



TENDER NO. 08/2019-NIE

MISC. COMPONENTS, PARTS AND ACCESSORIES FOR DEVELOPMENT OF FREQUENCY MODULATED CONTINUOUS WAVE (FMCW) RADAR- COMMUNICATION LAB

S. #	Name of Item	Qty	Unit Price	Total Price
1	<p>Power Amplifier with standard accessories and following specifications</p> <p>Make: Analog Devices OR Equivalent</p> <p><u>Specifications:</u></p> <ul style="list-style-type: none"> • Can cover 8-13 GHz • 32 dB gain • +35 dBm P_{sat} • +34 dBm P_{1dB} output (2 watts) • 50 Ohm matched Input output • Part No. HMC952ALP5G OR Equivalent 	01		
2	<p>Power Amplifier with standard accessories and following specifications</p> <p>Make: Analog Devices OR Equivalent</p> <p><u>Specifications:</u></p> <ul style="list-style-type: none"> • Wideband having DC to 22 GHz • +31 dBm P_{sat} • +29 dBm P_{1dB} output (1 watt) • Gain 15 dB • 50 ohm matched input output • Part No. HMC797APM5E OR Equivalent 	01		
3	<p>Driver Amplifier (Medium Power Amplifier) with standard accessories and following specifications</p> <p>Make: Analog Devices OR Equivalent</p> <p><u>Specifications:</u></p> <ul style="list-style-type: none"> • Can cover 8-13 GHz • +21.5 dBm P_{sat} • 14 dB gain • 50 ohm matched input output • Part # HMC441LC3B OR equivalent 	01		
4	<p>N Female to SMA Male (Low Loss)</p> <p>Make Local/ Imported</p>	03		
5	<p>N Male to SMA Female(Low Loss)</p> <p>Make Local/ Imported</p>	03		
6	<p>N Female to SMA Female (Low Loss)</p> <p>Make Local/ Imported</p>	03		

7	SMA Male to SMA Male (Low Loss) Make Local/ Imported	10		
8	SMA Male to SMA Female (Low Loss) Make Local/ Imported	03		
9	N Male to N Female (Low Loss) Make Local/ Imported	03		
10	N Male to N Male (Low Loss) Make Local/ Imported	03		
11	N Female to N Female (Low Loss) Make Local/ Imported	03		
12	SMA Female to SMA Female (Low Loss) Make Local/ Imported	03		
13	N Male to SMA Male (Low Loss) Make Local/ Imported	03		
14	CPU with standard accessories and flowing specifications Make: Branded/ Unbranded <u>Specifications:</u> <ul style="list-style-type: none"> • Core i7 • 500 GB Hardisk • 4 GB RAM • 3 GHz or higher processor • 5Generation or higher • With Keyboard, Mouse, DVD • With 12 inch FHD Monitor 	01		
15	Laptop with standard accessories and flowing specifications Make: Branded/ Unbranded <u>Specifications:</u> <ul style="list-style-type: none"> • Core i5 • 20 GB Hard Disk • 2 GB RAM or Higher • 2.2 GHz or higher • 8 Inch LCD • Small size • Low weight 	01		
16	DSP kit with standard accessories and following specifications Make: Spectrum Digital OR Equivalent <u>Specifications:</u> <ul style="list-style-type: none"> • DSP Starter Kit (DSK) for the TMS320C6713 • 512K bytes flash RAM • 2Mx32 SDRAM • four 3.5mm audio ports • On board IEEE 1149.1 JTAG connection 	01		

17	<p>PLL with standard accessories and following specifications:</p> <p>Make: Analog Devices OR Equivalent</p> <p>Specifications:</p> <ul style="list-style-type: none"> • Evaluation Board • Wideband 54 MHz to 13.6 GHz • 38 bit High Resolution • Part # ADF5355 OR Equivalent 	01		
18	<p>SDP-S Controller Board with standard accessories and following specifications:</p> <p>Make: Analog Devices OR Equivalent</p> <p>Specifications:</p> <ul style="list-style-type: none"> • Evaluation Board • USB to serial • USB 2.0 interface to PC • Configurable interface (SPI, I2C, GPIO) 	01		
19	<p>Circulator with standard accessories and following specifications:</p> <p>Make: Local/ Imported</p> <p>Specifications:</p> <ul style="list-style-type: none"> • Can cover Frequency 8-13 GHz • Low insertion loss. • High Isolation 	01		
20	<p>Function Generator IC with standard accessories and following specifications:</p> <p>Make: Maxim OR Equivalent</p> <p>Specifications:</p> <ul style="list-style-type: none"> • Triangle, Sawtooth, Sine, Square, and Pulse Waveforms • Can generate DC or 0.1 Hz to 1 MHz or higher • In IC form • Part # Max038 OR Equivalent 	02		
21	<p>RF cables with standard accessories and following specifications</p> <p>Make: Local/ Imported</p> <p>Specifications:</p> <ul style="list-style-type: none"> • 1 meter in length • Very low loss for 8-13 GHz • SMA female connectorized 	03		
22	<p>Relay (5V) with standard accessories and following specifications</p> <p>Make: SONGLE OR Equivalent</p> <p>Specifications:</p> <ul style="list-style-type: none"> • Operating voltage: 5VDC & 250VAC. • Operating Current: 10A • Part # SRD-05VDC-SL-C OR Equivalent 	50		

23	<p>Capacitor (AC voltage) with standard accessories and following specifications</p> <p>Make: Local/ Imported</p> <p>Specifications:</p> <ul style="list-style-type: none"> • Capacitance value= 3uF • AC Voltage Capacitor (High Quality) • Voltage handling= 450 VAC • Temperature handling=100C 	10		
24	<p>Capacitor (AC voltage) with standard accessories and following specifications</p> <p>Make: Local/ Imported</p> <p>Specifications:</p> <ul style="list-style-type: none"> • Capacitance value= 4uF • AC Voltage Capacitor (High Quality) • Voltage handling= 450 VAC • Temperature handling=100C 	10		
25	<p>Capacitor (AC voltage) with standard accessories and following specifications</p> <p>Make: Local/ Imported</p> <p>Specifications:</p> <ul style="list-style-type: none"> • Capacitance value= 4.8uF • AC Voltage Capacitor (High Quality) • Voltage handling= 450 VAC • Temperature handling= 100C 	10		
26	<p>Extension Board</p> <p>Make: Local</p>	03		
27	<p>Power Cable</p> <p>Make: Local</p>	10		
28	<p>Battery with standard accessories and following specifications</p> <p>Make: Local</p> <p>Specifications:</p> <ul style="list-style-type: none"> • 9 Volt • Not rechargeable 	03		
29	<p>Battery with standard accessories and following specifications</p> <p>Make: Local</p> <p>Specifications:</p> <ul style="list-style-type: none"> • 9 Volt • Rechargeable 	01		
30	<p>Battery with standard accessories and following specifications</p> <p>Make: Local</p>	01		

	<p><u>Specifications:</u></p> <ul style="list-style-type: none"> • LIPO Battery • 2 cells 7.4 Volt • 2.8 A current 			
31	<p>Battery with standard accessories and following specifications</p> <p>Make: Local</p> <p><u>Specifications:</u></p> <ul style="list-style-type: none"> • LIPO Battery • 3 cells 11.1 Volt • 2.8 A 	01		
32	<p>Hookup wires with following specifications</p> <p>Make: Local</p> <p><u>Specifications:</u></p> <ul style="list-style-type: none"> • Red & Black • 22 AWC 	02		
33	<p>Wire Cutter with following specifications</p> <p>Make: Local</p> <p><u>Specifications:</u></p> <ul style="list-style-type: none"> • Easy opening and Closing 	01		
34	<p>Transformer with following specifications</p> <p>Make: Local</p> <p><u>Specifications:</u></p> <ul style="list-style-type: none"> • 220 Volt to 12 Volt • 3A 	01		
35	<p>Buck Converter with standard accessories and following specifications</p> <p>Make: Texas Instruments OR Equivalent</p> <p><u>Specifications:</u></p> <ul style="list-style-type: none"> • 3.3-V, 5-V, 12-V, and Adjustable Output Versions • 3A output current • Input Voltage Range Up to 40 V • Part # lm 2596/ equivalent 	01		
36	<p>Boost Converter with standard accessories and following specifications</p> <p>Make: Local</p> <p><u>Specifications:</u></p> <ul style="list-style-type: none"> • 5V to 32V Input Voltage Range • Fixed 400KHz Switching Frequency • 4 A switching current • Part # XL6009/ equivalent 	01		
37	<p>BLDC Motor with ESC drivers with standard accessories and following specifications</p> <p>Make: SKU OR Equivalent</p>	04		

	Specifications: <ul style="list-style-type: none"> • 1000Kv Brushless Motor • 30A Esc • (Complete Set) • Part # A2212 OR Equivalent 			
38	Battery charger with standard accessories and following specifications Make: Any Local Specifications: <ul style="list-style-type: none"> • For LIPO battery 	01		
39	Slide Rail with following specifications Make: Local/ Imported Specifications: <ul style="list-style-type: none"> • Low friction • 1 meter length 	01		



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TERM & CONDITIONS:

1. Price to be quoted in Pak Rupees on (FOR) free home delivery basis.
2. As the equipment/ items to be procured are based on high tech technology therefore for competitive bidding single stage-two envelopes bidding procedure shall be adopted.
 - (i). the bid shall be comprised a single package containing two separate envelopes, containing separately **“TECHNICAL PROPOSAL”** and **“FINANCIAL PROPOSAL”**.
 - (ii). the envelope shall be marked as **“TECHNICAL PROPOSAL”** and **“FINANCIAL PROPOSAL”** in the **bold, properly sealed and with legible letters** to avoid any confusion.
 - (iii). initially the envelope marked with **“TECHNICAL PROPOSAL”** shall be opened.
 - (iv). the envelope marked with **“FINANCIAL PROPOSAL”** shall be retained in the custody of NIE without being opened.
 - (v). upon evaluation of technical proposals, NIE shall publically open the financial proposal of the technically accepted bids only. The financial proposal of the bids found technically rejected shall be returned un-opened to the respective firms.
3. The bids of the firm operating from their residential address and P.O. Box number will not be considered.
4. Tender number must be specified on the left corner of the bidding envelope.
5. The rates should be valid for at least **“90”** days from the date of tender opening.
6. The offered equipment/ items must be brand new of the original manufacturer and covered under normal warranty/guarantee with necessary back-up support.
7. The bid must be supported with necessary catalogue/ brochure indicating make, model detailed specification and country of origin of the offered equipment.
8. The scope of supplies includes supply of equipment, installation, testing and commissioning of equipment and if necessary training to NIE Personnel's.
9. The financial bid should reflect at sight the following costs separately for fair comparison purpose.
 - i. Unit Price of equipment.
 - ii. GST, if applicable.
10. Conditional/ ambiguous bids will not be entertained.

11. Earnest money @ 2% of quoted prices (Refundable) must be accompanied with tender in shape of a crossed bank draft/ pay order in favour of the Director General NIE.
12. E/M of the successful bidder will be refunded upon submission of prescribe performance/ bank guarantee to NIE and the same shall be released after satisfactory completion of warranty/ guarantee period of the supplied goods.
13. The successful bidder shall provide 5% performance/ bank Guarantee of the total order value of the order to NIE for satisfactory execution of the supply order.
14. The bid found to be lowest evaluated bid shall be accepted only either overall whole tender/items base or each item wise.
15. The estimated delivery/ completion period of supplies/ work must be specified in the quotation.
16. In case of any delay in supplies of ordered items, the successful bidder shall bound to inform NIE to prior to "15" days of the ending of last date of delivery, so that necessary approval regarding extension in delivery period may be obtained from Director General NIE otherwise at the time of payment to firm a penalty @ 2% per month of the total order value will be charged from the successful bidder without any notice.
17. Tender of all items may be awarded either to a single party or can be divided among different parties depending upon their professional capabilities and competitiveness in prices individually.
- 18. No advance payment will be made.**
19. NTN and GST number must be mentioned on the quotation along with providing copy of its documentary evidence, failing which bid will not be considered.
20. Payment will be made on submission of the prescribed bill in duplicate through crossed cheque OR through Inland L/C after satisfactory completion of supply order and our acceptance thereof, which includes installation, testing, commissioning of the equipment and training etc. The bill presented on the letterhead of the firm will not be accepted for payment purpose.
21. As per Government Policy payment to the firm is subject to the registration of firm name in **Active Tax Payer List of FBR**, otherwise payment will be stopped till the appearance of vendor name in ATL of FBR.
22. Income Tax/ Sales Tax etc. will be deducted from bill as per Govt. Rules.
23. Last date for receipt of the tender in the Procurement Section of NIE is **April 12, 2019 up to 11:00 hours**. Technical proposals of the received firms shall be opened on the same day at **11:30 hours** in the presence of those who wish to be present. Tenders received late will not be considered in any case.
24. The Director General NIE reserves the right to accept or reject any or all tenders in part or whole, or change the quantity of tendered items as per provision of PPRA Rules.

SUHAIL AHMED SHAMI
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NIE, Islamabad
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