



## SOLE SOURCE CERTIFICATE AND POSTING NOTICE

A sole source procurement is when you make a request to purchase product(s) and/or service(s) without competition when competition is otherwise required. This means that product/service is unique and that the supplier is the only supplier that can provide the product or service. In accordance with the authority granted under applicable Florida law and UCF Regulation 7.130, the following documentation is submitted in support of this request.

The purchase requisition can be entered into UCF Financials at any point during the process set forth herein; however, doing so does not ensure approval of the sole source.

The completed sole source must be approved in the following order. **Please be sure to obtain all required signatures before submitting the form to Procurement Services.**

- PI/Researcher/Director/Chair
- President/Vice President/Dean
- Procurement Specialist
- Procurement Services Associate Director
- Assistant Vice President for Tax, Payables & Procurement, who will review and provide a recommendation to approve or disapprove the sole source to:
- Chief Financial Officer, who will either directly approve or disapprove the sole source, or forward it to the Provost and Executive Vice President for goods/services related to academia for input prior to making the final decision.

Contingent upon the approval of all the officers/individuals listed, the sole source shall be posted on the UCF Procurement Services website for seventy-two (72) business hours. Upon expiration of said posting period, Procurement Services will process a purchase order upon receipt of the requisition.

Once the completed sole source is received, Procurement Services reviews the documentation provided and determines whether the sole source is valid or if there are additional suppliers that may be able to provide the requested product or service. The sole source review and approval process varies based on the nature of the product/service being requested and the information provided in the requestor's justification, among other factors, so please keep this in mind when submitting the form.

**The usual bidding process shall be conducted if sole source approval is not granted.**

**PART I: DEPARTMENT AND SUPPLIER INFORMATION**

Department Name: Physics

Contact & Phone: (808) 358-1826

Purchase Request No.: \_\_\_\_\_

Product/Service Cost: \$103,968.75

Company Name: BlackTek

Email: mike@blacktek.com

Contact Person: Mike Boehlke

Title: \_\_\_\_\_

Product and/or Service: Custom ultrafast pulsed laser.

Telephone: 416-670-6353 Facsimile: \_\_\_\_\_

Address: 16 Milford Avenue City: Natick

State and Zip: MA 01760

**PART II: SOLE SOURCE JUSTIFICATION (see pages 4-5)**

**Only justifications submitted on this form and in the below format will be reviewed for approval. All of the below listed points MUST be fully answered on the following pages and any additional attached pages as needed. Failure to submit justification as outlined in the format below will result in the form being returned without review.**

1. Describe the product(s) and/or service(s) and anticipated use thereof in layman's language.
2. State in detail why only this and no other product(s)/service(s) will satisfy the department's requirements.
3. State why the product(s) and/or service(s) are available from only one source and how that determination was made. Explain the research conducted to support this claim.
4. Provide an explanation to support the belief that the price is fair and reasonable.

**PART III: SOLE SOURCE CERTIFICATIONS**

- A. In my professional opinion, this is the only product or service that can reasonably meet my requirement(s)/specification(s), and this is the only supplier who can provide the product or service. I further certify that the information contained herein is true and correct to the best of my knowledge and belief and would withstand any audit or supplier protest.
- B. I, the undersigned, certify that I and/or the user do not have a financial interest in the above named supplier or contractor, and that I am unaware of any conflict of interest related to this purchase.

ch629627  
Digitally signed by  
 ch629627  
 Date: 2022.05.27  
 13:01:30 -04'00'

**Signature**

Christopher Bennett (PI)  
**Printed Name and Title (PI/Researcher/Director/Chair)**

05/27/2022  
**Date**

I, the undersigned, hereby concur with the above justification and authorize the acquisition of the above product(s) and/or service(s) on a sole source basis.

Maggy Haslett-  
 Tomova  
Digitally signed by Maggy  
 Haslett-Tomova  
 Date: 2022.05.31 15:11:59  
 -04'00'

**Signature**

Maggy Tomova  
**Printed Name and Title (President/Vice President/Dean)**  
 (Delegations not allowed; emails from absent approvers are acceptable)

05/27/2022  
**Date**

I, the undersigned, hereby concur with the above justification and support a sole source approval for the above product(s) and/or service(s).

See email approval attached 05/27/2022  
**Signature** **Printed Name and Title (Procurement Specialist)** **Date**

I, the undersigned, hereby concur with the above justification and support the acquisition of the above product(s) and/or service(s) on a sole source basis.

See email approval attached  
**Signature** **Printed Name and Title  
(Procurement Services Associate Director)** **Date**

I, the undersigned, hereby concur with the above justification and authorize the acquisition of the above product(s) and/or service(s) on a sole source basis.

See email approval attached  
**Signature** **Printed Name and Title  
(Asst. Vice President for Tax, Payables & Procurement)** **Date**

I, the undersigned, hereby concur with the above justification and authorize the acquisition of the above product(s) and/or service(s) on a sole source basis.

See email approval attached  
**Signature** **Printed Name and Title (Chief Financial Officer)** **Date**

**POSTING NOTICE**

6/13/22 1:00pm EST 6/16/22 1:00pm EST 2230 Trinh Nguyen  
**Date/Time Posted** **Posting End Date** **UCF Control No.** **Procurement Specialist**

## SOLE SOURCE JUSTIFICATION

Please answer the questions below and attach additional documentation if needed.

1. Describe the product(s) and/or service(s) and anticipated use thereof in layman's language.

The product is a laser which is uniquely capable of generating very short pulses which are tunable in length (from 35 picoseconds to 1 nanosecond), while offering sufficient power and low timing jitter (a measure of how far from the anticipated time a laser pulse is delivered from what is expected; the higher this is, the harder it is to overlap two short pulses), which are requirements so that we can couple the laser to an ultrafast (femtosecond) laser being utilized in the project. This enables us to perform temporal studies within the picosecond domain as well as to be able to both capture and separate the Raman signal from a competing fluorescence process (this is hard to explain in layman terms, but the idea is explained in detail by a commercial vendor that sells time-gated Raman instruments here [https://www.timegate.com/timegated\\_technology?hsLang=en](https://www.timegate.com/timegated_technology?hsLang=en)). The fluorescence signal starts to overpower the Raman signal beyond a few nanoseconds, so this is the upper limit for the gating to be useful, whereas the 35-picosecond timeframe is sufficiently short that we will be able to perform temporal studies. The tunability of the pulse-width will permit us to optimize the Raman signal and the high-power will enable us to detect the weak signature that we are looking for in the proposed 3D-IR Raman experiments. Additionally, the timescales offered by this laser are like those that generate heating shocks during micrometeorite impacts, which we would also be able to simulate using this laser within a temporal scale that is rarely accessible and should offer new insights into how micrometeorites alter surfaces.

2. State in detail why only this and no other product(s)/service(s) will satisfy the department's requirements.

There are few options for lasers that can generate pulses as short as 35 picoseconds that retain sufficiently narrow bandwidth to be suitable for performing Raman spectroscopy. The way that this laser generates its pulses is entirely unique and therefore offers capabilities that are simply not available in any other commercial laser currently on the market. We need to couple this laser to a femtosecond laser currently owned by Dr. Chini, the timing requirements to make sure that the lasers overlap sufficiently are very demanding. This laser can be coupled with the 20 MHz clock from Dr. Chini's laser and has sufficiently low timing jitter (~10 ps) that we would be able to perform temporal measurements on similar timescales to those which molecules are transferring their internal energy that we can monitor using the 3D-IR Raman technique. To get the best temporal resolution, we need a laser with high-power at low pulse-widths (e.g., at least 50 mW for the shortest pulses, at 35-50 picoseconds when operated at a frequency of 50 kHz), however, to get the best Raman signal we may need to increase the pulse duration a bit more so that the peak power is not too high (which will cause our sample to be ablated by the high heat generated). Thus, by increasing the pulse length we can reduce the peak power while maintaining the total number of photons reaching the sample, thus increasing our overall observed signal. While several other lasers on the market offer some of the capabilities, they are essentially limited to a single pulse width and are only able to offer comparable power outputs to this laser working under its least optimal configuration. For example, NKT photonics offers a Katana series of lasers where a 75-mW laser at 50 kHz can be fabricated with a specific pulse length set between 200 picoseconds and 2 nanoseconds, quoted at \$60k. In contrast, the MANNY system from Iriosome (BlacTek) offers 50 mW for a 50 ps pulse, but 500 mW for a 500 ps pulse, thus the proposed laser will operate at a higher output power for a given pulse length and offers shorter pulses as well as tunability. The laser also meets the timing requirements (both jitter and triggering) which are not offered by many competing companies, as well as air-cooling (my laboratory does not have water cooling!). All other vendors that I was able to find failed one of the key requirements (low jitter, high power at 50 kHz, wavelength, air cooling, frequency, pulse shape, spectral bandwidth, triggering options, operating frequencies), and none offered tunability of the pulse width.

## SOLE SOURCE JUSTIFICATION

3. State why the product(s) and/or service(s) are available from only one source and how that determination was made. Explain the research conducted to support this claim.

I performed research into potential lasers for approximately 3 months, looked at hundreds of different lasers, and contacted dozens of different laser vendors for more details and quotes, and none can meet our requirements with a single laser. The reason being that the way the pulses are generated in this laser are unique.

4. Provide an explanation to support the belief that the price is fair and reasonable.

After extensively researching the costs of lasers, this is reasonable given the unique capabilities of this laser. The laser from NKT photonics costs \$60k, for comparison, but that is without the inclusion of additional costs to integrate this laser with the 20 MHz clock from Dr. Chini's laser, thus probably it would cost an additional \$10k (\$70k total). However, such a laser would only offer a single pulse-width of between 200 picoseconds and 2 nanoseconds, and the most powerful option available at suitable wavelengths would only be 75 mW at 50 kHz. Thus, having the ability to select pulsewidths from 35 picoseconds to 1 nanosecond would be an overall cost-saving since we would need to purchase two lasers to cover such a range and the increased power will likely be necessary to detect weak signals. However, this laser offers the flexibility of optimizing the pulse width allowing us the flexibility to select between better Raman signal and increased temporal resolution which would be required to help secure the success of the project.

**From:** [Gerald Hector](#)  
**To:** [Joel Levenson](#)  
**Cc:** [Brian Sargent](#); [Trinh Nguyen](#)  
**Subject:** Re: Sole Source for Review/Approval :) - BlacTek, Req 507686  
**Date:** Saturday, June 11, 2022 7:14:02 PM

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Joel:

I approve.

Regards,

Gerald.

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**From:** Joel Levenson <Joel.Levenson@ucf.edu>  
**Sent:** Friday, June 10, 2022 9:36 AM  
**To:** Gerald Hector <Gerald.Hector@ucf.edu>  
**Cc:** Brian Sargent <Brian.Sargent@ucf.edu>; Trinh Nguyen <Trinh.Nguyen@ucf.edu>  
**Subject:** FW: Sole Source for Review/Approval :) - BlacTek, Req 507686

Good morning Gerald,

As you've seen with prior sole sources, we certainly love to buy lasers at UCF!

I approve of this sole source as well. The PI and department researched comparable lasers which did not meet the needs of the project. Technical specifications were reviewed as well as timing of laser pulses, etc. and the identified supplier is the only one who can meet the needs of the research.

After your review, please reply all and indicate if you approve or have additional questions.

Thank you,

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**From:** Brian Sargent <Brian.Sargent@ucf.edu>  
**Sent:** Thursday, June 9, 2022 10:19 AM  
**To:** Joel Levenson <Joel.Levenson@ucf.edu>  
**Cc:** Trinh Nguyen <Trinh.Nguyen@ucf.edu>  
**Subject:** FW: Sole Source for Review/Approval :) - BlacTek, Req 507686

Hi Joel,

I support this sole source for the reasons below for a custom laser for the Physics dept. Only the BlacTek laser can offer tunability of the pulse width that only the BlacTek system. The way this laser generates pulse width is unique and a requirement. No other source can meet this requirement, nor

could they meet the full list of requirements below.

Please approve/disapprove. Let me know if you have any questions.

Regards,

Brian

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**From:** Trinh Nguyen <[Trinh.Nguyen@ucf.edu](mailto:Trinh.Nguyen@ucf.edu)>  
**Sent:** Wednesday, June 8, 2022 5:00 PM  
**To:** Brian Sargent <[Brian.Sargent@ucf.edu](mailto:Brian.Sargent@ucf.edu)>  
**Subject:** FW: Sole Source for Review/Approval :) - BlacTek, Req 507686

Hi Brian,

I have reviewed the attached sole source and with additional information provided by PI below, I can support it with the following reasons. Please note I've already told Chris the PI that the PO will not be processed by this Friday and if his SS is fully approved, a new req will need to be created in Workday. Can you please review to see if you agree or not?

Vendor: BlacTek  
Product: Custom ultrafast pulsed laser  
Total Amount: \$103,968.75  
Dept: Physics

**Requirement:** The department wants to purchase a short pulse laser system to couple it to an existing ultrafast (femtosecond) laser to utilize for performing Raman spectroscopy for projects. The required requirements are:

- Generate pulses as short as 35 picoseconds
- Low timing jitter (~10 ps) to perform temporal studies within the picosecond domain
- Need a laser with high-power at 50KHz with low pulse-widths (at least 50 mW for the shortest pulses, at 35-50 picoseconds when operating at 50kHz) to get the best temporal resolution
- Be able to capture and separate the Raman signal from a competing fluorescence process.
- Offers tunability of the pulse width
- Can synchronize with the 20 MHz clock on existing laser

**Research Conducted:** The PI noted that while there are other pulse lasers out in the marketplace that offer some of the capabilities needed, none can offer all the above requirements to couple to the existing ultrafast laser like the custom pulsed laser from BlacTek. The way that this laser generates its pulses is unique and not available in any other commercial lasers. Below is a list of lasers that were researched on:

- NKT photonics: Their laser doesn't offer the short pulses and high power needed.
- Wedge XF 532 nm: This system generates 400 picoseconds which is too long.
- PicoQuant IB-530-T-B: This system only offers 1.1mW power. Need at least 50mW.
- PicoQuant VisUV-532: Generates 85 picoseconds which is too long for Raman and can't sync with existing laser.
- CivilLaser Ultra-fast Fiber Source 532nm: This system cannot operate below 15 MHz (need it to run at 100kHz max) and it can't be sync with existing laser.
- Crystalaser Picosecond diode laser: Average power is only .3mW at 50MHz and the power decreases at lower repetition rates. This system can't be sync with existing laser.

It was also noted that none of the above systems can offer tunability of the pulse width that only the BlacTek system can provide.

**Price is fair and reasonable:** It was noted that after extensive research on the different lasers, the BlacTek system pricing is considered fair and reasonable since it's the only system suitable for the requirements and can synchronize with the existing system at no additional cost. Furthermore, the BlacTek system offers the flexibility of optimizing the pulse width allowing flexibility to select between better Raman signal and increased temporal resolution which is required to help secure the success of the project.

Thanks,  
Trinh

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**From:** Christopher Bennett <[Christopher.Bennett@ucf.edu](mailto:Christopher.Bennett@ucf.edu)>  
**Sent:** Monday, June 6, 2022 5:45 PM  
**To:** Trinh Nguyen <[Trinh.Nguyen@ucf.edu](mailto:Trinh.Nguyen@ucf.edu)>; Jessica Brooks <[Jessica.Brooks@ucf.edu](mailto:Jessica.Brooks@ucf.edu)>  
**Subject:** Re: Sole Source for Review/Approval :)

Hi Trinh,

I have some notes on some of the lasers I looked at briefly... here they are:

Wedge XF 532 nm; cost \$15k

Good:

- 532 nm
- 400 picosecond would work okay for basic Raman spectroscopy, but too long for any spatial information, infact this may not yield any data at all if the information from the femtosecond laser has sufficiently decayed and moved on during this timeframe.
- air-cooled
- can be operated from 10 to 100 kHz (we need 50 kHz, 100 kHz)
- sufficiently powerful, and good quality beam



Bad:

-400 picoseconds is too long for any spatial information, in fact this may not yield any data at all if the information from the femtosecond laser has sufficiently decayed and moved on during this timeframe.

- no short option and no tunability - this would not work for 3D-IR Raman at all.
- stability of 4% is not great for a quantitative spectroscopy application.
- 300 picosecond jitter... this is a dealbreaker - no way we can ensure pulses are overlapping.
- no ability to ensure clocks are synchronized, but does not really matter due to the poor jitter of this model.

PicoQuant IB-530-T-B

Good:

- company dedicated to spectroscopic applications.
- pulse width down to 80 picoseconds or shorter, MAY be sufficient for 3D-IR Raman

Bad:

- 1.1 mW power is absolutely nothing. We won't see anything. This alone is a dealbreaker. Other models at other wavelengths only offer up to 50 mW average power, which is still not enough and even then the pulse width increases. Dealbreaker.

PicoQuant VisUV-532 (HP model is  $\sim 1$  ns pulsewidth so not an option)

Good:

<85 picosecond pulsewidth okay for Raman (but still not short enough for temporal studies with 3D-IR Raman).

- 300 mW average power should be sufficient
- 1 Hz to 80 MHz covers our frequency range.

Bad:

- 85 picoseconds too long for Raman.
- delay of 80 ns from trigger to pulse without jitter even listed. Dealbreaker, cannot be synchronized.
- 532 nm  $\pm$  2 nm wavelength spec is wide enough that it may cause problems
- spectral width of  $\sim 1$  nm means not well suited for spectroscopy applications in general.
- no means to sync with our laser. Dealbreaker.

CivilLaser Ultra-fast Fiber Laser Source 532nm Picosecond Pulse Fiber Laser

Good:

- Pulse width down to 10 ps.
- Jitter estimated to be 10 ps (never measured)
- 0.3 nm spectral bandwidth is workable.

Bad:

- cannot be ran below 15 MHz (we need it to run at 100 kHz max). Dealbreaker.
- no method to sync with our laser pulse. Dealbreaker.

CrystaLaser Picosecond diode laser

Good:

- 80 ps pulse

Bad:

- average power only 0.3 mW at 50 MHz; power decreases at lower repetition rates.

Dealbreaker.

- no means to sync. Dealbreaker.

All the best,

**Dr. Chris J. Bennett**

*Assistant Professor*

Department of Physics / Planetary Science

University of Central Florida

**Tel:** (808) 358-1826

**E-mail:** [christopher.bennett@ucf.edu](mailto:christopher.bennett@ucf.edu)

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**From:** Trinh Nguyen <[Trinh.Nguyen@ucf.edu](mailto:Trinh.Nguyen@ucf.edu)>

**Sent:** Monday, June 6, 2022 1:06 PM

**To:** Christopher Bennett <[Christopher.Bennett@ucf.edu](mailto:Christopher.Bennett@ucf.edu)>; Jessica Brooks <[Jessica.Brooks@ucf.edu](mailto:Jessica.Brooks@ucf.edu)>

**Subject:** RE: Sole Source for Review/Approval :)

You provided NKT Photonics as a comparison and noted that their product's output power isn't as high. You also noted that all other vendors failed one of the key requirements (low jitter, high power at 50kHz, wavelength, air cooling, frequency, pulse share, etc. Who are these suppliers? I don't need all the names but the top three that comes closest to the BlacTek but falls short on few criteria.

Thanks,

Trinh

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**From:** Christopher Bennett <[Christopher.Bennett@ucf.edu](mailto:Christopher.Bennett@ucf.edu)>

**Sent:** Monday, June 6, 2022 12:49 PM

**To:** Trinh Nguyen <[Trinh.Nguyen@ucf.edu](mailto:Trinh.Nguyen@ucf.edu)>; Jessica Brooks <[Jessica.Brooks@ucf.edu](mailto:Jessica.Brooks@ucf.edu)>

**Subject:** Re: Sole Source for Review/Approval :)

That information is already included in what I sent for the closest model. Honestly there is nothing that really comes close to it. The problem being how lasers typically work and how they generate short pulses... thus, this laser operates under a different principal than others which makes it very unique. So no other companies really came close - How many companies and lasers would you like me to list? what level of additional details do you need? Do you need quotes? I have them from the company I listed and a few others, but it will take a bit of time -

is there anything specific? I mean, I suppose I can try to put together some kind of table, but a bit more information on what you really need would be helpful.

Jessica - If I put a table together can I send it to you to put into the sole source, since I don't think this is trivial to do.

All the best,

**Dr. Chris J. Bennett**

*Assistant Professor*

Department of Physics / Planetary Science

University of Central Florida

**Tel:** (808) 358-1826

**E-mail:** [christopher.bennett@ucf.edu](mailto:christopher.bennett@ucf.edu)

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**From:** Trinh Nguyen <[Trinh.Nguyen@ucf.edu](mailto:Trinh.Nguyen@ucf.edu)>

**Sent:** Monday, June 6, 2022 12:20 PM

**To:** Christopher Bennett <[Christopher.Bennett@ucf.edu](mailto:Christopher.Bennett@ucf.edu)>; Jessica Brooks <[Jessica.Brooks@ucf.edu](mailto:Jessica.Brooks@ucf.edu)>

**Subject:** FW: Sole Source for Review/Approval :)

Hi Christopher,

I'm reviewing your SS and you mentioned that you've looked at hundreds of different lasers and none can meet the requirements. Can you please provide me with a list of suppliers that had a product that were most similar to the BlackTek but fell short and what features did they fall short on that only the BlackTek can provide.

Thanks,

Trinh

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**From:** Jessica Brooks <[Jessica.Brooks@ucf.edu](mailto:Jessica.Brooks@ucf.edu)>

**Sent:** Tuesday, May 31, 2022 3:27 PM

**To:** Trinh Nguyen <[Trinh.Nguyen@ucf.edu](mailto:Trinh.Nguyen@ucf.edu)>; Brian Sargent <[Brian.Sargent@ucf.edu](mailto:Brian.Sargent@ucf.edu)>

**Cc:** Christopher Bennett <[Christopher.Bennett@ucf.edu](mailto:Christopher.Bennett@ucf.edu)>

**Subject:** RE: Sole Source for Review/Approval :)

Hi Trinh & Brian,

Please see attached with Dean's signature.

Thanks so much!!

Jessica

*Jessica Brooks*

Contracts & Grants Specialist

Department of Physics  
Phone (407)823-0271  
Fax (407)823-5112

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**From:** Trinh Nguyen <[Trinh.Nguyen@ucf.edu](mailto:Trinh.Nguyen@ucf.edu)>  
**Sent:** Tuesday, May 31, 2022 10:55 AM  
**To:** Brian Sargent <[Brian.Sargent@ucf.edu](mailto:Brian.Sargent@ucf.edu)>; Jessica Brooks <[Jessica.Brooks@ucf.edu](mailto:Jessica.Brooks@ucf.edu)>  
**Cc:** Christopher Bennett <[Christopher.Bennett@ucf.edu](mailto:Christopher.Bennett@ucf.edu)>  
**Subject:** RE: Sole Source for Review/Approval :)

Hi Brian and Jessica,

I'll add this one to my list to review.

Thanks,  
Trinh

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**From:** Brian Sargent <[Brian.Sargent@ucf.edu](mailto:Brian.Sargent@ucf.edu)>  
**Sent:** Tuesday, May 31, 2022 10:52 AM  
**To:** Jessica Brooks <[Jessica.Brooks@ucf.edu](mailto:Jessica.Brooks@ucf.edu)>; Trinh Nguyen <[Trinh.Nguyen@ucf.edu](mailto:Trinh.Nguyen@ucf.edu)>  
**Cc:** Christopher Bennett <[Christopher.Bennett@ucf.edu](mailto:Christopher.Bennett@ucf.edu)>  
**Subject:** RE: Sole Source for Review/Approval :)

Hi Jessica,

Its not likely that this will make it through all the necessary review/approvals (up to the CFO) by the system closure. This one will need to wait until after the new system go-live 7/1.

I will ask that Trinh review the sole source in the meantime with hope that its ready to go when the system is back up.

Regards,

Brian

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**From:** Jessica Brooks <[Jessica.Brooks@ucf.edu](mailto:Jessica.Brooks@ucf.edu)>  
**Sent:** Tuesday, May 31, 2022 8:59 AM  
**To:** Brian Sargent <[Brian.Sargent@ucf.edu](mailto:Brian.Sargent@ucf.edu)>; Trinh Nguyen <[Trinh.Nguyen@ucf.edu](mailto:Trinh.Nguyen@ucf.edu)>  
**Cc:** Christopher Bennett <[Christopher.Bennett@ucf.edu](mailto:Christopher.Bennett@ucf.edu)>  
**Subject:** RE: Sole Source for Review/Approval :)

Hi Brian,

Just wanted to check in on this. I know today is going to be a crazy day :/ Please let me know if this is going to be a possibility. Still waiting for Dean's signature, but will request pre-payment approval this morning. Hoping to be ready to submit by mid-day.

Sorry & thanks!!!  
Jessica

*Jessica Brooks*

Contracts & Grants Specialist  
Department of Physics  
Phone (407)823-0271  
Fax (407)823-5112

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**From:** Jessica Brooks  
**Sent:** Friday, May 27, 2022 1:29 PM  
**To:** Brian Sargent <[Brian.Sargent@ucf.edu](mailto:Brian.Sargent@ucf.edu)>; Trinh Nguyen <[Trinh.Nguyen@ucf.edu](mailto:Trinh.Nguyen@ucf.edu)>  
**Cc:** Christopher Bennett <[Christopher.Bennett@ucf.edu](mailto:Christopher.Bennett@ucf.edu)>  
**Subject:** Sole Source for Review/Approval :)

Hi Brian & Trinh,

I know this is a long shot, but hope we can facilitate this request. See attached Sole Source request for BlacTek for Dr. Bennett. I will send for Dean's signature now, but wanted to get a start on the review process. I have copied the PI here in case you have any questions.

If you can confirm when/if you start the review, I would really appreciate it ☺ Sorry for the late request!

Thanks so much!!  
Jessica

*Jessica Brooks*

Contracts & Grants Specialist  
Department of Physics  
Phone (407)823-0271  
Fax (407)823-5112



# Quotation

**Blactek Incorporated**

Corp # 2020-000941857  
EIN# 85-2838859

**Date:** 27-May-22  
**Quotation #:** Q20210831-5

**Customer:** Prof. Christopher Bennet  
University of Central Florida  
Department of Physics

Email: christopher.bennett@ucf.edu  
Phone: 808-358-1826

FOB	Delivery	Terms
EXW	16 Weeks ARO	See Notes Below

Qty	Part #	Description	Unit Price	Line Total
1	MANNY-IR-M-1064	Highly tunable IR Fiber laser Specifications as per attached spec sheet rev.3 - April 11, 2022	92,187.50	92,187.50
1	DIVIDER	Pulse divider for synchronizing to 20MHz master signal	10,937.50	10,937.50
1	Internal Clock	20MHz Internal Clock Signal	843.75	843.75

Notes:  
Warranty is 1 year from date of shipping.  
Payment terms are 50% with order  
and 50% after delivery.

Subtotal	\$103,968.75
Shipping	PrePay&Add
<b>Total</b>	<b>\$103,968.75</b>

Prices are valid for 45 Days from date of Quote

**Prices are in USD**

Thank you for your business!

16 Milford Avenue, Natick MA, 01760 | Phone: 416-670-6353 | Email: mike@blactek.com