

ECED 4260 IC Design and Fabrication

Assignment #3 reference solution

<http://myweb.dal.ca/~jgu/4260/assignments.html>

Plot F1 & F2 into the map and read them out

A	B	C	D	F1	F2
0	0	0	0	Φ	0
0	0	0	1	Φ	0
0	0	1	0	1	1
0	0	1	1	0	1
0	1	0	0	1	0
0	1	0	1	1	1
0	1	1	0	Φ	1
0	1	1	1	0	1
1	0	0	0	0	0
1	0	0	1	0	0
1	0	1	0	1	Φ
1	0	1	1	1	0
1	1	0	0	0	0
1	1	0	1	1	Φ
1	1	1	0	0	1
1	1	1	1	Φ	0

C \ AB	00	01	11	10
0	Φ	1	D	0
1	D'	D' Φ	D Φ	D+D' Φ

$A'D'+BC'D$

C \ AB	00	01	11	10
0	Φ	Φ	0	0
1	0	0	0	1

$AB'C$

C \ AB	00	01	11	10
0	0	D	D Φ	0
1	D+D' Φ	1	D'	D' Φ

$CD'+A'BD$

C \ AB	00	01	11	10
0	0	0	0	0
1	1	Φ	0	0

$A'C$