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Planning

PIN: 5G New Radio (NR) Base Station Emulator

National Physical Laboratory

F01: Prior information notice

Reducing time limits for receipt of tenders

Notice identifier: 2024/S 000-019005

Procurement identifier (OCID): ocds-h6vhtk-047164

Published 20 June 2024, 11:06am

Section I: Contracting authority

I.1) Name and addresses

National Physical Laboratory

Hampton Road

Teddington

TW11 0LW

Email

nina.heath@npl.co.uk

Country

United Kingdom

Region code

UK - United Kingdom

Internet address(es)

Main address

www.npl.co.uk

I.3) Communication

Additional information can be obtained from the above-mentioned address

Tenders or requests to participate must be submitted electronically via

https://lupc.bravosolution.co.uk/

Tenders or requests to participate must be submitted to the above-mentioned address

I.4) Type of the contracting authority

Body governed by public law

I.5) Main activity

Other activity

Research

Section II: Object

II.1) Scope of the procurement

II.1.1) Title

PIN: 5G New Radio (NR) Base Station Emulator

II.1.2) Main CPV code

• 32000000 - Radio, television, communication, telecommunication and related equipment

II.1.3) Type of contract

Supplies

II.1.4) Short description

This is a Prior Information Notice for a 5G new radio (NR) base station emulator forming

part of the 5G over-the-air testing system procurement.

II.1.5) Estimated total value

Value excluding VAT: £190,000

II.1.6) Information about lots

This contract is divided into lots: No

II.2) Description

II.2.3) Place of performance

NUTS codes

• UK - United Kingdom

Main site or place of performance

Teddington, UK

II.2.4) Description of the procurement

This is a Prior Information Notice for a 5G new radio (NR) base station emulator forming part of the 5G over-the-air testing system procurement.

Overview of the specification:

Requirement is for a product with UKCA or CE Marking. The following provides further description and the requirement specifications this procurement must meet:

- at least cover frequency range up to 6 GHz (i.e. frequency range 1, FR1 for 5G NR Rel. 15);
- able to establish IoT, 4G long-term-revolution (LTE), and 5G NR (for both standalone (SA) and non-standalone (NSA) 5G standards) TDD and FDD downlink and uplink communications with a IoT, LTE and/or 5G enabled wireless devices;
- able to support more than one communication protocols running simultaneously;
- at least 4 radio frequency (RF) ports that enable 1 x 1 (single-input-single-output (SISO)), 2 x 2 and 4 x 4 MIMO communications;
- scalable data bandwidth (e.g. 100 MHz, 200 MHz, 400 MHz, etc.);

- signal generation, modulation and processing capability (e.g. AM, FM, PM, I/Q, Noise, PSK, QAM, etc.);
- allow custom/user-specified waveform, baseband signal and data resource allocations;
- has 3GPP channel emulation capability (e.g. SCME, CDL, etc.);
- ensure phase coherency between transmit and receive ports;
- can acquire channel power, EVM, ACLR, throughput, frequency error, in-band emissions, carrier leakage, etc.
- could be extended in the future to operate at higher operating frequency (e.g. millimetrewave, etc.).

II.2.5) Award criteria

Price is not the only award criterion and all criteria are stated only in the procurement documents

II.2.6) Estimated value

Value excluding VAT: £200,000

II.2.7) Duration of the contract, framework agreement or dynamic purchasing system

Duration in months

12

II.2.13) Information about European Union Funds

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

II.3) Estimated date of publication of contract notice

2 September 2024

Section IV. Procedure

IV.1) Description

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

The procurement is covered by the Government Procurement Agreement: Yes

Section VI. Complementary information

VI.4) Procedures for review

VI.4.1) Review body

NPL Management

Hampton Road

Teddington

TW11 0LW

Country

United Kingdom