
QS-007.00 – Terms and Conditions for Database Submittal to QUICKSIL Foundry Solutions

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PLEASE READ CAREFULLY TO AVOID PROCESSING DELAYS**Terms and Conditions**

1. QuickSil will assign a generic internal code (Design File Number) to all projects in order to ensure complete confidentiality of our customers' IP.
2. QuickSil is not responsible for design simulation, design rule checks, or layout versus schematic checks. Design Rule Check (DRC) is available for an extra charge.
3. The Database Submittal Form and the appropriate Layer Table in the Database Submittal Form (**QS-008**) must be completed and sent to QuickSil each time a database is sent.
4. Security information (Password, special extraction instructions, ...) regarding the database shall be included and sent on a separate e-mail.
5. All data sent to QuickSil should be error free and considered by the customer to be final.
6. The database can be sent via:
 - FTP: [mail.quicksil.com](ftp://mail.quicksil.com) (Connect using the command: ftp://mail.quicksil.com)
 - Email: sales@quicksil.com (Sum of attached files must not exceed 5Mb and ZIP file cannot be password protected)
 - Physical media: CD-ROM
7. The database submitted must be in GDSII stream format (versions 3-6) and follow the below CALMA GDSII standards (**Ref:** Cadence "Design Data Translator's Reference"):
 - **Structure Name:**
The maximum limit imposed by the GDSII format for the structure name (cells) is 32 characters.
The acceptable characters are: A-Z, a-z, 0-9, _ and \$ sign.
 - **Number of layer per design:**
The maximum number of layer includes in a database is 64.
 - **GDS Layer numbers:**
All GDS layer numbers must be integers between 0 and 255, inclusive.
 - **GDS Data Type numbers:**
All GDS data type numbers must be integers between 0 and 255, inclusive.
 - **Maximum Vertices per polygon:**
The maximum limit imposed by the GDSII format per polygon is 200.
 - **Maximum points in a polygon:**
The maximum limit imposed by the GDSII format is 4000 points in a polygon.
 - **Rotation angle:**
The GDSII format supports only 0, 90, 180 and 270 degree of rotations for reference structure.
Mirroring in X and Y is supported
8. The layout must be done on a minimum grid size of 0.05um or multiples of 0.05um. It is recommended that the grid size be equal to or greater than the resolution size.

9. All data should be contained in one GDSII file. If this is not possible (e.g. multi-chip jobs), then file names, library names and cell names must be unique, consistent between revisions and clearly defined in the Database Submittal Form (**QS-008**).
10. Data for each mask level should be on one GDSII layer. If multiple GDSII layers are used to make a mask level they must be clearly defined in the appropriate Layer Table in the Database Submittal Form (**QS-008**).
11. Please indicate which mask levels are being revised and which are not being revised in the appropriate Layer Table (refer to **QS-008**).
12. The top structure(s) must **NOT** contain scribe lines (except when QuickSil scribe lines will not be used). If the top structure(s) contain scribe lines, they will be deleted. This increases the mask lead-time, and the possibility of error.
13. If QuickSil scribe lines will not be used, this should be clearly defined in the Database Submittal Form (**QS-008**).
14. Overall die size with scribe line will be round up to the closest 10µm.
15. Each top structure should contain the customer's product identification label (usually on metal1 or metal 2).

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16. The origin of each top structure and the layer list **MUST** not change between revisions.
17. Data must not contain re-entrant polygons.
18. Text (e.g. labels of 0 width), which was not intended to appear on the mask, should not be found on GDSII mask layers (ex: text on nplus layer). If text is necessary, please use the appropriate "text" layer or any other layer who has a different GDSII number than the one's used for mask.
19. If a magnification or orientation change is necessary, details must be clearly defined on the Database Submittal Form (**QS-008**).
20. In the case where the data for mask 80 contains very small openings (e.g. fuse applications) please be aware that these openings may be adversely affected by process biasing. Please contact QuickSil Foundry Solutions for specific instructions.
21. If die location labels on wafer are required, instruction must be defined on the **QS-008 Form**. Use **QS-009** document for details on QuickSil Inc. die location rules and conventions.

FTP Instructions - You must use a command line ftp program because this is a secure site.

1. ftp address = mail.quickstil.com (Connect using the command: ftp://mail.quickstil.com)
2. username and password will be supplied upon request.
3. directory = incoming
4. format = binary

In order to gain access to the FTP site, the customer must first contact QuickSil Marketing and Sales Department.

Please direct questions or concerns regarding data preparation and mask making to QuickSil Foundry Solutions Department.

Product Foundry Solutions Department

Address: 45738 Northport Loop W.

Phone: (510) 580-4820

FAX: (510) 580-4822

E-Mail: solutions@quicksil.com

Questions regarding wafer processing and scheduling should be directed to the QuickSil Marketing and Sales Department.

QuickSil Marketing and Sales Department

E-Mail: sales@quicksil.com