CNM Grant Procurement Memo

Applies to:

- Federal purchases $10,000 and above or,
- State purchases $20,000 and above
- Purchases less than $60,000

Funding source (choose one):

State Federal

Grant/Project Title: Dept of Education-Quantum Learning Lab

Project Director/PI: Brian Rashap

Grant number within Workday: GR300429

Description of goods or services: Short description of what is needed

Second Quantum Optics Education setup for the Quantum Learning Lab. Includes upgrades that allow student to explore more quantum phenomenon.

Benefit to grant and CNM: Describe how/why this purchase will meet objectives of project.

Increase the number of students able to be trained from 3 to 6, as well as add on capabilities around quantum phenomenon.

Estimated dollar amount: $48,247.76

Rationale for method of procurement: Describe how quotes were gathered

Direct Quotes from Vendors

Contractor selection or rejection: Name each vendor and indicate whether selected or rejected. This will document and justify the decision for procurement.

- VENDOR #1: ThorLabs
  - ThorLabs: ACCEPTED
  - Amount of Quote: $48,247.76
  - Justification: Lowest Quote. Matches current setup and allows for expansion.
- VENDOR #2: QuTools
  - QuTools: REJECTED
  - Amount of Quote: $95,000 (or $65,000 without NV setup)
  - Justification: Move expensive and less compatible with learning objectives.
- VENDOR #3: Newport / MKS
  - Newport / MKS: REJECTED
  - Amount of Quote: $10,093.
  - Justification: Does not provide the capabilities needed for the Quantum Technician Bootcamp. Newport/MKS will not make it customized to meet our needs.

VENDOR #1: ThorLabs

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Quotation TQ0604888

Bill to
Central New Mexico Community College
Accounts Payable
P.O. Box 4586
Albuquerque, NM 87196
United States

Date	7/16/2025
Expiration Date	8/15/2025
Number	TQ0604888-1
Sales Contact	Patricia Abenilla
Mode of Delivery	FedEx Ground
Terms of Delivery	Free Carrier
Payment Terms	Net 30 days
Invoice Account	287440

Ship to
Central New Mexico Community College
Suite 3100
101 Broadway NE
Albuquerque, NM 87102
United States
Attention: Brian Rashap
Email: CNM_invoices@cnm.edu

	Item# / Description	Quantity	Unit Price	Disc.%	Disc. Price	Amount	Availability
1	**EDU-QOP1** Quantum Optics Kit, imperial Unit Net Weight: 25.9589kg Commodity code: 9023.00.0000 Country of Origin: DEU REACH: SVHC > 0.1% Lead RoHS: Exempt - Annex III - 6(a) RoHS: Exempt - Annex III - 6(c) RoHS: Exempt - Annex III - 7(a) RoHS: Exempt - Annex III - 7(c)-I	1.00	35,744.68	10.00	32,170.21	32,170.21	Available
2	**EDU-QOPA1** Polarization-entanglement add-on, imperial Unit Net Weight: 2.5000kg Commodity code: 9023.00.0000 Country of Origin: DEU REACH: SVHC Free RoHS: Compliant Commodity Code MUC: 90230010	1.00	4,800.18	10.00	4,320.16	4,320.16	Available
3	**GT25-06V** Visible Transmission Grating, 600 grooves / mm, 28 Unit Net Weight: 0.0245kg Commodity code: 9001.90.9000 Country of Origin: USA REACH: SVHC Free	1.00	135.99	10.00	122.39	122.39	Available

Phone: 973-300-3000 • Fax: 973-300-3600 • Email: sales@thorlabs.com

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	Item# / Description	Quantity	Unit Price	Disc.%	Disc. Price	Amount	Availability
4	**GT25-08** Visible Transmission Grating, 830 grooves / mm, 29 Unit Net Weight: 0.0273kg Commodity code: 9001.90.9000 Country of Origin: USA REACH: NoSVHC_224 RoHS: Compliant	1.00	135.99	10.00	122.39	122.39	Available
5	**GR25-0605** Grating, Ruled, 600/mm, 500nm Blaze, 25X25X6mm Unit Net Weight: 0.0418kg Commodity code: 9001.90.9000 Country of Origin: USA REACH: SVHC Free RoHS: Compliant	1.00	137.27	10.00	123.54	123.54	Available
6	**GR25-1204** Grating, Ruled, 1200/mm, 400nm Blaze, 25X25X6mm Unit Net Weight: 0.0264kg Commodity code: 9001.90.9000 Country of Origin: USA REACH: NoSVHC_224 RoHS: Compliant	1.00	137.27	10.00	123.54	123.54	Available
7	**KM100C** Kinematic Cylindrical Lens Mount Unit Net Weight: 0.0946kg Commodity code: 9033.00.9000 Country of Origin: USA REACH: SVHC Free RoHS: Compliant	4.00	120.45	10.00	108.41	433.64	Available
8	**CCSA1** Cosine Corrector for Fiber Unit Net Weight: 0.0255kg Commodity code: 9013.80.9100 Country of Origin: DEU REACH: SVHC Free RoHS: Compliant	1.00	175.39	10.00	157.85	157.85	Available
9	**CCT12** NIR High Resolution Spektrometer 500 - 1000 nm Unit Net Weight: 0.5000kg Commodity code: 9027.30.4080 Country of Origin: DEU REACH: SVHC Free RoHS: Compliant Commodity Code MUC: 90273000 Commodity Code THO: 9027.30.4080	1.00	3,531.00	10.00	3,177.90	3,177.90	Available

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	Item# / Description	Quantity	Unit Price	Disc.%	Disc. Price	Amount	Availability
10	**HNLS008L** HeNe Laser System, 0.8 mW, Linear, 120VAC Unit Net Weight: 1.4212kg Commodity code: 9013.20.0000 Country of Origin: THA REACH: SVHC > 0.1% Lead RoHS: Exempt - Annex III - 6(c) RoHS: Exempt - Annex III - 7(a) RoHS: Exempt - Annex III - 7(c)-I REACH: SVHC > 0.1% 3,5,3',5'-Tetrabromo-bisphenol A (TBBA) REACH: SVHC > 0.1% 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol	1.00	1,337.50	10.00	1,203.75	1,203.75	Lead time
11	**K5X1** 5-Axis Locking Kinematic Ø1" Optic Mount TTN029290, 5-Axis Locking Kinematic Ø1" Optic Mount Unit Net Weight: 0.1646kg Commodity code: 9033.00.9000 Country of Origin: USA REACH: SVHC Free RoHS: Compliant	2.00	295.33	10.00	265.80	531.60	Available
12	**AD11F** Fiber Collimation Adapter for SM1 Series Mounts Unit Net Weight: 0.0109kg Commodity code: 9033.00.9000 Country of Origin: USA REACH: SVHC Free RoHS: Compliant	6.00	36.22	10.00	32.60	195.60	Available
13	**F280FC-B** Fiber Collimation Package, λ=633nm, f = 18.24 mm, FC/PC Unit Net Weight: 0.0091kg Commodity code: 9013.80.9100 Country of Origin: USA REACH: SVHC Free RoHS: Compliant	2.00	193.67	10.00	174.30	348.60	Available
14	**PAF2P-18A** FiberPort, FC/PC, f=18.4 mm, 350 - 700 nm, Ø3.01 mm Waist Unit Net Weight: 0.1852kg Commodity code: 9013.80.9100 Country of Origin: USA	2.00	749.42	10.00	674.48	1,348.96	Available
15	**HCP** L Bracket Fiber Port Mount Unit Net Weight: 0.0955kg Commodity code: 9013.80.7000 Country of Origin: USA REACH: SVHC Free RoHS: Compliant	2.00	102.32	10.00	92.09	184.18	Available

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	Item# / Description	Quantity	Unit Price	Disc.%	Disc. Price	Amount	Availability
16	**P1-S630-FC-1** SM Patch Cable, 630 - 860 nm, FC/PC, Ø3 mm Jacket, 1 m Long With Pure Silica Fiber Unit Net Weight: 0.0200kg Commodity code: 9001.10.0075 Country of Origin: USA REACH: SVHC Free RoHS: Compliant	2.00	134.34	10.00	120.91	241.82	Available
17	**M122L01** 200 µm, 0.22 NA, FC/PC-FC/PC Fiber Patch Cable, 1 Meter 200 µm, 0.22 NA, FC/PC-FC/PC Fiber Patch Cable, 1 Meter Unit Net Weight: 0.0576kg Commodity code: 8544.70.0000 Country of Origin: USA REACH: SVHC Free RoHS: Compliant	2.00	106.95	10.00	96.26	192.52	Available
18	**S150C** Silicon Fiber Power Head, 350-1100nm, 5mW Unit Net Weight: 0.3055kg Commodity code: 9027.50.4060 Country of Origin: DEU REACH: SVHC Free RoHS: Compliant	2.00	381.34	10.00	343.21	686.42	Lead time
19	**PM100D** PM100D Power Energy Meter w. Graphics Display Unit Net Weight: 1.2227kg Commodity code: 9027.30.4040 Country of Origin: DEU REACH: SVHC > 0.1% Diboron Trioxide REACH: SVHC > 0.1% Lead REACH: SVHC > 0.1% Siloxane D4 (Octamethylcyclotetrasiloxane) REACH: SVHC > 0.1% Siloxane D5 (Decamethylcyclopentasiloxane) REACH: SVHC > 0.1% Siloxane D6 (Dodecamethylcyclohexasiloxane) RoHS: Exempt - Annex III - 6(c) RoHS: Exempt - Annex III - 7(c)-I	2.00	1,359.32	10.00	1,223.39	2,446.78	Available
20	**POWER CORD USA** POWER CORD USA - Value for Customs Purposes Only $1 or €1 POWER CORD USA Unit Net Weight: 0.2005kg Commodity code: 8544.42.9010 Country of Origin: GBR RoHS: Compliant REACH: NoSVHC_247	2.00	0.00	4.00	0.00	0.00	Available

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Subtotal	48,131.85	
Shipping & Handling	115.91	
Sales Tax	0.00	
Grand Total	**48,247.76**	**USD**

VENDOR # 2

qutools GmbH : Kistlerhofstr. 70 Geb 88 : 81379 Munich

Brian Rashap
IoT Educator
Central New Mexico Community College
United States

qutools GmbH
Kistlerhofstr. 70 Geb. 88, 81379 Munich, Germany
:
T +49 (89) 321 649 59-0, F +49 (89) 321 649 59-9
Website: www.qutools.com
:
Date: 28.05.2024
Processed by: Nico Klein
E-Mail: Nico.Klein@qutools.com

Offer No. A_20240528_NK_01

Pos	Quantity	Description	Unit Price (EUR)	Total Price (EUR)
1	1	quEDU Control Unit Including: - APDs and Photodiode - Time Tagging and Coincidence Logic - Data Acquisition and Readout	20.000,00	20.000,00
2	1	quEDU-ED Entangled Photon Pair Source Experiment Board Including: - Pump Laser with laser driver - SPDC source - Alignment Accessories - Fiber Coupling	20.000,00	20.000,00
3	1	quEDU-HOM Hong-Ou-Mandel AddOn for quEDU-ED 2 photon interference experiment kit	15.000,00	15.000,00
4	1	quEDU-TOM Tomography AddOn for quEDU-ED Experiment kit for 1- and 2-qubit tomography	10.000,00	10.000,00
5	1	quEDU-NV NV center setup Experiment Board Including: - Microdiamond with NV center ensemble - Green Pump laser - Microwave source - 3D magnetic field coils - motorized alignment stages - Pulse control - Fiber coupling	30.000,00	30.000,00
Net amount				95.000,00
Tax free (§4, Nr 1a UStG)				
Total value				**95.000,00**

VENDOR #3: Newport / MKS

Dear Brian,

We appreciate your interest in Newport, the Photonics Solutions Division of MKS Instruments, Inc. I am contacting you regarding your inquiry for the educational optics kit.

I understand you are interested in purchasing a kit that will allow for a wide range of different optical experiments.

Here we offer the OEK-STD Educational Kit: https://www.newport.com/p/OEK-STD

Unfortunately we do not offer any custom options for this kit but if you need help selecting additional optics or opto-mechanics we are happy to assist.

If you have any other questions or comments or interested in a quotation please let us know.

Your case number for future reference is 00822673.

Thank you,

Steven Fontanini
Sr Inside Sales Engineer
Photonics Solutions Division
MKS Instruments, Inc.
Phone : +1.720.459.9030