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Contract

CAN - Optical Frequency Comb

National Physical Laboratory

F03: Contract award notice
Notice identifier: 2024/S 000-004372
Procurement identifier (OCID): ocds-h6vhtk-042e73
Published 9 February 2024, 10:36am

Section I: Contracting authority

I.1) Name and addresses

National Physical Laboratory

Hampton Road

Teddington

TW11 0LW

Contact

Nina Heath

Email

nina.heath@npl.co.uk

Country

United Kingdom

Region code

UK - United Kingdom

Internet address(es)

Main address

www.npl.co.uk

Buyer's address

www.npl.co.uk

I.4) Type of the contracting authority

Body governed by public law

I.5) Main activity

Other activity

Scientific Research

Section II: Object

II.1) Scope of the procurement

II.1.1) Title

CAN - Optical Frequency Comb

II.1.2) Main CPV code

- 38000000 - Laboratory, optical and precision equipments (excl. glasses)

II.1.3) Type of contract

Supplies

II.1.4) Short description

Comparison of optical frequency standards is essential for verifying that the clocks both locally and remotely at other national metrological institutes all agree to within their quoted uncertainties. These quoted uncertainties can be as low as ~1e-18, and so agreement between multiple clocks all operating at this level is required to verify that uncertainty. Remote clock comparisons at NPL, or between NPL and other European NMIs, are only possible at this uncertainty using optical frequency combs and telecoms optical fibre links to compare and transmit frequencies over long distances.

By using an optical frequency comb with the full flexibility to cover the 500 nm to 2000 nm wavelength range, the infrastructure will be in place to enable any of the likely candidates for an optical representation of the SI second to be compared over a short cross-site fibre link. The optical frequency comb will also require dedicated branches to link with the optical clocks and oscillators already available at NPL, these include the Sr+ at 674 nm, the Sr lattice at 698 nm, the Yb+ clocks at both 871 nm and 934 nm, and an ultrastable laser at 1064 nm.

II.1.6) Information about lots

This contract is divided into lots: No

II.1.7) Total value of the procurement (excluding VAT)

Value excluding VAT: £510,158.06

II.2) Description

II.2.3) Place of performance

NUTS codes

- UK - United Kingdom

II.2.4) Description of the procurement

An optical frequency comb for comparison of optical clocks over a short fibre link

Qty: 1

II.2.5) Award criteria

Quality criterion - Name: Technical / Weighting: 70%

Price - Weighting: 30%

II.2.11) Information about options

Options: No

II.2.13) Information about European Union Funds

The procurement is related to a project and/or programme financed by European Union funds: No

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Section IV. Procedure

IV.1) Description

IV.1.1) Type of procedure

Award of a contract without prior publication of a call for competition in the cases listed below

- The procurement falls outside the scope of application of the regulations

Explanation:

Proposed procurement was very similar to the competitive tender purchase of Frequency Combs previously conducted by T&F/OFM earlier in 2021 and again in 2023, which were purchased to equip state-of-the-art test and evaluation laboratories both in Teddington and in Glasgow.

Because of this, OFM have now installed and commissioned several of these systems

and invested a substantial amount of time in developing a full understanding of the system. At the time of the previous procurements, the Menlo system was evaluated to provide the most appropriate solution to the T&F needs by far. By purchasing a similar system from the same supplier, the embedded expertise in this system can be exploited, and subsequently interoperability of systems can be developed.

Based on the specification from the previous tender processes, the systems from other two bidders were found to be the only ones capable of demonstrably meeting the repetition rate tunability and the required flexibility in a turn-key system. None of the alternative suppliers could guarantee or demonstrate the specification at the required level. Menlo systems scored high on demonstrated performance systems integration and service.

Since we have tested the market twice in the past few years with the same outcome, we are confident that Menlo Systems is the only provider that can meet the expected requirements for our purposes.

IV.1.8) Information about the Government Procurement Agreement (GPA)

The procurement is covered by the Government Procurement Agreement: Yes

IV.2) Administrative information

IV.2.1) Previous publication concerning this procedure

Notice number: 2024/S 000-001905

IV.2.9) Information about termination of call for competition in the form of a prior information notice

The contracting authority will not award any further contracts based on the above prior information notice

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Section V. Award of contract

Title

An optical frequency comb for comparison of optical clocks over a short fibre link

A contract/lot is awarded: Yes

V.2) Award of contract

V.2.1) Date of conclusion of the contract

31 January 2024

V.2.2) Information about tenders

Number of tenders received: 1

Number of tenders received from SMEs: 1

Number of tenders received from tenderers from other EU Member States: 1

Number of tenders received by electronic means: 1

The contract has been awarded to a group of economic operators: No

V.2.3) Name and address of the contractor

Menlo Systems GmbH

Am Klopferspitz 19a, Bayern

Martinsried

82152

Country

Germany

NUTS code

- DE - Germany

The contractor is an SME

No

V.2.4) Information on value of contract/lot (excluding VAT)

Total value of the contract/lot: £510,158.06

Section VI. Complementary information

VI.4) Procedures for review

VI.4.1) Review body

National Physical Laboratory

Hampton Road

Teddington

TW11 0LW

Telephone

+44 2089773222

Country

United Kingdom