

NIQ for Universal Software Radio Peripherals

Due Date: 29th Oct. 2013 Upto 17:00 PM

1. Name of Purchaser: Dr. Saif Khan Mohammed (Asst. Prof, Elect. Engg, I.I.T. Delhi)

2. Contact: saifkm@ee.iitd.ac.in

3. Purchase Committee Number: 14916

4. Budget Code: PLN03/BEEN

5. Product Description/Specifications:

5.1) Four Universal Software Radio Peripherals (USRP)

- Transmitter
 - Frequency Range: 2.4-2.5 GHz and 4.9-5.9 GHz
 - SW Adjustable TX Frequency Step < 1KHz
 - MAX Output Power 15 dBm - 20 dBm
 - TX Output Power Gain Range 0 dB - 31 dB
 - SW Adjustable Output Power Step Size 1dB
 - Instantaneous Real-Time Bandwidth 20MHz (16bit samples)
40MHz (8bit-samples)
 - DAC (Digital to Analog Conversion) 2 channels, 400MS/s, 16 bit
 - DAC SFDR (Spurious Free Dynamic Range) 80 dB
- Receiver
 - Software Adjustable RX Frequency Step < 1KHz
 - Max Input Power (Pin) 0 dBm
 - Noise Figure 5 to 7 dB
 - Instantaneous Real-Time Bandwidth 20MHz (16bit samples)
40MHz (8bit-samples)
 - ADC (Analog to Digital Conversion) 2 channels, 100MS/s, 14 bit

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- ADC SFDR (Spurious Free Dynamic Range) 88 dB
- Reference Clock
- Clock Type TCXO
- GPS Disciplined NO
- Frequency Accuracy of 10MHz Ref (No GPS Antenna) 2.5ppm

- Accessories with each transceiver

International power supply, Ethernet cable, 0.3 m SMA-SMA Loop Back cable, 30 dB SMA inline attenuator, Software driver, Graphical Design Modulation Toolkit, Graphical Digital Filter Design Toolkit

Transceiver MIMO Sync and Data Cable shares time and frequency reference and bridges Ethernet between two devices

2 Quantities 2.4 and 5 GHz Dual Band Vertical Antenna (3 dBi gain) per Transceiver

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5.2) Three year extended warranty for USRP hardware.

5.3) Single License of Graphical Design Academic Premium Suite.

6. Terms and Conditions:

6.1) IIT Delhi is exempted from paying custom duty under notification No. 51/96 and necessary "Custom Duty Exemption Certificate" can be issued after providing the following information.

- a) Shipping details, i.e., Master Airway Bill No. and House Airway No. (if exists)
- b) Forwarder details, i.e., Name, Contact No., etc.

Custom Duty Exemption Certificate will be issued to the shipment in the name of the Institute and Bills of Entry should be submitted to IIT Delhi later on.

6.2) IIT Delhi is exempted from paying Excise Duty and necessary Excise Duty Exemption Certificate will be provided for which the following information is required.

a) Quotation with details of Basic Price, Rate and Amount on which ED is applicable.

6.3) If the bidder is an authorized dealer of any manufacturer, the authorized Indian dealership certificate from the principles should be enclosed. Similarly, proprietary certificate for proprietary items should be provided.

6.4) In case IIT Delhi is imposed with demurrage charge due to import on CIF, the entire demurrage charge has to be borne by the Indian agent of the foreign supplier.

6.5) Three years comprehensive warranty be provided and AMC price beyond three years should be mentioned separately.

6.6) Delivery Period: Delivery period should be clearly mentioned in the quotation.

6.7) The quotations must have validity for at least three months.

6.8) Authority of IIT Delhi reserves the right to reject any or all quotations without assigning reasons.

6.9) Foreign currency bids should preferably be submitted on FOB Basis.

6.10) Quotations must be submitted in two separate sealed covers marked as Technical and Commercial bids. Quotations must reach the office of Dr. Saif Khan Mohammed, Dept. Of Elect. Eng. IIT Delhi by 29th Oct., 2013 up to 5.00 P.M.

6.11) Quotations received after the due date and time are bound to be rejected.

Saif
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