



MIT LINCOLN LABORATORY

microelectronics  
laboratory

ML

## ML specs

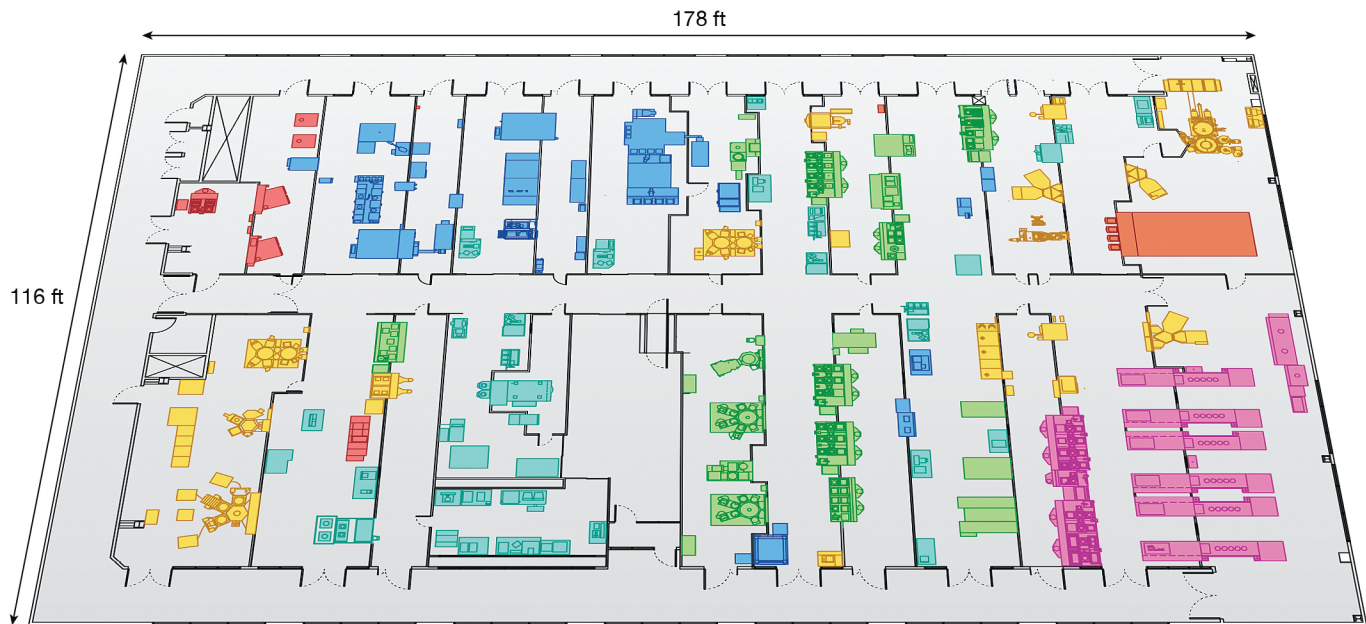
- 18,000-square-foot ISO 4 (Class 10) cleanroom
- 5 projection lithography platforms, including 193 nanometer
- More than 100 process tools
- 24-hour operation 5 days a week
- Custom circuits in multiple technologies

**THE MOST  
ADVANCED**

U.S. GOVERNMENT  
MICROELECTRONICS  
FOUNDRY

# inside the ML PROCESS EQUIPMENT LAYOUT

Located at MIT Lincoln Laboratory, 244 Wood St., Lexington, MA 02421-6426



■ Chemical mechanical polishing ■ Photolithography ■ Metrology ■ Etch ■ Thin films ■ Ion implant ■ Diffusion

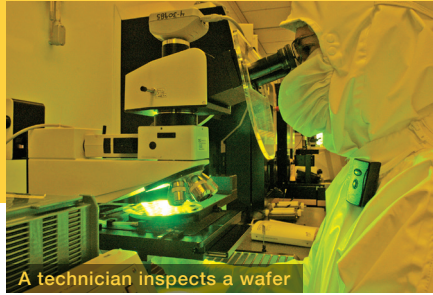


## *Do you **need to access tools** for fabricating microelectronics?*

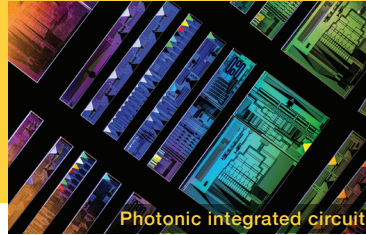
Lincoln Laboratory's 90-nanometer semiconductor research and fabrication facility is the U.S. government's most capable foundry. Unlike other foundries, we specialize in customization. Our experts can tailor a fabrication process to fit your design's needs, work with you to fabricate a full device, or grow just a single epitaxial layer. You can take advantage of our 200-millimeter wafer fabrication processes and services through a test agreement with our laboratory.

# features

- 90-nanometer CMOS toolset for processing on 200-millimeter wafers
- 193-, 248-, and 365-nanometer lithography
- 4-nanometer electron beam writing
- Molecular-beam epitaxy
- DMEA Category 1A Trusted Design, Aggregation, Foundry Services, Post Processing, and Packaging/ Assembly accreditation and ISO-9001 certification



A technician inspects a wafer

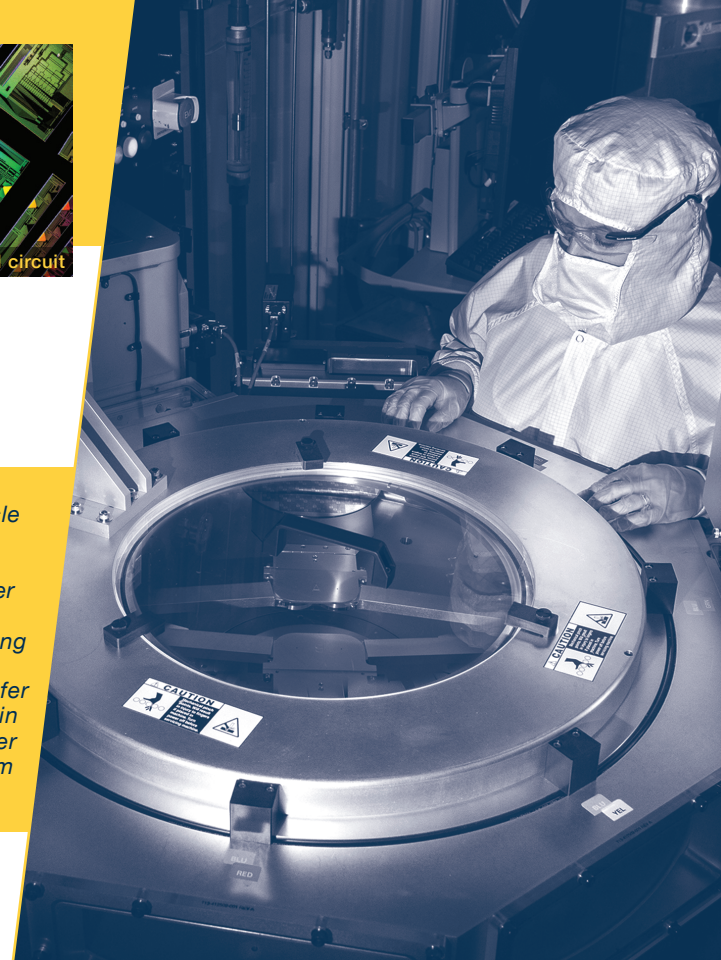


Photonic integrated circuit



At left: A reticle is loaded into a pod for 193-nanometer lithography wafer patterning

At right: A wafer is transferred in a multichamber cluster vacuum system



# interested?

Contact us at [MEL.Director@ll.mit.edu](mailto:MEL.Director@ll.mit.edu)

Information on how to engage in a test agreement is at  
[www.ll.mit.edu/testagreements](http://www.ll.mit.edu/testagreements)





# MIT LINCOLN LABORATORY

*Technology in Support of National Security*

MIT Lincoln Laboratory researches and develops a broad array of advanced technologies to meet critical national security needs. What sets us apart from many national R&D laboratories is our focus on building operational prototypes of the unique systems we design. The ML and other facilities we use to build and test prototypes are available on a limited basis to organizations needing assistance with testing their systems.



[WWW.LL.MIT.EDU](http://WWW.LL.MIT.EDU)

 **LINCOLN LABORATORY**  
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

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