This file has been cleaned of potential threats.

To view the reconstructed contents, please SCROLL DOWN to next page.



प्लाज्मा अनुसंधान संस्थान INSTITUTE FOR PLASMA RESEARCH परमाणु ऊर्जा विभाग, भारत सरकार का एक सहायता प्राप्त संस्थान



An Aided Institute of Department of Atomic Energy, Government of India

इन्दिरा पुल के पास, भाट, गांधीनगर – 382 428 भारत दूरभाष: (079) 2396 2020/2021/2028 फेक्स: 91-079-23962277 वेब: <u>www.ipr.res.in</u> NEAR INDIRA BRIDGE, BHAT DIST. GANDHINAGAR - 382 428 (INDIA) Phone: (079) 2396 2000/2026/2332 Fax : 91-079-23962277 Web : <u>www.ipr.res.in</u>

ENQUIRY	
ENQUIRY NO Date	: IPR/EQF/18-19/235 : 25-03-2019
Due on	: 02-05-2019 by 1:00 PM IST

Please send your offer in sealed envelope specifying Enquiry No, Date & Due Date, ALONG WITH your credentials for the following items which we are interested to import directly against Foreign Trade Policy 2015-2020.

#### **Important Note:**

Please note that e-mail quotations are not acceptable however you may send your queries (if any) to <u>importpurchase@ipr.res.in</u>

# Please ensure your sealed quotation reaches this office not later than above mentioned due date and time.

Kindly go through the following documents properly before quoting which are available on the IPR web portal i.e., <u>http://www.ipr.res.in/documents/tender\_terms.html</u> / attached herewith.

- 1) Instructions to the bidders & Terms and conditions (refer Form No: IPR-FP-01.V3)
- 2) Bidding format

**GST for Goods and Services (IGST/CGST/SGST TAX BENEFITS):** Please refer **clause no:** 14 of Form No: **IPR-FP-01.V3** 

#### **QUOTATION SHOULD BE ADDRESSED TO PURCHASE OFFICER ONLY**

Sr No	Description	Quantity
1	Voltage controlled oscillator module as per attached specifications	1.0 Nos.
2	Phase detector module as per attached specifications	1.0 Nos.
3	Frequency doubler as per attached specifications	3.0 Nos.
4	10 dB directional coupler	1.0 Nos.
Note:	<ol> <li>Please quote with complete technical details (Technical compliance sheet and product data sheet).</li> <li>TDS as per CGST Act: As per provisions of section No. 51 of the CGST Act 2017, TDS @2% (IGST 2% or CGST 1% and SGST 1%) will be deducted while making payment to the suppliers where total value of orders/contracts/work orders exceeds Rs. 2.5 lakhs, in the event of order in Indian Rupees. Necessary TDS Certificate will be issued to the supplier after TDS deduction.</li> </ol>	

Encl: As per attached.

Sd/-

Mr. D. Ramesh Purchase Officer-II

**Information to Vendors:** We are working towards a single platform for our future requirement. Hence, please refer IPR website i.e, <a href="http://www.ipr.res.in/documents/tenderseng.html">http://www.ipr.res.in/documents/tenderseng.html</a> for our future requirement.

### 1. Voltage controlled oscillator module (VCO):

Sr.No	Descriptions	IPR specification
1	components	Wide band mimic VCO with buffer
2	Output Frequency range	10-20 GHz
3	Output power	Tpically 0-10 dBm
4	Packaging	Module form (mounted on evaluation PCB)
5	Standard connectors(Female)	2.92 mm
6	Second harmonic	20 dBc or better
7	Frequency drift rate @ 10 GHz	-0.25 MHz/degC
8	quantity	1

#### 2. Phase detector module

Sr.No	Descriptions	IPR specification
1	Input frequency range	1-2700 MHz
2	Gain Measurement Range	+ /- 30 dB
3	Phase Measurement Range	+/- 90 degree
4	Output Voltage Minimum	30 mV
5	Output Voltage Maximum	1.8 V
6	Slew Rate	20 V/µsec
7	Response Time (Any 15 Degree Change)	40 nsec
8.	Packaging	Module form (mounted on evaluation PCB)
	quantity	1

### 3. Frequency doubler

Sr.No	Descriptions	IPR specification	
1	Input frequency	7.5 to 22.5 GHz	
2	Output frequency	15 -45 GHz	
3	Typical output power	15 dBm or better	
4	Packaging	Module form (mounted on evaluation PCB)	
5	Standard connectors(Female)	2.92 mm	
6	RF input power	Typical -10 t0 10 dBm	
7	Third harmonic leakage	Typical 30 dBc	
8	Fourth harmonic leakage	Typical 10 dBc	
	quantity	3	

### 4. 10 dB directional coupler

Sr.No	Descriptions	IPR specification
1	Typical frequency range	1-40 GHz
2	Nominal coupling	10+/- 1.0
3	Frequency sensitivity	+/- 1.2 dB
4	Typical insertion loss (in	1-20 GHz :1.3
	dB)	20-40 GHz: 2.0
5	Typical Directivity (in	1-20 GHz :14
	dB)	20-40 GHz: 10
6	Typical VSWR	1-20 GHz :1.5
		20-40 GHz: 1.7
7	Standard	2.92 mm
	connectors(Female)	
	quantity	1

## 1. Voltage controlled oscillator module (VCO):

Sr.No	Descriptions	IPR specification	Vendor specifications
1	components	Wide band mimic VCO with buffer	
2	Output Frequency range	10-20 GHz	
3	Output power	Tpically 0-10 dBm	
4	Packaging	Module form (mounted on evaluation PCB)	
5	Standard connectors(Female)	2.92 mm	
6	Second harmonic	20 dBc or better	
7	Frequency drift rate @ 10 GHz	-0.25 MHz/degC	
8	quantity	1	

#### 2. Phase detector module

Sr.No	Descriptions	IPR specification	Vendor specifications
1	Input frequency range	1-2700 MHz	
2	Gain Measurement Range	+ /- 30 dB	
3	Phase Measurement Range	+/- 90 degree	
4	Output Voltage Minimum	30 mV	
5	Output Voltage Maximum	1.8 V	
6	Slew Rate	20 V/µsec	
7	Response Time (Any 15 Degree Change)	40 nsec	
8.	Packaging	Module form (mounted on evaluation PCB)	
	quantity	1	

### 3. Frequency doubler

Sr.No	Descriptions	IPR specification	Vendor specifications
1	Input frequency	7.5 to 22.5 GHz	
2	Output frequency	15 -45 GHz	
3	Typical output power	15 dBm or better	
4	Packaging	Module form (mounted on evaluation PCB)	
5	Standard connectors(Female)	2.92 mm	
6	RF input power	Typical -10 t0 10 dBm	
7	Third harmonic leakage	Typical 30 dBc	
8	Fourth harmonic leakage	Typical 10 dBc	
	quantity	3	

### 4. 10 dB directional coupler

Sr.No	Descriptions	IPR specification	Vendor specifications
1	Typical frequency	1-40 GHz	
	range		
2	Nominal coupling	10+/- 1.0	
3	Frequency	+/- 1.2 dB	
	sensitivity		
4	Typical insertion	1-20 GHz :1.3	
	loss (in dB)	20-40 GHz: 2.0	
5	Typical Directivity	1-20 GHz :14	
	(in dB)	20-40 GHz: 10	
6	Typical VSWR	1-20 GHz :1.5	
		20-40 GHz: 1.7	
7	Standard	2.92 mm	
	connectors(Female)		
	quantity	1	

## Bidder's Official Stamp and sign:

Date: