

RFQ-1000254

Fast-gated Intensified Imaging Sensor

Issue Date: 1/8/2021

Questions Deadline: 1/14/2021 04:00 PM (CT)

Response Deadline: 1/18/2021 06:00 PM (CT)

Contact Information

Contact: Melissa Gruhn

Address: 1340 Administrative Services Building
2221 Wanda Daley Drive
Ames, IA 50011-1004

Phone: (515) 294 x8932

Email: msgruhn@iastate.edu

Event Information

Number: RFQ-1000254
Title: Fast-gated Intensified Imaging Sensor
Type: Request for Quote (Public)
Issue Date: 1/8/2021
Question Deadline: 1/14/2021 04:00 PM (CT)
Response Deadline: 1/18/2021 06:00 PM (CT)
Notes: Iowa State University of Science and Technology (ISU) is soliciting information from qualified contractors to provide the goods and/or services described herein.

The Department of Mechanical Engineering is seeking a fast-gated intensified camera to be used for imaging rapidly evolving and low-light phenomena.

Specific intended uses include but are not exclusive to: (1) laser-induced fluorescence imaging in plasmas and combustion, (2) high-resolution spectroscopy, and (3) imaging of high-speed combustion and fluid dynamic phenomena.

Contractors should read all materials carefully and note the due date.

Contractors must direct all questions and comments in reference to this RFP/RFQ to the University Representative listed.

All questions must be submitted by using the "QUESTIONS" tab related to this bid opportunity.

All bid responses must be submitted through ISUBid.

Bid Attachments

ISU Instructions.pdf

[Download](#)

Review the instructions for important information.

ISU General Terms & Conditions.pdf

[Download](#)

Review the general terms and conditions carefully and any exceptions should be listed in the "Attributes" section.

ISU Federal Grant Terms.pdf

[Download](#)

Review the federal grant terms carefully.

Insurance Language - Equipment Repair, Install, Maintenance (low risk) 09-2020.pdf

[Download](#)

Insurance Requirements - Equipment Repair, Install, Maintenance (low risk) 09-2020

Requested Attachments

ITEMIZED QUOTATION

(Attachment required)

Attach itemized quotation to include shipping, installation, training, and optional components/attachments available with pricing.

TECHNICAL LITERATURE/DATA SHEET

(Attachment required)

Include technical literature or datasheet describing equipment being offered. Offers that do not include literature as requested may be considered non-compliant.

SERVICE AGREEMENT

If available, attach a quotation for a 1-year service/maintenance agreement with a minimum of 1 preventative on-site visit per year.

Bid Attributes

1 Evaluation Criteria for Technical Specifications listed below

The evaluation of this RFP/RFQ may be based upon, but not limited to:

- Total cost of ownership
- Installation and training
- Equipment being proposed meets specifications
- References
- Past performance
- Maintenance and support functions
- Warranty coverage
- Delivery
- F.O.B method

ISU reserves the right to waive minor differences in the stated specifications, if an offered system is found to be substantially compliant, and in the best interest of the University.

Read and understood
(Required: Check if applicable)

2 INTENDED RESEARCH PURPOSE OR APPLICATION

A fast-gated intensified camera to be used for imaging rapidly evolving and low-light phenomena.

Intended uses include but are not exclusive to:

- (1) laser-induced fluorescence imaging in plasmas and combustion
- (2) high-resolution spectroscopy
- (3) imaging of high-speed combustion and fluid dynamic phenomena.

Read and understood
(Required: Check if applicable)

3 Specifications

Review specifications below and respond to each.

4 Image sensor

5 Resolution

1 Megapixel sensor (1024 x 1024 pixels preferred)

Describe how the equipment meets the above specification or how it varies.

(Required: Maximum 1000 characters allowed)

6 Digitization

16-bit digitization

Describe how the equipment meets the above specification or how it varies.

(Required: Maximum 1000 characters allowed)

7 TEC

Thermoelectrically cooled sensor to minimize dark current

Describe how the equipment meets the above specification or how it varies.

(Required: Maximum 1000 characters allowed)

8 Dark Current

Low dark current - minimum < 2 e-/sec)

Describe how the equipment meets the above specification or how it varies.

(Required: Maximum 1000 characters allowed)

9 Interline transfer sensor

Interframe time of < 1 ns

Describe how the equipment meets the above specification or how it varies.

(Required: Maximum 1000 characters allowed)

10 Intensifier

1 1	Contrast Ratio High on/off contrast ratio <i>Describe how the equipment meets the above specification or how it varies.</i> <hr/> <hr/> <hr/> <i>(Required: Maximum 1000 characters allowed)</i>
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1 2	Gate Time < 1 ns gate duration <i>Describe how the equipment meets the above specification or how it varies.</i> <hr/> <hr/> <hr/> <i>(Required: Maximum 1000 characters allowed)</i>
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1 3	Gating Repetition Sustained gating repetition - minimum 100 kHz preferred <i>Describe how the equipment meets the above specification or how it varies.</i> <hr/> <hr/> <hr/> <i>(Required: Maximum 1000 characters allowed)</i>
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1 4	Fiber-optic coupling Fiber-optic coupling to the sensor to eliminate vignetting <i>Describe how the equipment meets the above specification or how it varies.</i> <hr/> <hr/> <hr/> <i>(Required: Maximum 1000 characters allowed)</i>
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1 5	Phosphor Screen Decay Fast-decay phosphor (<1 us decay time) <i>Describe how the equipment meets the above specification or how it varies.</i> <hr/> <hr/> <hr/> <i>(Required: Maximum 1000 characters allowed)</i>
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16 Quantum efficiency

> 10% for 200-500 nm
> 2% for 800 nm

Describe how the equipment meets the above specification or how it varies.

(Required: Maximum 1000 characters allowed)

17 Timing

18 Timing in

TTL logic in for timing with external sources

Describe how the equipment meets the above specification or how it varies.

(Required: Maximum 1000 characters allowed)

19 Timing out

TTL logic out for driving external sources

Describe how the equipment meets the above specification or how it varies.

(Required: Maximum 1000 characters allowed)

20 Software / readout

21 Data Acquisition

Includes necessary software for data acquisition and display.

Describe how the equipment meets the above specification or how it varies.

(Required: Maximum 1000 characters allowed)

22 SDK

Includes software development kit (SDK) for custom software/control.

Describe how the equipment meets the above specification or how it varies.

(Required: Maximum 1000 characters allowed)

2
3

Readout

Includes options for readout using custom cropped regions, full-vertical binning, and frame pairs.

Describe how the equipment meets the above specification or how it varies.

(Required: Maximum 1000 characters allowed)

2
4

Describe any specific requirements related to the software used to run the equipment if applicable.

(Required: Maximum 1000 characters allowed)

2
5

Delivery, Installation, Training, Warranty

Respond to the following:

2
6

Delivery

When can this system be delivered and installed (if applicable)?

Please provide information about lead time and estimated shipping time.

(Optional: Maximum 1000 characters allowed)

2
7

Set up and installation

Describe process and timeline for set-up and installation including details about any University resources required.

(Required: Maximum 1000 characters allowed)

2
8

Training

Describe training offered, length and options of training including location of training (on-site or off-site) and the number of staff included.

(Required: Maximum 1000 characters allowed)

2
9

Warranty

Describe the warranty for this instrument.

(Required: Maximum 1000 characters allowed)

30 **Responsive customer and technical support**

1. Provide location and hours customer support is available.

2. Where is technical support dispatched from, if on-site service is required?

(Required: Maximum 1000 characters allowed)

31 **Service/Maintenance Contract**

If awarded, does Supplier offer single-year or multi-year service agreements?

Yes No

(Required: Check only one)

32 **Insurance Requirements**

Contractor can comply with the attached insurance requirements.

Yes No

(Required: Check only one)

33 **Exceptions to General Terms and Conditions**

Do you have any exceptions to the General Terms and Conditions (under Attachments tab)? If YES, please list exceptions below.

Yes No

(Required: Check only one)

34 **Exception to General Terms and Conditions - 1**

Include page number, section and reason for exception.

Exceptions taken may cause the Proposal to be rejected at the sole discretion of University. Any terms to which Contractor does not take exception shall be binding and any subsequent objections to those terms shall have no effect.

(Optional: Maximum 1000 characters allowed)

35 **Exception to General Terms and Conditions - 2**

Include page number, section and reason for exception.

Exceptions taken may cause the Proposal to be rejected at the sole discretion of University. Any terms to which Contractor does not take exception shall be binding and any subsequent objections to those terms shall have no effect.

(Optional: Maximum 1000 characters allowed)

36 **Exception to General Terms and Conditions - 3**

Include page number, section and reason for exception.

Exceptions taken may cause the Proposal to be rejected at the sole discretion of University. Any terms to which Contractor does not take exception shall be binding and any subsequent objections to those terms shall have no effect.

(Optional: Maximum 1000 characters allowed)

37 **Acceptance of Federal Terms and Conditions**

Contractor has reviewed and can comply with the required Federal Terms and Conditions.

Yes No

(Required: Check only one)

38 **Reference #1 Name**

(Required: Maximum 1000 characters allowed)

39 **Reference #1 Phone**

(____) ____ - ____ ext: _____

(Required)

40 **Reference #1 Email**

(Required: Email address)

41 **Reference #2 Name**

(Required: Maximum 1000 characters allowed)

42 **Reference #2 Phone**

(____) ____ - ____ ext: _____

(Required)

43 **Reference #2 Email**

(Required: Email address)

4
4 **Reference #3 Name**

(Required: Maximum 1000 characters allowed)

4
5 **Reference #3 Phone**

(____) _____ - _____ ext: _____

(Required)

4
6 **Reference #3 Email**

(Required: Email address)

4
7 **Confidential Information**

Contractor identifies portions of this Proposal listed as confidential under the Iowa Open Records Law.

yes no

(Required: Check only one)

4
8 **Description of Confidential Information - 1**

If YES, provide the description of the confidential information including the specific subsection of Iowa Code §22.7 that is believed to be applicable.

Note: Contractor's name, pricing information and other financial offers must be released pursuant to Iowa Administrative Code §681-8.1(h) and cannot be identified as confidential.

(Optional: Maximum 1000 characters allowed)

4
9 **Description of Confidential Information - 2**

If YES, provide the description of the confidential information including the specific subsection of Iowa Code §22.7 that is believed to be applicable.

Note: Contractor's name, pricing information and other financial offers must be released pursuant to Iowa Administrative Code §681-8.1(h) and cannot be identified as confidential.

(Optional: Maximum 1000 characters allowed)

5
0 **Description of Confidential Information - 3**

If YES, provide the description of the confidential information including the specific subsection of Iowa Code §22.7 that is believed to be applicable.

Note: Contractor's name, pricing information and other financial offers must be released pursuant to Iowa Administrative Code §681-8.1(h) and cannot be identified as confidential.

(Optional: Maximum 1000 characters allowed)

5
1 Contractor Certification

In response to this RFP/RFQ and after carefully reviewing all instructions, scope of work/specifications, and terms in the RFP/RFQ documents, submits this Proposal as an offer to enter into a mutually acceptable contractual agreement with University. If this Proposal is accepted by University, Contractor agrees to provide goods and/or furnish services in accordance with this Proposal.

Contractor certifies that: **(a)** this Proposal is genuine and is not made on behalf of any undisclosed person or entity; **(b)** Contractor is not a "Conflict of Interest Vendor"; **(c)** any prices or hourly rates in the Proposal have been arrived at independently, without consultation, communication, or agreement with any competitor for the purpose of restricting competition; **(d)** any prices or hourly rates which have been provided in this Proposal have not been knowingly disclosed by Contractor, directly or indirectly, to any competitor; **(e)** Contractor has not attempted to induce any person or entity to submit or refrain from submitting a proposal for the purpose of restricting competition; and **(f)** Contractor has not offered or made a gift to a University employee in violation of Iowa law.

Read and agreed
(Required: Check if applicable)

Bid Lines

1 Cost of Digital Image Correlation and Particle Image Velocimetry system

Quantity: 1 UOM: EA Price: \$ Total: \$

Item Notes:

Total cost must include shipping, installation, training, all software and hardware, and related accessories to operate equipment.

No bid
 Additional notes
(Attach separate sheet)

Include Manufacturer Name and Manufacturer Model #

Supplier Notes: _____

Item Attributes

1. Manufacturer Name and Number

List the Manufacturer name and model number of the system being offered.

(Required: Maximum 500 characters allowed)

2. What is the duration of the warranty being offered, and what does it cover?

(Required: Maximum 500 characters allowed)

3. Export Control Classification Number (ECCN)

If any item(s) offered is restricted for export to any country, identify the item and provide the Department of Commerce Export Control Classification Number (ECCN).

(Required: Maximum 100 characters allowed)

4. Physical Dimensions

List the following:

Physical dimensions (H x W x D)

Weight

(Required: Maximum 500 characters allowed)

5. F.O.B.

Select F.O.B being offered.

Preference given to F.O.B. Destination or Installed.

- Installed Destination Origin Destination Prepaid and Added
- Origin Prepaid and Added

(Required: Check only one)

6. Payment Term Options

Select the payment terms for this offer.

(Note: ISU typically does not pre-pay for equipment prior to delivery and final inspection.)

- 5% 15/Net 30 2% 15/Net 30 Net 30 Net 20 Net 10 Other

(Required: Check only one)

7. Payment Term Options - If "Other" is selected briefly explain.

(Optional: Maximum 1000 characters allowed)

2 Cost of Service Agreement

Price: \$ Total: \$

Item Notes: **Provide the annual cost for a service agreement that includes 1 annual PM onsite service visit.**

Additional notes
(Attach separate sheet)

Supplier Notes: _____

Item Attributes

1. Labor

If a service agreement is not selected, what is the hourly rate for labor on a service call?

\$

(Required: Numbers only)

2. Travel/Per Diem

If a service agreement is not selected, what is the daily rate or per diem for a service call?

\$

(Required: Numbers only)

Supplier Information

Company Name: _____

Contact Name: _____

Address: _____

Phone: _____

Fax: _____

Email: _____

Supplier Notes

By submitting your response, you certify that you are authorized to represent and bind your company.

Print Name

Signature