



# Purchase Contract

(hereafter the “Contract”)

## 1. CONTRACTUAL PARTIES

### 1.1 Fyzikální ústav AV ČR, v. v. i. (Institute of Physics of the Czech Academy of Sciences),

with registered offices at: Na Slovance 1999/2, 182 00 Praha 8, Czech Republic,  
represented by: RNDr. Michael Prouza, Ph.D., Director,  
registered in the Register of public research institutions of the Ministry of Education, Youth and Sports  
of the Czech Republic.  
ID No.: 68378271

Bank: UniCredit Bank Czech Republic and Slovakia, a.s.

Account No. IBAN: [REDACTED]; SWIFT (BIC): [REDACTED]

(hereinafter referred to as the “Buyer”)

and

### 1.2 kiutra GmbH,

with registered offices at: Flößergasse 2, 81369 München, Germany  
represented by: Alexander Regnat, Managing Director,  
registered in in the Commercial register at the District Court in München.  
ID No.: HRB 242819  
Tax ID No.: DE319 691 146

Bank: Rheingauer Volksbank

Account No. IBAN: [REDACTED]; SWIFT (BIC): [REDACTED]

(hereinafter referred to as the “Seller”)

(the Buyer and the Seller are hereinafter jointly referred to as the “Parties” and each of them  
individually as a “Party”).

## 2. FUNDAMENTAL PROVISIONS

- 2.1 The Buyer is implementing the project "Teraferroics for ultra-high capacity, speed and energy-efficiency of information technology" under the *Operational Programme Jan Amos Komenský* within the framework of EU funds, project registration number CZ.02.01.01/00/22\_008/0004594 (hereinafter referred to as the “Project”). The subject of performance under this Contract is intended for the Project and co-financed from the support provided for its implementation.





- 2.2 The Seller has been selected as the winner of a public procurement procedure announced by the Buyer in accordance with Act No. 134/2016 Coll., on Public Procurement, as amended (hereinafter the “**Act**”), for the public contract with the title “**Dry cryostat with operation temperature bellow 200 mK**” (hereinafter the “**Procurement Procedure**”).
- 2.3 The documentation necessary for the implementation of the subject of performance hereof consist of
- 2.3.1 **Technical specifications** of the subject of performance hereof attached as **Annex No. 1** hereto.
- 2.3.2 The Seller’s bid submitted within the Procurement Procedure in its parts which describe the subject of performance in technical detail (hereinafter the “**Seller’s Bid**”); the Sellers’s Bid forms **Annex No. 2** to this Contract and is an integral part hereof.

In the event of a conflict between the Contract and its Annex or between the Contract’s Annexes, the technical specification / requirement of the higher level / quality shall prevail.

- 2.4 The Seller acknowledges that it is essential for the Buyer that the Seller delivers and handovers the subject of performance within the specified time and in the specified quality as stated in Annexes No. 1 and 2 of this Contract (including invoicing). If the Seller fails to comply with the contractual requirements, the Buyer may incur damages.

### **3. SUBJECT-MATTER OF THE CONTRACT**

- 3.1 The subject of this Contract is the Seller’s obligation to deliver and transfer into the Buyer’s ownership:

**a dry cryostat with operation temperature bellow 200 mK**

specified in detail in Annexes No. 1 and No. 2 hereto

(hereinafter the “**Equipment**”)

and the Buyer's obligation to accept the Equipment and to pay the Seller the purchase price as defined below.

- 3.2 The following activities are an integral part of the performance to be provided by the Seller:
- 3.2.1 Submission of a list containing conditions which are recommended to be met at the place of performance in order to install the Equipment;
- 3.2.2 Manufacturing the Equipment and verifying its functionality before starting the transport to the place of performance; the functionality of the Equipment is verified by carrying out the Factory Acceptance Test (hereinafter the “**FAT**”); FAT shall include at least:
- Presentation of all hardware parts specified and offered within Annexes No. 1 and 2, being installed on the Equipment “as will be shipped” and/or to be subsequently installed at the place of performance.





- Presenting documentation that provides an overview of all software functions specified and offered within Annexes No. 1 and 2.
  - Presentation of results of all basic test performed on the instrument before completion, e.g. vacuum levels, emission stability, hardware operation etc.
- 3.2.3 Transport of the Equipment incl. all accessories specified in Annexes No. 1 and 2 hereto to the place of performance, un-packaging and control thereof;
- 3.2.4 Installation of the Equipment and all components necessary to operate the Equipment including connection to installation infrastructure at the place of performance;
- 3.2.5 Verification of the functionality of the Equipment after installation, performing acceptance tests, including issuing reports on its performance which will be presented before acceptance at the place of performance:
- Cooling a test sample down to the base temperature as specified in Annex No. 1 and demonstrating temperature stability with  $\pm 10$  mK over 5 hours, while characterizing the sample using the vector magnet at full magnetic field range;
  - Demonstrating that the system reaches all vacuum levels given within specification according to Annexes No. 1 and 2 hereto;
  - Demonstrating specified functionality and stability of temperature shielding (if part of delivery);
  - Demonstrating functionality of all hardware parts and smooth operation of the software and hardware controls;
- 3.2.6 Delivery of detailed instructions and manuals for the Equipment operation and maintenance in Czech or English, service documentation, list of spare parts (including current prices), electrical connection schemes and CE certification documents of the Equipment (if applicable) in Czech or English, in electronic form (MS Office or PDF format);
- 3.2.7 Training of operators at the place of performance, at least 8 hours of training of 3 operators;
- 3.2.8 Free-of-charge provision of license for all software relevant to all installed individual parts of the Equipment for at least 1 computer, including free software updates during the warranty period;
- 3.2.9 Free-of-charge warranty Equipment service during the warranty period;
- 3.2.10 Free-of-charge provision of technical support in the form of consultations (at least telephone and email support in Czech or English on working days), e.g. regarding fine tuning of the Equipment. The Seller shall provide the Buyer with this support during the warranty period.
- 3.3 The Seller shall be liable for the Equipment and related services to be in full compliance with this Contract, its Annexes and all valid legal regulation, technical and quality standards and shall also be





liable that the Buyer will be able to use the Equipment for the defined purpose. In case of any conflict between applicable standards, it is understood that the stricter standard or its part shall always apply.

3.4 The Equipment and all its parts and accessories must be brand new and unused.

#### **4. PERFORMANCE PERIOD**

4.1 The Seller undertakes to submit the list containing conditions that are recommended to be met at the place of performance according to Section 3.2.1 no later than 1 month after the conclusion of the Contract.

4.2 The Seller undertakes to deliver and hand over the Equipment to the Buyer within **9 months** of the conclusion of the Contract.

4.3 The Seller is obliged to notify the Buyer of the date of FAT at least 30 days in advance.

4.4 The Seller is obliged to notify the Buyer of the date of delivery and installation of the Equipment at least 20 working days in advance. This term is subject to the consent of the Buyer.

#### **5. PURCHASE PRICE, INVOICING, PAYMENTS**

5.1 The purchase price for the Equipment (hereinafter the "**Price**") amounts to **465 000.00 EUR** (in words: four-hundred-sixty-five-thousand-Euros) excluding VAT.

5.2 VAT shall be settled in accordance with the valid Czech regulation.

5.3 The Price includes any and all performance provided by the Seller in connection with meeting the Buyer's requirements for the proper and complete delivery of the Equipment hereunder, as well as all costs that the Seller may incur in connection with the delivery, installation and testing of the Equipment upon handover.

5.4 The Parties agreed that the Seller shall be entitled to

5.4.1 issue an advance invoice in the amount of 40 % of the Price excluding VAT after the conclusion of the Contract;

5.4.2 invoice 50 % of the Price excluding VAT upon presentation of the protocol of successfully performed FAT (hereinafter the "**FAT Protocol**"); in the case the Equipment will be factory-accepted with defects, this part of the Price shall be invoiced after removal of these defects; and

5.4.3 invoice 10 % of the Price after the handover protocol in accordance with Section 10.4 (hereinafter the "**Handover Protocol**") will have been signed; in the case the Equipment will be handed over with defects, this part of the Price shall be invoiced after removal of these defects.

5.5 All invoices issued by the Seller must contain all information required by the applicable laws of the Czech Republic and, in addition, they must





- 5.5.1 contain registration number of this Contract, which the Buyer shall communicate to the Seller based on Seller's request before the issuance of the first invoice,
  - 5.5.2 state that the Equipment is supplied for the purposes of the project "Teraferroics for ultra-high capacity, speed and energy-efficiency of information technology" with the registration number CZ.02.01.01/00/22\_008/0004594,
  - 5.5.3 comply with the double taxation agreements, if applicable.
- 5.6 Invoices shall be payable within thirty (30) days of the date of their delivery to the above address. Payment of the invoiced amount means the date of its remittance to the Seller's account.
- 5.7 If an invoice is not issued in conformity with the payment terms stipulated by the Contract or if it does not comply with the requirements stipulated by law, the Buyer shall be entitled to return the invoice to the Seller as incomplete, or incorrectly issued, for correction or issue of a new invoice, as appropriate, within five (5) business days of the date of its delivery to the Buyer. In such a case, the Buyer shall not be in delay with the payment of the Price or part thereof and the Seller shall issue a corrected invoice with a new and identical maturity period commencing on the date of delivery of the corrected or newly issued invoice to the Buyer.
- 5.8 The Buyer shall be entitled to unilaterally set off any of their payments against any receivables claimed by the Seller due to:
- 5.8.1 damages caused by the Seller,
  - 5.8.2 contractual penalties.
- 5.9 The Seller shall not be entitled to set off any of his receivables against any part of the Buyer's receivable hereunder.

## **6. OWNERSHIP TITLE**

The ownership right to the Equipment and at the same time the associated risk of damage shall pass to the Buyer upon proper handover and acceptance of the Equipment according to Section 10.4, i.e. by drawing up the Handover Protocol and its signature by an authorized representative of the Buyer.

## **7. PLACE OF PERFORMANCE**

The place of performance, i.e. the place of delivery, installation and handover of the Equipment, shall be the room No. F94 in the building F at the premises of the Buyer at Cukrovarnická 112/10, 162 00 Praha 6, Czech Republic.

**8. NOTIFICATION OF DELIVERY**

The Seller shall notify the Buyer in writing of the exact date of delivery, installation and handover of the Equipment in advance and in the manner according to Section 4.3, ensuring that the deadline for the performance hereunder is maintained.

**9. INTERACTION OF THE PARTIES**

- 9.1 The Seller is obliged to notify the Buyer of the unsatisfactory state of readiness of the place of performance, if possible.
- 9.2 The Seller undertakes to notify the Buyer of any obstacles on his part, which may negatively influence proper and timely delivery and/or handover of the Equipment.
- 9.3 The Seller undertakes to provide the Buyer with cooperation in the event of inspections by authorized entities in connection with the Projects.

**10. FACTORY ACCEPTANCE, DELIVERY, INSTALLATION, HANDOVER AND FINAL ACCEPTANCE****10.1 FAT**

- 10.1.1 FAT has to be carried out by the Seller to the extent according to Section 3.2.2 hereof.
- 10.1.2 The Buyer is entitled to attend the FAT at the Seller's facilities. The Seller is obliged to inform the Buyer well in advance of the date of the FAT, in accordance with Section 4.3.
- 10.1.3 The FAT procedure shall be confirmed by the FAT Protocol containing specifications of all performed tests.
- 10.1.4 Should the Buyer not attend the FAT, then the Seller may proceed with the test and shall forthwith forward to the Buyer copy of the FAT Protocol.
- 10.1.5 The Buyer shall not be obliged to factory-accept Equipment, which would show defects (even those that do not - on their own or in connection with other defects - constitute an obstacle to the use of the Equipment). In such a case, the Buyer shall issue a record containing the reason for his refusal to factory-accept the Equipment. If the Equipment does not meet the parameters defined in Annexes No. 1 and 2 to this Contract, such non-compliance is considered a defect of the Equipment.
- 10.1.6 Should the Buyer not exercise his right not to factory-accept the Equipment with a defect, the Seller and the Buyer shall list all defects detected in the FAT Protocol, including the manner of and deadline for their removal.
- 10.2 After successfully performed FAT, the Seller shall transport the Equipment at his own cost to the place of performance. If the shipment is intact, the Buyer shall issue delivery note for the Seller.





- 10.3 The Seller shall perform and document the installation of the Equipment and launch experimental tests in order to verify whether the Equipment is functional and meets the technical requirements of Annexes No. 1 and 2 hereof.
- 10.4 The handover procedure shall be completed by handover of the Equipment confirmed by the Handover Protocol containing specifications of all performed tests. Handover Protocol shall contain the following mandatory information:
- 10.4.1 Identification of the Seller, the Buyer and any subcontractors;
  - 10.4.2 Description of the Equipment including description of all components and their serial / production numbers;
  - 10.4.3 Description of executed tests according to the relevant part of Section 3.2.5 of the Contract and their results;
  - 10.4.4 List of technical documentation according to Section 3.2.6 of the Contract;
  - 10.4.5 Confirmation of the training according to Section 3.2.7 of the Contract, including a list of participants and information on its extent;
  - 10.4.6 Buyer`s possible objections to minor defects of the Equipment including the manner of and deadline for their removal and
  - 10.4.7 Signatures of authorized representatives of the Buyer and the Seller, with the date indicated.
- 10.5 Handover of the Equipment does not relieve the Seller from liability for damage caused by its defects.
- 10.6 The Buyer shall not be obliged to accept the Equipment or any part thereof which is defective (even if such defects - on their own or in connection with other defects – do not constitute an obstacle to the use of the Equipment). In such a case, the Buyer shall issue a report containing the reason for his refusal to accept the Equipment or its part. If the Equipment or its part upon handover does not meet the parameters defined in Annexes No. 1 and 2 to this Contract, such non-compliance is considered a defect of the Equipment.
- 10.7 Should the Buyer not exercise his right not to accept the Equipment or its part with a defect, the Seller and the Buyer shall list all defects detected in the Handover Protocol, including the manner of and deadline for their removal. Should the Parties not be able to agree in the Handover Protocol on the deadline for removal of the defects, it shall be understood that all above shall be removed / rectified within 10 days of handover.

## **11. REPRESENTATIVES, NOTICES**

- 11.1 The Seller authorized the following representatives to communicate with the Buyer in all matters relating to the Equipment delivery, installation and handover:





tel. (+49) 89 356 479 77 0

11.2 The Buyer authorized the following representatives to communicate with the Seller in all matters relating to the Equipment delivery, installation and handover:



11.3 The representatives according to Sections 11.1 and 11.2 can be changed by a unilateral written declaration of the Buyer / Seller delivered to the Seller / Buyer.

11.4 All notifications to be made between the Parties hereunder must be made out in writing and delivered by hand (with confirmed receipt) or by post (to the address of the Seller's or Buyer's registered offices), or in the form of electronic delivery incorporating electronic signature (qualified certificate) to [epodatelna@fzu.cz](mailto:epodatelna@fzu.cz) in the case of Buyer and to [sales@kiutra.com](mailto:sales@kiutra.com) in the case of the Seller.

11.5 In all technical and expert matters (discussions on the Equipment testing, notification of the need to provide warranty or post-warranty service, technical assistance etc.), electronic communication between technical representatives of the Parties will be acceptable using e-mail addresses specified in Sections 11.1 and 11.2.

## 12. TERMINATION

12.1 This Contract may be terminated early by agreement of the Parties or withdrawal from the Contract on the grounds stipulated by law or in the Contract.

12.2 The Buyer is entitled to withdraw from the Contract without any penalty from the Seller in any of the following events:

12.2.1 The Seller is in delay with the delivery of the Equipment longer than 4 weeks after the date pursuant to Section 4.2 hereof.

12.2.2 The Seller is more than 2 weeks in delay with the removal of Equipment defects listed in the list of detected defects of the Handover Protocol according to Section 10.7.

12.2.3 The technical parameters or other conditions set out in the technical specifications defined in Annexes No. 1 and 2 to this Contract and in the relevant applicable technical standards will not be met by the Equipment at FAT or handover.

12.2.4 Facts emerge bearing evidence that the Seller will not be able to deliver or handover the Equipment.

12.3 In all cases according to Section 12.2, the Buyer may also withdraw from the Contract only to the extent of the part relating to the mentioned breach of the Contract.





- 12.4 The Seller is entitled to withdraw from the Contract in the event of the Buyer is in default with the payment for more than 1 month except of the cases if the Buyer refused an invoice due to defect on the Equipment or its part or due to the breach of the Contract by the Seller.
- 12.5 Withdrawal from the Contract shall be effective on the date the notice of withdrawal is delivered to the Seller / Buyer. In the event of withdrawal, the performances received under this Contract (or its part in the case of withdrawal according to Section 12.3) prior to withdrawal shall be duly returned.
- 12.6 In the event of early termination of the Contract, the Seller shall ensure the removal of the Equipment or its part from the place(s) of performance within 30 days from the date on which withdrawal from the Contract became effective. The removal of the Equipment must be preceded by the return of any already paid part of the Price to the Buyer's account. The Buyer will provide the Seller with the necessary cooperation similar to the cooperation during the installation of the Equipment. The cost of removal shall be paid by the Party which caused the early termination of the Contract by breaching it. If the Seller does not ensure the removal of the Equipment or its part from the place of performance within the period according to the first sentence, the Buyer is entitled to sell the Equipment to a third party and use the funds to satisfy his claims against the Seller. The Buyer shall then transfer the remaining funds (if any) to the Seller's account specified in the header of this Contract. The Buyer shall then transfer the remaining funds (if any) to the Seller's account specified in the header of this Contract.

### **13. INSURANCE**

- 13.1 The Seller undertakes to insure the Equipment against all risks, in the amount of the Price for the entire period from the commencement of the transportation of the Equipment until duly handed over to the Buyer. In the event of a breach of this obligation, the Seller shall be liable to the Buyer for damages incurred in connection therewith.
- 13.2 The Seller is liable for the damage that he has caused. The Seller is also liable for damage caused by third parties which have undertaken to carry out performance or part thereof under this Contract.

### **14. WARRANTY TERMS**

- 14.1 The Seller shall provide a full warranty on the Equipment to the extent described in Annex No. 1 hereto for a period of **1 year**.
- 14.2 The warranty period shall commence on the day following the date of signing of the Handover Protocol pursuant to Section 10.4 hereof or, in the event that the Equipment has been handed over with minor defects, on the day following the date of removal of all such defects.
- 14.3 The Seller undertakes to provide free Equipment service through authorized technicians and free regular service inspection at the place of performance to the extent specified by the Equipment manufacturer and by the Contract for the entire warranty period according to this Contract, including repairs, delivery of spare parts, transport and work of an authorized service technician.
- 14.4 Should the Buyer discover a defect, he shall notify the Seller to remove such defect using the e-mail address: [support@kiutra.com](mailto:support@kiutra.com). The Seller is obliged to notify the Buyer without delay about any change of this e-mail address. The Seller shall be obliged to review any warranty claim within 48 hours (within





business days) from its receipt. If the nature of the defect claimed requires an authorised technician to deal with it, this person must be present at the relevant place of performance within 120 hours from receipt of the above-mentioned warranty claim. All the above shall remain in force unless agreed otherwise by the Parties.

- 14.5 During the warranty period, the Seller shall be obliged to remove any claimed defects within 10 business days from the arrival of the authorized technician at the place of performance / within 15 days from receipt of the warranty claim in cases where the claimed defect does not require the intervention of an authorised technician. In case of unusual defects when a special component is needed, the Seller shall be obliged to remove the defect within a period corresponding to the nature of the defect and to set a deadline for handing over the repaired Equipment.
- 14.6 During the warranty period, any and all costs associated with defect removal / repair including transport and travel expenses of the Seller shall be always borne by the Seller.
- 14.7 The repaired part of the Equipment shall be handed over by the Seller to the Buyer on the basis of a protocol confirming the removal of the defect (hereinafter the “**Repair Protocol**”). If the part of the Equipment is duly repaired and defect-free, the Buyer will confirm the Repair Protocol.
- 14.8 The repaired part (component) shall be subject to a new warranty term in accordance with Section 14.1 which commences to run on the day following the date when the Repair Protocol was executed. This shall not apply to consumable parts. Consumable parts for the purposes of the Contract are the items contained in the Equipment which are consumed at regular intervals during the normal use of the Equipment, i.e. parts which have a specified typical lifetime, that does not exceed the warranty period provided the Equipment is used with normal frequency.
- 14.9 The Seller guarantees that he will have the capacity to provide paid post-warranty [out-of-warranty] service at least for a period of 8 years after the expiration of the warranty with service terms identical to those of Sections 14.4 and 14.5. The Seller also guarantees the availability of spare parts and Equipment maintenance kits throughout this period. The Seller undertakes to provide the performance under this paragraph at prices prevailing at the place and time.
- 14.10 If Equipment has defects, due to which it cannot be demonstrably used in full for more than 60 days (period of defects) during six or less consecutive months of the warranty period, the Seller is obliged to deliver new part of Equipment without defects within 180 days after being requested to do so in writing, unless the Parties agree otherwise.

## **15. CONTRACTUAL PENALTIES**

- 15.1 The Buyer shall be entitled to a contractual penalty in the amount of 0.05 % of the Price for each commenced day of delay with the performance pursuant to the relevant part of Section 4.2 hereof.
- 15.2 The Buyer shall be entitled to a contractual penalty in the amount of 0.01 % of the Price for each commenced day of delay with the performance pursuant to Section 14.4 hereof and with the removal of defects claimed within the warranty period pursuant to Section 14.5 and 14.10 hereof.





- 15.3 In the event of default in payment of any due receivables (monetary debt) under the Contract, the defaulting Party (the debtor) shall be obliged to pay a contractual penalty of 0.05 % of the amount due for each commenced day of delay in payment.
- 15.4 The total amount of contractual penalties for the Seller shall not exceed 20% of the Price and the same shall apply to the Buyer.
- 15.5 Contractual penalties are payable within 30 days of receipt of the demand for payment.
- 15.6 Payment of the contractual penalty shall be without prejudice to the rights of the Parties to claim compensation for damages incurred.
- 15.7 Payment of any contractual penalty cannot be demanded if the breach of the contractual obligation is caused by force majeure.

## **16. DISPUTES**

Any and all disputes arising from or relating to this Contract shall be settled by the Parties by mutual negotiations. In the event that any dispute cannot be resolved by negotiations within sixty (60) days, the dispute shall be resolved by a competent court in the Czech Republic upon a legal action brought by either Party; the competent court shall be determined by the location of the registered office of the Buyer. Disputes shall be settled exclusively under the law of the Czech Republic.

## **17. FINAL PROVISIONS**

- 17.1 This Contract constitutes the entire agreement between the Parties. The relations between the Parties not regulated by this Contract shall be governed by Czech law, in particular by the Act No. 89/2012 Coll., the Civil Code, as amended (hereinafter the “**Civil Code**”).
- 17.2 This Contract may be amended or supplemented solely by written amendments. The Parties expressly refuse to amend the Contract in any other way.
- 17.3 The Parties expressly agree that the Contract as a whole, including all attachments, will be published in accordance with Act No. 340/2015 Coll. on special conditions for the effectiveness of some contracts, publication of these contracts and Contract Register, as amended. The Parties hereby declare that all information contained in the Contract and its Annexes is not considered trade secrets under § 504 of the Civil Code and grant permission for their disclosure without setting any additional conditions. This Contract becomes effective as of the day of its publication in the Contract Register, which shall be provided by the Buyer.
- 17.4 The following Annexes form an integral part of the Contract:
- Annex No. 1: Technical specification on the subject of performance
- Annex No. 2: Technical description of the Equipment as presented in Seller’s bid





**TERAFIT**

Annex No. 3: Affidavit according to § 6 paragraph 4 of the Act No. 134/2016 Coll.

17.5 The Parties, manifesting their consent with the entire contents of this Contract, attach their signature hereunder.

In Prague

In München

For the Buyer

For the Seller

27. 04. 2026

24. 04. 2026

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RNDr. Michael Prouza, Ph.D.  
Director

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Alexander Regnat  
Managing Director



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**Annex No. 1 - Technical specification on the subject of performance**

Specific requirements	Complies YES/NO	Value of parameter N	Rated range of parameter N (points awarded for N only within the specified range)	Formula for weighted partial score	Partial score (points)	Item ref.
Necessary basic requirements – not scored						
Cryostat with operation temperature down to 200 mK and stability of +/-10 mK over at least 5 hours (this includes full load of the magnet producing external magnetic field of the sample).	YES	X	X	X	X	1
Continuous operation not requiring supply of liquid coolants such as liquid helium or liquid nitrogen	YES	X	X	X	X	2
Magnet suitable for application of at least 3 T along z axis of the sample space.	YES	X	X	X	X	3
Intuitive controls software allowing the full operation of the cryostat.	YES	X	X	X	X	4
Control computer with all software required for performing all the basic tasks related to operation of the system under given specifications	YES	X	X	X	X	5
Full setup for control of the system	YES	X	X	X	X	6



(motion controllers, T controllers, vacuum controls, etc.)						
Proven full system cooldown time under 70 hours	<b>YES</b>	<b>X</b>	<b>X</b>	<b>X</b>	X	7
Proven sample reload and cooldown time under 6 hours	<b>YES</b>	<b>X</b>	<b>X</b>	<b>X</b>	X	8
Sample loading via a puck (not a sample rod with direct contact to the ambient conditions) scheme compatible with sample size of at least 20 mm and with predefined outer connection for at least 40 DC lines.	<b>YES</b>	<b>X</b>	<b>X</b>	<b>X</b>	X	9
Control rack containing all the electronics necessary for basic electronics and all the hardware related to helium compressor and management of vacuum in the system.	<b>YES</b>	<b>X</b>	<b>X</b>	<b>X</b>	X	10
External outlet for connection to all the sample (puck DC lines) accessible outside of the vacuum part of the system.	<b>YES</b>	<b>X</b>	<b>X</b>	<b>X</b>	X	11
Graphical monitoring and logging of all stages of temperature and vacuum levels	<b>YES</b>	<b>X</b>	<b>X</b>	<b>X</b>	X	12
Full 1 year warranty (full premium ser-	<b>YES</b>	<b>X</b>	<b>X</b>	<b>X</b>	X	13





vice contract including software upgrades, <i>hardware parts essential for full system functionality</i> , hardware repairs, bug fixing, work costs etc.)							
Possibility of electrical measurements at temperatures ranging from base temperature up to 300 K	<b>YES</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>14</b>
<b>Optional parameters - scored</b>							
Vector magnet suitable for application of at least 1 Tesla magnetic field along x and y and 3 Tesla along z axis of the sample space. The magnet needs to achieve full range at temperatures lower than at least 20 K.	<b>YES</b>	<b>X</b>	<b>X</b>	<b>10</b>	<b>10</b>	<b>15</b>	
Additional second year of warranty (full premium service contract including software upgrades, <i>hardware parts essential for full system functionality</i> , hardware repairs, SW bug fixing, work costs etc.)	<b>NO</b>	<b>X</b>	<b>X</b>	<b>5</b>	<b>0</b>	<b>16</b>	
Cooling down the system to base Temperature of 100 mK under the same conditions specified	<b>YES</b>	<b>X</b>	<b>X</b>	<b>20</b>	<b>20</b>	<b>17</b>	





under: "Necessary basic requirements" of this table						
Automatic sample loading and unloading via a puck specified under item ref. 9 above	<b>YES</b>	X	X	10	<b>10</b>	18
Cryostat equipped with radio frequency lines with suitable ports and feedthroughs tested at least up to 10 GHz and with attenuation range of at least up to 10 dB. Points are given as N*5, where N is number of RF lines included within the specified range.	<b>YES</b>	<b>2</b>	$0 < N \leq 2$	N*5	<b>10</b>	19
Integrated low-pass filter improving the charge carrier temperature fluctuations	<b>NO</b>	X	X	5	<b>0</b>	20
Compatibility with direct insertion of the current design of QBoard 2 ( <a href="http://www.quantum-machines.co/products/qboard/">www.quantum-machines.co/products/qboard/</a> ) widely available from the manufacturer Quantum Machines (this specific requirement is set to maintain compatibility to setups of our scientific collaborators).	<b>YES</b>	X	X	5	<b>5</b>	21





The puck being adjusted for mounting in a way that the axis of the magnet (or the strongest axis of the vector magnet if available) is perpendicular or parallel to the device plane.	<b>YES</b>	X	X	5	<b>5</b>	22
Device testing board for fast DC testing of connection between the puck electrical ports and the samples bonded to compatible boards prior to loading.	<b>YES</b>	X	X	3	<b>3</b>	23
Instrument controls being readily integrated with Python programming language	<b>YES</b>	X	X	5	<b>5</b>	24
Free compatible future software upgrades	<b>YES</b>	X	X	3	<b>3</b>	25
Blue Cells – filled by Bidder			Green cells – for final awarded point calculation			



**Annex No. 2****The Seller's bid in the extent it describes technical parameters of the Equipment**

Below is a technical description of the cryostat. You can find more information in the Quotation which is attached along with the documents.

The L-Type Rapid cryostat offered by kiutra is a top-loading, sub-kelvin characterization system designed for high-throughput sample screening and rapid prototyping of quantum-electronic devices. It is equipped with a pulse-tube cryocooler and two magnetic cooling units enabling both ADR (one-shot) and cADR (continuous) sub-kelvin operation. The instrument achieves a base temperature below 100 mK, supports a temperature range from 100 mK to 300 K, and delivers a turnaround time of less than 4 hours, enabling fast cooldown and sample exchange cycles. Its large 55 mm sample diameter capacity, 48 DC measurement lines, and automatic sample loader make it suitable for a broad array of experimental setups requiring versatility, repeatability, and efficient thermal cycling.

In addition to its thermal performance, the L-Type Rapid system integrates a fully equipped control rack, including all required electronics and vacuum-handling devices, along with kiutra's browser-based control software (kiutra.io) for intuitive, modern instrument operation. The system can be enhanced with optional modules such as a 3-1-1 T vector magnet, enabling high-precision magnetic field control around the sample space, and RF wiring tested up to 18 GHz, supporting advanced RF and microwave experiments. Compatibility with QBoard hardware ensures seamless integration into contemporary quantum research workflows, while accessories such as the QBoard mounting bracket facilitate precise orientation of devices relative to the magnetic field. Overall, the L-Type Rapid provides a flexible, high-performance platform tailored to cutting-edge low-temperature physics and quantum-electronics research.

**1. Compliance with Mandatory Technical Requirements**

kiutra GmbH confirms full compliance with all Necessary Basic Requirements defined in Annex No. 1.

- The L-Type Rapid cryostat achieves a base temperature below 100 mK, surpassing the required 200 mK threshold and meeting continuous operation conditions.
- The system uses a pulse-tube cryocooler, requiring no liquid helium or liquid nitrogen.
- The integrated magnet provides 3 T along the vertical axis, satisfying your  $\geq 3$  T requirement.
- The system includes browser-based instrument control software (kiutra.io) and a control rack with all necessary electronics, fulfilling all operational control needs.
- Complete cooldown to base temperature is  $< 48$  hours, significantly faster than the required 70 hours, and sample reload plus cooldown is also  $< 4$  hours.
- The system uses a puck-based loading scheme with 48 DC lines and supports samples up to 55 mm in diameter.
- Temperature and vacuum monitoring features are integrated within the instrument control software.

**2. Compliance with Optional (Scored) Requirements**

kiutra is pleased to confirm compliance with the majority of the Buyer's optional requirements.

- The 3-1-1 T vector magnet meets and exceeds the required specifications.
- The L-Type Rapid system is designed for operation at  $\leq 100$  mK.
- An Automatic Sample Loader is included as part of the system.
- Two RF lines tested cryogenically up to 18 GHz are included.





- The QBoard mounting bracket enables mounting with the magnetic field either parallel or perpendicular to the device plane.

Some optional elements such as an additional year of warranty, integrated low-pass filters, and a DC test board were not included in this bid, but are available for purchase. Please see the optional items in the quotation.

### 3. Summary

kiutra GmbH confirms full compliance with all mandatory technical requirements and compliance with a substantial portion of the scored optional requirements.



# kiutra

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Institute of Physics of the Czech Academy of Sciences  
Dr.-Ing. Filip Křížek  
Na Slovance 1999/2  
18200 Prague 8  
Czech Republic

## Quote Q001353

Date:	2026-01-22	Valid until:	2026-02-05
Version:	6	Your quote from:	2026-01-22
Customer No.:	C001239	Agent:	Jasper Kölling
		E-mail:	jasper.koelling@kiutra.com

Pos.	Description	Quantity	Unit	Price/unit €	Total €
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### Base Cryostat

1	<b>L-Type Rapid – 2P55</b>	1.00	pcs.	████████	████████
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#### Cryostat configuration: 2 Cooling Units - Puck 55

The L-Type Rapid is a unique top-loading characterization cryostat enabling high-throughput screening of scientific samples and rapid prototyping of quantum electronics. This configuration includes a pulse tube cryocooler and two magnetic cooling units for one-shot (ADR) and continuous (cADR) sub-kelvin operation. It offers a base temperature of below 100 mK and a maximum sample diameter of 55 mm.

#### Specifications:

- Temperature range: 100 mK – 300 K
- Turnaround time (base temperature): < 4 hours
- Continuous operation: 200 mK – 300 K
- Hold time at 100 mK: > 5 hours
- Sample space: 55 mm x 100 mm (diameter x height)
- Measurement wiring: 48 DC lines

#### Scope of Supply:

- L-Type Rapid cryostat with Automatic Sample Loader
- Control rack with electronics and vacuum handling devices
- kiutra Compressor Package
- Pre-configured browser-based instrument control software - kiutra.io
- Accessories package including one Puck 55

CE certified. For other certifications, please contact our sales team.

Base Cryostat ██████████

### Integrations

2	<b>Vector Magnet 3-1-1</b>	1.00	pcs.	████████	████████
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This option adds a 3-axis vector magnet around the sample space of the L-Type Rapid cryostat. The combination of 3 superconducting coils allows

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Rheingauer Volksbank  
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BIC: ██████████

Pos.	Description	Quantity	Unit	Price/unit €	Total €
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to generate a magnetic sample position and rotate its orientation. The vertical coil can generate a magnetic field of up to 3 T and the horizontal coils up to 1 T. The sample magnet is compatible with the automatic sample loader and with ADR and cADR operation.

Specifications:

- Maximum field in vertical direction: 3 T
- Homogeneity vertical direction: < 0.2 % (10 mm DSV)
- Maximum field in horizontal direction: 1 T
- Homogeneity horizontal direction: < 3 % (10 mm DSV)
- Sample temperature range: < 30 K

*Note: At sample temperatures > 10 K, magnet operation is only possible during warm-up sweeps or at constant temperatures. The integration of RF wiring will limit the magnet operation to sample temperatures < 10 K. If your application requires a combination of magnetic field and higher temperature, please contact a sales agent for further information.*

3	<b>RF Wiring for L-Type Rapid 2P55 - 2 Lines</b>	1.00	pcs.	██████	██████
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This RF wiring upgrade extends the standard wiring of the L-Type Rapid with 2 RF lines. One user port (ISO-F 100) on the cryostat top plate is equipped with SMA feedthroughs giving access to the RF lines. Attenuators are added to each individual RF line according to customer requirements on the 40 K, 4 K, and sample stages. The RF lines are tested at cryogenic temperatures to up to 18 GHz.

Specifications:

- Operation range (GHz): up to 18
- Attenuators on 40 K, 4 K, and sample stages
- Attenuation options [dB]: 0, 3, 6, 10, 20

4	<b>QBoard mounting bracket for Puck 55</b>	1.00	pcs.	██████	██████
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A gold-plated copper bracket to mount a QBoard from Quantum Machines onto a kiutra Puck 55. The mount allows the QBoard to be installed with the magnetic field parallel or perpendicular to the device plane.

**Integrations** ██████

5	<b>Low Noise Amplifier (4-8) Integration</b>	1.00	pcs.	██████	██████
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Integration of one low-noise cryogenic amplifier (HEMT) on one RF line at the 4 K stage. The amplifier is integrated into the cryostat wiring and tested at low temperatures.

Specifications:

- Supplier: Low Noise Factory AB
- Bandwidth [GHz]: 4-8

**Services**

6	<b>Packaging</b>	1.00	pcs.	██████	██████
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 Fax: +49 89 99950573

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 BIC: ██████████

Pos.	Description	Quantity	Unit	Price/unit €	Total €
7	<b>Shipping</b>	1.00	pcs.	██████	██████
8	<b>Installation</b>	1.00	pcs.	██████	██████

Before scheduling an installation appointment, the customer is required to ensure site compliance with the specifications set forth in the pre-installation guide shared by kiutra. An authorized technician from the customer's institution must connect power and water lines to the helium compressor. Kiutra's employees must not connect power and water lines at the customer's site.

**Services** ██████

9	<b>Pioneer Partnership</b>	1.00	pcs.	██████	██████
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To enable kiutra to gain a better understanding of the typical use and potential improvement of its product, and to increase its visibility for other users, starting with the confirmation of the purchase, the end customer and kiutra enter into a Pioneer Partnership as follows.

- The customer occasionally shares feedback on their experience in working with the new product as well as suggestions for improvements, e.g., via short calls or online questionnaires.
- kiutra provides the customer priority access to new developments and modifications.
- kiutra provides the customer priority access to expert advice through our support team.
- The customer provides at least one short written testimonial on their experience with the new product and related services (e.g., installation, technical support, repair).
- The customer grants kiutra the right to disclose their name, institution (but not its logo/brand), the purchased product and the previously approved testimonial on kiutra's website and in conversations with other potential users.

To reward our pioneer partners, and to value their trust and feedback, kiutra is offering an exclusive 5% discount on this order.

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Items net ██████

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Delivery conditions: DAP (Incoterms 2020)

Buyer is responsible for all import duties, tariffs, customs clearance fees, and local taxes at destination.

Terms of payment: 30% after delivery of the compressor-package apx. 2-4 months after order confirmation; 60% after delivery of the cryostat-package (Cryostat, Electronics); 10% after final acceptance; net 30 days

Payment method: On account

Tax free intracommunity delivery

Offer subject to confirmation: A purchase contract is only concluded after written order confirmation by the manufacturer.

The prices quoted in the offer are valid under the specified payment terms and may be adjusted accordingly if these terms are changed.

If not stated otherwise our standard Terms and Conditions apply: <https://kiutra.com/terms-and-conditions/> .

This quote is confidential and shared with the recipient for the purpose of evaluating and preparing the purchase of goods and services from

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kiutra GmbH. The quote and the information contained therein may not be disclosed to third parties, unless required by law or with the written consent of kiutra GmbH.



## Annex No. 3

Affidavit according to § 6 paragraph 4 of the Act No. 134/2016 Coll.

## Affidavit

Public Contract name:	Dry cryostat with operation bellow 200 mK
<b>Bidder / Supplier</b>	
Registered company name / Trade name / Name:	kiutra GmbH
Registered Office:	Flößergasse 2, 81369 München, Germany
(Company) Identification No.:	HRB 242 819, Amtsgericht München

The Supplier of the above-mentioned Public Contract undertakes to:

- a) ensure compliance with all labour law regulations (concerning remuneration, working hours, rest periods between shifts, paid overtime), as well as regulations concerning employment and safety and health protection for the entire duration of the contractual relationship established on the basis of this Public Contract, to all persons involved in the performance of the contract (regardless of whether the activities will be performed by the Supplier himself or his subcontractors) and
- b) ensure compliance with legal regulations in the field of environmental law, which meets the objectives of environmental policy related to climate change, use of resources and sustainable consumption and production. The Supplier must therefore take all measures that can reasonably be required of him to protect the environment and reduce the damage caused by pollution, noise and other activities, and must ensure that emissions, soil pollution and waste water from his activities do not exceed the values laid down in the relevant legislation.

At the same time, the Supplier acknowledges that a breach of the above obligations may be a reason for the Contracting Authority to withdraw from the contract in accordance with its relevant provisions.

<b>Signature of the person authorized to represent the Bidder / Supplier:</b>	
Place:	München
First name, Surname, Position in the company:	Alexander Regnat, Managing Director
Signature:	

