

Attachment no 1
for the inquiry no 18/eCAUSIS/2023

Technical parameters

Subject of the contract:

Single Photon Avalanche Diode (SPAD).

CPV code: 38000000-5 - Laboratory, optical and precision equipments (excl. glasses)

Brief description of the subject of the contract:

The subject of the order are a single photon avalanche detectors (SPADs) for detection in the near infrared range (O-band). The detectors should have integrated cooled avalanche photodiode and associated electronics to gating the detector. SPADs should be compatible with FC type fiber optic connectors.

I. Minimum technical parameters:

1. General requirements:

The device (SPAD) has cooled avalanche photodiode and control electronics.

Wavelength range: O-band (1310nm).

Photon Detection Efficiency: more than 20% for 1310nm.

Timing Jitter: up to 200ps.

Dark Count Rate: max. 5kcps.

The SPAD should work in Gated Mode.

Gate repetition frequency: at least 100MHz.

Number of detectors: 3 pcs.

2. Documentation requirements:

The device should include a user manual and a test report of the module.

3. Functional requirements:

Compatible with optical fiber (FC connector).