



National Institute of Standards and Technology

## **Specifications Document**

### **Bandpass Filters**

#### **NB687050-16-04476**

#### **BACKGROUND**

The mission of the Quantum Electromagnetics Division (Div 687) is to provide industry, and its suppliers and customers, with comprehensive and technically advanced measurement capabilities and standards, as well as traceability to those standards. A NIST research program on “Advanced Metrology for Greenhouse Gas Monitoring” has major measurement challenges in the development and validation of Differential Absorption LIDAR (DIAL) system to monitor and quantify the 3D concentration profiles and flux of the greenhouse gases, CO<sub>2</sub> and CH<sub>4</sub>.

#### **PURPOSE**

Remote sensing measurements of the greenhouse gas, CO<sub>2</sub>, in the atmospheric window region at 1602.0 nm are needed to be performed during daytime hours. These measurements require detection of light scattering from aerosol particles in the open atmosphere or from distant scattering from surfaces over km ranges. In both cases, the light levels for detection are so small that photon counting detection is required. During daytime operation, the solar flux into our receiver is enough to swamp any backscatter signal we receive unless a narrow bandpass filter is used to screen out a large fraction of the solar radiation.

#### **DELIVERABLES**

The contractor shall deliver at a minimum of two (2), but Not to Exceed (NTE) six (6) bandpass filters. These filters must pass a narrow band of radiation with high efficiency (> 90%) centered near the wavelength of 1602.0 nm of the transmitting laser.

#### **TECHNICAL SPECIFICATIONS:**

1. Bandpass wavelength range: 1602.0 nm  $\pm$  0.4 nm
2. Bandpass width (full width at half maximum): 2.0  $\pm$  0.4 nm
3. Bandpass efficiency: > 90 % over the bandpass wavelength range
4. Out-of-band blocking range: 1602.0  $\pm$  50 nm
5. Out-of-band blocking optical density: 4
6. Filter size: 1.0 inch diameter and 0.25 inch thickness
7. Surface flatness: 1602 nm /10
8. Surface quality: 80/50 scratch dig
9. Material: UV grade fused silica
10. Number of filters needed: 2
11. Option to provide additional filters will be considered

#### **TECHNICAL CONSIDERATIONS**

None

**GOVERNMENT FURNISHED PROPERTY OR INFORMATION**

None

**DELIVERABLE SCHEDULE**

The contractor shall deliver no later than twelve (12) weeks after receipt of order (ARO)

**INSPECTION AND ACCEPTANCE**

The NIST Technical Point-of-Contact (TPOC) will test all of the specifications listed above within ten (10) days of receipt.

Please acknowledge receipt of this Request for Quotation (RFQ). Please indicate via email if you decline to provide a quote.

The National Institute of Standards and Technology (NIST) has a requirement for at a minimum two, but Not to Exceed (NTE) six Bandpass Filters.

Attached are the Specifications for solicitation #: NB687050-16-04476. NIST requires that your organization submit a quote for the Bandpass Filters that meets all of the requirement(s).

This RFQ is unrestricted and conducted under the authority of FAR 13 Simplified Acquisitions, with NAICS code 334419, having a Small Business Size Standard of 750 employees.

All communications and documents must include the solicitation #: NB687050-16-04476. Please email your quote to Marc Zurasky, Contract Specialist, at [marc.zurasky@nist.gov](mailto:marc.zurasky@nist.gov).

This solicitation shall close on August 18, 2016, at 03:00 p.m. Mountain Time. Your quote must meet all of the requirements of FAR 52.212-1, as well as include the following information:

- Information sufficient to demonstrate you can meet or exceed the requirements in the Specifications.
- Firm fixed price quote for the Bandpass Filters.
- Payment Terms: Net 30.
- The requested delivery is 12 weeks after receipt of the order (ARO). FOB Destination for delivery to NIST, 325 Broadway, Boulder, CO 80305. Delivery point of contact will be provided upon award.
- Company DUNS No. In order to be eligible for this award, the quoter must have an active and valid System for Award Management registration at [www.sam.gov](http://www.sam.gov), and have completed the Representations and Certifications therein for the specified NAICS code, or submit separate Representations and Certifications if the specified NAICS code is not listed in their SAM registration.

The provision at FAR 52.212-1, Instructions to Offerors—Commercial, applies to this acquisition. Quoter shall clearly demonstrate their ability to meet the technical requirements and deliverable schedule as outlined in this solicitation. Quote shall include shipping cost. However, NIST reserves the right to ship under NIST provided account.

#### **BASIS OF AWARD:**

Award shall be made to the Lowest Priced Technically Acceptable (LPTA) quote, based upon the technical specifications as detailed within the attached Specifications document. This will be a firm fixed price purchase order.

The Government intends to evaluate quotations and issue a purchase order based on the initial quotations received. Therefore, the quoter's initial quotation should contain the quoter's best terms from a price and technical standpoint. The Government reserves the right to request revised quotations from, or negotiate final purchase order terms with, one or more, but not all, quoters if later determined by the Contracting Officer to be necessary. However, the Contracting Officer will not establish a competitive range, conduct discussions, or otherwise use the procedures described at FAR 15.306. The Government

may reject any or all quotations if such action is in the public interest; and issue a purchase order to other than the quoter with the lowest priced quotation.

#### TECHNICAL CAPABILITY:

Evaluation of Technical Capability will be based on the information provided in the quotation.

Documentation submitted in the quotation shall be evaluated to determine that the proposed equipment meets or exceeds the Government's minimum required specifications. Failure to clearly and unambiguously demonstrate this will result in an "unacceptable" technical rating.

#### PRICE:

Price shall be evaluated for reasonableness.

FAR 52.212-2, Evaluation - Commercial Items, applies to this acquisition. The Government will award a fixed price contract to the Lowest Price Technically Acceptable (LPTA) quote, based upon the technical specifications as detailed within the attached statement of work.

FAR 52.212-3, Offeror Representations and Certifications -- Commercial Items. The quoter must have completed the Online Representations and Certifications Application (ORCA), which must be uploaded to the System for Award Management (SAM) at [www.sam.gov](http://www.sam.gov).

FAR 52.212-4, Contract Terms and Conditions -- Commercial Items, applies to this acquisition.

FAR 52.212-5, Contract Terms and Conditions Required to Implement Statutes or Executive Orders -- Commercial Items applies to this acquisition. Additional FAR 52.212-5 clauses cited in the clause applicable to this acquisition are:

52.219-28, Post Award Small Business Program Representation  
52.222-3, Convict Labor  
52.222-19, Child Labor – Cooperation with Authorities and Remedies  
52.222-21, Prohibition of Segregated Facilities  
52.222-26, Equal Opportunity  
52.222-50, Combating Trafficking in Persons  
52.223-18, Contractor Policy to Ban Text Messaging While Driving  
52.225-1, Buy American Act-Supplies  
52.225-13, Restrictions on Certain Foreign Purchases  
52.232-33, Payment by Electronic Funds Transfer

#### FAR 52.252-1, Solicitation Provisions Incorporated by Reference:

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The quoter is cautioned that the listed provisions may include blocks that must be completed by the quoter and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the quoter may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es): at <http://acquisition.gov/comp/far/index.html> and [http://www.osec.doc.gov/oam/acquisition\\_management/policy/default.htm](http://www.osec.doc.gov/oam/acquisition_management/policy/default.htm)

FAR 52.225-18 – Place of Manufacture.

FAR 52.232-15, Progress Payments Not Included.

CAR 1352.233-70, Agency Protests

CAR 1352.233-71, GAO and Court of Federal Claims Protests

FAR 52.252-2, Clauses Incorporated by Reference:

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

<http://acquisition.gov/comp/far/index.html> and

[http://www.osec.doc.gov/oam/acquisition\\_management/policy/default.htm](http://www.osec.doc.gov/oam/acquisition_management/policy/default.htm)

FAR 52.232-40, Providing Accelerated Payments to Small Business Subcontractors.

FAR 52.247-34, FOB Destination

CAR 1352.201-70, Contracting Officer's Authority

CAR 1352.209-73, Compliance with the Laws

CAR 1352.209-74, Organizational Conflict of Interest

CAR 1352.246-70, Place of Acceptance (APR 2010)

(a) The Contracting Officer or the duly authorized representative will accept supplies and services to be provided under this contract.

(b) The place of acceptance will be:

NIST

Shipping and Receiving

325 Broadway

Boulder, CO 80305

#### NIST LOCAL-04 BILLING INSTRUCTIONS

(a) NIST prefers electronic Invoice/Voucher submissions and they should be emailed to [INVOICE@NIST.GOV](mailto:INVOICE@NIST.GOV).

(b) Each Invoice or Voucher submitted shall include the following: (1) Contract Number. (2) Contractor Name

and Address. (3) Date of Invoice. (4) Invoice Number. (5) Amount of Invoice and Cumulative Amount Invoiced to-date. (6) Contract Line Item Number (CLIN). (7) Description, Quantity, Unit of Measure, Unit Price, and Extended Price of Supplies/Services Delivered. (8) Prompt Payment Discount Terms, if Offered. (9) Any other information or documentation required by the contract.

(c) In the event electronic submissions are not used, The Contractor shall submit an original invoice or voucher in accordance with the payment provisions of this contract to:

NIST

Accounts Payable Office

100 Bureau Drive, Mail Stop 1621

Gaithersburg, MD 20899-1621

#### NIST LOCAL - 39, NIST LOCAL-39 MARKING/PACKING INSTRUCTIONS

(1) If the total contract/order includes multiple quantities of the same or like item(s), segregated as separate CLIN/Item numbers, deliverables shall be packed accordingly. Each individual Package / container in the shipment shall include deliverables on a per-CLIN or Item basis.

- (2) For each shipment made under this contract/order, the Contractor shall furnish itemized packing list(s), enumerating the specific contents of each shipping container and what specific individual components constitute a full and complete "unit" for each bid item. The packing list shall include the brief description of each item found in the Schedule. If more than one container is required for each unit, each container should be marked accordingly, e.g., "Box 1 of 2," "Box 2 of 2," and the boxes, where feasible, should be taped or shrink-wrapped together as an issuable unit.
- (3) The contract number AND CONTRACT LINE ITEM NUMBER (CLIN) OR ORDER ITEM NUMBER shall be placed on the exterior of all containers.