

# DEPARTMENT OF ELECTRICAL ENGINEERING

INDIAN INSTITUTE OF TECHNOLOGY DELHI

Purchase committee Ref: 10724 dated: 26.11.11

## NOTICE INVITING QUOTATIONS

### **Sub: Purchase of 100 MHz. Two Channel Arbitrary /Function Generator**

Sealed quotations are invited for 100 MHz. Two Channel Arbitrary /Function Generator from the authorized dealers/ suppliers/ manufacturers in the sealed envelopes subscribing our reference No. and due date in the name of undersigned.

### **Technical Details**

Specifications for 100 MHz. Two Channel Arbitrary /Function Generator

<b>Cannels</b>	<b>Two</b>
<b>Waveforms</b>	<b>Sine, Square, Pulse, Ramp, Triangle, Sin(x)/x, Exponential Rise and Decay, Gaussian, Lorentz, Haversine, DC, Noise</b>
<b>Sine Wave</b>	<b>1 <math>\mu</math>Hz to 100 MHz</b>
<b>Amplitude Flatness at 100 MHz</b>	<b>+ -0.5 dB</b>
<b><u>Square Wave</u></b>	<b>1 <math>\mu</math>Hz to 50 MHz</b>
<b>Rise/Fall Time</b>	<b>&lt;=5ns</b>
<b>Jitter(rms)</b>	<b>200 ps</b>
<b>Ramp Waveform</b>	<b>1 <math>\mu</math>Hz to 1 MHz</b>
<b>Linearity</b>	<b>&lt;=.15%of peak Output</b>
<b>Symmetry</b>	<b>0% to 100 %</b>
<b>Other Waveforms</b>	<b>1 <math>\mu</math>Hz to 1 MHz</b>
<b>Pulse Wave</b>	<b>1 mHz to 50 MHz</b>
<b>Pulse width</b>	<b>8ns to 999.99s</b>
<b>Resolution</b>	<b>10 ps or 5 bits</b>
<b>Noise Bandwidth</b>	<b>100 MHz</b>
<b>Noise Type</b>	<b>White Gaussian</b>
<b>Repetition time</b>	<b>20 days</b>
<b>DC(into 50 Ohms)</b>	<b>-5v to +5 v</b>
<b>Arbitrary waveform</b>	<b>1 mHz to 50 MHz.</b>
<b>Memory Sampling Rate</b>	<b>1Gs/s</b>
<b>Accuracy</b>	<b>+ -1%</b>
<b>Remote Programming</b>	<b>USB, GPIB</b>
<b>Transition Time</b>	<b>5 ns</b>
<b>Vertical Resolution</b>	<b>14 bits</b>
<b>Effective analog BW</b>	<b>100 MHz</b>

<b>Modulations</b>	<b>AM,FM,PM,FSK,PWM,Sweep,burst</b>
<b>PM Phase Deviation</b>	<b>0 degree to +180 Degrees</b>
<b>FSK Carrier Waveforms</b>	<b>All except Pulse Noise and DC</b>
<b>Source</b>	<b>Internal/External</b>
<b>Internal modulating Freq.</b>	<b>2mHz to 1 MHz. (50% Squire)</b>
<b>PWM Source</b>	<b>Internal/External</b>
<b>Internal modulating Frequency</b>	<b>2 m Hz to 50 KHz</b>
<b>Deviation</b>	<b>0% to 50% of Pulse Period</b>
<b>Sweep Time/Hold/Return Time</b>	<b>10 ms to 100 s</b>
<b>Internal Trigger Period</b>	<b>1 ms to 500 s</b>
<b>Frequency Setting Resolution</b>	<b>1 uHz or 12 digits</b>
<b>Amplitude 50Ω Load</b>	<b>20 mVp-p to 10 Vp-p</b>
<b>DC(into 50 Ohms)</b>	<b>-5v to +5 v</b>
<b>Amplitude Open Circuit</b>	<b>40 mVp-p to 20 Vp-p</b>

**Terms and conditions:**

1. Please submit TECHNICAL and FINANCIAL bids in separate sealed envelopes. Mark the two envelopes clearly as “Technical Bid” and “Financial Bid”. Both the sealed envelopes should be sent in a single sealed envelope clearly marked as “Quotation for “100 MHz. Two Channel Arbitrary /Function Generator . The Quote should reach the following address on or before 19.12.11 Up to 12 Noon.

Prof. Ms. Devi Chadha  
Optical Communication Lab  
Block II Room No. 203  
Department of Electrical Engineering  
IIT Delhi Hauz Khas  
New Delhi 110016

2. Quote should be in Indian rupees .
3. Price quoted should be FOB inclusive of all taxes and duties.
4. VAT and TIN No. of the supplier should be clearly mentioned.
5. If the quote is being submitted by the representative of the principals or manufactures themselves, please attach a valid agency certificate/dealership certificate authorizing the agent to quote on behalf of the manufacturer or principles.
6. If the item quoted is proprietary in nature, please enclose proprietary certificate from the principals stating that “This item is a proprietary item and no other manufacturer makes this item with same specifications.”
7. Produce compliance certificate for technical specifications.

8. The companies who comply with technical specifications in technical bid will be invited for Demonstration of technical features to the committee at its own expenses before issuing of supply order at date and time to be specified.
9. The Financial bid of only those companies who comply with the Technical Specification in Technical bid and satisfactory demonstration of technical features to the committee will be considered.
10. Copy of order already executed for supply of equivalent No. of items may please be enclosed.
11. Complete set of manuals for operation should be given .
12. Complete technical information should be supplied with the quotation. Quotations with in-sufficient details of specifications will not be considered.
13. Mention if you can provide any technical support like training of IIT Delhi personnel at IIT Delhi.
14. The Institute reserves the right to accept or reject any quotation or all quotations without assigning any reasons thereof.
15. Delivery terms must be clearly mentioned,
16. Validity of the quote should be at least for three months
17. A minimum of Three Years comprehensive on site warranty

Prof. Devi Chadha