

Appendix 1 - Buyer's requirement specification

1 Purpose of the procurement

The Department of Physics and Technology at UiT is procuring a maskless exposure lithography instrument (MLA) for its upcoming cleanroom.

2 The scope and content of the procurement

We are looking for one MLA instrument featuring one laser line that can ideally be upgraded with a second one. An established system, maintenance friendliness and short lead times for service will be evaluated highly. Of major importance is also the delivery before the end of 2026.

3 Requirements for documentation, information etc.

CE-approval and detailed installation documents need to be included in the offer.

4 Training

On site installation and training should be included in the offer.

5 Table of requirements

The requirements in the table of requirements form the basis for the Supplier's description of its solution specification, cf. Appendix 2. The Supplier must give an extensive description of all requirements so that the Parties will have a common understanding of what is to be delivered, or which can give the Buyer alternative perspectives to the requirements expressed in the Buyer's requirements specification.

The different requirements have different priority.

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| Priority A = | Absolute requirements that must be fulfilled. Tenders that do not fulfil all the absolute requirements will be rejected. |
| Priority B = | Important requirements that should be fulfilled, but it is not an absolute requirement. Answers will be of great importance for the evaluation of the tender. The requirements are weighted higher than C-requirements. |
| Priority C = | Conditional requirements that should be fulfilled, but it is not an absolute requirement. Answers will be of importance for the evaluation of the tender. The requirements are weighted lower than B-requirements. |

When filling out the table of requirements the Supplier shall mark an (X) in the column for yes, partly or no under “the Supplier’s fulfilment”. Reference to relevant documentation and any additional comments shall be made in the column “Comment”. It is reminded that it is the duty of the Supplier to document that it fulfils the set requirements. Any missing documentation will result in the requirement being considered as not fulfilled.

No.	Priority	Description
1		Technical requirements
1.1	A	Standalone MLA system including PC
1.2	C	Anti-vibration table for MLA system
1.3	A	Working surface – 4” or more
1.4	A	X-Y stage resolution: less than 300nm
1.5	B	Stage bidirectional repeatability: less than 300 nm
1.6	A	Sample size range: at least 5x5 mm ² to 100x100 mm ²
1.7	A	Substrate thickness range: at least 0.15 to 10 mm
1.8	A	Writing mode: scanning and vectorial
1.9	B	Combined writing mode
1.10	B	High aspect ratio of written structures
1.11	B	High writing speed
1.12	A	Greyscale lithography ready
1.13	A	Motorized optical focusing
1.14	B	Closed loop autofocus
1.15	A	High power light source
1.16	B	Beam size of 1 µm, with critical dimension <1µm
1.17	B	Upgradable to a second combined light source
1.18	C	h-line (405 nm) light source
1.19	B	Alignment function in software

1.20	C	Intensity Measurement Unit for exposure dose calibration
1.21	B	Additional license for writing software
2		Service/warranty
2.1	A	At least 12 months warranty
2.2	B	Warranty starting from installation date
2.3	C	Possibility of warranty extension
2.4	B	Delivery before the end of 2026
2.5	B	Proposed service plan incl.
2.6	C	Low lead time for availability of service engineer
3		Climate and environmental considerations
3.1	B	Describe the expected lifetime of the product
3.2	B	Product should be maintenance friendly. Describe product with this in mind
3.3	B	All spare parts and utility parts should be available for products lifetime