

Instruction Cycles (Single Oper.)

Number of cycles for Format II					
Addr. Mode	RRA,RRC,SWPB,SXT	PUSH	CALL	Size	Operation
Rn	1	3	4	1	SWP R5
@Rn	3	4	4	1	RRC @R9
@Rn+	3	5	5	1	SWPB @R10+
#N	Don't use	4	5	2	CALL #04000h
x(Rn)	4	5	5	2	CALL 2(R7)
EDE	4	5	5	2	PUSH EDE
&EDE	4	5	5	2	SXT &EDE

Instruction Cycles (Double Oper.)

Number of Cycles for Instruction Format I				
Addressing Mode				
Source	Destination	No of Cycles	Size	Operation
Rn	Rm	1	1	MOV R6 ,R11
	PC	2	1	BR R10
	X (Rm)	4	2	ADD R5 , 8 (R9)
	EDE	4	2	XOR R7 , EDE
	&EDE	4	2	MOV R6 , &EDE
@Rn	Rm	2	1	AND @R3 , R7
	PC	2	1	BR @R11
	X (Rm)	5	2	XOR @R5 , 4 (R7)
	EDE	5	2	MOV @R8 , EDE
	&EDE	5	2	XOR @R7 , &EDE

Instruction Cycles (Double Oper.)

Number of Cycles for Instruction Format I				
Addressing Mode				
Source	Destination	No of Cycles	Size	Operation
@Rn+	Rm	2	1	ADD @R6+,R11
	PC	3	1	BR @R10+
	X (Rm)	5	2	ADD @R7+, 8 (R9)
	EDE	5	2	XOR @R7+,EDE
	&EDE	5	2	MOV @R6+,&EDE
#N	Rm	2	1	MOV @22,R7
	PC	2	1	BR #05252h
	X (Rm)	5	2	MOV #48,0(SP)
	EDE	5	2	ADD #44,EDE
	&EDE	5	2	ADD #48,&EDE

Instruction Cycles (Double Oper.)

Number of Cycles for Instruction Format I				
Source	Destination	No of Cycles	Size	Operation
X (Rn)	Rm	3	2	ADD 2(R6),R11
	PC	3	2	BR 2(R10)
	X (Rm)	6	3	ADD 4(R7),8(R9)
	EDE	6	3	MOV 4(R11),EDE
	&EDE	6	3	MOV 4(R6),&EDE
SRC	Rm	3	2	ADD SRC,R7
	PC	3	2	BR SRC
	X (Rm)	6	3	MOV SRC,0(SP)
	DEST	6	3	CMP SRC,DEST
	&DEST	6	3	ADD SRC,&DEST

Instruction Cycles (Double Oper.)

Number of Cycles for Instruction Format I				
Source	Destination	No of Cycles	Size	Operation
&SRC	Rm	3	2	ADD &SRC,R11
	PC	3	2	BRA &SRC
	X (Rm)	6	3	MOV &SRC,0 (R11)
	DEST	6	3	MOV &SRC,DEST
	&DEST	6	3	MOV &SRC,&DEST

Instruction Cycles (examples)

Instruction	Fetch cycles	Operand fetch cycle	Result store cycle	Additional cycles*	Total cycles
<code>add r5,r6</code>	1	0	0	0	1
<code>add &SRC,r6</code>	2	1	0	0	3
<code>add #100,r6</code>	2	0	0	0	2
<code>add r5,DEST</code>	2	1	1	0	4
<code>add SRC,DEST</code>	3	2	1	0	6
<code>cmp SRC,r6</code>	2	1	0	0	3
<code>jmp label</code>	1	0	0	1	2
<code>mov r5,pc</code>	1	0	0	1	2
<code>pop pc</code>	1	1	0	1	3
<code>pop r5</code>	1	1	0	0	2
<code>push r5</code>	1	0	1	1	3
<code>push #0x1234</code>	2	0	1	1	4
<code>Call #0x1234</code>	2	0	1	2	5

* Additional cycles to perform internal processing