S_0	S_1	$C_{in}=0$	$C_{in}=1$
0	0	F=A	F=A+1
0	1	F=A-B-1	F=A-B
1	0	F=B-A-1	F=B-A
1	1	F=A+B	F=A+B+1

Input				Output	
S_0	S_1	A_i	B_i	X_i	Y_i
0	0	0	0	0	0
0	0	0	1	0	0
0	0	1	0	1	0
0	0	1	1	1	0
0	1	0	0	0	1
0	1	0	1	0	0
0	1	1	0	1	1
0	1	1	1	1	0
1	0	0	0	1	0
1	0	0	1	1	1
1	0	1	0	0	0
1	0	1	1	0	1
1	1	0	0	0	0
1	1	0	1	0	1
1	1	1	0	1	0
1	1	1	1	1	1

After performing K-Map

$X_i = S_0S_1' \oplus A$

$Y_i = (S_0 + S_1)\ (S_0'S_1 \oplus B_i)$

Circuit Diagram