

Common Signal Names & Naming Conventions

Signals beginning with capital letters denote an I/O pin

Signals beginning with lower case letters are internal to a cell

VDD	—	VDD
$\overline{\text{RST}}$	—	$\overline{\text{RST}}$
RST	—	RST
GND	—	GND
L	—	L
Le	—	Le
R	—	R
Re	—	Re
S	—	S
SLe	—	SLe
M	—	M
Me	—	Me
A	—	A
Ae	—	Ae
B	—	B
Be	—	Be
C	—	C
Ce	—	Ce
D	—	D
De	—	De
I	—	I
Ie	—	Ie
O	—	O
Oe	—	Oe

L — Left (DI Encoded Input Channel)

Le — Left enable

R — Right (DI Encoded Output Channel)

Re — Right enable

S — Split (DI Encoded Input Control Channel)

SLe — Split & Left Enable

M — Merge (DI Encoded Input Control Channel)

Me — Merge Enable

A, Ae; B, Be; C, Ce; D, De; etc:

Input or output channels (cell dependent) w/ corresponding enable signals

en — internal enable

lv — left valid

rv — right valid

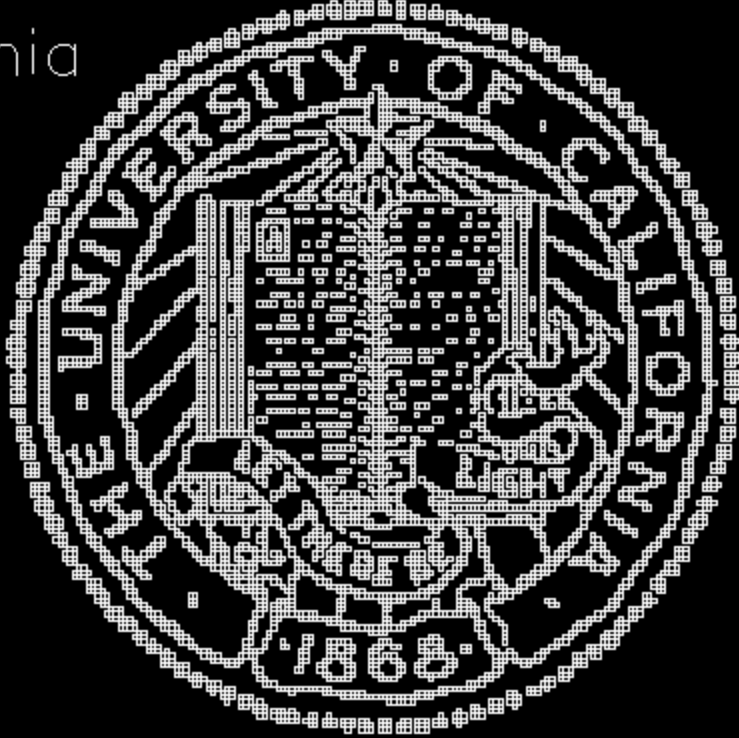
sv — split valid

slv — split & left valid

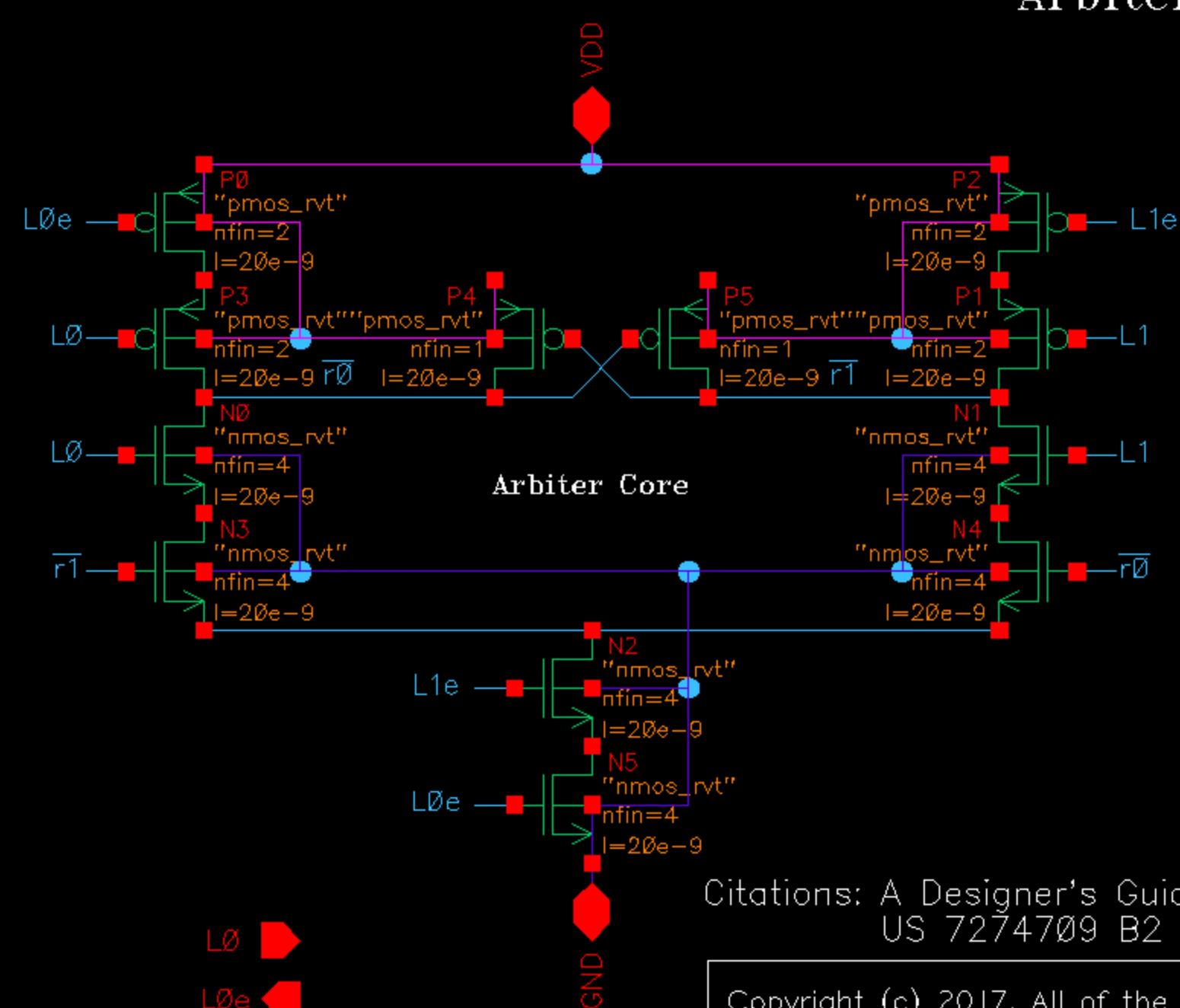
$\overline{\text{slv}}$ — not split & left valid (inverted slv)

etc.

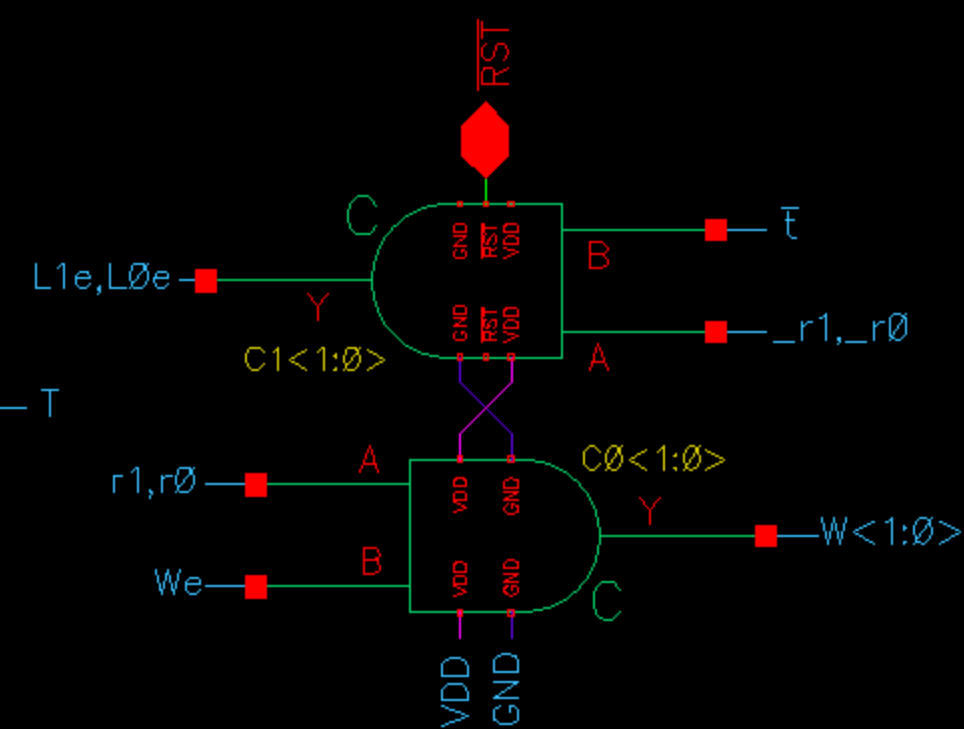
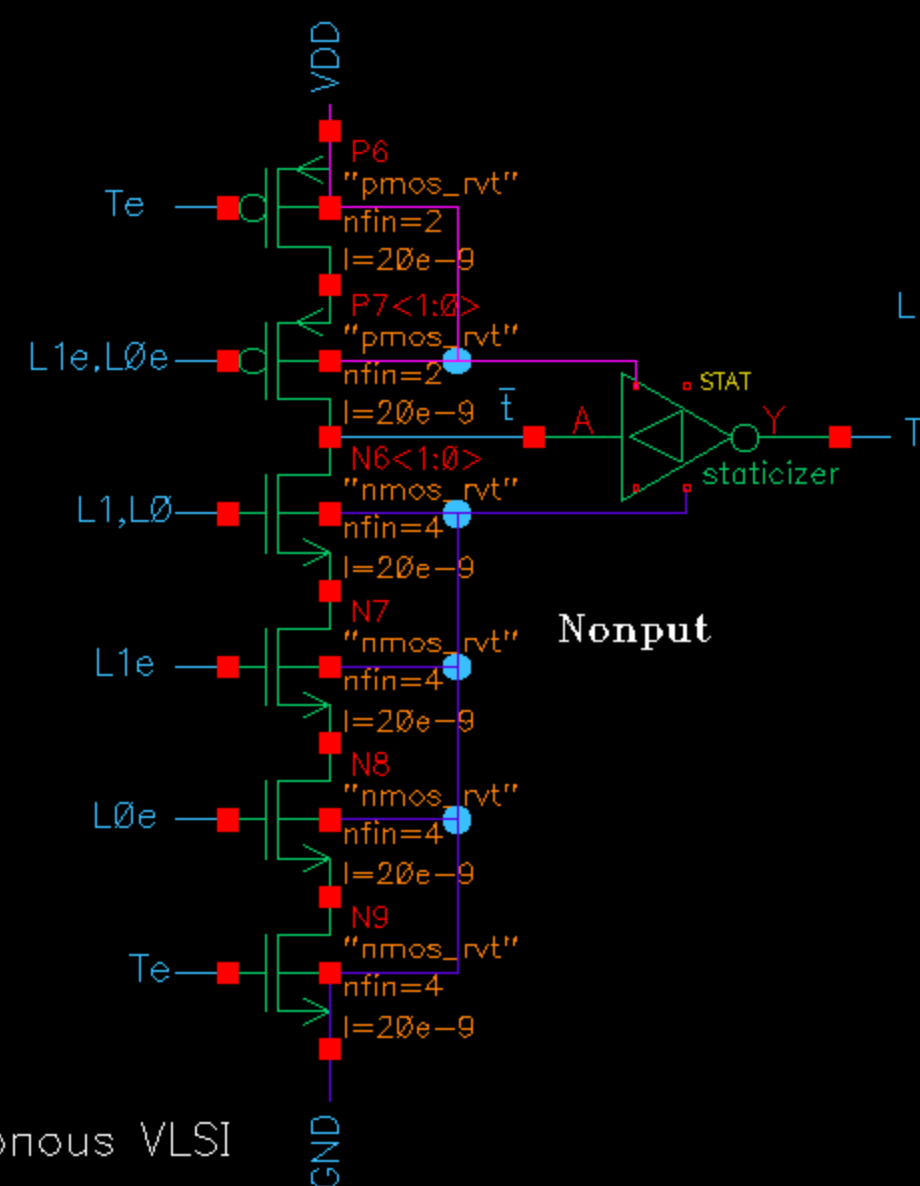
Copyright (c) 2017, All of the following:	All rights reserved.
Organizations: The Regents of the University of California	
Authors: R St. Denis, C. Nitta, R. Amirtharajah, M. Farrens V. Akella	
Contributors: R. St. Denis	
Citations: Author(s) of respective citations	



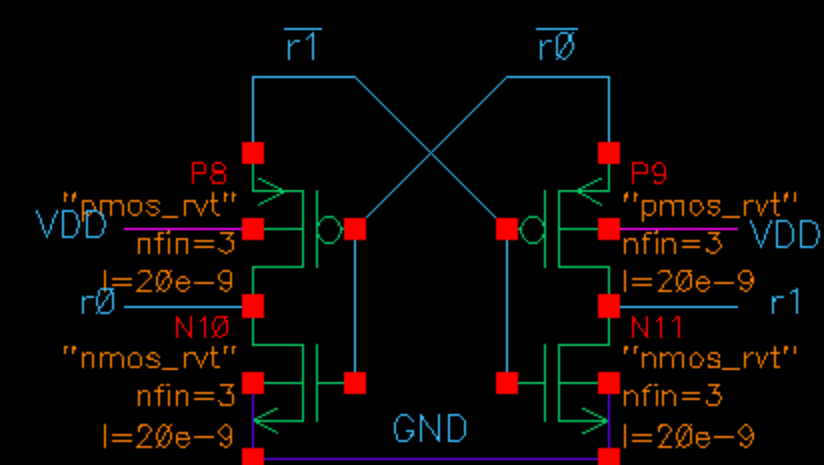
Arbiter_QDI_Nonput



- L0
- L0e
- L1
- L1e
- W<1:0>
- We
- T
- Te



Winner Output Rails



Metastability Filter

Citations: A Designer's Guide to Asynchronous VLSI
US 7274709 B2

Copyright (c) 2017, All of the following:

All rights reserved.

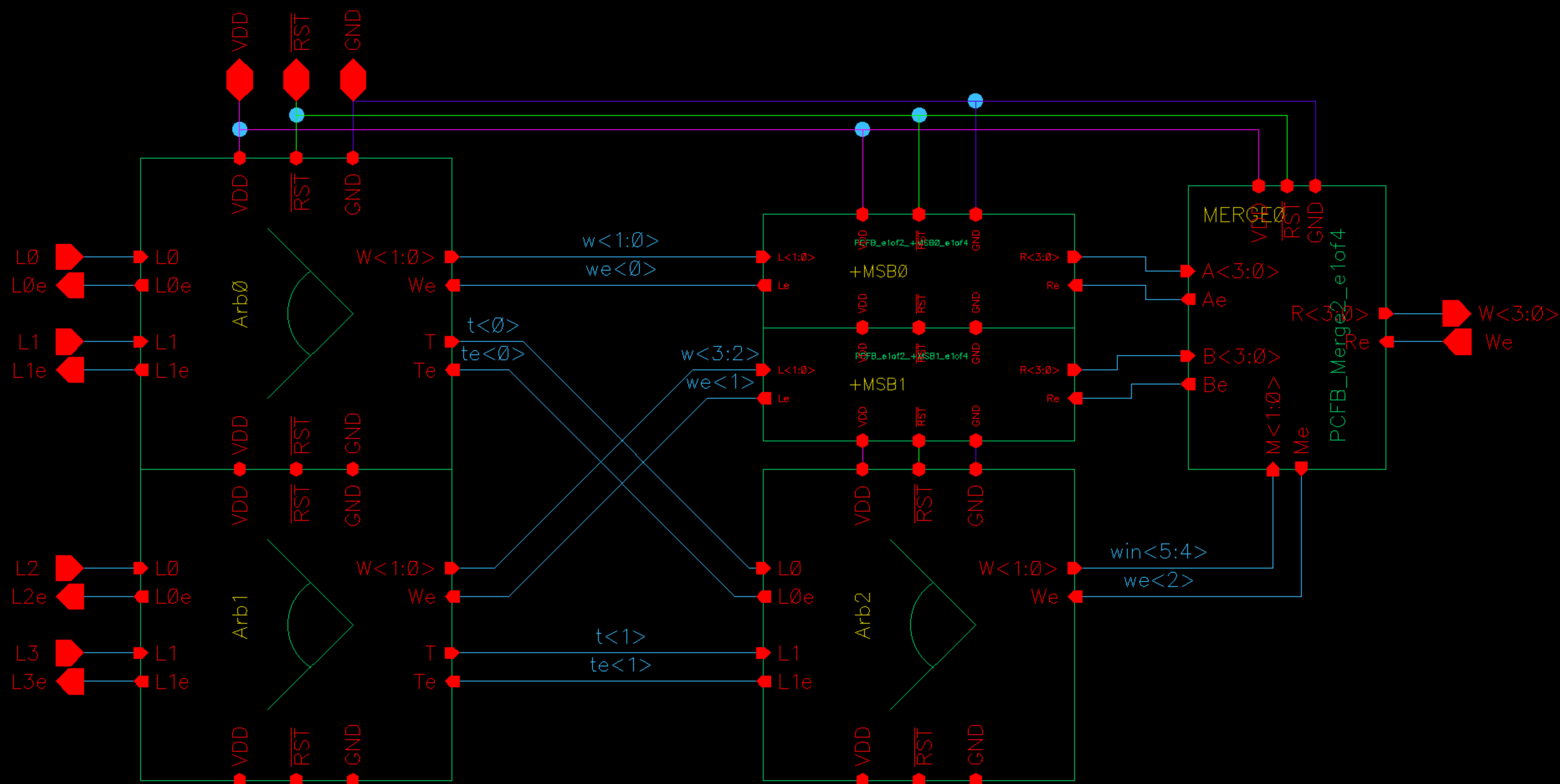
Organizations: The Regents of the University of California

Authors: R. St. Denis, C. Nitta,
R. Amirtharajah, M. Farrens
V. Akella

Contributors: R. St. Denis

Citations: Author(s) of respective citations





Citation: A Designers Guide to Asynchronous VLSI

Copyright (c) 2017, All of the following:

All rights reserved.

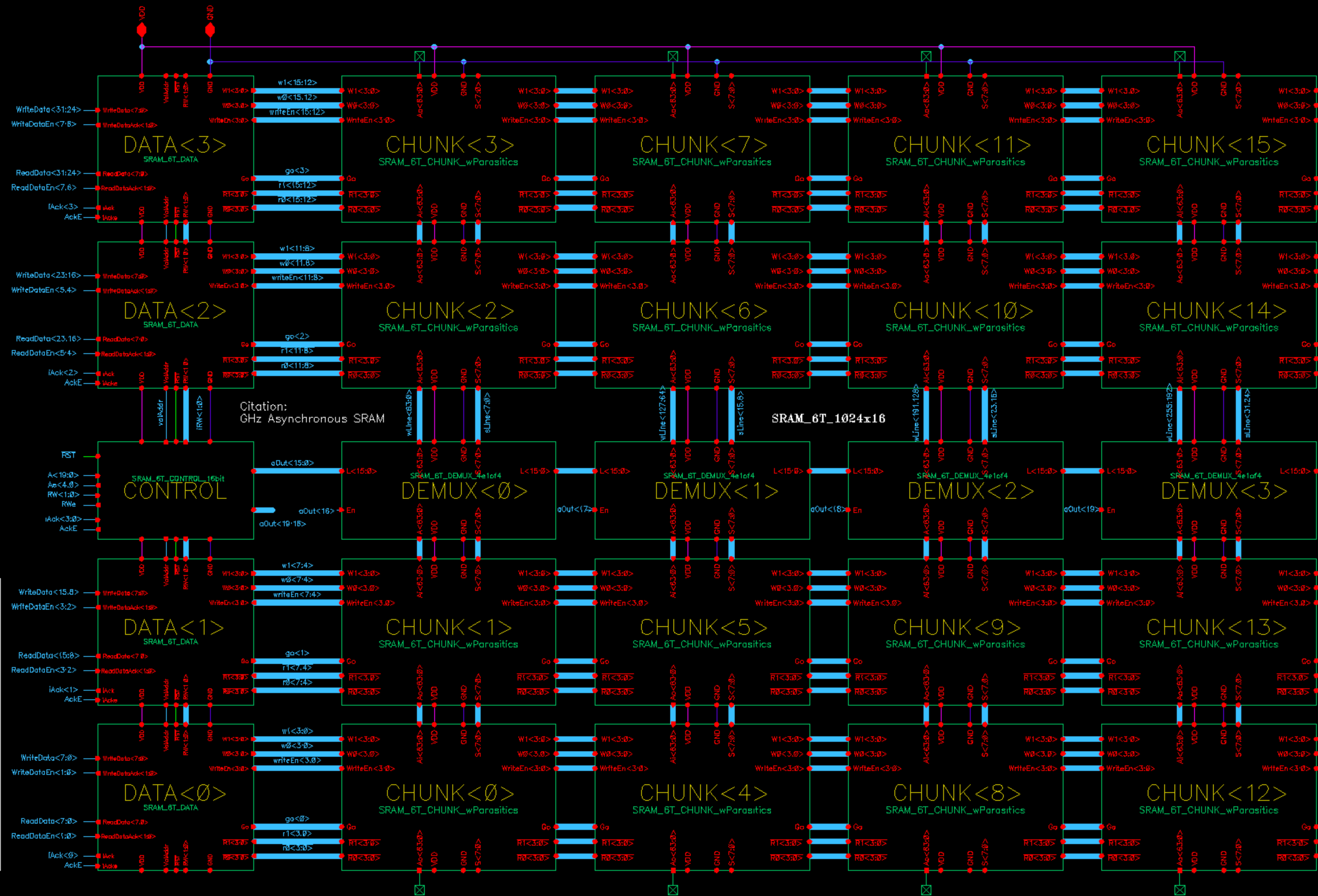
Organizations: The Regents of the University of California

Authors: R St. Denis, C. Nitta,
R. Amirtharajah, M. Farrens
V. Akella

Contributors: R. St. Denis

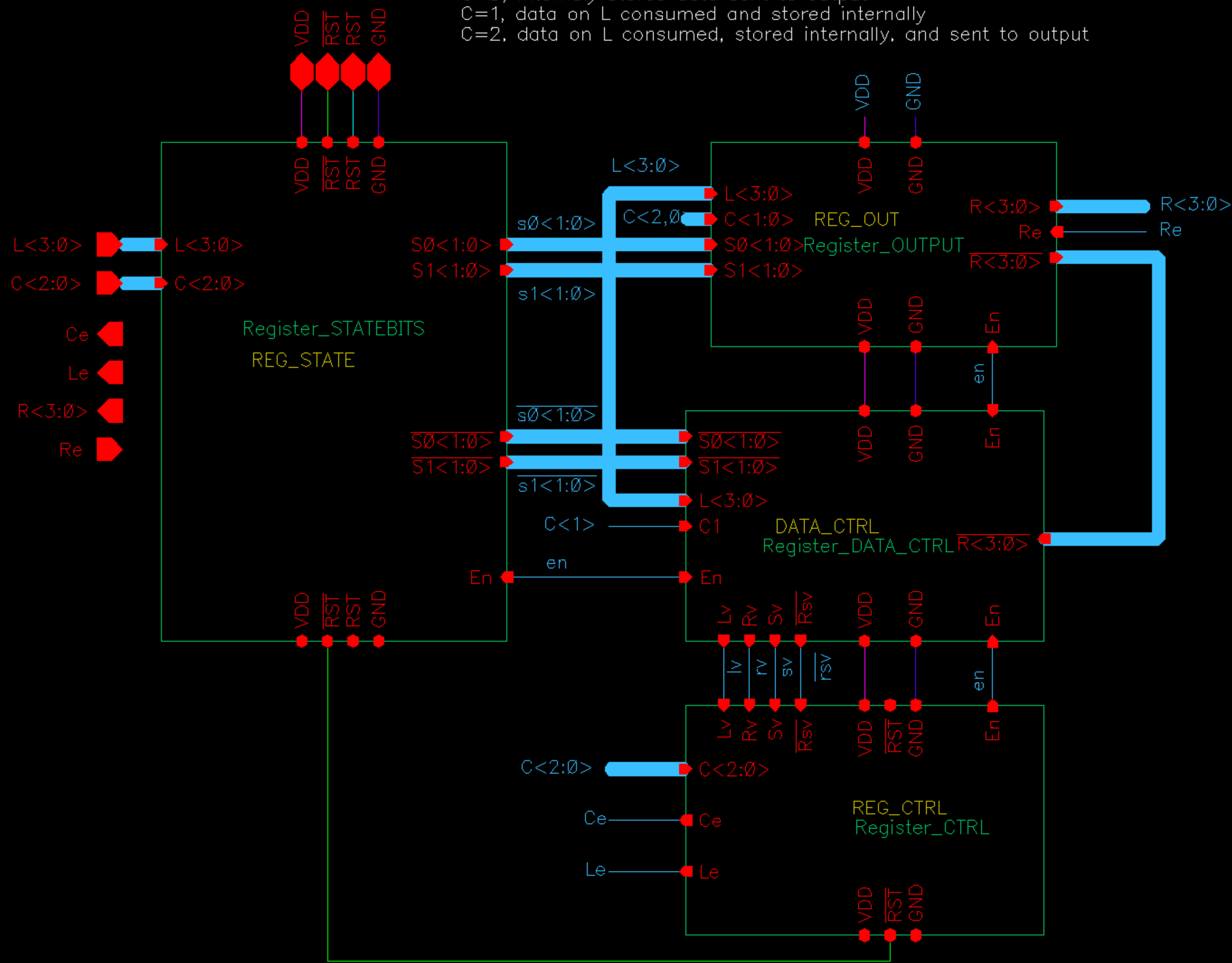
Citations: Author(s) of respective citations





Register_e1of4

C=0, internally stored data sent to output
C=1, data on L consumed and stored internally
C=2, data on L consumed, stored internally, and sent to output



Citation: A Designer’s Guide to Asynchronous VLSI

Copyright (c) 2017, All of the following:	All rights reserved.
Organizations: The Regents of the University of California	
Authors: R St. Denis, C. Nitta, R. Amirtharajah, M. Farrens V. Akella	
Contributors: R. St. Denis	
Citations: Author(s) of respective citations	





All rights reserved.



Citations: Author(s) of respective citations