



**Dept. of Ocean Engineering,  
Indian Institute of Technology Madras  
Chennai - 36**

**Dr. Rajesh R. Nair**  
Associate professor

**Phone : 044-2257 4824**  
**Fax : 044-2257 4802**

**Date: 20.11.13**

**Ref. No.: OED/2013/025/RARN/SPL  
Power Amplifier**

**Dear Sirs,**

**DUE DATE: 11.12.13**

1. Quotations are invited in duplicate for the various items shown in Enclosed list (Annexure - I).
2. The Quotations duly sealed and super scribed on the envelope with the reference No. and due date, should be addressed to the undersigned so as to reach him on or before the due date stipulated above.
3. The Quotations should be valid for sixty days from the due date and the period of delivery required, warranty terms etc. should also be clearly indicated. A minimum of one year warranty required.
4. Brochure detailing technical specifications and performance, list of industrial and educational establishments where the items enquired have been supplied must be provided.
5. Compliancy certificate is to be provided indicating conformity to the technical specifications.
6. If the item is under DGS&D Rate contract No. and the price must be mentioned. It may also please be indicated whether the supply can be made direct to us at the Rate contract price (Please note that we are not Direct Demanding Officers). If so please send copy of the RC.
7. Relevant literature pertaining to the items quoted with full specifications (and drawing, if any) should be sent along with the Quotations, wherever applicable. Samples / machine/ equipment if called for should be submitted / demonstrated at free of charges, and collected back at the supplier's expenses.
8. Packing and delivery charges must be clearly indicated.
9. The rate of sales / General Taxes and the percentage of such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim for Sales / General Taxes will be admitted at any stage and on any ground whatsoever The taxes leviable should take into consideration that we are entitled to have concessional Sales Tax applicable to non Government Educational Institutions run with no profit motive for which a concession. Sales Tax Certificate will be issued at the time of final settlement of the bill.
10. Goods should be supplied carriage paid and insured.
11. Goods shall not be supplied without an official supply order.
12. Payment: Every attempt will be made to make payment within 30 days from the date of receipt of bill / acceptance of goods, whichever is later.
13. In case of LC payment, 90% of the payment will be made after completion of the supply. The balance 10% of the payment will be made after satisfactory installation of the software.
14. IIT Madras is exempt from payment of Excise Duty and is eligible for concessional rate of custom duty. Necessary certificate will be issued on demand. IIT Madras will make necessary arrangements for the clearance of imported goods at the Airport/Seaport. Hence the price should not include the above charges.
15. **Acceptance and Rejection:-** I.I.T. Madras has the right to accept the whole or any part of the Tender or portion of the quantity offered or reject it in full without assigning any reason.

Yours faithfully

Dr. Rajesh R. Nair, Department of Ocean Engineering.

## ANNEXURE – I

Ref. No.: OED/13/016/SPL

Date: 20.11.13

DUE DATE: 11.12.13

SL. NO.	DESCRIPTION	QUANTITY
1.	<p>Pulser-Receiver System</p> <ul style="list-style-type: none"> <li>-Maximum Output Level: 8 kW RMS with 1% Duty Cycle</li> <li>-Maximum Pulse Width: 200 <math>\mu</math>s</li> <li>-Optimum 16KW Freq Range: 50 kHz to 2 MHz</li> <li>-Reduced Power above 2 MHz</li> <li>-Broad Band RF Receiver</li> <li>-Receiver Bandwidth: 50kHz - 20 MHz</li> <li>-Receiver Gain: 100dB (maximum)</li> </ul> <p>High Impedance Amplifier</p> <p>150 Ohm Termination</p> <p>Power amplifier should have a built in diplexer no external T/R switch is needed.  Power must have 2 switchable receiver inputs on the receiver as opposed to one.  The receiver should have 100dB of gain.  Power amplifier must accept an external RF pulse and gate to amplify arbitrary waveforms.  The power amplifier should consist of a front panel control pad and display for manual control <u>and</u> can also be controlled via an external computer.  Power amplifier must be capable of working in dirty environments by providing the cooling air is passed across heat sinks in a separate space from the electronics.  So if the air is contaminated the contaminant must not get deposited the electronics</p>	1

## Note:

The sealed quotation to be sent to

Dr. Rajesh R. Nair  
Dept. of Ocean Engineering,  
IIT Madras, Chennai-600036,  
Tamil Nadu, India