\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
            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
            dIn[7:0] == 11101111
            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]}

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
mathRR	S	kD	D	?	?	0	mA	B	mL	mCin	0	x	0	x
kmathRR	S	kD	K	?	?	0	mA	B	mL	mCin	0	x	0	x

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

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
0	1	>>>> fetch
0	1	useK = 1, >>>> fetch