

TSEK06 High-Level Design Report

Group 5

Editor: Johannes Klasson

Version P1B

Status

Reviewed	Johannes Klasson	2016-02-15
Approved	Martin Nielsen-Lönn	-

PROJECT IDENTITY

VT, 2016, Group 5
Linköpings Tekniska Högskola, ISY

Group members

Name	Responsibility	Phone	E-mail
Johan Isaksson	Project Leader	070-2688785	johis024@student.liu.se
Johannes Klasson	Document Manager	073-8209003	johkl226@student.liu.se
Jonas Tarasso	Designer	070-5738583	jonta760@student.liu.se
Alexander Yngve	Designer	076-2749762	aleyn573@student.liu.se

Customer: ISY
Contact at customer: Martin Nielsen-Lönn
Course responsible: Atila Alvandpour
Consultant: Martin Nielsen-Lönn

Contents

1	Introduction	1
2	Block Level Description	1
2.1	SPI/PSRBR	1
2.2	16-bit Kogge-Stone Adder	1
2.3	Comparator	3

Document history

Version	Date	Changes	Performed by
P1A	2016-02-15	First draft	Johan Isaksson

1 Introduction

2 Block Level Description

2.1 SPI/PSRBR

2.2 16-bit Kogge-Stone Adder

Table 1 – Example table boolean expressions for combinatorial gates

Input	Function1	Function2	Output
00	1	0	1
01	0	0	1
10	0	0	1
11	1	0	1

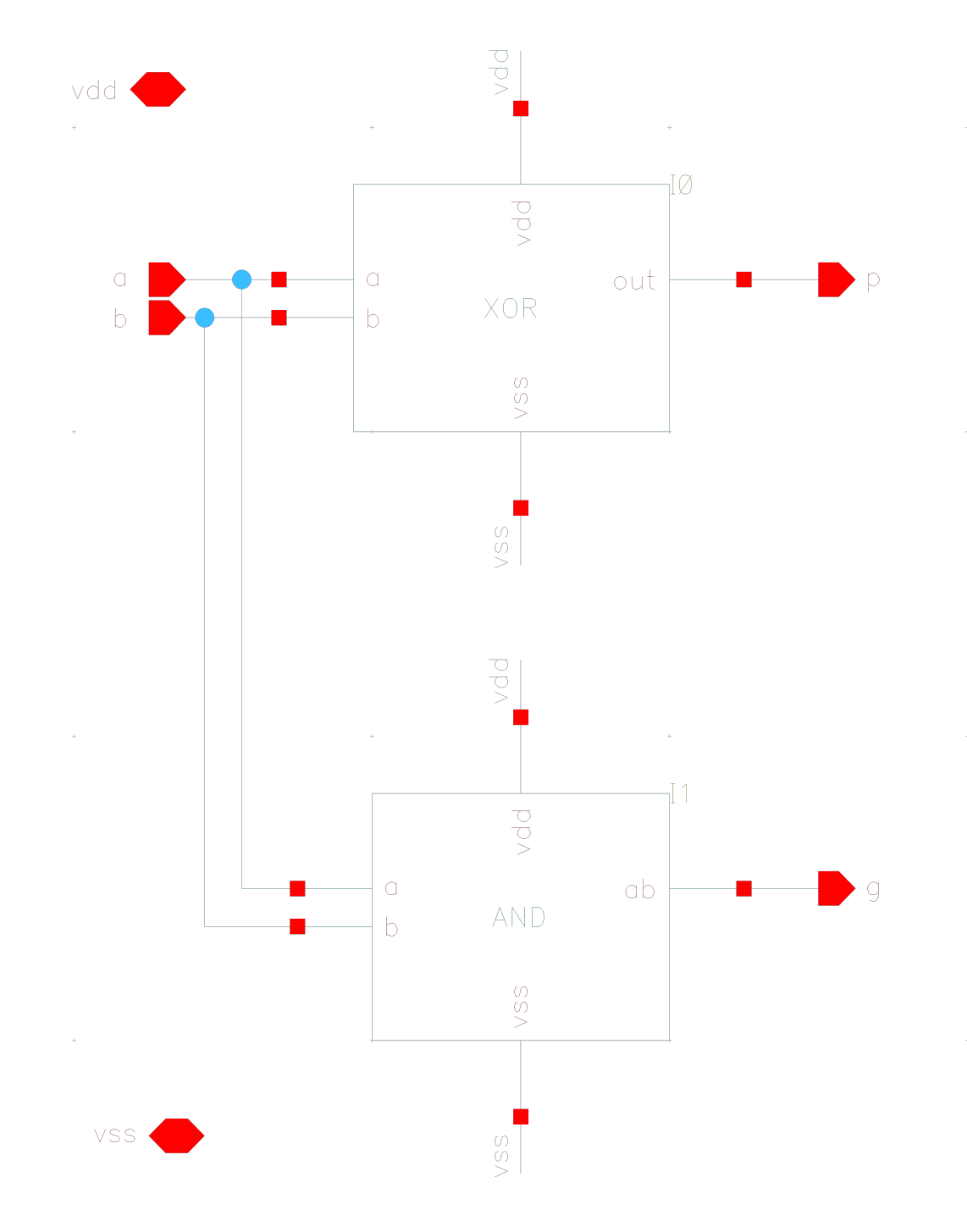


Figure 1 – Figure shows whats inside the red block in the adder

2.3 Comparator

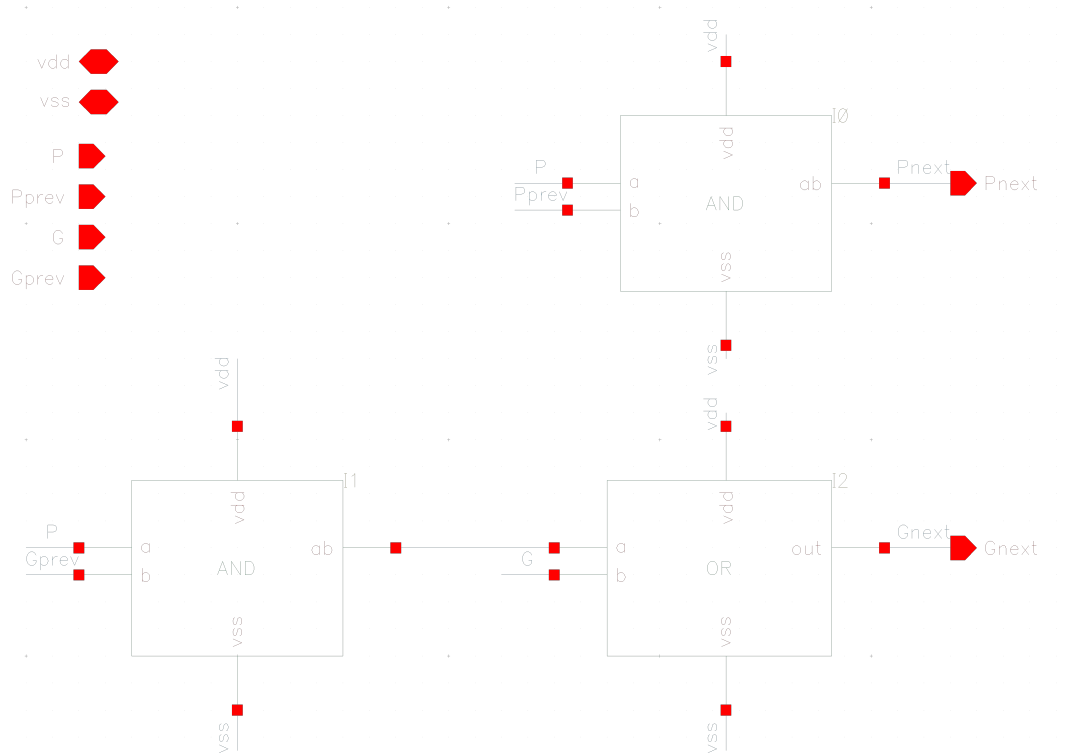


Figure 2 – Figure shows whats inside the yellow block in the adder

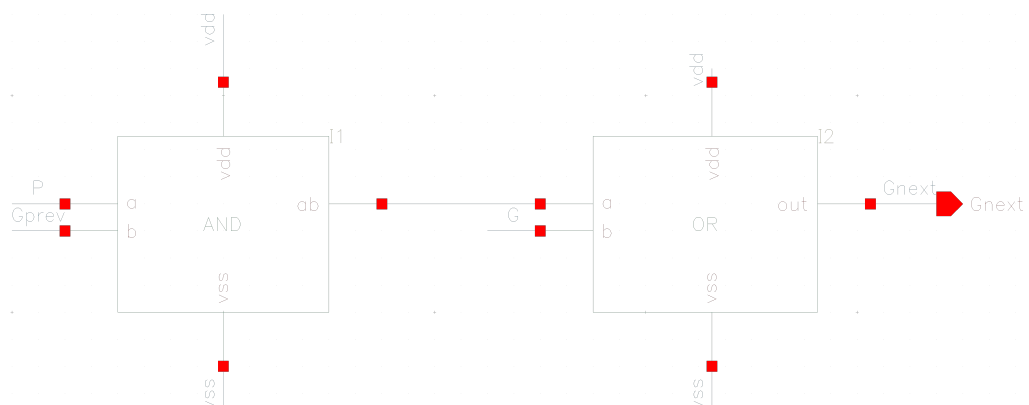


Figure 3 – Figure shows whats inside the yellow carry block in the adder

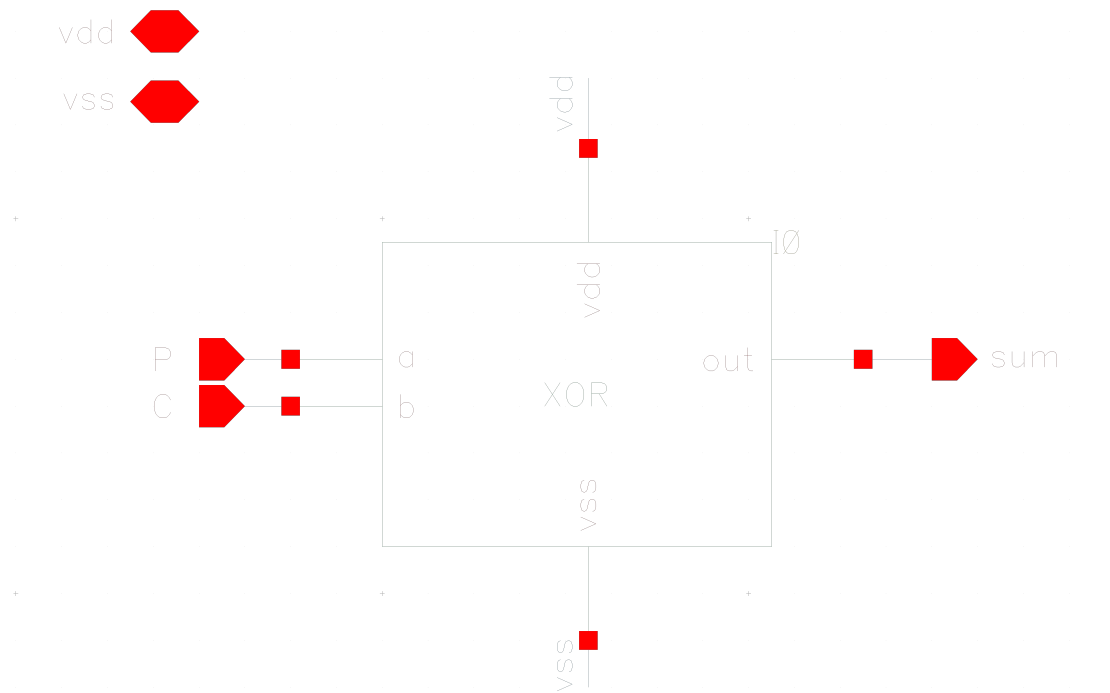


Figure 4 – Figure shows whats inside the sum block in the adder