: Threaded</p> <p>2.5. Number of Ports: 1</p> <p>2.6. Housing Color: Silver</p> <p>2.7. Body Finish: Nickel</p> <p>2.8. Center Contact Plating: Nickel</p>	20	pc	280.00	5,600.00

	<p><b>3. WARRANTY</b></p> <p>3.1. Must have at least six (6) months of warranty from the time of delivery which covers defects in materials.</p> <p>3.2. Warranty service shall commence from the date of end-user acceptance.</p> <p>3.3. Any replacement service must be successfully performed within fifteen (15) calendar days.</p> <p><b>4. DELIVERY AND PAYMENT TERMS</b></p> <p>4.1. The goods must be delivered within thirty (30) calendar days upon issuance of Notice to Proceed (NTP).</p> <p>4.2. Full payment will only be given once the item is completely delivered, inspected, and accepted by the End-user.</p> <p>4.3. No payment shall be made for the supplies and materials not yet delivered under this contract.</p>				
2	<p><b>Connector - Female N-Type to female RP-SMA</b></p> <p><b>1. GENERAL OVERVIEW</b></p> <p>1.1. DOST-ASTI seeks qualified and competent bidders for the SUPPLY AND DELIVERY OF FOUR (4) PC OF FEMALE N-TYPE TO FEMALE RP-SMA, to be used as connecting cable of arQ and LoRa antenna.</p> <p>1.2. The ABC includes all applicable government taxes and services charges.</p> <p><b>2. TECHNICAL SPECIFICATIONS</b></p> <p>2.1. Style: RP-SMA to N-type</p> <p>2.2. 1st Connector:</p> <p>    2.2.1. Style: RP-SMA</p> <p>    2.2.2. Contact Gender: Female</p> <p>2.3. 2nd Connector:</p> <p>    2.3.1. Style: N-Type</p> <p>    2.3.2. Contact Gender: Female</p> <p>2.4. Overall Impedance: 50 ohms</p> <p>2.5. Maximum Frequency: 6 GHz</p> <p>2.6. Color: Black (Preferred)</p> <p><b>3. WARRANTY</b></p> <p>3.1. Must have at least six (6) months of warranty from the time of delivery which covers defects in materials.</p> <p>3.2. Warranty service shall commence from the date of end-user acceptance.</p> <p>3.3. Any replacement service must be successfully performed within fifteen (15) calendar days.</p> <p><b>4. DELIVERY AND PAYMENT TERMS</b></p> <p>4.1. The goods must be delivered within thirty (30) calendar days upon issuance of NTP.</p> <p>4.2. Full payment will only be given once the item is completely delivered, inspected, and accepted by the End-user.</p> <p>4.3. No payment shall be made for the supplies and materials not yet delivered under this contract.</p>	4	pc	1080.00	4,320.00
3	<p><b>Connector - Male N-type</b></p> <p><b>1. GENERAL OVERVIEW</b></p> <p>1.1. DOST-ASTI seeks qualified and competent bidders for the SUPPLY AND DELIVERY OF THREE (3) PC OF MALE N-TYPE, to be part of the connecting cable</p>	3	pc	2640.00	7,920.00

	<p>to connect arQ and LoRa antenna.</p> <p>1.2. The ABC includes all applicable government taxes and services charges.</p> <p><b>2. TECHNICAL SPECIFICATIONS</b></p> <p>2.1. Connector:</p> <p>2.1.1. Style: N-type</p> <p>2.1.2. Type: Plug, Male Pin</p> <p>2.2. Termination:</p> <p>2.2.1. Contact: Solder</p> <p>2.2.2. Shield: Crimp</p> <p>2.3. Impedance: 50 ohms</p> <p>2.4. Cable Group: LMR-400</p> <p>2.5. Fastening Type: Threaded</p> <p>2.6. Maximum Frequency: 6 GHz</p> <p>2.7. Number of Ports: 1</p> <p>2.8. Material</p> <p>2.8.1. Center Contact:</p> <p>2.8.1.1. Material: Brass</p> <p>2.8.1.2. Plating: Gold</p> <p>2.8.2. Body:</p> <p>2.8.2.1. Material: Brass</p> <p>2.8.2.2. Finish: Black Nickel</p> <p>2.9. Dielectric Material: Polytetrafluoroethylene (PTFE)</p> <p>2.10. Mating Cycles: 500</p> <p><b>3. WARRANTY</b></p> <p>3.1. Must have at least six (6) months of warranty from the time of delivery which covers defects in materials.</p> <p>3.2. Warranty service shall commence from the date of end-user acceptance.</p> <p>3.3. Any replacement service must be successfully performed within fifteen (15) calendar days.</p> <p><b>4. DELIVERY AND PAYMENT TERMS</b></p> <p>4.1. The goods must be delivered within thirty (30) calendar days upon issuance of NTP.</p> <p>4.2. Full payment will only be given once the item is completely delivered, inspected, and accepted by the End-user.</p> <p>4.3. No payment shall be made for the supplies and materials not yet delivered under this contract.</p>				
4	<p><b>Adapter - Power Break</b></p> <p><b>1. GENERAL OVERVIEW</b></p> <p>1.1. DOST-ASTI seeks qualified and competent bidders for the SUPPLY AND DELIVERY OF ONE (1) PC OF POWER BREAK that serves as adapter for different types of connectors to be used for arQ 2.0 testing.</p> <p>1.2. The ABC includes all applicable government taxes and services charges.</p> <p><b>2. TECHNICAL SPECIFICATIONS</b></p> <p>2.1. Powered by GAN II technology</p> <p>2.2. Input:</p> <p>2.2.1. Voltage: 100 – 240 V</p> <p>2.2.2. Current: ~ 1.8 A</p> <p>2.2.3. Frequency: 50 – 60 Hz</p> <p>2.3. Outputs:</p> <p>2.3.1. 2 x USB-C</p> <p>2.3.2. 1 x USB-A</p>	1	pc	5580.00	5,580.00

	<p>2.4. Maximum Power: 65 W</p> <p>2.5. Can power up to three (3) devices</p> <p>3. WARRANTY</p> <p>3.1. Must have at least six (6) months of warranty from the time of delivery which covers defects in materials.</p> <p>3.2. Warranty service shall commence from the date of end-user acceptance.</p> <p>3.3. Any replacement service must be successfully performed within fifteen (15) calendar days.</p> <p>4. DELIVERY AND PAYMENT TERMS</p> <p>4.1. The goods must be delivered within thirty (30) calendar days upon issuance of Notice to Proceed (NTP).</p> <p>4.2. Full payment will only be given once the item is completely delivered, inspected, and accepted by the End-user.</p> <p>4.3. No payment shall be made for the supplies and materials not yet delivered under this contract.</p>				
5	<p><b>Cable - Coaxial Cable</b></p> <p>1. GENERAL OVERVIEW</p> <p>1.1. DOST-ASTI seeks qualified and competent bidders for the SUPPLY AND DELIVERY OF ONE (1) ROLL OF COAXIAL CABLE needed to make antenna cable for LoRa module of arQ 2.0.</p> <p>1.2. The ABC includes all applicable government taxes and services charges.</p> <p>2. TECHNICAL SPECIFICATIONS</p> <p>2.1. Length: 20 m.</p> <p>2.2. Frequency Range: 30 ~ 5800 MHz</p> <p>2.3. Impedance: 50 ohms</p> <p>2.4. Capacitance: 24 pF/m</p> <p>2.5. Shielding Effectiveness: &gt;85 dB</p> <p>2.6. Peak Power: 5 kW</p> <p>2.7. Connector:</p> <p>2.7.1. Antenna: N-type male</p> <p>2.7.2. Device: N-type male</p> <p>2.8. Color: Black (Preferred)</p> <p>3. WARRANTY</p> <p>3.1. Must have at least six (6) months of warranty from the time of delivery which covers defects in materials.</p> <p>3.2. Warranty service shall commence from the date of end-user acceptance.</p> <p>3.3. Any replacement service must be successfully performed within sixty (60) business days.</p> <p>4. DELIVERY AND PAYMENT TERMS</p> <p>4.1. The goods must be delivered within thirty (30) calendar days upon issuance of NTP.</p> <p>4.2. Full payment will only be given once the item is completely delivered, inspected, and accepted by the End-user.</p> <p>4.3. No payment shall be made for the supplies and materials not yet delivered under this contract.</p>	1	roll	4500.00	4,500.00
6	<p><b>Mechanical Fastener - Tamper-proof Button Head Cap Screw</b></p>	10	pc	120.00	1,200.00

	<p>1. GENERAL OVERVIEW</p> <p>1.1. DOST-ASTI seeks qualified and competent bidders for the SUPPLY AND DELIVERY OF TEN (10) PCS OF TAMPER-PROOF BUTTON HEAD CAP SCREWS, to be used in the operation of arQ.</p> <p>1.2. The ABC includes all applicable government taxes and services charges.</p> <p>2. TECHNICAL SPECIFICATIONS</p> <p>2.1. Thread</p> <p>2.1.1. Size: M8</p> <p>2.1.2. Length: 20 mm</p> <p>2.2. Detailed Shape: Button</p> <p>2.3. Material: [Stainless Steel] Equivalent to SUS304</p> <p>2.4. Thread Type: Metric Coarse</p> <p>2.5. Pitch (mm): 1.25</p> <p>2.6. Mounting Hole Shape: Hex Socket (special tool)</p> <p>2.7. Tip Shape: Flat Tip</p> <p>3. WARRANTY</p> <p>3.1. Must have at least six (6) months of warranty from the time of delivery which covers defects in materials.</p> <p>3.2. Warranty service shall commence from the date of end-user acceptance.</p> <p>3.3. Any replacement service must be successfully performed within fifteen (15) calendar days.</p> <p>4. DELIVERY AND PAYMENT TERMS</p> <p>4.1. The goods must be delivered within thirty (30) calendar days upon issuance of NTP.</p> <p>4.2. Full payment will only be given once the item is completely delivered, inspected, and accepted by the End-user.</p> <p>4.3. No payment shall be made for the supplies and materials not yet delivered under this contract.</p>				
7	<p><b>Mechanical Fastener - Fulcrum stepped screw hexagonal hole</b></p> <p>1. GENERAL OVERVIEW</p> <p>1.1. DOST-ASTI seeks qualified and competent bidders for the SUPPLY AND DELIVERY OF TEN (10) PCS OF FULCRUM STEPPED SCREW HEXAGONAL, to be used in the operation of arQ.</p> <p>1.2. The ABC includes all applicable government taxes and services charges.</p> <p>2. TECHNICAL SPECIFICATIONS</p> <p>2.1. Basic Shape: Hexagonal Hole</p> <p>2.2. Shaft specs:</p> <p>2.2.1. Diameter (mm): Ten</p> <p>2.2.2. Tolerance: Normal grade (-0.01/-0.05)</p> <p>2.3. Screw diameter: 6</p> <p>2.4. Hardness: No quenching</p> <p>2.5. Material: Stainless</p> <p>2.6. Surface Treatment: None</p> <p>2.7. Detail Harness: No quenching</p> <p>2.8. Material: SUS303</p> <p>3. WARRANTY</p> <p>3.1. Must have at least six (6) months of warranty from the time of delivery which covers defects in materials.</p>	10	pc	700.00	7,000.00

	<p>3.2. Warranty service shall commence from the date of end-user acceptance.</p> <p>3.3. Any replacement service must be successfully performed within fifteen (15) calendar days.</p> <p><b>DELIVERY AND PAYMENT TERMS</b></p> <p>4.1. The goods must be delivered within thirty (30) calendar days upon issuance of NTP.</p> <p>4.2. Full payment will only be given once the item is completely delivered, inspected, and accepted by the End-user.</p> <p>4.3. No payment shall be made for the supplies and materials not yet delivered under this contract.</p>				
8	<p><b>Mechanical Accessories - Special Tool Screw Wrench</b></p> <p>1. GENERAL OVERVIEW</p> <p>1.1. DOST-ASTI seeks qualified and competent bidders for the SUPPLY AND DELIVERY OF THREE (3) PCS OF SPECIAL TOOL SCREW WRENCH, to be used in the operation of arQ.</p> <p>1.2. The ABC includes all applicable government taxes and services charges.</p> <p>2. TECHNICAL SPECIFICATIONS</p> <p>2.1. Material: Alloy Steel</p> <p>2.2. Hardness: 43 ~ 53 HRC</p> <p>2.3. Applicable Bolt Size: 8 mm</p> <p>3. WARRANTY</p> <p>3.1. Must have at least six (6) months of warranty from the time of delivery which covers defects in materials.</p> <p>3.2. Warranty service shall commence from the date of end-user acceptance.</p> <p>3.3. Any replacement service must be successfully performed within fifteen (15) calendar days.</p> <p>4. DELIVERY AND PAYMENT TERMS</p> <p>4.1. The goods must be delivered within thirty (30) calendar days upon issuance of NTP.</p> <p>4.2. Full payment will only be given once the item is completely delivered, inspected, and accepted by the End-user.</p> <p>4.3. No payment shall be made for the supplies and materials not yet delivered under this contract.</p>	3	pc	700.00	2,100.00
9	<p><b>Workshop Consumables - Silicone Grease</b></p> <p>1. GENERAL OVERVIEW</p> <p>1.1. DOST-ASTI seeks qualified and competent bidders for the SUPPLY AND DELIVERY OF FIVE (5) PCS OF SILICONE GREASE, to be used in the operation of arQ.</p> <p>1.2. The ABC includes all applicable government taxes and services charges.</p> <p>2. TECHNICAL SPECIFICATIONS</p> <p>2.1. Volume: 0.25 oz</p> <p>2.2. Feature: Non-Toxic, 100% pure food grade silicone grease</p> <p>2.3. Applications: O-Rings</p>	5	pc	725.00	3,625.00

	<p><b>3. WARRANTY</b></p> <p>3.1. Must have at least six (6) months of warranty from the time of delivery which covers defects in materials.</p> <p>3.2. Warranty service shall commence from the date of end-user acceptance.</p> <p>3.3. Any replacement service must be successfully performed within fifteen (15) calendar days.</p> <p><b>4. DELIVERY AND PAYMENT TERMS</b></p> <p>4.1. The goods must be delivered within thirty (30) calendar days upon issuance of NTP.</p> <p>4.2. Full payment will only be given once the item is completely delivered, inspected, and accepted by the End-user.</p> <p>4.3. No payment shall be made for the supplies and materials not yet delivered under this contract.</p>				
10	<p><b>Tools - Reciprocating saw</b></p> <p>1. GENERAL OVERVIEW</p> <p>1.1. DOST-ASTI seeks qualified and competent bidders for the SUPPLY AND DELIVERY OF ONE (1) PC OF RECIPROCATING SAW, to be used in the operation of arQ.</p> <p>1.2. The ABC includes all applicable government taxes and services charges.</p> <p>2. TECHNICAL SPECIFICATIONS</p> <p>2.1. Strokes specs</p> <p>2.1.1. Per Minute: 0 – 2,600/min</p> <p>2.1.2. Length: 0.78”</p> <p>2.2. Ideal for pruning small limbs up to 3”</p> <p>2.3. With easy-release blade level for quick blade change</p> <p>2.4. With removable branch hook</p> <p>3. PACKAGE INCLUSION</p> <p>3.1. Battery</p> <p>3.1.1. Voltage: 18 V</p> <p>3.1.2. Capacity: 2 Ah</p> <p>3.1.3. Fuel gauge: Integrated LEDs</p> <p>3.2. Charger</p> <p>3.2.1. Input: 120 V, 60 Hz, 60 W</p> <p>4. WARRANTY</p> <p>4.1. Must have at least six (6) months of warranty from the time of delivery which covers defects in materials.</p> <p>4.2. Warranty service shall commence from the date of end-user acceptance.</p> <p>4.3. Any replacement service must be successfully performed within fifteen (15) calendar days.</p> <p>5. DELIVERY AND PAYMENT TERMS</p> <p>5.1. The goods must be delivered within thirty (30) calendar days upon issuance of NTP.</p> <p>5.2. Full payment will only be given once the item is completely delivered, inspected, and accepted by the End-user.</p> <p>5.3. No payment shall be made for the supplies and materials not yet delivered under this contract.</p>	1	pc	15000.00	15,000.00
11	<p><b>Tools - Circular Saw</b></p>	1	pc	17000.00	17,000.00

	<p>1. GENERAL OVERVIEW</p> <p>1.1. DOST-ASTI seeks qualified and competent bidders for the SUPPLY AND DELIVERY OF ONE (1) PC OF CIRCULAR SAW, to be used in the operation of arQ.</p> <p>1.2. The ABC includes all applicable government taxes and services charges.</p> <p>2. TECHNICAL SPECIFICATIONS</p> <p>2.1. Blade Size: 7 ¼ “</p> <p>2.2. Bevel Cut Capacity: 0 – 56 degrees</p> <p>2.3. Depth of Cut at 0 Degree: 2 7/16”</p> <p>2.4. Arbor Size: 5/8”</p> <p>2.5. Depth of cut at 45 degrees: 1 ¾”</p> <p>2.6. RPM: 4,300</p> <p>2.7. Brushless motor delivers up to 40% faster cutting</p> <p>2.8. Capable of cutting 325 per charge</p> <p>3. WARRANTY</p> <p>3.1. Must have at least six (6) months of warranty from the time of delivery which covers defects in materials.</p> <p>3.2. Warranty service shall commence from the date of end-user acceptance.</p> <p>3.3. Any replacement service must be successfully performed within fifteen (15) calendar days.</p> <p>4. DELIVERY AND PAYMENT TERMS</p> <p>4.1. The goods must be delivered within thirty (30) calendar days upon issuance of NTP.</p> <p>4.2. Full payment will only be given once the item is completely delivered, inspected, and accepted by the End-user.</p> <p>4.3. No payment shall be made for the supplies and materials not yet delivered under this contract.</p>				
12	<p><b>Steel Brush</b></p> <p>1. GENERAL OVERVIEW</p> <p>1.1. DOST-ASTI seeks qualified and competent bidders for the SUPPLY AND DELIVERY OF TEN (10) PCS OF STEEL BRUSH, to be used in the operation of arQ.</p> <p>1.2. The ABC includes all applicable government taxes and services charges.</p> <p>2. TECHNICAL SPECIFICATIONS</p> <p>2.1. Brush Type: Heavy duty brush</p> <p>2.2. Bristle Material: Steel</p> <p>2.3. Application: Engineering, general cleaning, dust remover</p> <p>3. WARRANTY</p> <p>3.1. Must have at least six (6) months of warranty from the time of delivery which covers defects in materials.</p> <p>3.2. Warranty service shall commence from the date of end-user acceptance.</p> <p>3.3. Any replacement service must be successfully performed within fifteen (15) calendar days.</p> <p>4. DELIVERY AND PAYMENT TERMS</p> <p>4.1. The goods must be delivered within thirty (30) calendar days upon issuance of NTP.</p> <p>4.2. Full payment will only be given once the item is completely delivered, inspected, and accepted by the</p>	10	pc	600.00	6,000.00



	End-user. 4.3. No payment shall be made for the supplies and materials not yet delivered under this contract.				
13	<p><b>Development Kit - LTE Cat 1</b></p> <p>1. GENERAL OVERVIEW</p> <p>1.1. DOST-ASTI seeks qualified and competent bidders for the SUPPLY AND DELIVERY OF ONE (1) KIT OF SIMSCOM A7672 LTE Cat1 KIT (EVALUATION AND TERMINAL BOARDS) that must be compatible with existing LTE SIMCOM environment used by ESG for evaluating, testing, and implementing the functionalities into the arQ 2.0 prototype LTE board.</p> <p>1.2. The ABC includes all applicable government taxes and services charges.</p> <p>2. TECHNICAL SPECIFICATIONS</p> <p>2.1. With embedded A7672S-FASE LTE module</p> <p>2.1.1. Form Factor: LCC + LGA</p> <p>2.1.2. Frequency Bands:</p> <p>2.1.2.1. LTE-FDD: B1/B3/B5/B8</p> <p>2.1.2.2. LTE-TDD: B34/B38/B39/B40/B41</p> <p>2.1.2.3. GSM:</p> <p>2.1.2.3.1. GSM/GPRS/EDGE</p> <p>2.1.2.3.2. 900/1800 MHz</p> <p>2.1.3. GNSS/GPS-Enabled</p> <p>2.1.4. Electrical specs:</p> <p>2.1.4.1. Supply Voltage: 3.4 ~ 4.2 V</p> <p>2.1.4.2. Power: 1.5 mA @LTE</p> <p>2.1.5. Data transfer:</p> <p>2.1.5.1. LTE (Mbps): 10(DL) / 5(UL)</p> <p>2.1.5.2. EDGE (Kbps): 236.8 (DL/UL)</p> <p>2.1.5.3. GPRS (Kbps): 85.6 (DL/UL)</p> <p>2.1.6. Software:</p> <p>2.1.6.1. Protocol: TCP/IP/IPv4/IPV6/Multi-PDP/FTP/FTPS/HTTP/HTTPS/DNS/MQTT</p> <p>2.1.6.2. Android RIL: Android 5.0/6.0/7.0/8.0/9.0</p> <p>2.1.6.3. USB Driver:</p> <p>2.1.6.3.1. Microsoft windows 7/8/10</p> <p>2.1.6.3.2. Linux/Android</p> <p>2.1.6.4. Firmware Upgrade: USB/FOTA</p> <p>2.1.7. Interfaces:</p> <p>2.1.7.1. SIM Card: 1.8 / 3.0 V</p> <p>2.2. Terminal kit specs</p> <p>2.2.1. With two (2) SIM card slots</p> <p>2.2.2. With three (3) antenna connections</p> <p>2.2.2.1. For Bluetooth</p> <p>2.2.2.2. For GNSS</p> <p>2.2.2.3. For main antenna</p> <p>2.2.3. Connectors:</p> <p>2.2.3.1. UART switch</p> <p>2.2.3.2. Micro-USB connector</p> <p>2.2.3.3. Camera connector</p> <p>2.2.3.4. Two (2) connectors to EVB</p> <p>2.2.3.5. LCD connector</p> <p>2.2.4. Can be directly mounted to SIMCOM evaluation board</p> <p>2.3. Evaluation board specs</p> <p>2.3.1. One (1) Power button</p> <p>2.3.2. One (1) Reset button</p> <p>2.3.3. One (1) Power switch</p>	1	kit	8800.00	8,800.00

	<p>2.3.4. One (1) RF switch  2.3.5. One (1) SIM card holder  2.3.6. One (1) Micro USB slot  2.3.7. One (1) Power supply jack socket plug  2.3.8. Can be integrated and must be compatible with SIMCOM A7672X terminal kit</p> <p>3. ACCESSORIES  3.1. One (1) GNSS antenna  3.2. One (1) LTE antenna  3.3. One (1) Power supply adapter  3.4. One (1) Micro USB cable</p> <p>4. WARRANTY  4.1. Must have at least six (6) months of warranty from the time of delivery which covers defects in materials.  4.2. Warranty service shall commence from the date of end-user acceptance.  4.3. Any replacement service must be successfully performed within fifteen (15) calendar days.</p> <p>5. DELIVERY AND PAYMENT TERMS  5.1. The goods must be delivered within thirty (30) calendar days upon issuance of NTP.  5.2. Full payment will only be given once the item is completely delivered, inspected, and accepted by the End-user.  5.3. No payment shall be made for the supplies and materials not yet delivered under this contract.</p>				
14	<p><b>Antenna Connector - RP-SMA to uFL</b></p> <p>1. GENERAL OVERVIEW  1.1. DOST-ASTI seeks qualified and competent bidders for the SUPPLY AND DELIVERY OF TEN (1) PCS OF RP-SMA TO uFL that will be used to connect the LoRa board to LoRa antenna.  1.2. The ABC includes all applicable government taxes and services charges.</p> <p>2. TECHNICAL SPECIFICATIONS  2.1. Cable Type: RG178  2.2. Application: RF</p> <p>3. WARRANTY  3.1. Must have at least six (6) months of warranty from the time of delivery which covers defects in materials.  3.2. Warranty service shall commence from the date of end-user acceptance.  3.3. Any replacement service must be successfully performed within fifteen (15) calendar days.</p> <p>4. DELIVERY AND PAYMENT TERMS  4.1. The goods must be delivered within thirty (30) calendar days upon issuance of NTP.  4.2. Full payment will only be given once the item is completely delivered, inspected, and accepted by the End-user.  4.3. No payment shall be made for the supplies and materials not yet delivered under this contract.</p>	10	pc	165.00	1,650.00
15	<p><b>Memory Storage</b></p>	3	pc	1650.00	4,950.00

	<p>1. GENERAL OVERVIEW</p> <p>1.1. DOST-ASTI seeks qualified and competent bidders for the SUPPLY AND DELIVERY OF THREE (3) PCS OF MEMORY STORAGE that will be used for storing large data from the modules being used for arQ 2.0.</p> <p>1.2. The ABC includes all applicable government taxes and services charges.</p> <p>2. TECHNICAL SPECIFICATIONS</p> <p>2.1. Capacity: at least 256 GB or better</p> <p>2.2. Sequential Read Performance: up to 190 MB/s</p> <p>2.3. Sequential Write Performance: up to 130 MB/s</p> <p>2.4. Compatibility: microSDHC, microSDXC, microSDHC UHS-I, and microSDXC UHS-I supporting host devices</p> <p>3. WARRANTY</p> <p>3.1. Must have at least six (6) months of warranty from the time of delivery which covers defects in materials.</p> <p>3.2. Warranty service shall commence from the date of end-user acceptance.</p> <p>3.3. Any replacement service must be successfully performed within fifteen (15) calendar days.</p> <p>4. DELIVERY AND PAYMENT TERMS</p> <p>4.1. The goods must be delivered within thirty (30) calendar days upon issuance of NTP.</p> <p>4.2. Full payment will only be given once the item is completely delivered, inspected, and accepted by the End-user.</p> <p>4.3. No payment shall be made for the supplies and materials not yet delivered under this contract.</p>				
16	<p><b>Image Sensor</b></p> <p>1. GENERAL OVERVIEW</p> <p>1.1. DOST-ASTI seeks qualified and competent bidders for the SUPPLY AND DELIVERY OF ONE (1) PC OF IMAGE SENSOR, to be used in various research applications in arQ 2.0.</p> <p>1.2. The ABC includes all applicable government taxes and services charges.</p> <p>2. TECHNICAL SPECIFICATIONS</p> <p>2.1. Battery: Embedded with 1500 mAh battery technology</p> <p>2.2. Operation Distance: Waterproof up to 10 m (33 ft)</p> <p>2.3. Cover Glass:</p> <p>2.3.1. With removable cover glass</p> <p>2.3.2. With 2 mm thick gorilla glass</p> <p>2.3.3. Hydrophobic coating</p> <p>2.4. Image/Hardware Specs:</p> <p>2.4.1. System Processor: GP2</p> <p>2.4.2. Image Sensor: 1/1.9" CMOS 27.6 MP active pixels (5599x4927)</p> <p>2.4.3. Lens Aperture: F2.5</p> <p>2.5. Video Specs:</p> <p>2.5.1. Maximum Video Resolution</p> <p>2.5.1.1. 5.3K:8:7(5312x4648)</p> <p>2.5.1.2. 5.3K:4:3(5312x3984)</p> <p>2.5.1.3. 5.3K:16:9(5312x2988)</p> <p>2.5.2. Aspect Ratio Support: 16:9, 4:3, 8:7</p>	1	pc	30200.00	30,200.00

- 2.5.3. Video Resolution/FPS Summary:
  - 2.5.3.1. 5.3K (8:7) 30/25/24 fps
  - 2.5.3.2. 5.3K (16:9) 60/50/30/25/24 fps
  - 2.5.3.3. 5.3K (4:3) 30/25/24 fps
  - 2.5.3.4. 4K (8:7) 60/50 fps
  - 2.5.3.5. 4K (16:9) 120/100/60/50/30/25/24 fps
  - 2.5.3.6. 4K (4:3) 60/50/30/25/24 fps
  - 2.5.3.7. 2.7K (16:9) 240/200/120/100/60/50 fps
  - 2.5.3.8. 2.7K (4:3) 120/100/60/50 fps
  - 2.5.3.9. 1080p (16:9) 240/200/120/100/60/50/30/25/24 fps
- 2.5.4. Digital Lenses
  - 2.5.4.1. HyperView
  - 2.5.4.2. SuperView
  - 2.5.4.3. Wide
  - 2.5.4.4. Linear
  - 2.5.4.5. Linear + Horizon Lock / Leveling
- 2.5.5. Video File Format: MP4
- 2.5.6. Codecs: H.265(HEVC)
- 2.5.7. 10-bit HEVC
  - 2.5.7.1. (8:7) 5.3K 30/25/24, 4K 60/50
  - 2.5.7.2. (16:9) 5.3K 60/50/30/25/24
  - 2.5.7.3. (16:9) 4K 60/50/30/25/24
- 2.5.8. Maximum Video Bit Rate: 120 Mbps
- 2.5.9. Video Stabilization: Hypersmooth 5.0
- 2.5.10. Horizon Lock/Levelling
  - 2.5.10.1. Lock: Linear + Horizon lock lens
  - 2.5.10.2. Levelling: In-camera (23~27\*) for 5.3K60; 4K120; 2.7K240; 1080p240
  - 2.5.10.3. Quick App
- 2.5.11. Zoom (Video):
  - 2.5.11.1. 2x (1080)
  - 2.5.11.2. 1.4x(2.7K+)
- 2.5.12. Slo-Mo
  - 2.5.12.1. 8x - 2.7K; 1080p
  - 2.5.12.2. 4x - 4K
  - 2.5.12.3. 2x - 5.3K
- 2.5.13. Live Streaming: 720p
- 2.5.14. Video Tone Mapping (LTM): Yes
- 2.5.15. ISO Range - Video: 100 - 6400
- 2.6. Photo Specs
  - 2.6.1. Photo frame-grabs from video
    - 2.6.1.1. 24.69 MP from (8:7) 5.3K video
    - 2.6.1.2. 21.16 MP from (4:3) 5.3K video
    - 2.6.1.3. 15.87 MP from (16:9) 5.3K video
- 2.7. Time Lapse
  - 2.7.1. TimeWarp:
    - 2.7.1.1. Video Resolutions: TimeWarp 3.0 (up to 5.3K)
    - 2.7.1.2. Digital Lenses: Wide, Linear, Linear + Horizon Lock / Levelling
    - 2.7.1.3. Video Speeds: Auto, 2x, 5x, 10x, 15x, 30x
  - 2.7.2. Star Trails:
    - 2.7.2.1. Resolution: 5.3K; 4K in (16:9) and (4:3)
    - 2.7.2.2. Trail Length: Max, Long, Short
    - 2.7.2.3. Shutter Speeds: 30s, 10s, 5s, 2s, 1s, 0.5s
  - 2.7.3. Lightning Painting:
    - 2.7.3.1. Resolutions: 5.3K; 4K in (16:9) and (4:3)
    - 2.7.3.2. Trail Length: Max, long, short
    - 2.7.3.3. Shutter Speeds: 2s, 1s, 0.5s
  - 2.7.4. Vehicle Light Trails:

	<p>2.7.4.1. Resolutions: 5.3K; 4K in (16:9) and (4:3)</p> <p>2.7.4.2. Trail Length: Max, long, short</p> <p>2.7.4.3. Shutter Speeds: 30s, 10s, 5s, 2s, 1s, 0.5s</p> <p>2.7.5. Time Lapse:</p> <p>2.7.5.1. Video Resolution: Up to 5.3K</p> <p>2.7.5.2. Video Digital Lenses: Wide, linear</p> <p>2.7.5.3. Video Intervals: 0.5, 1, 2, 5, 10, 30, 60, sec. / 2, 5, 30, 60 min</p> <p>2.7.6. Night Lapse:</p> <p>2.7.6.1. Video Resolution: Up to 5.3K</p> <p>2.7.6.2. Video Digital Lenses: Wide, linear</p> <p>2.7.6.3. Video Intervals: Auto, 4, 5, 10, 15, 20, 30, 60, sec., 2, 5, 30, 60 min</p> <p>2.8. Connector: USB-C</p> <p>2.9. Equipped with 3-mics (RAW Audio capture, .wav format)</p> <p>2.10. With One (1) LED</p> <p>2.11. Recharge Time: Approx. 2 hrs. (1A / 5W)</p> <p>2.12. Fast Charging: Approx. 1.5 hrs. (&gt;2A / 10W)</p> <p>2.13. Wi-Fi Frequency: 2.4 GHz; 5 GHz</p> <p>2.14. Wi-Fi Protocol: 802.11 a/b/g/n/ac</p> <p>2.15. Bluetooth: BLE 4.2</p> <p>2.16. With built-in mounting fingers</p> <p>2.17. Capable to automatically upload footage to the cloud</p> <p>2.18. Can be used in underwater operation</p> <p>2.19. Capable for horizon lock feature</p> <p>3. WARRANTY</p> <p>3.1. Must have at least six (6) months of warranty from the time of delivery which covers defects in materials.</p> <p>3.2. Warranty service shall commence from the date of end-user acceptance.</p> <p>3.3. Any replacement service must be successfully performed within fifteen (15) calendar days.</p> <p>4. DELIVERY AND PAYMENT TERMS</p> <p>4.1. The goods must be delivered within thirty (30) calendar days upon issuance of NTP.</p> <p>4.2. Full payment will only be given once the item is completely delivered, inspected, and accepted by the End-user.</p> <p>4.3. No payment shall be made for the supplies and materials not yet delivered under this contract.</p>				
17	<p><b>Waterproof Image Sensor Housing</b></p> <p>1. GENERAL OVERVIEW</p> <p>1.1. DOST-ASTI seeks qualified and competent bidders for the SUPPLY AND DELIVERY OF ONE (1) PC OF WATERPROOF OF IMAGE SENSOR HOUSING to serve as protection of image sensor while doing its operation.</p> <p>1.2. The ABC includes all applicable government taxes and services charges.</p> <p>2. TECHNICAL SPECIFICATIONS</p> <p>2.1. Waterproof</p> <p>2.2. Deep rating until 196 ft (60 m)</p> <p>2.3. Equipped with built-in buttons for easy control and change of settings</p> <p>2.4. Can be withstand the depths and with added</p>	1	pc	5500.00	5,500.00

	<p>protection against rocks and coral</p> <p>2.5. Equipped with flat glass lens to ensure sharp underwater footage</p> <p><b>3. WARRANTY</b></p> <p>3.1. Must have at least six (6) months of warranty from the time of delivery which covers defects in materials.</p> <p>3.2. Warranty service shall commence from the date of end-user acceptance.</p> <p>3.3. Any replacement service must be successfully performed within fifteen (15) calendar days.</p> <p><b>4. DELIVERY AND PAYMENT TERMS</b></p> <p>4.1. The goods must be delivered within thirty (30) calendar days upon issuance of NTP.</p> <p>4.2. Full payment will only be given once the item is completely delivered, inspected, and accepted by the End-user.</p> <p>4.3. No payment shall be made for the supplies and materials not yet delivered under this contract.</p>				
18	<p><b>Telescopic Image Sensor Pole</b></p> <p><b>1. GENERAL OVERVIEW</b></p> <p>1.1. DOST-ASTI seeks qualified and competent bidders for the SUPPLY AND DELIVERY OF ONE (1) PC OF TELESCOPIC IMAGE SENSOR for additional reach of image sensor during its operation.</p> <p>1.2. The ABC includes all applicable government taxes and services charges.</p> <p><b>2. TECHNICAL SPECIFICATIONS</b></p> <p>2.1. Must be lightweight yet durable stick</p> <p>2.2. Has 3-prong mount</p> <p>2.3. With NBR grip on top of monopod for increase handling</p> <p>2.4. Designed with five (5) extendable extensions</p> <p>2.5. Can be folded to small size</p> <p>2.6. With anti-slip soft holder to prevent camera/cellphone from falling</p> <p>2.7. Multi-angle: 180 degree rotation</p> <p>2.8. Operating Height</p> <p>2.8.1. Maximum: 106 inches (270 cm) ±10</p> <p>2.8.2. Minimum: 22 inches (56 cm) ±10</p> <p>2.9. Folded Height: 22 inches</p> <p>2.10. Operating Load: 1.5 kg / 3.3 lbs</p> <p>2.11. Number of Leg Sections: 6 (5 extension)</p> <p>2.12. Material: Carbon fiber</p> <p><b>3. WARRANTY</b></p> <p>3.1. Must have at least six (6) months of warranty from the time of delivery which covers defects in materials.</p> <p>3.2. Warranty service shall commence from the date of end-user acceptance.</p> <p>3.3. Any replacement service must be successfully performed within fifteen (15) calendar days.</p> <p><b>4. DELIVERY AND PAYMENT TERMS</b></p> <p>4.1. The goods must be delivered within thirty (30) calendar days upon issuance of NTP.</p> <p>4.2. Full payment will only be given once the item is completely delivered, inspected, and accepted by the</p>	1	pc	1650.00	1,650.00

	End-user. 4.3. No payment shall be made for the supplies and materials not yet delivered under this contract.				
19	<p><b>Development Kit - LoRa Development Board</b></p> <p>1. GENERAL OVERVIEW</p> <p>1.1. DOST-ASTI seeks qualified and competent bidders for the SUPPLY AND DELIVERY OF TWO (2) PCS OF LoRa DEVELOPMENT KIT for evaluating the LoRa module used in LoRa prototype board.</p> <p>1.2. The ABC includes all applicable government taxes and services charges.</p> <p>2. TECHNICAL SPECIFICATIONS</p> <p>2.1. Equipped with ultra-low-power MCU</p> <p>2.2. Processor: Dual-core 32-bit (ARM Cortex® -M4/MO+)</p> <p>2.3. Operating Frequency: 150 MHz to 960 MHz</p> <p>2.4. Supports LoRa, (G)FSK, (G)MSK, and BPSK</p> <p>2.5. Suitable for prototyping of end nodes based on LoRaWAN®, Sigfox, wM-BUS and other applications</p> <p>2.6. Memory</p> <p>2.6.1. Flash: 256 kB</p> <p>2.6.2. SRAM: 64 kB</p> <p>2.7. With three (3) user LEDs</p> <p>2.8. With three (3) user buttons and one (1) reset push-button</p> <p>2.9. Equipped with 32.768 kHz LSE crystal oscillator</p> <p>2.10. Equipped with 32 MHz HSE on-board oscillator</p> <p>2.11. Connectors</p> <p>2.11.1. USB with Micro-B</p> <p>2.11.2. Pin headers</p> <p>2.11.3. SMA antenna</p> <p>3. ACCESSORIES</p> <p>3.1. One (1) pc of SMA antenna</p> <p>4. WARRANTY</p> <p>4.1. Must have at least six (6) months of warranty from the time of delivery which covers defects in materials.</p> <p>4.2. Warranty service shall commence from the date of end-user acceptance.</p> <p>4.3. Any replacement service must be successfully performed within fifteen (15) calendar days.</p> <p>5. DELIVERY AND PAYMENT TERMS</p> <p>5.1. The goods must be delivered within thirty (30) calendar days upon issuance of NTP.</p> <p>5.2. Full payment will only be given once the item is completely delivered, inspected, and accepted by the End-user.</p> <p>5.3. No payment shall be made for the supplies and materials not yet delivered under this contract.</p>	2	pc	4900.00	9,800.00
20	<p><b>Waterproof Hat</b></p> <p>1. GENERAL OVERVIEW</p> <p>1.1. DOST-ASTI seeks qualified and competent bidders for the SUPPLY AND DELIVERY OF FIVE (5) PCS OF WATERPROOF HAT to be used as protection of researchers during conducting pilot testing and field tests.</p>	5	pc	1900.00	9,500.00

1.2. The ABC includes all applicable government taxes and services charges.

**2. TECHNICAL SPECIFICATIONS**

2.1. Must be waterproof

2.2. Material composition

2.2.1. Main Fabric: 100% Polyester (PES)

2.2.2. Membrane: 100% Polyurethane (PU)

2.2.3. Inner Fabric: 100% Polyester (PES)

**3. WARRANTY**

3.1. Must have at least six (6) months of warranty from the time of delivery which covers defects in materials.

3.2. Warranty service shall commence from the date of end-user acceptance.

3.3. Any replacement service must be successfully performed within fifteen (15) calendar days.

**4. DELIVERY AND PAYMENT TERMS**

4.1. The goods must be delivered within thirty (30) calendar days upon issuance of NTP.

4.2. Full payment will only be given once the item is completely delivered, inspected, and accepted by the End-user.

4.3. No payment shall be made for the supplies and materials not yet delivered under this contract.

**TOTAL APPROVED BUDGET FOR THE CONTRACT (ABC):**

**Php 151,895.00**

**GUIDELINES**

**A. Content and Format of Quotations**

1. The Quotation/s must include the RFQ Number or the PR Number indicated above
2. Bidders must specify the BRAND NAMES and MODEL NAMES/NUMBER for the following goods:
  - a. Computer and electronic equipment and its accessories or peripherals
  - b. Software applications, programs, and digital licenses
  - c. Commercial off-the-shelf electronic devices or components
3. The Quotation/s must indicate the registered business name of the company (or individual), business address and contact number. It must also include the full name and signature of the company's authorized representative.
4. BIR Certificate of Registration for new DOST-ASTI suppliers.

**B. Eligibility Requirements**

Pursuant to Annex "H" or Consolidated Guidelines for the Alternative Methods of Procurement of the 2016 Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184, the following documents shall be submitted except for Repeat Order, Shopping under Section 52.1(a), and Negotiated Procurement under Sections 53.1 (Two-Failed Biddings), and 53.5 (Agency-to-Agency):

**For Procurement of Goods**

1. Upon submission of quotation
  - a. Valid PhilGEPS Registration Number / Organization ID
  - b. Valid Mayor's/Business Permit
2. Upon issuance of Notice of Award (NOA)
  - a. Omnibus Sworn Statement (shall be required only for procurement projects with ABC above P50,000.00)
  - b. Income/Business Tax Return (For ABCs above P500,000.00)



**For Procurement of Infrastructure**

1. Upon submission of quotation
  - a. Valid PhilGEPS Registration Number / Organization ID
  - b. Valid Mayor's/Business Permit
  - c. Valid PCAB License
  
2. Upon issuance of NOA
  - a. Omnibus Sworn Statement (shall be required only for procurement projects with ABC above P50,000.00)
  - b. Income/Business Tax Return (For ABCs above P500,000.00)

*\*Requirements under Section 53.6 (Scientific, Scholarly or Artistic Work, Exclusive Technology and Media Services) of the revised IRR of RA No. 9184 will not apply to artists such as singer, performer, poet, writer, painter and sculptor who are engaged in business.*

*\*\*Requirements under Section 53.10 (Lease of Real Property or Venue) of the revised IRR of RA No. 9184, specifically Mayor's/Business Permit, PhilGEPS Registration Number and Income/Business Tax Return will not apply to government agencies as lessors.*

*\*\*\*For methods of procurement requiring Mayor's Permit and PhilGEPS Registration Number, valid Certificate of Platinum Membership may be submitted in lieu of the said documents.*

**C. Terms and Conditions**

1. Additional requirements, if necessary, may be requested by the BAC depending on the item to be bid;
2. All transactions are subject to creditable withholding tax and final Value Added Tax or percentage tax per revenue regulation/s of the BIR;
3. Liquidated damages of at least equal to one-tenth of one percent (0.001) of the cost of the unperformed portion for every day of delay shall be imposed by the DOST-ASTI pursuant to Section 68 of the revised IRR of RA No. 9184; and
4. The DOST-ASTI reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised IRR of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.