

PROCEDURES and POLICIES for MOSIS FABRICATION

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* Correspond with MOSIS (only when necessary) through Team's Point-of-Contact (PoC).

1. Before the Design

- a) Sign MOSIS non-disclosure agreement (NDA).
- b) Select process technology at www.mosis.com/products/fab-processes. Consider the required operating voltage range (e.g., breakdown voltages), channel length, devices, fabrication schedule (www.mosis.com/products/fab-schedule), and prices (www.mosis.com/products/prices-quote).
- c) Ask PoC to help login to MOSIS and then download the process design kits (PDKs), technology files, design rules, and user guide for the selected technology.
 - Search www.ece-help.gatech.edu for help and guidelines when installing the PDK and ask questions to help@ece.gatech.edu only when necessary.

2. During the Design

- a) Check DRC and LVS script files for disclaimers.
- b) Check http://tech.groups.yahoo.com/group/MOSIS_Users_Group, colleagues, books, advisor, etc for help and seek approval from advisor before contacting MOSIS.

3. Close to Tapeout

- a) *7 weeks prior*: Request a quote from MOSIS and then use it to request a purchase order (PO) from Dr. Rincon-Mora's Administrative Assistant.
- b) *At least 5 weeks prior*: Submit the new project request to MOSIS (www.mosis.com/pages/support/submit/how_new-proj) through PoC.
 - If quote and PO number are unavailable at the time of submitting the new project request, MOSIS tentatively approves TBD for those fields.
 - MOSIS will review the form and open a project management account for the design submission.
- c) *At least 2 weeks prior*: Submit the preliminary fabrication request (www.mosis.com/pages/support/submit/how_fab) through PoC by logging into the project management account.
 - Select "preliminary" for design status.
 - Although MOSIS does not perform DRC or LVS, ensure that all layers are present and die size is correct. MOSIS will check for manufacturability and report the results.
 - Select "https" for upload method. After submitting the form, a new webpage with the upload link will appear.
 - The form requires CRC checksum of the design file and device count. Download the Windows executable file at www.mosis.com/pages/support/submit/term_chksum and run the file in the command window to get the checksum and device count.
- d) When submitting final design for fabrication, select design status as final.

For Reference:

Table 1. Pricing of relevant process technologies as of June 2012.

Technology	Frequency	Size (mm)	Cost
0.18 μ m TSMC	Every 2 mo.	1.5 x 1.5	27,800
0.35 μ m TSMC	Every 2 mo.	1.5 x 1.5	7,100

Packaging Options: Typically, open-cavity packages are used, either of SOIC or DIP type. To get MOSIS to package parts, send a purchase order (PO) through Prof. Rincón-Mora's administrative assistant for the appropriate amount to MOSIS using fax number +1-310-823-5624 (Attention: MOSIS Order Desk). Also, in the SPECIAL HANDLING field of the UPDATE web form specify the package name, quantity to be packaged, and the PO number. For example, SPECIAL HANDLING: DIP28, package 20 parts, PO # 12345-r01. Table 2 presents a list of typically used packaging options provided by MOSIS along with their unit cost.

Table 2. Packages typically used.

Package	Part ID	Part Number	Discounted Cost
28-Lead SOIC	OCP_SOIC28A	3682	\$ 36
28-lead DIP	DIP28	2007	\$ 21
40-lead DIP	DIP40	2013	\$ 23

References:

<http://www.mosis.org/products/mep/mep-procedure-guide-research.html>

<http://www.mosis.org/products/mep/mep-research-proposal.html>

http://www.mosis.org/orders/purchase_orders/

http://www.mosis.org/orders/prices/packaging/price_domestic_ceramic.html