# SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS
***OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, & 30***

1. REQUISITION NUMBER: NB673000-26-01968



2. CONTRACT NO.

3. AWARD/EFFECTIVE DATE

4. ORDER NUMBER

5. SOLICITATION NUMBER: 1333ND26QNB670444

6. SOLICITATION ISSUE DATE

7. FOR SOLICITATION INFORMATION CALL:

a. NAME: COLLIN RANDALL
collin.randall@nist.gov

b. TELEPHONE NUMBER *(No collect calls)*: 301-975-6728

8. OFFER DUE DATE/ LOCAL TIME: AUG 14, 2026 12:00 PM ET

9. ISSUED BY CODE 000SB

NATIONAL INST OF STDS AND TECHNOLOGY
100 BUREAU DRIVE STOP 1640
BUILDING 301 ROOM B129
GAITHERSBURG MD 20899-1640

10. THIS ACQUISITION IS
- [X] SMALL BUSINESS
- [ ] HUBZONE SMALL BUSINESS
- [ ] SERVICE-DISABLED VETERAN-OWNED SMALL BUSINESS
- [ ] UNRESTRICTED OR
- [X] SET ASIDE: 100 % FOR:
- [ ] WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOMEN-OWNED SMALL BUSINESS PROGRAM
- [ ] EDWOSB
- [ ] 8 (A)

NAICS: 334220

SIZE STANDARD:

11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED
- [ ] SEE SCHEDULE

12. DISCOUNT TERMS

- [ ] 13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)

13b. RATING

14. METHOD OF SOLICITATION
- [X] RFQ
- [ ] IFB
- [ ] RFP

15. DELIVER TO CODE 000004

NATIONAL INST OF STDS AND TECHNOLOGY
BUILDING 301 SHIPPING AND RECEIVING
100 BUREAU DRIVE
GAITHERSBURG MD 20899-0001

16. ADMINISTERED BY CODE

17a CONTRACTOR/ OFFEROR. CODE FACILITY CODE

TELEPHONE NO.

18a. PAYMENT WILL BE MADE BY CODE

- [ ] 17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER

18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a UNLESS BLOCK BELOW IS CHECKED
- [ ] SEE ADDENDUM

| 19. ITEM NO. | 20. SCHEDULE OF SUPPLIES/SERVICES | 21. QUANTITY | 22. UNIT | 23. UNIT PRICE | 24. AMOUNT |
|---|---|---|---|---|---|
| Please | see continuation page for line item details. *(Use Reverse and/or Attach Additional Sheets as Necessary)* | | | | |

25. ACCOUNTING AND APPROPRIATION DATA
See Schedule

26. TOTAL AWARD AMOUNT *(For Govt. Use Only)*

- [ ] 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1, 52.212-4. FAR 52.212-3 AND 52.212-5 ARE ATTACHED. ADDENDA [X] ARE [ ] ARE NOT ATTACHED
- [ ] 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4. FAR 52.212-5 IS ATTACHED. ADDENDA [ ] ARE [ ] ARE NOT ATTACHED

- [X] 28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN 1 COPIES TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED

- [ ] 29. AWARD OF CONTRACT: REF. _____ OFFER DATED _____. YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, IS ACCEPTED AS TO ITEMS:

30a. SIGNATURE OF OFFEROR/CONTRACTOR

31a. UNITED STATES OF AMERICA *(SIGNATURE OF CONTRACTING OFFICER)*

30b. NAME AND TITLE OF SIGNER *(Type or print)*

30c. DATE SIGNED

31b. NAME OF CONTRACTING OFFICER *(Type or print)*

31c. DATE SIGNED

| 19. ITEM NO. | 20. SCHEDULE OF SUPPLIES/SERVICES | 21. QUANTITY | 22. UNIT | 23. UNIT PRICE | 24. AMOUNT |
|---|---|---|---|---|---|
| | | | | | |

32a. QUANTITY IN COLUMN 21 HAS BEEN

☐ RECEIVED ☐ INSPECTED ☐ ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED: _____

| 32b. SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE | 32c. DATE | 32d. PRINTED NAME AND TITLE OF AUTHORIZED GOVERNMENT REPRESENTATIVE |
|---|---|---|
| 32e. MAILING ADDRESS OF AUTHORIZED GOVERNMENT REPRESENTATIVE | | 32f. TELPHONE NUMBER OF AUTHORZED GOVERNMENT REPRESENTATIVE<br>32g. E-MAIL OF AUTHORIZED GOVERNMENT REPRESENTATIVE |

| 33. SHIP NUMBER | 34. VOUCHER NUMBER | 35. AMOUNT VERIFIED CORRECT FOR | 36. PAYMENT | 37. CHECK NUMBER |
|---|---|---|---|---|
| PARTIAL FINAL | | | ☐ COMPLETE ☐ PARTIAL ☐ FINAL | |
| 38. S/R ACCOUNT NO. | 39. S/R VOUCHER NUMBER | 40. PAID BY | | |

| 41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT | | 42a. RECEIVED BY *(Print)* | |
|---|---|---|---|
| 41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER | 41c. DATE | 42b. RECEIVED AT *(Location)* | |
| | | 42c. DATE REC'D *(YY/MM/DD)* | 42d. TOTAL CONTAINERS |

# Request for Quotations
# Software-Defined Radio (SDR)

This is a request for a Firm Fixed Price quotation for commercial products. This solicitation is issued in accordance with the Revolutionary FAR Overhaul (RFO) Part 12 - Acquisition of Commercial Products and Commercial Services as supplemented with additional information included in this notice.

This solicitation is a Request for Quotation (RFQ). The solicitation document and incorporated provisions and clauses are those in effect through the RFO.

The associated North American Industrial Classification System (NAICS) code for this procurement is 334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing. The small business size standard of 1,250 employees. This is a total small business set-aside competition. Only small businesses under the applicable NAICS code are eligible to respond.

## DESCRIPTION OF REQUIREMENTS

**Non-Competitive (Single-sole Source (Including Brand-Name)) Determination:**
NIST Wireless Networks Division's existing 5G/6G and Open RAN (O-RAN) research platform was designed, integrated, and validated using National Instruments (NI) hardware and software. The testbed relies on NI PXI instrumentation, RF transceivers, synchronization hardware, drivers, and software interfaces that are fully integrated with the division's open-source research framework. Substituting another manufacturer's equipment would require extensive software redevelopment, hardware integration, driver modifications, system recalibration, and comprehensive testing to establish compatibility with the existing research platform.

Failure to procure compatible National Instruments equipment will prevent the Wireless Networks Division from maintaining and expanding its existing 5G/6G and O-RAN research platform. The inability to maintain compatibility with the current testbed would disrupt ongoing experiments, reduce research productivity, and adversely impact NIST's mission to advance measurement science and next-generation wireless communication technologies.

Objectives
The purpose of this acquisition is to procure a High-Performance SDR, equivalent to the USRP X420.

Scope of Work
Please see the attached Requirements Document.

## PERIOD OF PERFORMANCE / DELIVERY REQUIREMENTS
The Contractor shall deliver all requirements within 75 days after receipt of order. All required items shall be delivered FOB Destination.

**CONTRACT TYPE & PAYMENT TERMS**
A firm fixed price purchase order is anticipated.

**APPLICABLE PROVISIONS AND CLAUSES**
Please see the attached document for applicable provisions and clauses.

***Addendum to FAR 52.212-1, Instructions to Offerors – Commercial Products and Commercial Services (DEVIATION April 2026):***

**QUESTION AND ANSWER PERIOD**

CAR 1352.215-73 INQUIRIES (APR 2010):

Quoters must submit all questions concerning this solicitation in writing electronically to Mr. Collin Randall, Contract Specialist, at Collin.Randall@nist.gov and Ms. Lauren Roller, Contract Officer, at lauren.roller@nist.gov **Questions must be received by or before Friday August 7, 2026, at 10:00 AM ET**. Any responses to questions will be made in writing, without identification of the questioner, and will be included in an amendment to the solicitation. Even if provided in other form, only the question responses included in the amendment to the solicitation will govern performance of the contract.

(End of Provision)

**DUE DATE FOR QUOTATIONS**

All quotations must be submitted via email to Mr. Collin Randall, Contract Specialist, at Collin.Randall@nist.gov and Ms. Lauren Roller, Contract Officer, at lauren.roller@nist.gov. Submission must be received not later than **Friday August 14, 2026, at 12:00 PM ET**.

*Note: Quoters must have an active registration at www.SAM.gov at time of offer submission to be considered for award. "ID Assigned" is not acceptable; registration must be "Active."*

*Please reference the RFQ number in the subject line of all email communications. Quotations shall not be deemed received by the Government unless the quotation is received in the e-mail inboxes set forth above by the required date and time.*

**INSTRUCTIONS TO QUOTERS**

Quotations shall be submitted electronically via email and shall consist of two volumes as detailed below. Each quotation volume shall include the Quoter's name, System for Award Management Unique Entity Identifier (UEI) number, and point of contact information in a cover page, header/footer, or other easily identified location.

The Quoter's quotation shall be clearly divided into the following distinct volumes:

Volume I – Technical Quotation

Volume II – Price Quotation

**Volume I: Technical Response**

The Quoter shall submit one (1) copy of their technical response electronically via E-mail to the Contract Specialist and Contracting Officer identified above. The technical response shall not exceed five (5) single-spaced, single sided pages. Text shall be no less than 12-point font in read-only Microsoft Word or searchable Adobe PDF format. The technical quotation shall address the following:

a) Technical description and/or product literature. Quoters shall include the manufacturer, make and model of the quoted product(s), manufacturer sales literature, or other product literature that CLEARLY DOCUMENTS that the quoted products meet or exceed all specifications outlined in the Statement of Requirements. The quoter is responsible for ensuring the submitted documentation clearly addresses all specifications and requirements. **The quoter must not simply state they will meet or exceed the requirement; evidence must be provided.**

b) A completed copy of the SF 1449 signed (fill-in areas are highlighted in yellow)

c) Country of origin of all manufactured end products quoted

d) If applicable, evidence that the quoter is authorized by the manufacturer to sell the item(s) in the quotation.

e) Confirmation of the quoter's ability to meet the required delivery terms.

f) Confirmation of the quoter's ability to meet warranty requirements.

**Volume II: Price Quotation**

The quoter shall submit one (1) copy of their price quotation electronically via E-mail to the Contract Specialist and Contracting Officer identified above. The price quotation shall address, at minimum, the following information:

a) The solicitation number

b) The name, phone number, and email address of the quoter's/contractor's point of contact;

c) Unique Entity Identifier # for quoter's/contractor's active SAM.Gov registration.

d) A firm fixed price for each required line item, including a unit price and total amount where applicable, and the aggregate quoted firm fixed price for the requirement.

e) FOB Destination Shipping and Delivery costs must be included in the quotation either as a separate line item or contained in the total price of the quote. The quotation shall include a total firm fixed price for the requirement that includes all shipping/delivery costs

f) Any applicable discount terms.

Quoters that are proposing products manufactured outside of the United States must identify any other or unknown charges that may be applicable to the sale of these products as a separate line item. This price element may be listed as part of the cost of the product or as a sub-total element but must be clearly identified. This price element must only apply to the total value of the goods identified for customs processing. Only include the country of origin and the tariff percentage currently in place or the expected amount at time of delivery for that country. Price quotes shall clearly identify the relevant tariffs in terms of percentage and total cost. If there are multiple countries of origins and associated tariffs, identify each separately.

***FAR 52.212-2 Evaluation- Commercial Products and Commercial Services (DEVIATION Jan 2026)***

(a) *Evaluation factors.* The Government will award a contract resulting from this solicitation to the responsible Quoter whose quotation, conforming to the solicitation, is the lowest price technically acceptable quotation.

The Government intends to award a single firm fixed price purchase order (PO) from this solicitation utilizing FAR part 12 of the Revolutionary FAR Overhaul. The Government reserves the right not to award a PO and to make an award based solely upon initial quotes.

**Basis for Award:**

This requirement will be evaluated on the basis of Lowest Price Technically Acceptable (LPTA). Award will be made to the Quoter who submits a technically acceptable quotation at the lowest price amongst competitive quotations. A quotation will be determined technically acceptable if it meets the following criteria:

(1) Technical Capability: The Quoter must indicate in its quotation the ability to provide all minimum requirements identified in the Requirements document, as well as warranty requirements.

(2) Schedule: The Quoter must indicate in its quotation the ability to meet the delivery requirements of 75 days ARO. Additionally, delivery must clearly be on an F.O.B Destination (or equivalent INCO Terms) basis and inclusive of all costs associated with delivery to NIST.

A quoter's failure to address any factor may be considered indicative of the quoter's lack of understanding of the Government's requirements and may result in the offer being determined unacceptable.

## SCHEDULE Continued

| ITEM NO. | SUPPLIES/SERVICES | QUANTITY | UNIT | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 0001 | Software Defined Radio in accordance with the attached NIST Requirements | **1.00** | LO | _____ | _____ |

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**REQUIREMENTS DOCUMENT**

**Title: High-Performance Software-Defined Radio (USRP X420)**

**I. BACKGROUND INFORMATION**

The Wireless Network Division at the National Institute of Standards and Technology (NIST) is seeking a High-Performance Software-Defined Radio (SDR) and associated connectivity cards to enhance and expand the capabilities of the existing open-source 5G/6G and Open RAN (O-RAN) research testbed supporting the laboratory's wireless communications research program. This acquisition is essential for conducting high-fidelity scientific research, validating resilient communication frameworks, and maintaining research leadership in next-generation wireless technologies, O-RAN, Mission Critical Communications (MCC), device-to-device (D2D) communications, and emerging public safety communication standards.

**II. PURPOSE**

The purpose of this acquisition is to procure a High-Performance SDR, equivalent to the USRP X420, meeting the minimum technical requirements specified herein.

**Period Of Performance/Delivery Requirements**
75 days After Receipt of Order (ARO)

**I. MINIMUM REQUIREMENTS**

The Contractor shall provide a system that meets all technical specifications identified below. All items must be new. **Used or remanufactured equipment will not be considered for award. Experimental, prototype, or custom items will not be considered. The use of "gray market" components not authorized for sale in the U.S. by the Contractor is not acceptable.** All line items shall be shipped in the original manufacturer's packaging and include all original documentation and software, when applicable.

The Contractor shall provide one (1), commercially available High-Performance Software-Defined Radio (SDR) equivalent to the USRP X420. The contractor shall include all required power supplies, cables, accessories, software, firmware, and documentation necessary for full operation.

**Line Item 0001:** High-Performance SDR
**Description:** High-Performance Software-Defined Radio (SDR), equivalent to USRP X420, shall meet the following minimum specifications:

- Frequency range: 10 MHz to 20 GHz
- Instantaneous bandwidth: Up to 1 GHz
- Two (2) transmit (TX) and two (2) receive (RX) channels
- Multi-channel phase coherency with independent LO sharing supported for each channel
- 5G NR RX EVM of < -35 dB at 7 GHz
- AMD Zynq UltraScale+ RFSoC ZU28DR-2 FPGA
    - 12-bit ADC, 14-bit DAC
    - IQ sample clock rates up to 500 MS/s

    - Onboard SD-FEC, DDC, and DUC
    - Quad-core ARM Cortex-A53 CPU up to 1.2 GHz
    - Dual-core ARM Cortex-A5 MPCore up to 500 MHz
- Two (2) QSFP28 ports supporting 10 Gigabit Ethernet, 100 Gigabit Ethernet, and Aurora
- Two (2) iPass+™ zHD® interfaces supporting PCIe Gen3 x8
- RJ45 (1 GbE) interface
- External RX and TX LO input ports
- 10 MHz clock reference input
- PPS time reference
- Trigger In/Out interface
- Built-in GPSDO
- Two (2) FPGA-programmable GPIO interfaces (HDMI) supporting 2 × 12 lanes and SPI protocol
- One (1) USB Type-C host port
- One (1) USB Type-C port supporting serial console and JTAG

**Quantity: 1**

- **Technical Specifications**

  The SDR system shall meet the following minimum requirements:

- Frequency range: 10 MHz to 20 GHz.
- Instantaneous bandwidth: Up to 1 GHz.
- Two (2) transmit (TX) and two (2) receive (RX) channels.
- Multi-channel phase coherency with independent local oscillator (LO) sharing supported for each channel.
- 5G NR RX EVM performance of less than -35 dB at 7 GHz.
- AMD Zynq UltraScale+ RFSoC ZU28DR-2 FPGA, including:
    a. 12-bit ADC and 14-bit DAC.
    b. IQ sample clock rates up to 500 MS/s.
    c. Onboard SD-FEC, DDC, and DUC functionality.
    d. Quad-core ARM Cortex-A53 processor up to 1.2 GHz.
    e. Dual-core ARM Cortex-A5 MPCore processor up to 500 MHz.
- Connectivity interfaces:
    a. Two (2) QSFP28 ports supporting 10 Gigabit Ethernet, 100 Gigabit Ethernet, and Aurora protocols.
    b. Two (2) iPass+™ zHD® interfaces supporting PCIe Gen3 x8.
    c. One (1) RJ45 1 Gigabit Ethernet port.
- Timing and synchronization interfaces:
    a. External RX and TX LO input ports.
    b. 10 MHz clock reference input.
    c. PPS time reference.
    d. Trigger (Trig) In/Out interface.
    e. Built-in GPS Disciplined Oscillator (GPSDO).
- FPGA programmable GPIO interfaces:
    a. Two (2) HDMI-based GPIO interfaces.
    b. Support for 2 × 12 GPIO lanes and SPI protocol.

- USB interfaces:
    a. One (1) USB Type-C host port.
    b. One (1) USB Type-C port supporting serial console and JTAG access.

## II. DELIVERABLES

| *Description* | *Quantity or Format* | *Due Date* |
|---|---|---|
| **High-Performance Software-Defined Radio (USRP X420)** | **1** | 75 days after receipt of order (ARO) |

## III. DELIVERY TERMS

Delivery shall be F.O.B Destination and shall occur within 75 days after contractor receipt of order. The contractor shall deliver all Line Items to:

National Institute of Standards and Technology
Shipping and Receiving
100 Bureau Drive, Building 301
Gaithersburg, MD 20899
(Bhadresh Savaliya Bld 225, Room A335)

FOB Destination means: The contractor shall pack and mark the shipment in conformance with carrier requirements, deliver the shipment in good order and condition to the point of delivery specified in the purchase order, be responsible for any loss of and/or damage to the goods occurring before receipt and acceptance of the shipment by the consignee at the delivery point specified in the purchase order; and pay all charges to the specified point of delivery.

## IV. INSPECTION & ACCEPTANCE

In addition to the inspection and acceptance terms articulated in 52.212-4, the Government reserves the right to perform such performance tests and evaluations as defined below to verify specified system performance. Such tests and evaluations, if performed, shall be conducted within the environment that the system is to be operated. The Contractor has the right to be present during the tests and evaluations, if performed, at the Contractor's expense.

Performance Tests:

1. A visual and performance inspection to verify that delivered equipment meets all technical requirements identified in this document.

The Government shall have sole discretion to require repair or replacement of damaged and/or nonconforming supplies at no cost to the Government. The Government at any time prior to acceptance shall reject the equipment due to defects and/or nonconformance. The vendor is responsible for latent defects discovered any time after final inspection. However, the extent of its liability shall be prorated over the useful life of the equipment.

## V. WARRANTY

The contractor shall warrant the entire system with the contractor's or original equipment manufacturer's (OEM) standard commercial practices, for a minimum period of 1 year after inspection and acceptance have been completed. Warranty shall be in accordance with terms in FAR 52.212-4 and shall commence upon acceptance of the system by the Government.

## VI. PAYMENT SCHEDULE

The Contractor will be paid in full on a NET30 basis following delivery, inspection, and acceptance of products and receipt of a proper invoice

**NOTE: Partial shipments and partial invoices will not be accepted, unless otherwise requested and accepted by the Contracting Officer prior to award offer. Proposed payment schedules shall be submitted with vendor's response to the RFQ for consideration.**

## APPLICABLE PROVISIONS AND CLAUSES

**PROVISIONS Incorporated by Reference**

**FAR 52.203-18 Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements or Statements-Representation**
**FAR 52.204-7 System for Award Management**
**FAR 52.212-1 Instructions to Offerors—Commercial Items**
**FAR 52.240-90 Security Prohibitions and Exclusions Representations and Certifications**

**PROVISIONS Incorporated in Full Text**

**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 offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror 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):

Federal Acquisition Regulation (FAR) Overhaul (DEVIATIONS JULY 2026): https://www.acquisition.gov/far-overhaul/far-part-deviation-guide

Commerce Acquisition Regulation (CAR): https://www.acquisition.gov/car/part-1352-solicitation-provisions-and-contract-clauses

**FAR 52.209-2 Prohibition on Contracting with Inverted Domestic Corporations-Representation**

(a) *Definitions*. "Inverted domestic corporation" and "subsidiary" have the meaning given in the clause of this contract entitled Prohibition on Contracting with Inverted Domestic Corporations ( 52.209-10).

(b) Government agencies are not permitted to use appropriated (or otherwise made available) funds for contracts with either an inverted domestic corporation, or a subsidiary of an inverted domestic corporation, unless the exception at 9.108-2(b) applies or the requirement is waived in accordance with the procedures at 9.108-4.

(c) *Representation*. The Offeror represents that-
(1) It □ is, □ is not an inverted domestic corporation; and
(2) It □ is, □ is not a subsidiary of an inverted domestic corporation.

**FAR 52.212-2 Evaluation - Commercial Products and Commercial Services**

(a) The Government will award a contract resulting from this solicitation to the responsible offeror whose offer conforming to the solicitation will be most advantageous to the Government, price and other factors considered. Please see the attached Request for Quotation document for evaluation factors.

(b) *Options*. The Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. The Government may determine that an offer is unacceptable if the option prices are significantly unbalanced. Evaluation of options shall not obligate the Government to exercise the option(s).

(c) A written notice of award or acceptance of an offer, mailed or otherwise furnished to the successful offeror within the time for acceptance specified in the offer, shall result in a binding contract without further action by either party. Before the offer's specified expiration time, the Government may accept an offer (or part of an offer), whether or not there are negotiations after its receipt, unless a written notice of withdrawal is received before award.

**FAR 52.219-1 Small Business Program Representation**

(a) *Definitions*. As used in this provision-

*Economically disadvantaged women-owned small business (EDWOSB) concern* means a small business concern that is at least 51 percent directly and unconditionally owned by, and the management and daily business operations of which are controlled by, one or more women who are citizens of the United States and who are economically disadvantaged in accordance with 13 CFR part 127, and the concern is certified by SBA or an approved third-party certifier in accordance with 13 CFR 127.300. It automatically qualifies as a women-owned small business concern eligible under the WOSB Program.

*Service-disabled veteran-owned small business (SDVOSB) concern* means a small business concern-
(1)
(i) Not less than 51 percent of which is owned and controlled by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and
(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a service-disabled veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran or;
(2) A small business concern eligible under the SDVOSB Program in accordance with 13 CFR part 128 (see subpart 19.14).
(3) *Service-disabled veteran*, as used in this definition, means a veteran as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16), with a disability that is service-connected, as defined in 38 U.S.C. 101(16), and who is registered in the Beneficiary Identification and Records Locator Subsystem, or successor system that is

maintained by the Department of Veterans Affairs' Veterans Benefits Administration, as a service-disabled veteran.

*Service-disabled veteran-owned small business (SDVOSB) concern eligible under the SDVOSB Program* means an SDVOSB concern that—
(1) Effective January 1, 2024, is designated in the System for Award Management (SAM) as certified by the Small Business Administration (SBA) in accordance with 13 CFR 128.300; or
(2) Has represented that it is an SDVOSB concern in SAM and submitted a complete application for certification to SBA on or before December 31, 2023.
*Service-disabled veteran-owned small business (SDVOSB) Program* means a program that authorizes contracting officers to limit competition, including award on a sole-source basis, to SDVOSB concerns eligible under the SDVOSB Program.

*Small business concern*—
(1) Means a concern, including its affiliates, that is independently owned and operated, not dominant in its field of operation, and qualified as a small business under the criteria in 13 CFR part 121 and the size standard in paragraph (b) of this provision.
(2) *Affiliates*, as used in this definition, means business concerns, one of whom directly or indirectly controls or has the power to control the others, or a third party or parties control or have the power to control the others. In determining whether affiliation exists, consideration is given to all appropriate factors including common ownership, common management, and contractual relationships. SBA determines affiliation based on the factors set forth at 13 CFR 121.103.

*Small disadvantaged business concern*, consistent with 13 CFR 124.1001, means a small business concern under the size standard applicable to the acquisition, that-
(1) Is at least 51 percent unconditionally and directly owned (as defined at 13 CFR 124.105) by-
(i) One or more socially disadvantaged (as defined at 13 CFR 124.103) and economically disadvantaged (as defined at 13 CFR 124.104) individuals who are citizens of the United States, and
(ii) Each individual claiming economic disadvantage has a net worth not exceeding the threshold at 13 CFR 124.104(c)(2) after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and
(2) The management and daily business operations of which are controlled (as defined at 13 CFR 124.106) by individuals who meet the criteria in paragraphs (1)(i) and (ii) of this definition.
*Veteran-owned small business concern* means a small business concern-
(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C.101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and
(2) The management and daily business operations of which are controlled by one or more veterans.

*Women-owned small business concern* means a small business concern-

(1) That is at least 51 percent owned by one or more women; or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and
(2) Whose management and daily business operations are controlled by one or more women.
*Women-owned small business (WOSB) concern eligible under the WOSB Program* (in accordance with 13 CFR part 127) means a small business concern that is at least 51 percent directly and unconditionally owned by, and the management and daily business operations of which are controlled by, one or more women who are citizens of the United States, and the concern is certified by SBA or an approved third-party certifier in accordance with 13 CFR 127.300.

(b)
(1) The North American Industry Classification System (NAICS) code for this acquisition is ***334220 - Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing***.

(2) The small business size standard is 1,250 *Employees.*

(3) The small business size standard for a concern that submits an offer, other than on a construction or service acquisition, but proposes to furnish an end item that it did not itself manufacture, process, or produce (*i.e.*, nonmanufacturer), is 500 employees, or 150 employees for information technology value-added resellers under NAICS code 541519, if the acquisition—

(i) Is set aside for small business and has a value above the simplified acquisition threshold;
(ii) Uses the HUBZone price evaluation preference regardless of dollar value, unless the offeror waives the price evaluation preference; or
(iii) Is an 8(a), HUBZone, service-disabled veteran-owned, economically disadvantaged women-owned, or women-owned small business set-aside or sole-source award regardless of dollar value.

(c) *Representations.*

(1) The offeror represents as part of its offer that—
(i) it □ is, □ is not a small business concern; or
(ii) It □ is, □ is not a small business joint venture that complies with the requirements of 13 CFR 121.103(h) and 13 CFR 125.8(a) and (b). [ *The offeror shall enter the name and unique entity identifier of each party to the joint venture: __*.]

(2) [*Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.*] The offeror represents that it □ is, □ is not, a small disadvantaged business concern as defined in 13 CFR 124.1001.

(3) [*Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.]* The offeror represents as part of its offer that it □ is, □ is not a women-

owned small business concern.

(4) *Women-owned small business (WOSB) joint venture eligible under the WOSB Program.* The offeror represents as part of its offer that it □ is, □ is not a joint venture that complies with the requirements of 13 CFR 127.506(a) through (c). [ *The offeror shall enter the name and unique entity identifier of each party to the joint venture: __*.]

(5) *Economically disadvantaged women-owned small business (EDWOSB) joint venture.* The offeror represents as part of its offer that it □ is, □ is not a joint venture that complies with the requirements of 13 CFR 127.506(a) through (c). [ *The offeror shall enter the name and unique entity identifier of each party to the joint venture: __*.]

(6) *Veteran-owned small business concern.* [*Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.*] The offeror represents as part of its offer that it □ is, □ is not a veteran-owned small business concern.

(7) *SDVOSB concern.* [*Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (c)(6) of this provision.*] The offeror represents as part of its offer that it □ is, □ is not an SDVOSB concern.

(8) *SDVOSB joint venture eligible under the SDVOSB Program.* [*Complete only if the offeror represented itself as a SDVOSB concern in paragraph (c)(7) of this provision*]. The offeror represents as part of its offer that it □ is, □ is not a SDVOSB joint venture eligible under the SDVOSB Program that complies with the requirements of 13 CFR 128.402. [ *The offeror shall enter the name and unique entity identifier of each party to the joint venture:__*.]

(9) *HUBZone small business concern.* [*Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.*] The offeror represents, as part of its offer, that—

(i) It □ is, □ is not a HUBZone small business concern listed, on the date of this representation, as having been certified by SBA as a HUBZone small business concern in the Dynamic Small Business Search and SAM, and will attempt to maintain an employment rate of HUBZone residents of 35 percent of its employees during performance of a HUBZone contract (see 13 CFR 126.200(e)(1)); and

(ii) It □ is, □ is not a HUBZone joint venture that complies with the requirements of 13 CFR 126.616(a) through (c). [ *The offeror shall enter the name and unique entity identifier of each party to the joint venture: __*.] Each HUBZone small business concern participating in the HUBZone joint venture shall provide representation of its HUBZone status.

(d) *Notice.* Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a business concern that is small, HUBZone small, small disadvantaged, service-disabled veteran-owned small, economically disadvantaged women-owned small, or women-owned small eligible under the WOSB Program in order to obtain a contract to be awarded under the

preference programs established pursuant to section 8, 9, 15, 31, and 36 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall-

(1) Be punished by imposition of fine, imprisonment, or both;
(2) Be subject to administrative remedies, including suspension and debarment; and
(3) Be ineligible for participation in programs conducted under the authority of the Act.

**FAR 52.222-18 Certification Regarding Knowledge of Child Labor for Listed End Products**

(a) *Definition*.
*Forced or indentured child labor* means all work or service-
(1) Exacted from any person under the age of 18 under the menace of any penalty for its nonperformance and for which the worker does not offer himself voluntarily; or
(2) Performed by any person under the age of 18 pursuant to a contract the enforcement of which can be accomplished by process or penalties.

(b) *Listed end products*. The following end product(s) being acquired under this solicitation is (are) included in the List of Products Requiring Contractor Certification as to Forced or Indentured Child Labor, identified by their country of origin. There is a reasonable basis to believe that listed end products from the listed countries of origin may have been mined, produced, or manufactured by forced or indentured child labor.

| Listed End Product | Listed Countries of Origin |
|---|---|
| _____ | _____ |
| _____ | _____ |

(c) *Certification*. The Government will not make award to an offeror unless the offeror, by checking the appropriate block, certifies to either paragraph (c)(1) or paragraph (c)(2) of this provision.

☐ (1) The offeror will not supply any end product listed in paragraph (b) of this provision that was mined, produced, or manufactured in a corresponding country as listed for that end product.

☐ (2) The offeror may supply an end product listed in paragraph (b) of this provision that was mined, produced, or manufactured in the corresponding country as listed for that product. The offeror certifies that it has made a good faith effort to determine whether forced or indentured child labor was used to mine, produce, or manufacture such end product. On the basis of those efforts, the offeror certifies that it is not aware of any such use of child labor.

**FAR 52.225-2 Buy American Certificate**
(a)

(1) The Offeror certifies that each end product, except those listed in paragraph (b) of this provision, is a domestic end product and that each domestic end product listed in paragraph (c) of this provision contains a critical component.

(2) The Offeror shall list as foreign end products those end products manufactured in the United States that do not qualify as domestic end products. For those foreign end products that do not consist wholly or predominantly of iron or steel or a combination of both, the Offeror shall also indicate whether these foreign end products exceed 55 percent domestic content, except for those that are COTS items. If the percentage of the domestic content is unknown, select “no”.

(3) The Offeror shall separately list the line item numbers of domestic end products that contain a critical component (see FAR 25.105).

(4) The terms “commercially available off-the-shelf (COTS) item,” “critical component,” "domestic end product," "end product," and "foreign end product" are defined in the clause of this solicitation entitled "Buy American-Supplies."

(b) Foreign End Products:

| Line Item No. | Country of origin | Exceeds 55% domestic content (yes/no) |
|---|---|---|
| _____ | _____ | _____ |
| _____ | _____ | _____ |

(c) Domestic end products containing a critical component:

Line Item No. ___

(d) The Government will evaluate offers in accordance with the policies and procedures of part 25 of the Federal Acquisition Regulation.

**52.225-18 PLACE OF MANUFACTURE (DEVIATION JAN 2026)**

(a) Definitions. As used in this provision—

Manufactured end product means any end product in product and service codes (PSCs) 1000-9999, except-

(1) PSC 5510, Lumber and Related Basic Wood Materials;
(2) Product or Service Group (PSG) 87, Agricultural Supplies;
(3) PSG 88, Live Animals;
(4) PSG 89, Subsistence;
(5) PSC 9410, Crude Grades of Plant Materials;

(6) PSC 9430, Miscellaneous Crude Animal Products, Inedible;
(7) PSC 9440, Miscellaneous Crude Agricultural and Forestry Products;
(8) PSC 9610, Ores;
(9) PSC 9620, Minerals, Natural and Synthetic; and
(10) PSC 9630, Additive Metal Materials.

Place of manufacture means the place where an end product is assembled out of components, or otherwise made or processed from raw materials into the finished product that is to be provided to the Government. If a product is disassembled and reassembled, the place of reassembly is not the place of manufacture.

(b) For statistical purposes only, the offeror shall indicate whether the place of manufacture of the end products it expects to provide in response to this solicitation is predominantly-

(1) ☐ In the United States (Check this box if the total anticipated price of offered end products manufactured in the United States exceeds the total anticipated price of offered end products manufactured outside the United States); or

(2) ☐ Outside the United States.

**CAR 1352.233-70 Agency Protests**

(a) An agency protest may be filed with either: (1) the contracting officer, or (2) at a level above the contracting officer, with the appropriate agency Protest Decision Authority. See 64 Fed. Reg. 16,651 (April 6, 1999)

(b) Agency protests filed with the Contracting Officer shall be sent to the following address:
NIST/ACQUISITION MANAGEMENT DIVISION
ATTN: LAUREN ROLLER, CONTRACTING OFFICER
100 Bureau Drive, MS 1640
Gaithersburg, MD 20899

(c) Agency protests filed with the agency Protest Decision Authority shall be sent to the following address:
NIST/ACQUISITION MANAGEMENT DIVISION
ATTN: HEAD OF THE CONTRACTING OFFICE (HCO)
100 Bureau Drive, MS 1640
Gaithersburg, MD 20899

(d) A complete copy of all agency protests, including all attachments, shall be served upon the Contract Law Division of the Office of the General Counsel within one day of filing a protest

with either the Contracting Officer or the Protest Decision Authority.

(e) Service upon the Contract Law Division shall be made as follows:
U.S. Department of Commerce Office of the General Counsel Chief, Contract Law Division
Room 5893, Herbert C. Hoover Building
14th Street and Constitution Avenue, N.W. Washington, D.C. 20230.
FAX: (202) 482-5858

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

(a) A protest may be filed with either the Government Accountability Office (GAO) or the Court of Federal Claims unless an agency protest has been filed.

(b) A complete copy of all GAO or Court of Federal Claims protests, including all attachments, shall be served upon (i) the Contracting Officer, and (ii) the Contract Law Division of the Office of the General Counsel, within one day of filing a protest with either GAO or the Court of Federal Claims.

(c) Service upon the Contract Law Division shall be made as follows:

U.S. Department of Commerce
Office of the General Counsel
Chief, Contract Law Division
Herbert C. Hoover Building
14th Street and Constitution Avenue, N.W., Room 5893
Washington, D.C. 20230.
FAX: (202) 482-5858

(End of provision)

**CLAUSES**
**CLAUSES Incorporated by Reference**

**FAR 52.203-17 Contractor Employee Whistleblower Rights**
**FAR 52.203-19 Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements**
**FAR 52.204-13 System for Award Management—Maintenance**
**FAR 52.204-19 Incorporation By Reference Of Representations And Certifications**
**FAR 52.209-10 Prohibition on Contracting with Inverted Domestic Corporations**
**FAR 52.212-4 Terms and Conditions—Commercial Products and Commercial Services**
**FAR 52.219-28, Post-award Small Business Program Rerepresentation (DEVIATION JAN 2026)**
**FAR 52.222-3 Convict Labor**
**FAR 52.222-19 Child Labor—Cooperation with Authorities and Remedies**

**FAR 52.222-36 Equal Opportunity for Workers with Disabilities**
**FAR 52.222-50 Combating Trafficking in Persons**
**FAR 52.222-90 Addressing DEI Discrimination by Federal Contractors**
**FAR 52.223-23 Sustainable Products and Services**
**FAR 52.225-1 Buy American-Supplies**
**FAR 52.226-8 Encouraging Contractor Policies to Ban Text Messaging While Driving**
**FAR 52.232-33 Payment by Electronic Funds Transfer—System for Award Management**
**FAR 52.232-39 Unenforceability of Unauthorized Obligations**
**FAR 52.232-40 Providing Accelerated Payments to Small Business Subcontractors**
**FAR 52.233-3 Protest After Award**
**FAR 52.233-4 Applicable Law for Breach of Contract Claim**
**FAR 52.240-91 Security Prohibitions and Exclusions**
**FAR 52.244-6 Subcontracts for Commercial Products and Commercial Services**
**CAR 1352.201-70 Contracting Officer's Authority**
**CAR 1352.209-73 Compliance with the Laws**
**CAR 1352.209-74 Organizational Conflict of Interest**

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**CLAUSES Incorporated in Full Text**

**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):

Federal Acquisition Regulation (FAR) Overhaul (DEVIATIONS JULY 2026): https://www.acquisition.gov/far-overhaul/far-part-deviation-guide

Commerce Acquisition Regulation (CAR): https://www.acquisition.gov/car/part-1352-solicitation-provisions-and-contract-clauses

**NIST LOCAL-53 Contract Performance During Changes in NIST Operating Status**

All contractors performing work on active contracts at the U.S. Department of Commerce(DOC), National Institute of Standards and Technology (NIST) campuses and/or working in NIST workspaces should go to the www.nist.gov website and under the "About NIST" tab click on "Visit". This site includes information about campus access and security information; identification requirements; parking information and more.

Contractor personnel are required to check the appropriate campus operating status and personnel requirements at https://www.nist.gov/campus-status daily prior to arriving on site. All personnel must adhere to the requirements set forth in the operating status.

Unless otherwise stated in the contract terms and conditions, normal days of business operation are Monday through Friday, excluding Federal Holidays. However, throughout the contract period of performance, there may be circumstances beyond the control of NIST that will impact normal days of business operation such as inclement weather, power outages, etc. In circumstances such as these, the Contractor must call the appropriate NIST campus status line to verify the operating status:

Gaithersburg Campus Operating Status Line:
(301) 975-8000
(800) 437-4385 x8000 (toll free)

Boulder Campus Operating Status Line:
(303) 497-4000
(303) 497-3000 option 2

In the event of a lapse in appropriation, access to Government facilities and resources, including equipment and systems will be limited to excepted personnel for both Federal employees and contractor personnel. If performance of the contract is onsite and/or requires Government interaction, unless the contractor has been, or is notified that it is required to work under an excepted status, the contractor must stop work. The work stoppage shall remain in effect until the lapse is resolved and notification is provided via the NIST website at www.nist.gov (banner on front page) and/or the NIST operating status line(s). Additionally, contractors are encouraged to monitor public broadcasts or the Office of Personnel Management's website at www.opm.gov for the Federal Government operating status.

NIST will provide notification to all contractors that are determined to have excepted status. All excepted contractors are required to continue performance and communicate with the appointed Contracting Officer's Representative (COR) for further guidance, or NIST Contracting Officer if a COR is not appointed.

Contractors with active supply or service contracts that are fully funded at the time of contract award and do not require access to Government facilities, resources, or active administration by Government personnel in a manner that would not cause the Government to incur additional obligations during the lapse in appropriation may continue performance.

Please note that in all circumstances that impact operations on the NIST campuses, contractors are expected to follow all direction and guidance provided by NIST authorities.

**NIST LOCAL-54 Electronic Billing Instructions**

NIST requires that Invoice/Voucher submissions are sent electronically via email to INVOICE@NIST.GOV.

Each Invoice or Voucher submitted shall include the following:

(1) Contract number;
(2) Contractor name and address;
(3) Unique entity identifier (see www.sam.gov for the designated entity for establishing unique entity identifiers);
(4) Date of invoice;
(5) Invoice number;
(6) Amount of invoice and cumulative amount invoiced to-date;
(7) Contract Line Item Number (CLIN);
(8) Description, quantity, unit of measure, unit price, and extended price of supplies/services delivered;
(9) Prompt payment discount terms, if offered; and
(10) Any other information or documentation required by the contract.

**NIST LOCAL 56 Invoicing Processing Platform – Alt I**

Upon written notice from the contracting officer the following supersedes all other instructions for the submission of payment requests. Accordingly, following written notice payment requests must be submitted electronically through the U.S. Department of the Treasury's Invoice Processing Platform System (IPP).

"Payment request" means any request for contract financing payment or invoice payment by the Contractor. To constitute a proper invoice, the payment request must comply with the requirements identified in the applicable payment request or invoicing instructions, Prompt Payment clause included in the contract, or the clause 52.212-4 Contract Terms and Conditions - Commercial Items included in commercial item contracts. The IPP website address is https://www.ipp.gov.

Under this contract, the following documents are required to be submitted as an attachment to the IPP invoice: **

The Contractor must use the IPP website to register, access, and use IPP for submitting payment requests. If not already enrolled, the Contractor Government Business Point of Contact (as listed in SAM) will receive enrollment instructions via email within three to five business days of the addition of the contract award to IPP. Contractor assistance with enrollment can be obtained by contacting the IPP Production Helpdesk via email: IPPCustomerSupport@fiscal.treasury.gov or phone (866) 973-3131.

If the Contractor is unable to comply with the requirement to use IPP for submitting payment requests, the Contractor must submit a waiver request in writing to the Contracting Officer with its proposal or quotation. Contact the contracting officer for more information on submitting a waiver request.