SATYENDRA NATH BOSE NATIONAL CENTRE FOR BASIC SCIENCES
[Funded by the Department of Science & Technology, Government of India]
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Ref. SNB/ENQ/MP/Acoustic Optic Modulator /13–14/1244-WP 12.11.2013.

Dear Sir,

Sealed quotations are hereby invited for the following items in two parts (Technical and Commercial bids). One large envelope containing two smaller envelopes containing Part A: Technical Bid and Part B: Commercial Bid need to be submitted separately –
Two smaller envelopes should be super-scribed "**Technical Bid**"/"**Commercial Bid**" as the case may be.

Sl. No.	PARTICULARS	Qty.
01. 02.	Acoustic Optic Modulator & RF Drivers for 7.8 micron Acoustic Optic Modulator & RF Drivers for 5.3 micron (Detailed specification is attached herewith)	01 no. 01 no.
Technical bid: should contain complete technical information literature/working manual of the quoted item & authorization certificate of the manufacturer. **Price Bid:** In case of imported item CIF/CIP Kolkata airport price should be mentioned and for indigenous item FOR basis up to S. N. Bose Centre, kolkata may be quoted.		

Note:

1) The quoted price should be inclusive of delivery charges.
2) Validity should be for 90 days from the date of opening.
3) Minimum one (1) year standard onsite warranty is to be provided.
4) Our Payment term is subject to after delivery only.
5) Delivery period should be mentioned in the quotation.
6) Our ref. no. should be mentioned on top of the quotation envelope.
7) Quotation for the above item should reach this office by ***02nd December, 2013***.

Thanking you,
Yours faithfully,

S. K. Singh
AR (Purchase)

Acousto Optic Modulator & RF Drivers for 7.8 micron Specification:

Material	Single Crystal Optical Germanium
Anti Reflection Coating	6 to 9 micron
Static Optical Insertion Loss	<10%
Center Frequency	40 MHz
Frequency Shift Range	30-50 MHz
Active Aperture Height	6 mm
Optical Rise Time	117 nsec /mm Beam Diameter
Beam Separation	5.6 mrad (7.8 micron, 40 MHz)
Bragg Angle	2.8 mrad @(7.8 micron, 40 Hz)
Diffraction efficiency	85%
Optical polarization for best efficiency	Horizontal (Parallel to base)
RF Drive power	18 W @ 7.8 micron
Water cooling	500 ml/min at 20-23 deg C
Input Impedance	50 ohms
RF Connector	BNC
Size : (Less connector)	1.5(38.1)H × 2.97(75.5)D × 2.42(61.5)W Inches(mm)

Modulator Driver Specification: (for above)

Crystal Oscillator Frequency	40 MHz
CW RF output	0-20 Watts for level control Zero to Maximum
Input	Analog (0-20 Watts RF output for 0-1 Volt input)
Extinction ratio (RF ON/RF OFF)	40 dB
Input/output Impedance	50 Ohm (VSWR<1.2:1)
Connectors	BNC
SIZE	4.5(11.5) H× 16.0 (40.7) D × 5.7 (14.5) W Inches (Cm)
Main Power	110/230 V, 50-60 Hz

QTY : 1 (ONE)

Acousto Optic Modulator & RF Drivers for 5.3 micron Specification:

Material	Single Crystal Optical Germanium
Anti Reflection Coating	4.5 to 7 micron
Static Optical Insertion Loss	<5%
Center Frequency	40 MHz
Frequency Shift Range	30-50 MHz
Active Aperture Height	6 mm
Optical Rise Time	117 nsec /mm Beam Diameter
Beam Separation	38.5 mrad*(5.3 micron, 40 MHz)
Bragg Angle	19.3 mrad @(5.3 micron, 40 Hz)
Diffraction efficiency	85%
Optical polarization for best efficiency	Linear (Parallel to base)
RF Drive power	15 W @ 5.3 micron
Water cooling	500 ml/min at 20 deg
Input Impedance	50 ohms
RF Connector	BNC
Size : (Less connector)	1.5(38.1)H × 3.00(76.2)D × 1.3(33)W Inches(mm)

Modulator Driver Specification: (for above)

Crystal Oscillator Frequency	40MHz
CW RF output	0-20 Watts for level control Zero to Maximum
Input	Analog (0-20 Watts RF output for 0-1 Volt input)
Extinction ratio (RF ON/RF OFF)	40 dB
Input/output Impedance	50 Ohm
Connectors	BNC
SIZE	4.5(11.5) H× 16.0 (40.7) D × 5.7 (14.5) W Inches (Cm)

QTY : 1 (ONE)