

Addressing Mode RTL for 2 Operand Instructions

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Src	Dst	Clk Count	RTL	AddressMux 0 = MDB 1 = SP,2 2 = Address 3 = R[dst]	srcM 0 = R[src] 1 = PC 2 = dataFwd 3 = MDB	src Latch	dstM 0 = R[dst] 1 = Branch 2 = dataFwd 3 = MDB	dst Latch	Indirect	Ex	MR	MW	MO 0 = None 1 = IF 2 = Offset 3 = SP,...
Rn	Rm	1	src <- R[src], dst <- R[dst]	-	0	0	1	1	0	1	0	0	1
	PC	3	src <- R[src], dst <- R[dst] bubbled	-	0	0	1	1	0	1	0	0	1
	x(Rm) EDE &EDE	4	src <- R[src], dst <- R[dst], Addr <- Offset dst <- M[R[dst] + Offset], Addr <- R[dst] + Offset None (MDB <- Function Unit) Instruction Fetch	0	1	0	1	1	0	0	1	0	2
			dst <- M[R[dst] + Offset], Addr <- R[dst] + Offset None (MDB <- Function Unit) Instruction Fetch	2	1	-	0	3	1	0	0	1	0
@Rn @Rn+ #N	Rm	2	src <- M[R[src]] dst <- R[dst]	-	0	3	1	0	1	0	0	0	1
			src <- M[R[src]] dst <- M[R[dst]]	-	0	3	1	0	1	0	0	0	1
	PC	4	dst <- R[dst] Bubbled	-	0	-	0	1	0	0	0	0	1
			Bubbled	-	0	-	-	-	-	-	-	-	-
	x(Rm) EDE &EDE	5	src <- M[R[src]] dst <- R[dst], Addr <- Offset dst <- M[R[dst] + Offset], Addr <- R[dst] + Offset None (MDB <- Function Unit) Instruction Fetch	-	0	3	1	0	1	0	0	0	0
			dst <- R[dst], Addr <- Offset src <- M[R[dst]]	0	1	-	0	1	0	0	1	0	2
	Rm	3	src <- M[R[src]] dst <- R[dst], Addr <- Offset	2	1	-	0	3	1	0	0	1	0
			dst <- M[R[dst] + Offset], Addr <- R[dst] + Offset None (MDB <- Function Unit) Instruction Fetch	-	0	-	0	-	0	0	0	0	0
x(Rn) EDE &EDE	Rm	3	src <- R[dst], Addr <- Offset src <- MDB	0	1	0	1	0	0	0	1	0	2
			dst <- Rm	-	0	3	1	0	0	0	0	0	0
	PC	5	src <- R[dst], Addr <- Offset src <- MDB	0	1	0	1	1	0	0	1	0	2
			dst <- Rm Bubbled	-	0	3	1	0	0	0	0	0	0
x(Rn) EDE &EDE			dst <- Rm Bubbled	-	0	-	0	1	0	1	0	0	1
			Bubbled	-	-	-	-	-	-	-	-	-	-
			src <- R[dst], Addr <- Offset src <- MDB	0	1	0	1	0	0	0	1	0	2
	x(Rm) TONI &TONI	6	dst <- R[dst], Addr <- Offset dst <- M[R[dst] + Offset], Addr <- R[dst] + Offset None (MDB <- Function Unit) Instruction Fetch	-	0	3	1	0	0	0	0	0	0
			dst <- M[R[dst] + Offset], Addr <- R[dst] + Offset None (MDB <- Function Unit) Instruction Fetch	2	1	-	0	3	1	0	0	1	0
			None (MDB <- Function Unit) Instruction Fetch	-	0	-	0	-	0	0	0	0	0
			Instruction Fetch	-	0	-	0	-	0	0	0	0	0
			Instruction Fetch	-	0	-	0	-	0	0	0	0	0