



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

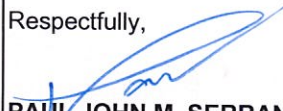
ITB No.:	18-09-2105	Date:	September 6, 2018
PR No.:	GAA-18-06-5907	Date:	June 8, 2018
Source of Funds:		GAA	
Total ABC:		Php 11,200,000.00	
Time, Date & Venue of Pre-bid Conference:		September 21, 2018, 1:30 PM at DOST-ASTI	
Time and Date of Submission of Bids:		October 3, 2018, 12:00 PM	
Time, Date & Venue of Opening of Bids:		October 3, 2018, 1:30 PM at DOST-ASTI	
Date of availability of Complete Set of Documents:		September 13, 2018	
Deadline of Potential Bidder's Clarifications:		September 23, 2018	
Deadline of ASTI's Supplemental Bid Bulletin:		September 26, 2018	
Delivery Schedule:			

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

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

Respectfully,


PAUL JOHN M. SERRANO
Chairperson, BAC-2

NO.	TECHNICAL SPECIFICATIONS	QTY	UNIT	UNIT PRICE (Php)	TOTAL PRICE (Php)
1	<p>Satellite Modem System</p> <p>I. Receiver</p> <ul style="list-style-type: none"> - >40k hrs MTBF - with redundant power supplies - hardened OS <p>I.A. Independent, dual channel receiver</p> <ul style="list-style-type: none"> - IF Input of 720 MHz or 1200 MHz (Tunable), or equivalent to be compatible with the DIWATA-1 and DIWATA-2 microsatellite - With matched filtering and adaptive baseband equalization for correction of cable/channel distortions - Output: at least 2x 1GbE and 2x 10GbE-T UDP/IP <p>I.B. Direct PSK</p> <ul style="list-style-type: none"> - Up to 500 MSym/s - BPSK, QPSK, SQPSK, 8PSK, MSK - Reed-Solomon - Viterbi (up to 200 Mbps) <p>I.C. DVB-S2</p> <ul style="list-style-type: none"> - All LDPC-BCH FEC Code Rates - QPSK, 8PSK, 16APSK, 32APSK - Up to 250 MSym/s - Generic Continuous Stream <p>II. Test Modulator</p> <ul style="list-style-type: none"> - Single channel modulator with matching IF and functions for test loopback - Has pulse shaping with RC, RRC and bandpass filtering - Test modulator should be able to utilize resources from one of the receiver channels <p>III. Telemetry and Commanding System (T&C)</p> <ul style="list-style-type: none"> - Small satellite specific software modem with front end digitizer for providing command and telemetry modulation 	1	lot	11,200,000.00	11,200,000.00

- Tunable 50-2500 MHz front-end, or equivalent to be compatible with the DIWATA-1 microsatellite
- One uplink and one downlink channel
- 10 MHz bandwidth support/data rates up to 5 Msps
- PCM/FM modulator
- FSK/GMSK modulator/demodulator
- PSK modulator/demodulator (BPSK, QPSK, OQPSK)
- Convolutional Encoding/Viterbi Decoding
- NRL-L/NRL-M/Bi-f Encoding formats

IV. Front-End Processor Application

- Small satellite specific software baseband front end processor for providing basic command processing and telemetry packet processing
- One command formatter
- One telemetry framesync
- Commercial grade 256-bit AES
- AES key generation and handling
- CCSDS Packet Processing Support
- Data Archival
- Reed Solomon (255,233) & (255,239)
- Tx/Rx Berts
- Application CD
- User Guide and ICD

V. Host System

- Supplier shall provide a host system for the software applications
- At least latest generation processor with at least 4.0 GHz or better
- Processor must have at least six (6) cores and twelve (12) threads
- At least 16 GB DDR4 RAM
- At least 1TB HDD storage
- Includes wireless keyboard and mouse
- Includes at least 23" 1080p computer monitor
- Includes latest 64-bit operating system
- Supplier shall ensure the host system's compatibility with the software applications

VI. Installation and training

- On-site installation and training
- Supplier to submit training proposal for end-users approval upon awarding of contract
- Supplier shall provide a site acceptance test for approval of the end-user
- Site acceptance test should include a provision for successful download and reception of DIWATA-1 data

VII. Payment

- 80% payment to be processed upon complete shipping of equipment to the end-user
- 20% payment to be processed upon end-user's acceptance of equipment and completion of training
- All payments shall be made subject to government terms, rules and conditions

Notes:

- Price inclusive of government fees, taxes and duties
- At least 1 year warranty support for all items
- Delivery: Equipment should be delivered within 180 days upon issuance of NTP, training and installation shall be completed within 60 days after delivery

TOTAL APPROVED BUDGET FOR THE CONTRACT (ABC):

PHP 11,200,000.00

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.