

Sheet1

\PH* PH ^ currInt<<2
 \PL* PL ^ currInt<<2

\decode	DIn[7:5] != 011	Int != currInt	
	dIn[7:5] == 011		skip
	dIn[6:5] != 11	dIn[3:0] == 1111	
	dIn[6:5] != 11	dIn[3:2] != 11	dIn[1:0] == 11
	dIn[6:5] != 11	dIn[3:2] == 11	dIn[1:0] != 11
	dIn[6:5] != 11	dIn[3:2] != 11	dIn[1:0] != 11
	dIn[7:5] != 111	dIn[3:2] != 11	dIn[1:0] == 11
	dIn[7:5] != 111	dIn[3:2] != 11	dIn[1:0] != 11
	dIn[7:0] == 11101100		
	dIn[7:0] == 11101101		
	dIn[7:0] == 11101110		skip
	dIn[7:0] == 11101111		skip
	dIn[7:0] == 11111100		
	dIn[7:0] == 11111101		
	dIn[7:0] == 11111110		
	dIn[7:0] == 11111111		

\mA IR[7:5] == 111 ? IR[3:2] : IR[6:5]
 \mL IR[7:5] == 111 ? !IR[4] | IR[3:2] : !IR[7] | IR[6:5]
 \mCin IR[7:5] == 111 ? !IR[4] & IR[2] : !IR[7] & IR[5]
 \S {00,IR[3:2]}
 \D {00,IR[1:0]}
 \kD useK ? 0011 : {00,IR[1:0]}
 \PW C ? PH ^ currInt<<2 : No

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	
	x	PH*	PW	Inst	?	0	0 B	B		1	0 x		0 x	
unfetch	x	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	
mathRR	S	kD	D	?	?	0 mA	B	mL		mCir	0 x		0 x	
kmathRR	S	kD	K	?	?	0 mA	B	mL		mCir	0 x		0 x	

	skip	!skip useK	!skip !useK
			>>> unfetch
= 0	>>> fetch	>>> test	>>> test
	>>> skip2	>>> kmathZZ	>>> mathZZ
	>>> skip1	>>> kmathRZ	>>> mathRZ
	>>> skip1	>>> kmathZR	>>> mathZR
	>>> fetch	>>> kmathRR	>>> mathRR
	>>> skip2	>>> kmathZI	>>> mathZI
	>>> skip1	>>> kmathRI	>>> mathRI
	>>> skip2	>>> jump	>>> jump
	>>> skip2	>>> call	>>> call
= 0	>>> fetch	>>> fetch	>>> fetch
= 0	>>> fetch	>>> return	>>> return
	>>> skip1	>>> jumpZ	>>> jumpZ
	>>> skip1	>>> callZ	>>> callZ
	>>> skip1	>>> rjump	>>> rjump
	>>> skip1	>>> table	>>> table

wIR wFL

```

0  0
1  0 decode

0  0 skip = 0, >>>> fetch

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

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

0  1 >>>> fetch

0  1 useK = 1, >>>> fetch

```