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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](mailto:nina.heath@npl.co.uk)

#### **Country**

United Kingdom

#### **Region code**

UK - United Kingdom

#### **Internet address(es)**

Main address

[www.npl.co.uk](http://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

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## **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-evolution (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. millimetre-wave, 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

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## **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

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## **Section VI. Complementary information**

### **VI.4) Procedures for review**

#### **VI.4.1) Review body**

NPL Management

Hampton Road

Teddington

TW11 0LW

Country

United Kingdom