	Size			Single Effective Address Operation Word																	
MOVE	B	L	W	0	0	S		Xn			M			M			Xn				
MOVEA		W	L	0	0	S		An			0	0	1	M			Xn				
MOVEM		W	L	0	1	0	0	1	D	0	0	1	S	M			Xn			W	M
ADD	B	W	L	1	1	0	1	Dn			D	S		M			Xn				
ADDA		W	L	1	1	0	1	An			S	1	1	M			Xn				
ADDQ	B	W	L	0	1	0	1	Data			0	S		M			Xn				
MULS		W		1	1	0	0	Dn			1	1	1	M			Xn				
DIVS		W		1	0	0	0	Dn			1	1	1	M			Xn				
LEA			L	0	1	0	0	An			1	1	1	M			Xn				
AND	B	W	L	1	1	0	0	Dn			D	S		M			Xn				
ORI	B	W	L	0	0	0	0	0	0	0	0	S		M			Xn			/	I
NEG	B	W	L	0	1	0	0	0	1	0	0	S		M			Xn				
EOR	B	W	L	1	0	1	1	Dn			1	S		M			Xn				
EORI	B	W	L	0	0	0	0	1	0	1	0	S		M			Xn			/	I
NOT	B	W	L	0	1	0	0	0	1	1	0	S		M			Xn				
LSR	B	W	L	1	1	1	0	0	0	1	0	1	1	M			Xn				
LSL	B	W	L	1	1	1	0	0	0	1	1	1	1	M			Xn				
ASR	B	W	L	1	1	1	0	0	0	0	0	1	1	M			Xn				
ASL	B	W	L	1	1	1	0	0	0	0	1	1	1	M			Xn				
ROL	B	W	L	1	1	1	0	0	1	1	1	1	1	M			Xn				
ROR	B	W	L	1	1	1	0	0	1	1	0	1	1	M			Xn				
BTST	B		L	0	0	0	0	1	0	0	0	0	0	M			Xn				
CMP	B	W	L	1	0	1	1	Dn			0	S		M			Xn				
CMPI	B	W	L	0	0	0	0	1	1	0	0	S		M			Xn				
CMPA		W	L	1	0	1	1	An			S	1	1	M			Xn				
BRA	B	W		0	1	1	0	0	0	0	0	Displacement									
JSR				0	1	0	0	1	1	1	0	1	0	M			Xn				
RTS				0	1	0	0	1	1	1	0	0	1	1	1	0	1	0	1		
Bcc	B	W		0	1	1	0	Condition				Displacement									

Addressing Mode	Format	M	Xn
Data register	Dn	0 0 0	reg
Address register	An	0 0 1	reg
Address	(An)	0 1 0	reg
Address with Postincrement	(An)+	0 1 1	reg
Address with Predecrement	-(An)	1 0 0	reg
Address with Displacement	(d_{16}, An)	1 0 1	reg
Address with Index	(d_8, An, Xn)	1 1 0	reg
Program Counter with Displacement	(d_{16}, PC)	1 1 1	0 1 0
Program Counter with Index	(d_8, PC, Xn)	1 1 1	0 1 1
Absolute Short	(xxx).W	1 1 1	0 0 0
Absolute Long	(xxx).L	1 1 1	0 0 1
Immediate	#imm	1 1 1	1 0 0

Operation Size	Suffix	S	S	S
Byte	.b	0 0	/	0 1
Word	.w	0 1	0	1 1
Long	.l	1 0	1	1 0

Direction	d	D
Right	R	0
Left	L	1

Direction	D	D
Register to memory	0	1
Memory to register	1	0

Direction	D
Dn ♦ <ea> → Dn	0
<ea> ♦ Dn → <ea>	1

Condition	Mnemonic	Cond
True	T	0 0 0 0
False	F	0 0 0 1
Higher	HI	0 0 1 0
Lower or Same	LS	0 0 1 1
Carry Clear	CC	0 1 0 0
Carry Set	CS	0 1 0 1
Not Equal	NE	0 1 1 0
Equal	EQ	0 1 1 1
Overflow Clear	VC	1 0 0 0
Overflow Set	VS	1 0 0 1
Plus	PL	1 0 1 0
Minus	MI	1 0 1 1
Greater or Equal	GE	1 1 0 0
Less Than	LT	1 1 0 1
Greater Than	GT	1 1 1 0
Less or Equal	LE	1 1 1 1
