

Request of quotation for the Vector Signal Generators (up to 6 GHz)

Last date of submission via email: 14th Feb 2021

A request for quotation from **domestic (India-based) manufacturers** for **two** vector signal generators. The quotation should clearly indicate the terms of delivery, delivery schedule, E.D., transportation charges, if any, payment terms etc.

With respect to this tender, the rules laid out by the Government of India in order No. P45021/2/2017-PP (BE-II) issued by the Public Procurement Section, Department of Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, dated 04th June 2020, will be followed. Per this order, the government has defined a 'Class-I local supplier' as "a supplier or service provider, whose goods, services or works offered for procurement, has local content equal to or more than 50%". A 'Class-II local supplier' is "a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%". Only 'Class-I' and 'Class-II' local suppliers are eligible to participate in this open domestic tender. Any 'Non-local supplier', i.e., "a supplier or service provider, whose goods, services or works offered for procurement, has local content less than 20%" is ineligible to participate in this tender.

Please enclose a compliance certificate along with the bid. This certificate should have a table that should describe your compliance in a "Yes" or "No" response against each of the items in the specifications listed below. If "No" the second column should state the extent of deviation. The third column should state the reasons for the deviation if any. Please enclose a compliance statement along with the technical bid. Bids with no statement of compliance will be considered invalid.

General Terms and Conditions:

1. The vendor should have qualified technical service personnel for the equipment based in India (preferably in Bangalore).
2. The lead time for the delivery of the equipment should not be more than 3 months from the date of receipt of our purchase order.
3. The offer shall be valid at-least 90 days from the date of submission of the commercial bid.
4. The vendors quoting should ideally be registered with IISc, and the quote should ideally carry the vendor registration number in the technical bid. Details of vendor registration can be sought by sending an email to vrekha@iisc.ac.in
5. The covering letter in the bid should clearly mention whether the vendor is a 'Class I' local supplier or a 'Class II' local supplier, failing which the vendor will be automatically disqualified.
6. The vendor should indicate the percentage of the local content and provide self-certification that the items offered meet the minimum local content requirement. They should also give details of the location(s) at which the local value addition is made.
7. Address the quotation to The chairman, Depart of Physics, Indian Institute of Science Bangalore. The quotation can be email to vrekha@iisc.ac.in before the last date.

Technical specification of a vector signal generator:

Quantity required – 02

S.N.	Technical specification	Value/Range
1	Frequency Range	950 kHz to 6.075 GHz
2	Stability	< 10 ⁻¹¹
3	Frequency resolution	1 micro-Hz
4	Switching speed	< 10 ms
5	Power Output	-110 dBm to + 16 dBm
6	Power Resolution	0.01 dBm
7	Power accuracy	+ - 1 dB (nominal)
8	Output coupling	Ac, 50 Ohm
9	Reverse protection	30 VDC, +25 dBm RF

10	Spurious < 10 kHz offset	< -65 dBc
11	> 10 kHz offset	<-75 dBc
12	Phase noise 10 Hz offset 1 kHz offset 1 MHz offset	-80 dBc/Hz -102 dBc/Hz -124 dBc/Hz
13	Phase setting	+ - 360 degree
14	Phase resolution	1 degree at maximum frequency
15	External Time base input	10 MHz, 2V (nominal) with 50 Ohm impedance and ac coupled
16	Modulations:	
i	External modulation inputs:	
	Modes	AM, FM, Phase, Pulse, blank
	Modulation input voltage	+ - 1 volt for +- full deviation (nominal)
	Modulation bandwidth	> 100 kHz
	Modulation distortion	< -60 dB
ii	Amplitude modulation	
	Range	0 to 100%
	Resolution	0.1%
	Bandwidth	> 100 kHz
	Modulation source	Internal/External
	Frequency modulation	
	Frequency deviation max	32 MHz at 6 GHz
	Modulation source	Internal or external
	Modulation bandwidth	100 kHz at 6 GHz
iii	Pulse modulation	
	On/off ratio	> 35 dBc in full frequency range
	RF rise/fall time	20 ns
	Modulation source	Internal/External
iv	External IQ modulation	
	Carrier frequency	400 MHz to 6 GHz
	IQ inputs	50 Ohm, +-0.5 Volt
	Full scale	0.5V
	Modulation bandwidth	300 MHz
	I Q input offset	< 500 micro volt
	Carrier suppression	> 35 dBc in full range
v	Pulse Modulation	
	On/off ratio	35 dB at max frequency (nominal)
	Turn on off delay	60 ns
	Modulation source	Internal and external pulse
17	Interface	Ethernet
18	Warranty	1 year