

CORRIGENDUM: Extension of submission Date

Department of Electrical Engineering

Date: 12.10.2011

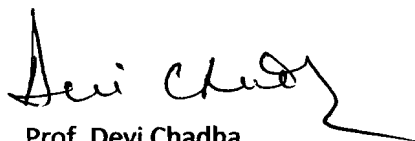
Purchase of Optical Components for Free Space Optical Communication Link

NIQ Reference: IITD/EE/OCL/NPN(05)/BEEN(JOP) dated: 20.9.11

Uploaded on 20/9/11 till 10/10/11

The last date for submission of quotations (Technical and Financial bid) is extended till 4 PM,

Oct 18, 2011. The Technical bids will be opened at 4.30 PM on Oct. 18, 2011.



Prof. Devi Chadha

Prof. Elect, Engineering Deptt

DEPARTMENT OF ELECTRICAL ENGINEERING

INDIAN INSTITUTE OF TECHNOLOGY DELHI

Ref. No. IITD/EE/OCL/NPN(05)/BEEN(JOP)

Date: 20.09.11

NOTICE INVITING QUOTATIONS

Sub: Purchase of Optical components for Free Space Optical Communication Link

Sealed quotations are invited for : **Purchase of Optical components for Free Space Optical Communication Link** from the authorized dealers/ suppliers/ manufacturers in the sealed envelopes subscribing our reference No. and due date in the name of undersigned.

Technical Details

NIQ for : Optical components for Free Space Optical Communication Link

Refer: Enclosure as per Appendix I for detailed specs of the products.

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 **:Optical components for Free Space Optical Communication Link**. The project is a turnkey project and Lowest bidder will be decided on the basis of total cost of equipment plus installation charges.
2. The Quote should reach the following address on or before 10-10-11 Up to 4 PM

Prof. Ms. Devi Chadha
Optical Communication Lab
Block II Room No. 203
Department of Electrical Engineering
IIT Delhi Hauz Khas
New Delhi 110016
3. Quote should be valid for atleast three months.
4. Price quoted should be FOB inclusive of all taxes and duties.
5. VAT and TIN No. of the supplier should be clearly mentioned.
6. 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.
7. Produce compliance certificate for technical specifications.

Kindly put the NIQ with specification attached on IIT D website.

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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. Commercial bid must include clearly applicable taxes, Delivery Schedule, Quotation validity, warranty and payment terms.
11. Bidder/supplier would be fully responsible for installation of the above equipment. Appropriate wires, industrial plugs, tops etc. needed for installation would be provided by the supplier
12. The bidder must be a manufacturer or authorized service provider capable of providing technical Service and repair of the product.
13. The product must be ISO certified.
14. The Institute reserves the right to accept or reject any quotation or all quotations without assigning any reasons thereof.



Prof. Devi Chadha
Prof EED

S.No	Nomenclature	Qty	Specifications																										
1	SM Fiber coupled Laser Source	01	<ul style="list-style-type: none"> Wavelength: 1550 nm Power: 1.5 mW Configuration: D Pin Code Fiber: SM Fiber Pigtailed Laser Diode Fiber connectors: FC/PC 																										
2	Mount	01	LD/TEC Mount for Fiber-Pigtailed Laser Diodes <table border="1"> <tr> <td>Laser Current (Max)</td> <td>2 A</td> </tr> <tr> <td>Laser Diode Polarity</td> <td>Selectable</td> </tr> <tr> <td>Monitor Diode Polarity</td> <td>Selectable</td> </tr> <tr> <td>RF Power (Max)</td> <td>200 mW, RMS</td> </tr> <tr> <td>RF Input Impedence</td> <td>50 Ω</td> </tr> <tr> <td>Modulation Frequency (Bias-T)</td> <td>200 kHz to >1 GHz</td> </tr> <tr> <td>TEC Current (Max)</td> <td>5 A</td> </tr> <tr> <td>TEC Voltage (Max)</td> <td>4 V</td> </tr> <tr> <td>TEC Heating/ Cooling Capacity</td> <td>20 W</td> </tr> <tr> <td>TEC Interface</td> <td>DB9, Male</td> </tr> <tr> <td>Temperature Sensor</td> <td>AD592, 10 k Thermistor</td> </tr> <tr> <td>Temperature Range (@25 °C w/ 2 A TEC Current)</td> <td>10 to 70 °C</td> </tr> <tr> <td>Remote Interlock</td> <td>2.5 mm Phono Jack</td> </tr> </table>	Laser Current (Max)	2 A	Laser Diode Polarity	Selectable	Monitor Diode Polarity	Selectable	RF Power (Max)	200 mW, RMS	RF Input Impedence	50 Ω	Modulation Frequency (Bias-T)	200 kHz to >1 GHz	TEC Current (Max)	5 A	TEC Voltage (Max)	4 V	TEC Heating/ Cooling Capacity	20 W	TEC Interface	DB9, Male	Temperature Sensor	AD592, 10 k Thermistor	Temperature Range (@25 °C w/ 2 A TEC Current)	10 to 70 °C	Remote Interlock	2.5 mm Phono Jack
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3	Benchtop Laser Diode/TEC Controller	01	Benchtop Laser Diode/TEC Controller, 1 A / 96 W <table border="1"> <tr> <td>Current Control Range</td> <td>0 to 1 A</td> </tr> <tr> <td>Compliance Voltage</td> <td>>10 V</td> </tr> <tr> <td>Photocurrent Measurement Ranges</td> <td>2 mA / 20 mA</td> </tr> <tr> <td>QCW* Mode Pulse Width Range</td> <td>100 μs to 1 s</td> </tr> <tr> <td>QCW* Repetition Rate Range</td> <td>1 ms to 5 s (0.2 to 1000 Hz)</td> </tr> <tr> <td>TEC Current Range</td> <td>-8 to 8 A</td> </tr> <tr> <td>TEC Compliance Voltage</td> <td>>12V</td> </tr> <tr> <td>TEC Output Power Max</td> <td>>96 W</td> </tr> <tr> <td>Temperature Range Max</td> <td>-55 to 150 °C **</td> </tr> <tr> <td>Supported Temperature Sensors</td> <td>Thermistors, Pt100, Pt1000, AD590, AD592, LM335, LM235, LM135, LM35</td> </tr> </table>	Current Control Range	0 to 1 A	Compliance Voltage	>10 V	Photocurrent Measurement Ranges	2 mA / 20 mA	QCW* Mode Pulse Width Range	100 μ s to 1 s	QCW* Repetition Rate Range	1 ms to 5 s (0.2 to 1000 Hz)	TEC Current Range	-8 to 8 A	TEC Compliance Voltage	>12V	TEC Output Power Max	>96 W	Temperature Range Max	-55 to 150 °C **	Supported Temperature Sensors	Thermistors, Pt100, Pt1000, AD590, AD592, LM335, LM235, LM135, LM35						
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4	Modulation Bias T	02	Laser Diode Bias-T PCB Modulation frequencies: 10 KHz – 1 GHz																										
5	Collimator with FC connector	01	Wavelength: 1550 nm Focal length of lens (f): 4.67 mm NA = 0.53 Package: FC/PC Fiber Collimation Pkg.																										
6	Collimator with FC connector	01	Wavelength: 1550 nm Focal length of lens (f): 8.18 mm NA = 0.49																										

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		Package: FC/PC Fiber Collimation Pkg.		
7	Collimator adaptor	02	SM1 Adapter for Ø11 mm Collimators – Appropriate for the above Collimators	
8	Detector	01	Optical Input	Free-Space
			Supply Voltage	+8 to +20 V
			Current Consumption	250 mA
			Max. Incident Power	2 mW
			Operating Temperature	10 to 40 °C
			Wavelength Range ^b	850 - 1650 nm
			Detector Diameter	0.04 mm
			Frequency Range	1 to 1800 MHz
			3 dB Bandwidth	10 to 1000 MHz
			Rise Time	0.5 ns
			Gain Setting 1 ^c	5 x 10 ⁴ V/W
			Gain Setting 2 ^c	5 x 10 ² V/W
			Dark State Noise Level ^d	-90 dBm
			NEP (Calculated)	16.6 pW/(Hz ^{1/2})
			Output Connector	SMA
			Output Impedance	50 Ω
			Device Dimensions	60 mm x 50 mm x 27 mm
			Output Coupling	AC
			General	
			On : Off Switch	Slide
			Battery Check Switch	Momentary Pushbutton
			Output	BNC (DC Coupled)
			Package Size	2.8" x 1.9" x 0.83" 70mm x 48mm x 21mm
			PD Surface Depth	0.07" (1.9mm)
			Weight	0.2 lbs
			Accessories	SM1T1 Coupler SM1RR Retainer Ring
			Storage Temp	-25 to 70°C
Operating Temp	10 to 50°C			
Battery	A23 12V _{DC} 40mAh			
Low Battery Voltage ³	(See 'Battery Check')			
V _{out} (Hi-Z)	-9V			
V _{out} (50Ω)	-400mV			

Durcath

9	PTZ stage	01	PT Series	
			Travel	1.0" (25 mm)
			Configuration	Left- or Right-Handed
			Orthogonality	<5 mrad
			Angular Deviation	<250 μ Rad
			PT1 (PT1/M) Micrometer	
			Resolution	0.025" (500 μ m) Translation per Revolution
			Coarse Range	1" (25 mm)
			Fine Resolution	0.001" (25 μ m) Translation per Revolution
			Fine Range	0.01" (250 μ m)
			Max Load	
			Vertical	20 lbs (~9 kg)
			Horizontal	90 lbs (~41 kg)
Bearing Type	Ball on Hardened V-Grooves			
10	Laser Source focusable	01	Wavelength	635 nm
			Power	4.5 mW
			Safety Class	3R
			Beam Shape	Elliptical, Focusable
			Beam Profile	CPS196 - Collimated Beam Profile
			Housing	\varnothing 11 mm x 46 mm
11	Power Supply	01	5 VDC Regulated Power Supply for the above laser	
12	VIS/IR Viewing Card	01	Absorption band: 400 - 640 nm, 800 - 1700 nm Emission band: ~580 - 750 nm Active region: 31.8 mm x 54 mm	
13	BNC Cable	01	both end male 24 inch length, operating frequency range upto 2.5Ghz min	
14	BNC Cable	01	Male to Female, 24 inch length, operating frequency range upto 2.5Ghz min	
15	BNC termination	02	BNC termination with Dual BNC female connector terminated into twin pin connector	
16	Variable Optical Attenuator	01	Operating Wavelength: 1200 to 1600 nm	
			Fiber: SMF-28e or Equivalent	
			Attenuation Range: 1.5 - 50 dB	
			Attenuation Resolution: \leq 0.1 dB	
			Back Reflection (Return Loss): >55 dB	
			Polarization Sensitivity: \leq 0.2 dB	
			Optical Power: \leq 300 mW	
			Thermal Stability: \leq 0.03 dB/ $^{\circ}$ C	
Operating Temperature: 0 to 60 $^{\circ}$ C				

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