



**ASTI-FM 03-11  
REV 0/2 APR 2018**

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

<b>ITB No:</b>	19-10-2855	<b>Date:</b>	October-10-2019
<b>PR No:</b>	OPTIMIZATN-19-09-8705	<b>Date:</b>	September-20-2019
<b>Source of Funds:</b>			
<b>Total ABC:</b>		Php 2,850,000.00	
<b>Time, Date &amp; Venue of Pre-bid Conference:</b>		October 24, 2019, 1:30 PM at DOST-ASTI	
<b>Time and Date of Submission of Bids:</b>		November 05, 2019, 12:00 PM	
<b>Time, Date &amp; Venue of Opening Bids:</b>		November 05, 2019, 1:30 PM at DOST-ASTI	
<b>Date of availability of Complete Set of Documents:</b>		October 16, 2019	
<b>Deadline of Potential Bidder's Clarifications:</b>		October 26, 2019	
<b>Deadline of ASTI's Supplemental Bid Bulletin:</b>		October 29, 2019	
<b>Delivery Schedule:</b>			

The 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. Guidelines regarding the format, eligibility, technical and financial documents needed are described in the Instruction to Bidders of the Philippine Bidding Documents

Bidding will be conducted through open competitive bidding procedures using a non discretionary "pass/fail" criterion as specified in the 2016 R-IRR of RA 9184.

A complete set of Bidding Documents may be purchased by interested bidders upon payment of a fee for the Bidding Documents. It is also downloadable for free of charge at DOST-ASTI's website - [www.asti.dost.gov.ph](http://www.asti.dost.gov.ph)

For further inquiries, contact ASTI's BAC Secretariat via email at [bac-sec@asti.dost.gov.ph](mailto:bac-sec@asti.dost.gov.ph). Interested bidders may also call the number - (632)-426-7423 and look for ASTI's BAC Secretariat.

Respectfully,

  
**PEDRITO B. MANGAHAS**  
Chairperson, BAC-1

NO.	TECHNICAL SPECIFICATIONS	QTY	UNIT	UNIT PRICE(Php)	TOTAL PRICE(Php)
1	<p><b>ASTI-DESIGNED DATALOGGER</b></p> <p>A. Overall design will be provided by ASTI (available upon signing of Non-Disclosure Agreement)</p> <p>B. Circuit boards</p> <p>1.) GDAT Main Board (Qty: 150 pcs)</p> <p>Specs :</p> <ul style="list-style-type: none"> <li>- includes board fabrication and component assembly</li> <li>- includes component sourcing based on BOM</li> <li>- gerber and BOM files are available upon request</li> <li>- quantity:</li> <li>- must pass based on testing procedure submitted</li> </ul> <p>PCB specs:</p> <ul style="list-style-type: none"> <li>- Dimension: 82.22mm x 64.2mm</li> <li>- Material: FR-4</li> <li>- Silkscreen: White (Top and bottom)</li> <li>- Solder Mask: Double</li> </ul>	150	set	19000.00	2,850,000.00

- LPI color: Black
- PCB Thickness : 1.64 mm
- Number of Electrical Layers : 2

#### 2.) GSM Module (Qty: 150 pcs)

##### Specs :

- includes board fabrication and component assembly
- includes component sourcing based on BOM
- gerber and BOM files are available upon request
- quantity:
- must pass based on testing procedure submitted

##### PCB specs:

- Dimension: 37mm x 50mm
- Material: FR-4
- Silkscreen: White (Top and bottom)
- Solder Mask: Double
- LPI color: Blue
- PCB Thickness : 1.64 mm
- Number of Electrical Layers : 2

#### 3.) Power Board 1 and 2 (Qty: 150 pairs)

##### Specs :

- includes board fabrication and component assembly
- includes component sourcing based on BOM
- gerber and BOM files are available upon request
- must pass based on testing procedure submitted

##### PCB specs:

- Dimension: 24.4mm x 64.2mm
- Material: FR-4
- Silkscreen: White (Top and bottom)
- Solder Mask: Double
- LPI color: Green
- PCB Thickness : 1.64 mm
- Number of Electrical Layers : 4 and 2

##### Qty breakdown:

- 1 pair = 1 pc of Power Board 1 and 2
- 150 pairs of Power Board 1 and 2 are assembled in the datalogger

#### 4.) Pressure Module (Qty: 150 pcs.)

##### Specs :

- includes board fabrication and component assembly
- includes component sourcing based on BOM
- gerber and BOM files are available upon request
- must pass based on testing procedure submitted

##### PCB specs:

- Dimension: 20.32mm x 20.32mm
- Material: FR-4
- Silkscreen: White (Top and bottom)
- Solder Mask: Double
- LPI color: Blue
- PCB Thickness : 1.64 mm
- Number of Electrical Layers : 2
- Lead Time : 15 Days

#### 5.) TPS Module Board (Qty: 150 pcs.)

##### Specs :

- includes board fabrication and component assembly
- includes component sourcing based on BOM
- gerber and BOM files are available upon request
- must pass based on testing procedure submitted

PCB specs:

- Dimension: 13x15mm
- Material: FR-4
- Silkscreen: White (Top and bottom)
- Solder Mask: Double
- LPI color: Black
- PCB Thickness : 1.64 mm
- Number of Electrical Layers : 2
- Lead Time : 15 Days

C. Enclosure (Qty: 150 pcs)

- fabrication of customized casing for the datalogger based on drawing design
- includes fabrication of saddle clamps and lock bars based on drawing design
- includes industrial design for the tooling
- materials: weatherproof and UV-resistant
- ingress protection: IP67

D. Lithium Polymer Battery (150 pairs)

Detailed Specs :

Type : Lithium Polymer (LiPo) with built-in protection circuit module (PCM)

Voltage (Nominal) : 3.7 V

Capacity : 6800 mAh (Typical) 6500 mAh (Minimum)

Charge :

Max Current : 6800 mAh

Limited Voltage : 4.2 +/- 0.02 V

End-of-Current : 136 mA

Discharge :

Max Current : 13600 mA

End Voltage : 2.75 +/- 0.005

Operation Temp :

Charge : 0 - 45 deg C

Discharge : -20 - +60 deg C

Safety Characteristics :

Overcharged : No fire or explosion

Short Circuit : No fire or explosion (150 deg C max heat)

Heating : No fire or explosion

Acclimatization Characteristics :

High Temp and High Humidity : No deformation, no rust,

no fire or explosion

Discharge Time  $\geq$  36 min

Vibration : No damnification, no leak, no fire or explosion

Battery Voltage  $\geq$  3.6 V

Drop : No leakage, no fire or explosion

Discharge Time :  $\geq$  36 min.

High Temp Discharge Capacity : 57 mins.

Low Temp Discharge Capacity : 4.25 hrs.

Overcharge protection :

Detection Voltage : 4.28 +/- 0.05 V

Detection Delay Time : 0.96 - 1.4 secs.

Release Voltage : 4.175 +/- 0.025 V

Overdischarge Protection :

Detection Voltage : 3 +/- 0.1 V

Detection Delay Time : 115 - 173 ms

Release Voltage : 3.5 +/- 0.05 V Over Current Protection

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Detection Voltage : 0.1 +/- 0.015 V  
Detection Current : 2 - 6 A  
Cycle Life : >= 300 cycles  
Dimension : 9.8x51.5x120 mm (ThickxWidthxLength)  
max  
Approx Weight : 136 g  
Connector and wiring Specs :  
Type : Connector, Housing  
Body Orientation : Straight  
Housing Material : Nylon 66  
Max Current Rating : 3 A  
Max Voltage : 250 V  
Temp Rating : -25 deg C to 85 deg C  
No. of contacts : 3 (positive, NTC, negative)  
No. of Rows : 1  
Pitch : 2 mm  
Dimension : 2x8x5.8 mm (DepthxHeightxLength)  
Wire Size : 22-28 AWG  
Wire Length : 50mm +-3.0  
Packaging:  
\*\*High temp. adhesive tapes and wrapped with PVC material  
\*\* with external 1k carbon resistor connected to NTC connection

E. Configuration (connectors vary based on configuration)

1. 50 pcs of Tandem – Detailed engineering drawing will be provided by end-user upon request and signing of NDA.
2. 50 pcs of Agromet – Detailed engineering drawing will be provided by end-user upon request and signing of NDA.
3. 50 pcs of Warning Station – Detailed engineering drawing will be provided by end-user upon request and signing of NDA.

F. Assembly and Testing

- includes all assembly and integration of boards, enclosure/mechanical fixtures, solar panels and sensors
- includes functional testing and must pass based on end-user's testing procedure (generate individual test report from test)

G. Notes:

1. LCB / SCB must provide two (2) samples of actual unit for approval by the end-user as part of the post-qualification and prior to award. If approved by end-user, one (1) sample will be retained for reference of the units to be delivered.
2. At least 2 years warranty of parts and services
3. Must be licensed by ASTI
4. Must be delivered to ASTI

H. Others:

1. Delivery: Not later than 06 December 2019.
2. Price is inclusive of government duties and taxes and other fees.

3. Payment upon full delivery				
<b>TOTAL APPROVED BUDGET FOR THE CONTRACT (ABC):</b>				<b>Php 2,850,000.00</b>
<b>RESERVATION CLAUSE</b>				
<p>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.</p>				