
QS-008.00 – Database Submittal Form for QuickSil Foundry Solutions

Initial Release: June 19, 2009



QuickSil Inc.
45738 Northport Loop W.
Fremont, CA

Tél : (510) 580-4820
Fax : (510) 580-4822

Copyright ©2009 QuickSil Inc.

This document will be revised and reissued as necessary. QuickSil Inc. reserves the right to make changes herein at any time without notice. QuickSil Inc. does not assume any responsibility or liability arising out of the application or use of any information contained herein. QuickSil Inc. shall not be liable for any indirect, incidental or consequential damages.

Database Submittal Form

Please refer to QS-007 "Terms and Conditions for Database Submittal to QuickSil Foundry Solutions" for more information.

Date Data Submitted:	
-----------------------------	--

Company Name:	
Contact Name:	
Contact Phone Number:	
Contact Email Address:	
Alternate Contact Name:	
Contact Phone Number:	
Contact Email Address:	
Fax Number:	

DALSA Process Family Used:	N/A	Ex: CMOS, HV, CCD, MEMS, TSS, Metal Gate
Technology To Be Used:	N/A	Ex: 0.8um, 1.2um, 1.5um, 2um, etc.
Design Rules document Used:		IDS-0026, IDS-0077, IDS-0003, etc.
Design Kit Used:		Ex: DK08C,DK20G,DK40E, ...
Design Kit Version Used:		Ex: V2P1, V3P2, ...
Mask Type (optional):	...	Ex: 5x 5", 1x 5", 1x 7"

Chip number:	Chip 1	Chip 2	Chip 3
Customer Device Code:			
GDSII File Name:			
Top Structure Name:			

Special Data Generation Required? (other than standard manufacturing one's)	<input type="checkbox"/>
If Yes, Please explain:	

Design Verification (DRC) Required?	<input type="checkbox"/>
If Yes, Please explain:	

Magnification or Shrink Required?	<input type="checkbox"/>
If Yes, Please explain:	

Die Labelling Required?	<input type="checkbox"/>		Note: Refer to DES-0028 document for die labelling rules and convention.
Label Magnification?	N/A	Default: 1X	
Spacing between characters?		Default: 6.0µm	
Minimum feature size of characters?		Default: 3.0µm	
Layer to use for label		Default: metal1	

Layout orientation change required?	<input type="checkbox"/>
If Yes, Please explain:	

Layout Grid Size Used	0.05um	Note: Must be 0.05um or a multiple of 0.05um
------------------------------	--------	--

Comments / Instructions	
--------------------------------	--

TABLES BY PROCESS

<u>CMOS LAYER TABLE</u>	5
<u>HV CMOS LAYER TABLE</u>	6
<u>CCD LAYER TABLE</u>	7
<u>MEMS 1 LAYER TABLE</u>	8
<u>MEMS 2 LAYER TABLE</u>	9
<u>TSS LAYER TABLE</u>	10
<u>METAL GATE LAYER TABLE</u>	10
<u>VARIA LAYER TABLE</u>	11

CMOS Layer Table

- Please provide the GDSII number(s), for each mask level in the table below.
- If only specific masks need to be revised (mask tooling), indicated the actions to be taken in the *comments* column. The default is to generate all masks.
- All GDSII numbers within the submitted database should be accounted for. Use the table provided in Varia Layer Table to list any mask levels not present in the table below or to list any design aid layers which should be used by QuickSil to generate mask data.

Mask Level	Description	GDSII Number(s)	Comments
01	Marker		
02	Clear Out		
10	P- Well		
11	N- Well		
20	Active Area		
29	Hi Res		
30	Poly Gate		
40	N+ Diffusion		
50	P+ Diffusion		
53	Poly Cap		
60	Contacts		
70	Metal 1		
76	Vias 1		
77	Metal 2		
80	Pyrox		
86	Vias 2		
87	Metal 3		

HV CMOS Layer Table

- Please provide the GDSII number(s), for each mask level or design aid layers in the table below.
- If only specific masks need to be revised (mask tooling), indicated the actions to be taken in the *comments* column. The default is to generate all masks.
- All GDSII numbers within the submitted database should be accounted for. Use the table provided in Varia Layer Table to list any mask levels not present in the table below or to list any design aid layers which should be used by QuickSil to generate mask data.

Mask Level	Description	GDSII Number(s)	Comments
10	P- Well		
11	N- Well		
12	HV_Def		
16	HV_Well		
18	N-Base		
20	Active Area		
21	P- Field		
24	Vtn Adjust		
25	Vtp Adjust		
26	Special Vtp		
28	P- Base		
29	Hi Res		
30	Poly Gate		
33	P- Buried		
40	N+ Diffusion		
41	N- Extended		
44	N-DDD or LDD		
50	P+ Diffusion		
51	P- Extended		
52	P- Top		
53	Poly Cap		
60	Contacts		
70	Metal 1		
76	Vias 1		
77	Metal 2		
80	Pyrox/Passivation		
86	Vias 2		
87	Metal 3		
--	DRL		
--	HV Marker		

CCD Layer Table

- Please provide the GDSII number(s), for each mask level in the table below.
- If only specific masks need to be revised (mask tooling), indicated the actions to be taken in the *comments* column. The default is to generate all masks.
- All GDSII numbers within the submitted database should be accounted for. Use the table provided in Varia Layer Table to list any mask levels not present in the table below or to list any design aid layers which should be used by QuickSil to generate mask data.

Mask Level	Description	GDSII Number(s)	Comments
01	Marker		
02	Clear Out		
10	Well		
11	Well 2 or Barrier 0		
12	Well 3		
20	Active Area		
27	Buried Channel 1 Implant		
28	Buried Channel 2 Implant		
29	Channel Stop Implant		
30	Poly 1		
31	Antiblooming / Nitride Definition		
32	Poly 1 Repair		
35	Poly 1 Hi Res		
40	Source/Drain Implant		
41	PPD Implant		
43	PPD Implant 2		
50	Top Side Contact Implant		
51	PPD Implant 3		
52	Barrier 1		
53	Poly 2		
54	Nitride Definition 3		
55	Poly 2 Repair		
56	Barrier 2		
57	Buried Contact / Nitride Definition 2		
58	Poly 3		
59	Nitride on Poly		
60	Contacts		
61	Contacts 2		
70	Metal 1		
75	Metal Resistor		
76	Vias 1		
77	Metal 2 or Lightshield		
80	Pads		
83	Green Filter		
84	Blue Filter		
85	Red Filter		
86	Vias 2		
87	Metal 3		
90	Flood		
95	Microlens		
97	Anti Reflective		
99	Pads for Microlens		

MEMS 1 Layer Table

- Please provide the GDSII number(s), for each mask level in the table below.
- If only specific masks need to be revised (mask tooling), indicated the actions to be taken in the *comments* column. The default is to generate all masks.
- All GDSII numbers within the submitted database should be accounted for. Use the table provided in Varia Layer Table to list any mask levels not present in the table below or to list any design aid layers which should be used by QuickSil to generate mask data.

Mask Level	Description	GDSII Number(s)	Comments
01	Marker		
02	Clear Out		
05	Locos 1		
06	Locos 2		
10	P- Well		
11	Buried Layer		
13	Crystal Revealand		
20	Active Area		
21	P- Field		
27	Capacitor Implant		
28	P- Base		
29	Isolation		
30	Poly 1		
38	Mechanical Frame		
40	N+ Diffusion		
50	P+ Diffusion		
52	P- Resistor		
53	Poly 2		
54	Bond Adjust		
55	Diaphragm		
56	Capacitor		
57	SiCr Resistor		
58	Barrier		
60	Contacts		
61	Contacts 2		
64	Waveguide / Grating		
70	Metal 1		
74	Etch Stop		
76	Vias 1		
77	Metal 2		
80	Pads		
82	Pads 2		
84	Polarisation Compensation		
88	Open		
90	Gold Bond Pad		
94	Aluminum Reflective Coating		
95	Cavity		

MEMS 2 Layer Table

- Please provide the GDSII number(s), for each mask level in the table below.
- If only specific masks need to be revised (mask tooling), indicated the actions to be taken in the *comments* column. The default is to generate all masks.
- All GDSII numbers within the submitted database should be accounted for. Use the table in Varia Layer Table to list any mask levels not present in the table below or to list any design aid layers which should be used by QuickSil to generate mask data.

Mask Level	Description	GDSII Number(s)	Comments
01	Marker		
02	Clear Out		
10	P- Well		
11	N- Well		
12	HV Definition		
15	Isolation		
16	HV Well		
17	Trench		
18	Nitride Etch 0		
19	Nitride Etch 1		
20	Active Area		
21	P- Field		
24	Vtn Adjust		
25	Vtp Adjust		
26	Vt Adjust 2		
27	Trench 2		
28	P- Base		
29	Poly Cap Hi Res		
30	Poly Gate		
31	Anchor 0		
32	Poly 0		
33	P- Buried		
34	Dimple		
35	Poly Gate Hi Res		
36	Anchor 1		
37	Poly 1		
39	Poly Via		
40	N+ Diffusion		
41	N- Extended		
42	Anchor 2		
43	Poly 2		
47	Anchor 3		
48	Poly 3		
50	P+ Diffusion		
52	P- Top		
53	Poly Cap		
54	Bond Adjust		
58	Poly Resistor		
60	Contacts		
70	Metal 1		
75	Getter		
76	Vias 1		
77	Metal 2		
80	Pads 1		
82	Pads 2		
85	Seal Ring		
86	Vias 2		
87	Metal 3		
94	Cap Cavity		
95	Cavity		
96	Vias 3		
97	Metal 4		
99	Resist Protection		

TSS Layer Table

- Please provide the GDSII number(s), for each mask level in the table below.
- If only specific masks need to be revised (mask tooling), indicated the actions to be taken in the *comments* column. The default is to generate all masks.
- All GDSII numbers within the submitted database should be accounted for. Use the table in Varia Layer Table to list any mask levels not present in the table below or to list any design aid layers which should be used by QuickSil to generate mask data.

Mask Level	Description	GDSII Number(s)	Comments
11	N- Well		
22	Zener		
40	N+		
50	P+		
52	Gate Oxide		
60	Contacts		
70	Metal		
76	Pads		

Metal Gate Layer Table

- Please provide the GDSII number(s), for each mask level in the table below.
- If only specific masks need to be revised (mask tooling), indicated the actions to be taken in the *comments* column. The default is to generate all masks.
- All GDSII numbers within the submitted database should be accounted for. Use the table in Varia Layer Table to list any mask levels not present in the table below or to list any design aid layers which should be used by DALSA to generate mask data.

Mask Level	Description	GDSII Number(s)	Comments
1	P- Well		
2	P+ Diffusion		
3	N+ Diffusion		
4	Gate Oxide		
5	Contacts		
6	Metal		
7	Pads		

