



Additional information No. 1

Name of the small scale contract/: **Pump diode module for half Joule multipass amplifier TP20_117**

Contracting Authority/Zadavatel: Institute of Physics of the Academy of Sciences of the Czech Republic, public research institution

Registered office: Na Slovance 2, 182 21 Prague 8, Czech Republic
Registration number: ID 68378271

Person authorized to act on behalf
of the contracting authority: RNDr. Michael Prouza, Ph.D., director

(hereinafter referred to as the "Contracting Authority")

The Contracting Authority in this small size public procurement proceed according to the Rules for the selection of suppliers under the Research, Development and Education Operational Programme. The Contracting Authority has received the following questions :

“ Our experienced foreign subcontractor-manufacturer considers the following criteria of the technical specification to be critical and unfulfillable :

1.7 Polarization, we have circularly polarized light from fibers

1.15 Rise / fall times, we can't do it faster than 125 μ s, we can't reach 60 μ s

The requirement for a rise time is also unclear. Why does Contracting Authority want linear polarization? What happens in the crystal when the pulse rises and falls slowly? If 50 Hz and pulse heights agree, should the crystal be stimulated to generate pulsed laser light?

The whole construction - design according to public tender is based on a laser, which delivers collimated light and is placed on an optical table. You could simplify the design in picture 3 with our laser and omit many mirrors if the laser optics are aimed from the right and left at the crystal and using two lasers with fibers and optics. Then the lasers themselves could stand somewhere under the table and there would be only optics supplied with fibers on the table.

If the contracting authority does not find a supplier for this public contract, we recommend modifying the design to suit the equipment available on the market. Then there will be no need to rediscover all safety and cooling water monitoring. This is standard for industrial lasers. 24V signals or fieldbus systems are also standard. The TTL level is now a historic computing technology. In the end, it is still necessary to meet the requirements for the function of pumping and generating laser light in the required quality. Everything else can be solved somehow, e.g. as it is already standard for industrial lasers ,,

Answers:

The Contracting Authority has prepared all tender conditions based on its operational needs and insists on fulfillment all of its requirements. Therefore, **the Contracting Authority shall not make any modifications of the tender conditions based on the supplier's questions and comments/suggestions as, some of these are irrelevant.**

The rise/fall times - 60 μ s - this is required because the Contracting Authority needs the pump pulse to approximate a rectangular shape in time as closely as possible. Yes, laser action would still be possible for slower rising and falling edges, but this comes at the cost of efficiency due to spontaneous emission between the edge of the pump pulse and the arrival of the signal pulse. As the Contracting Authority requires the state-of-the-art technology



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(which can be achieved by most of the commercially available pump diode solutions), the proposed solution is not acceptable.

The Contracting Authority needs a linear polarization because there are polarization sensitive dichroic elements in the laser before the crystal.

The Contracting Authority has also decided to extend the deadline for submission of bids. Bids must be submitted on 25. 9. 2020 until 14:00 at the latest.

On 21 September, 2020

Martin Körber
Procurement specialist