GUIDE TO COMPLETE CMP ORDER FORM FOR ICs MANUFACTURING

This document explains how to complete items of "CMP ORDER FORM FOR ICs MANUFACTURING". Variations for other order forms are explained at the end of this chapter. Check our web site "http://cmp.imag.fr/" when "check website" is requested.

If you have the right software, you can directly complete the form in PDF or Word format. Otherwise, print the 2 pages and complete them with a typewriter.

Send a scan of the signed form to obtain a circuit transfer account. It contains technical data mandatory to check your circuit. Email transfer is forbidden.

FIRST PAGE

CMP RUN: Name of the prototyping run (examples S28I16_2, A18V16_4). Check our website in *"Technologies > Runs Schedule"* for a list of runs, click on dates for run names.

TOPCELL NAME: Name of your circuit's top cell. It must begin with a letter and is limited to 14 characters (letters and digits). This will be your circuit name for all communication with CMP.

PROCESS: Technology of the circuit (example CMOS28FDSOI). Check our website in *"Technologies > Runs Schedule"* for the list of processes. In "IC 28nm CMOS28FDSOI", "IC 28nm" is the transistor size and "CMOS28FDSOI" is the technology name.

INSTITUTION/COMPANY: Institution or company name submitting the circuit for fabrication. This name will appear in CMP's annual report circuits list.

DELIVERY TO: Name of the circuit's recipient with affiliation and full address, phone number and Email address are mandatory for delivery (no P.O. box allowed).

SPECIAL REQUEST ON DELIVERY: For special delivery requests such as special invoice for customs, use of your own mail delivery account...

INVOICE TO: Name, Email and address of the invoice recipient after circuits delivery. Invoicing address must match your purchase order.

P.O. number: Complete it and join your purchase order to this order form.

VAT Id. number: Mandatory for European countries, VAT identification number of the invoiced institution/company.

PACKAGE: Reference of the chosen package or either *"bumps only"* or *"bare dice"* mention. Check our website in *"Technologies > Price list"* open the CMP Price list document and get the appropriate reference. For other packages, please contact CMP.

NUMBER OF PARTS: Write requested numbers of bare dies and packaged dies. Minimum number of packaged dies is 5 per bonding diagram. Additional dies in regards to the standard number the technology will be charged (number of bare dies + number of packaged dies).

PAD TYPES: Types of pads used in the circuit. You can use bonding pads and probe pads in the same design. You can't use bonding pads and flip chip pads.

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BONDING DIAGRAM:
"free" CMP will make the bonding diagram and send it for agreement.
"imposed" The bonding diagram is imposed by your application. Join it to the CMP order form. You must draw every wire in cavity map. Check our website in "Technologies > Packaging" for packages and cavity maps.

lids:
"removable" Lid is closed with a tape or points of glue and can be opened. Unavailable for some packages.
"sealed" Lid is sealed. It cannot be removed.

BULK MICROMACHINING: Must be selected if a post-process is requested for micromechanical system. Available only for **ams** technologies.

COLOUR PLOTS: Colour plots have to be requested before fabrication of the circuits. For delivery by special mail, the plot is included in a rectangle of 110 cm x 75 cm.

NON-STANDARD THICKNESS: If you need circuits with another thickness than standard value (see page 3 of the CMP Order Form for a list), request it here. This service is charged for many technologies.

ADDITIONAL SERVICES: If you need a service not covered by this form, describe it here. CMP will send you a quotation if a solution is found.

NAME AND SIGNATURE OF THE RESPONSIBLE PERSON: Don't change page format. Signature must be in page one. The document must be signed by your affiliation purchase manager.

SECOND PAGE

This page contains technical information about the circuit and is used to check your circuit and to replace abstracts of library cells by layouts. Missing data and errors can generate errors in the full layout version of your circuit. Please complete it carefully.

"*CMP RUN*", "*TOPCELL NAME*" and "*PROCESS*": Mandatory, must be the same as page one

TECHNICAL ENQUIRIES: **MANDATORY**. Name, Email, phone and address of the technical contact (the person who can answer to questions about the circuit and manage a fast correction of errors). CMP will interact with this technical contact during circuit verification and send him information about the run.

DESCRIPTION FORMAT: The main language is GDSII. Contact CMP for an authorization if you need to use another format.

CAD TOOL: Name and version of the CAD software used to generate layout. If you are using CADENCE, type "virtuoso –W" in your unix shell to get the version number.

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DESIGN KIT USED: Name and version of the design kit used to generate layout. Mandatory if the design kit is provided by CMP or by the foundry. For home made design kits, write "home made" after the name.

DRC VIOLATIONS: **CIRCUITS MUST BE FREE OF DRC ERRORS FOR FABRICATION.** Run the "signoff" DRC of the foundry on the circuit before submission. If you need DRC violation for special device, make a waiver request at least one week before the deadline of the run. CMP will forward your request to the foundry for an agreement. A request of waiver must describe the special device and why a DRC violation is necessary. Note that the foundry can reject your request.

LIBRARY CELL REPLACEMENT REQUIRED: In many design kits provided free of charge by CMP, library cells contain only a reduced layout without transistors. As a result, these library cells must be replaced by the full layout version for fabrication. In this case select "yes" and complete the list of used libraries. **Note that you are responsible of fabrication without transistors if you forget to request library cell replacement**.

LIBRARY NAME: Must be completed when library cell replacement is required. Write the list of used libraries with versions. <u>Only cells of the listed libraries will be replaced by full layouts</u>:
- If you have a full custom cell with the same name as a cell of a requested library, the full custom cell will be overwritten by the library cell.
- If you have forgotten to request library cell replacement, you are responsible of empty cells contained in the circuit.
- If you have changed a library cell name, it will not be replaced by the full layout version.

CIRCUIT'S FUNCTION: Function of the circuit in a few lines. Mandatory for non E. U. countries. The function is necessary to request an export license. Function is mandatory for STMicroelectronic technologies.