



Indian Institute of Technology Jodhpur

N.H. 62, Nagaur Road, Karwar, Jodhpur - 342030, Rajasthan (India)

☎ 0291-280 1852 | ✉ office_ece@iitj.ac.in

Website: Department: www.iitj.ac.in/ece | IITJ: www.iitj.ac.in

INDIAN INSTITUTE OF TECHNOLOGY JODHPUR

Request For Technical Information and Pro Forma Quotations

For Procurement of Dual-Channel RF Signal Generator

1. Introduction

The Indian Institute of Technology Jodhpur (IIT Jodhpur) intends to procure Dual-Channel RF Signal Generator for academic and research purposes.

Before initiating the formal procurement process, the Institute invites **Technical Information And Indicative Pro Forma Quotations** from eligible Original Equipment Manufacturers (OEMs) or their authorized representatives.

2. Purpose

The objectives are to:

- Obtain technical information from prospective OEMs/authorized representatives.
- Obtain indicative Pro forma quotations for estimating the procurement cost.

3. Disclaimer

This document is issued **only for obtaining technical information and indicative Pro Forma quotations**.

Submission of information under this proposal:

- shall **not** be treated as a financial bid;
- shall **not** constitute any commitment on the part of IIT Jodhpur to procure the equipment;
- shall **not** confer any right upon the participating firm for award of any future contract;
- shall **not** automatically qualify the responding firm for participation in any future tender.

The Institute reserves the right to modify the technical specifications, estimated cost, procurement methodology, or procurement timeline based on its requirements.

4. Equipment Details

- Name of Equipment: Dual-Channel RF Signal Generator
- Quantity: 1
- Broad Functional Requirements (The essential functions or capabilities that the equipment should have, without mentioning a specific make, model, or brand):



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Technical Specification		
1	Frequency & Channel Characteristics	
1.1	Number of independent channels	2 (<i>Independent frequency, amplitude, and phase control</i>)
1.2	Frequency Range	100 KHz to 40 GHz (per channel)
1.3	Frequency resolution	0.001 KHz $\pm$ 10%
1.4	Frequency switching speed	< 1ms
1.5	RF channel connector type (preferred)	2.92 mm (K-type)
2	Amplitude & Output Power	
2.1	Maximum Output Power	$\geq +20$ dBm (in the entire frequency range of operation)
2.2	Minimum Output Power	≤ -60 dBm
2.3	Power Resolution	0.01 dB
2.4	Power Level Accuracy	± 0.6 dB
2.5	Horn Antennas	100 KHz to 40 GHz
3	Dual-Channel Synchronization & Phase Control	
3.1	Phase Coherence	Two channels must share a common local oscillator (LO) or precisely locked references.
3.2	Phase Adjustment (preferred)	0.1° resolution for relative phase offset between Channel 1 and Channel 2
3.3	Phase adjustment range	0 deg to 360 deg
4	Spectral Purity & Signal Integrity	
4.1	Harmonics (preferred)	< -50 dBc (at output levels < +10 dBm).
4.2	Phase Noise (SSB)	< -50 dBc/Hz (in the entire frequency range of operation)
4.3	White band noise	< -100 dBc
5	Modulation Capabilities	
5.1	Modulation Types	(i) Amplitude, Frequency, Phase and Pulse modulation required on both channels. ii) Pulse modulation • Minimum Pulse Width < 20 ns • Rise/Fall Time < 10 ns • On/Off Ratio > 80 dB
5.2	Maximum modulation frequency	Upto 50 MHz
5.3	Internal baseband memory depth	64MSamples
5.4	Modulation Source	Internal
**Both RF output should have same specs as mentioned above		
6	Sweeping modes & Interfaces & Operating condition	
6.1	Interfaces	USB, LAN, GPIB
6.2	Built-in Display with control panel	Required
6.3	Simultaneous Frequency/power sweep modes	Step, List, Ramp



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6.4	Trigger interface	BNC inputs/outputs for External Trigger, Sweep Trigger, and Pulse Video out.
6.5	Reference I/O	10 MHz and 100 MHz reference IN/OUT for phase-locking
6.6	Remote Control & Software	GPIB (IEEE-488), LAN (LXI Class C compliant), and USB 2.0/3.0. Fully SCPI compliant with native driver support for Python, LabVIEW, and MATLAB.
6.7	Internal baseband Memory depth	>50 M
6.8	Power Supply rating	240 V AC, 50 to 60 Hz
6.9	Operating temperature (preferred)	> 45 degree
6.10	Internal memory & Type	>256 GB & SSD memory
6.11	Calibration interval (preferred)	>3 years

(The above requirements are indicative and may be revised after evaluation of the responses.)

5. Eligibility Criteria

Interested firms should:

- Be an Original Equipment Manufacturer (OEM) or an authorized distributor/dealer.
- Have experience in supplying similar equipment.
- Have adequate installation and after-sales service support in India.

6. Information/Documents to be Submitted

The interested firms shall submit the following (*Annexure-I*):

1. Company Profile.
2. Details of the OEM.
3. Product Brochure/Catalogue.
4. Detailed Technical Specifications.
5. Compliance with the Broad Functional Requirements.
6. List of previous users/clients with installation reports
7. Details of Warranty.
8. Details of After-Sales Service Support.
9. Authorization Letter from OEM (where applicable).
10. Any additional technical information relevant to the offered equipment.

7. Pro forma Quotation

- Interested firms are requested to submit a Pro forma Quotation (*Annexure-II*) along with their Request For Technical Information and Pro Forma Quotations response. Indicative **Pro Forma** quotation in Indian Rupees (INR), including the cost of the equipment, essential accessories, taxes, duties, freight, insurance, installation, commissioning, training, and any other associated charges. Wherever applicable, the Annual Maintenance Contract (AMC) and/or Comprehensive Maintenance Contract (CMC) charges and spare parts shall be



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quoted separately as additional charges.

- Expected delivery schedule and other relevant technical and commercial information.

Important Note:

- The **Pro Forma** quotation is required only for cost estimation and budget planning purposes.
- The prices quoted shall be indicative/non-binding.
- The Pro Forma quotation shall not be treated as a financial bid.
- Submission of a **Pro Forma** quotation shall not confer any right or preference in the subsequent procurement process.

8. Presentation/Demonstration

The Institute may invite for a technical presentation or product demonstration. The date and venue shall be communicated separately.

9. Submission :

Interested firms may submit their Proforma Quotations on or before the due date in sealed cover or through email (as applicable).



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The envelope/email should be superscribed as:

"Request For Technical Information and Pro forma Quotations for Procurement of Dual-Channel RF Signal Generator".

8. Important Dates

Activity	Date
Publication	22/07/2026
Last Date for Submission	02/08/2026
Technical Presentation (if required)	To be informed
Clarification Meeting (if required)	To be informed

10. General Terms & Conditions

1. This **Request For Technical Information and Pro forma Quotations** is issued only for obtaining technical information and **Pro Forma** estimates.
2. The Institute reserves the right to accept or reject any or all responses without assigning any reason.
3. Submission of an **Request For Technical Information and Pro forma Quotations** does not create any contractual obligation.
4. The Institute may seek additional information, technical clarifications, demonstrations, or presentations from any participant.
5. The Institute may modify the technical requirements based on the responses received.
6. The final technical specifications may be prepared by the User Committee after evaluating all **Request For Technical Information and Pro forma Quotations** responses.
7. The subsequent procurement, if any, shall be carried out through an appropriate procurement method in accordance with the GFR 2017 and applicable procurement rules.
8. Participation in this **Request For Technical Information and Pro forma Quotations** does not automatically entitle any firm to participate in or receive any preference during the subsequent tender process.

11. Contact Details

Name: Dr. Manoj Gupta

Designation: Assistant Professor

Department: Electronics Engineering

Email: manojgupta@iitj.ac.in



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Annexure-I

Request For Technical Information and Pro forma Quotations Response Format

1. Name of the Firm:
2. Registered Address:
3. Name of OEM (if applicable):
4. Contact Person:
5. Email:
6. Phone:
7. Product Name and Model:
8. Brief Technical Description:
9. Compliance with Broad Functional Requirements:
10. List of previous users/clients with installation reports:
11. After-Sales Service Details:
12. Any Additional Features:
13. Remarks (if any).



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Annexure-II

Format for Pro forma Quotation

Sl. No.	Description	Amount (INR)
1	Indicative Pro forma quotation in Indian Rupees (INR), including the cost of the equipment, essential accessories, taxes, duties, freight, insurance, installation, commissioning, training, and any other associated charges.	

Warranty Period: _____

AMC/CMC Charges (after warranty): _____

Delivery Period: _____

Authorized Signatory

Name: _____

Designation: _____

Company Seal & Signature