

Sheet1

\PH* PH | currInt<<2
 \PL* PL | currInt<<2

\decode (int != currInt) & (dIn[7:5] != 011) & !useK & !skip ? CurrInt = int, >>>> unfetch
 (dIn[7:5] == 011) & !skip ? >>>> test
 (dIn[7:5] == 011) & skip ? Skip = 0, >>>> fetch
 (dIn[6:5] != 11) & skip & (dIn[3:0] == 1111) ? >>>> skip2
 (dIn[6:5] != 11) & skip & ((dIn[1:0] == 11) | (dIn[3:2] == 11)) ? >>>> skip1
 (dIn[6:5] != 11) & !skip & (dIn[3:0] == 1111) ? >>>> mathZZ
 (dIn[6:5] != 11) & !skip & (dIn[1:0] == 11) ? >>>> mathRZ
 (dIn[6:5] != 11) & !skip & (dIn[3:2] == 11) ? >>>> mathZR
 (dIn[7:5] == 111) & (dIn[3:2] == 11) & !skip ? >>>> jump
 (dIn[7:1] == 1110110) & skip ? >>>> skip2
 (dIn[7:1] == 1110111) & skip ? Skip = 0, >>>> fetch
 (dIn[7:2] == 111111) & skip ? >>>> skip1
 (dIn[7:5] == 111) & skip & ((dIn[3:2] != 11) & dIn[1:0] == 11) ? >>>> skip2
 (dIn[7:5] == 111) & skip & ((dIn[3:2] != 11) & dIn[1:0] != 11) ? >>>> skip1
 (dIn[7:5] == 111) & !skip & ((dIn[3:2] != 11) & dIn[1:0] == 11) ? >>>> mathZI
 (dIn[7:5] == 111) & !skip & ((dIn[3:2] != 11) & dIn[1:0] != 11) ? >>>> mathRI

label	rA	rB	rW	dIn	dOut	wMem	aSel	bSel	logSel	Cin	sA7	A7	sA0	A0
fetch	PH*	PL*	PL*	?	?	0	0 B	B	1	0 x	0 x			
fetchII	x	PH*	PH*	Inst	?	0	0 B	B	1	0 x	0 x			
fetchI	x	x	No	Inst	?	0	0 B	B	0	0 x	0 x			
unfetch	PH*	PL*	PL*	?	?	0	-2 B	B	1	0 x	0 x			
skip2	PH*	PL*	PL*	?	?	0	0 B	B	1	0 x	0 x			
skip1	PH*	PL*	PL*	?	?	0	0 B	B	1	0 x	0 x			
test	K	K	K	?	?	0	0 B	^	cnd	0 x	0 x			

wIR wFL

```
0 0 C ? >>>> fetchII : fetchI
1 0 >>>> decode
1 0 >>>> decode

0 0 >>>> fetch

0 0 >>>> skip1
0 0 skip = 0, >>>> fetch

0 0 useK = IR[4], skip = cnd & !IR[4], >>>> fetch
```