

DARPA-PS-26-127: Perseus

Questions and Answers

Version 1

July 21, 2026

Q1. As a university sub-award to a company Prime, does this fee range affect university budgeting that usually takes a ~52% indirect cost (i.e., can the usual ~52% indirect cost still be used in university budgets)?

A1. The solicitation's fee limitations and a university's negotiated indirect cost rate are unrelated. Academic institutions may continue to apply their federally negotiated indirect cost rate to the appropriate direct cost bases in their sub-award budgets, subject to any standard limitations outlined in the solicitation. The fee range restriction outlined in the solicitation applies to fee/profit earned above actual costs.

Q2. Which institutions are eligible to prime?

A2. Companies and universities are eligible to prime. FFRDCs, UARCs, and National Labs can only perform as subcontractors.

Q3. One of the milestones requires a process that is compatible with atomic source integration. Is this required if we do not require an atomic sensor for measurement of pressure? Requiring atomic source integration may limit the available processes.

A3. Atomic source integration is required. The intent of the program is the development of processes that are compatible with MEMs, photonics, and quantum sensors. It is imperative that any process developed be compatible with future quantum sensors, and the atomic source integration is intended to force that compatibility.

Q4. Does only vacuum need to be maintained for 3 years or also the atomic source?

A4. Both the vacuum integrity and the atomic source's operational performance must be maintained for a continuous operational lifetime of 3 years.

Q5. What wavelength is required for the single-mode photonic interconnects?

A5. The wavelength should be compatible with cooling and readout of the integrated atomic source.

Q6. What is included in the 5 mL volume?

A6. The 5 mL volume encompasses the physics package of the μ UHV system. Examples of components that are not included are lasers, power supplies, etc. If magnetic coils or similar components are needed, that is included in the 5 mL volume. However, if external components are being used for the measurement of pressure, then they must be connected to the μ UHV through the interconnects.

Q7. Is there a threshold or specific definition of what is manufacturable?

A7. No. There is no specific threshold for manufacturable. Examples are given in the solicitation. DARPA is looking for comprehensive solutions that cover short-term and long-term manufacturing needs. In the

short term, there are no methods for generation of any quantity of high-performance sensors based on a μ UHV package. In the long term, any manufacturable process must be able to scale to meet the demands of the Government and commercial markets.

Q8. Are we required to use a cold atom or ion sensor as part of our pressure sensing method?

A8. If proposing a method of pressure sensing that does not require the use of cold atoms or ions, proposers must demonstrate that the selected pressure sensing methodologies are able to operate and output reliable measurements well below a pressure of 10^{-10} mbar to ensure that our measurement of progress is never limited by the pressure sensor itself.

Q9. Are there any power restrictions for driving the device?

A9. There are no defined power requirements other than compatibility with the μ UHV package. Proposers need to ensure that power delivered to the device must be consistent with the use of the interconnects, and the interconnects should be able to handle all the required optical and electrical power.

Q10. Is partial pressure an acceptable measurement?

A10. This program is interested in absolute pressure measurement within a package.

Q11. What is a single mode photonic interconnect?

A11. A single mode interconnect allows only a single spatial mode to propagate into the package. A window allows multiple spatial modes and would not be considered an interconnect.

Q12. There are multiple "SAMPLE_OT_P" model agreements posted on SAM.gov for this solicitation (e.g., Streamlined Fixed, Traditional Cost-Share, Expenditure Based, etc.). Which model should we use?

A12. The "SAMPLE_OT_P" documents were uploaded to the SAM.gov posting due to a system error and are not applicable to this solicitation. For this program, offerors must refer exclusively to DARPA-PS-26-127_Perrseus_Attachment_J_Model_OT_Prototype.docx as the sole authorized model agreement. Please disregard all other generic "SAMPLE_OT_P" documents.