

## S453A: RF-Structures: MOSFETs for modeling

GSG configuration with 100nm pitch and Metal1 ground shield

### Structures

DUT	Cell name	Gate dimensions [nf x (w x l)]	open	short
00	rfnmos	10 x (10 $\mu$ x 0.13 $\mu$ )	01	02
01	open			
02	short			
03	rfnmos	4 x (5 $\mu$ x 0.13 $\mu$ )	04	05
04	open			
05	short			
10	rfnmos	4 x (5 $\mu$ x 10 $\mu$ )	11	12
11	open			
12	short			
13	rfpmos	4 x (5 $\mu$ x 10 $\mu$ )	11	12
14	rfnmosHV	4 x (5 $\mu$ x 10 $\mu$ )	11	12
15	open			
20	short			
21	rfpmosHV	4 x (5 $\mu$ x 10 $\mu$ )	11	12
22	rfnmos	4 x (5 $\mu$ x 0.18 $\mu$ )		
23	rfnmos	4 x (5 $\mu$ x 0.5 $\mu$ )		
24	rfnmos	4 x (2.5 $\mu$ x 0.13 $\mu$ )	25	30
25	open			
30	short			
31	rfnmos	4 x (7.5 $\mu$ x 0.13 $\mu$ )	32	33
32	open			
33	short			
34	rfnmos	8 x (2.5 $\mu$ x 0.13 $\mu$ )	35	40
35	open			
40	short			
41	rfnmos	5 x (10 $\mu$ x 0.13 $\mu$ )	42	43
42	open			
43	short			
44	rfnmos	1 x (10 $\mu$ x 0.13 $\mu$ )	45	50
45	open			
50	short			
51	rfnmos	10 x (1 $\mu$ x 0.13 $\mu$ )	52	53
52	open			
53	short			
54	rfnmos	1 x (5 $\mu$ x 0.13 $\mu$ )	55	60
55	open			
60	short			
61	rfpmos	10 x (10 $\mu$ x 0.13 $\mu$ )	01	02
62	rfpmos	4 x (5 $\mu$ x 0.13 $\mu$ )	04	05
63	rfpmos	4 x (5 $\mu$ x 0.18 $\mu$ )		
64	rfpmos	4 x (5 $\mu$ x 0.5 $\mu$ )	84	85
65	rfpmos	4 x (2.5 $\mu$ x 0.13 $\mu$ )	25	30
70	rfpmos	4 x (7.5 $\mu$ x 0.13 $\mu$ )	32	33
71	rfpmos	8 x (2.5 $\mu$ x 0.13 $\mu$ )	35	40
72	rfpmos	5 x (10 $\mu$ x 0.13 $\mu$ )	42	43
73	rfpmos	1 x (10 $\mu$ x 0.13 $\mu$ )	45	50
74	rfpmos	10 x (1 $\mu$ x 0.13 $\mu$ )	52	53
75	rfpmos	1 x (5 $\mu$ x 0.13 $\mu$ )	55	60
80	rfnmosHV	10 x (10 $\mu$ x 0.45 $\mu$ )	81	82
81	open			
82	short			
83	rfnmosHV	4 x (5 $\mu$ x 0.45 $\mu$ )	84	85

84	open			
85	short			
90	rfnmosHV	4 x (5 $\mu$ x 0.5 $\mu$ )	84	85
91	rfnmosHV	4 x (2.5 $\mu$ x 0.45 $\mu$ )	92	93
92	open			
93	short			
94	rfnmosHV	4 x (7.5 $\mu$ x 0.45 $\mu$ )	95	A0
95	open			
A0	short			
A1	rfnmosHV	8 x (2.5 $\mu$ x 0.45 $\mu$ )	A2	A3
A2	open			
A3	short			
A4	rfnmosHV	5 x (10 $\mu$ x 0.45 $\mu$ )	A5	B0
A5	open			
B0	short			
B1	rfnmosHV	1 x (10 $\mu$ x 0.45 $\mu$ )	B2	B3
B2	open			
B3	short			
B4	rfnmosHV	10 x (1 $\mu$ x 0.45 $\mu$ )	B5	C0
B5	open			
C0	short			
C1	rfnmosHV	1 x (5 $\mu$ x 0.45 $\mu$ )	C2	C3
C2	open			
C3	short			
C4	rfpmsHV	10 x (10 $\mu$ x 0.4 $\mu$ )	52	53
C5	rfpmsHV	4 x (5 $\mu$ x 0.4 $\mu$ )	84	85
D0	rfpmsHV	4 x (5 $\mu$ x 0.5 $\mu$ )	84	85
D1	rfpmsHV	4 x (2.5 $\mu$ x 0.4 $\mu$ )	92	93
D2	rfpmsHV	4 x (7.5 $\mu$ x 0.4 $\mu$ )	95	A0
D3	rfpmsHV	8 x (2.5 $\mu$ x 0.4 $\mu$ )	A2	A3
D4	rfpmsHV	5 x (10 $\mu$ x 0.4 $\mu$ )	A5	B0
D5	rfpmsHV	1 x (10 $\mu$ x 0.4 $\mu$ )	B2	B3
E0	rfpmsHV	10 x (1 $\mu$ x 0.4 $\mu$ )	B5	C0
E1	rfpmsHV	1 x (5 $\mu$ x 0.4 $\mu$ )	C2	C3
E2	empty			
E3	empty			
E4	empty			
E5	empty			