

Single byte opcodes

Opcode		MS Nibble																		
						ACC		INDX	EXT/DIR*	ACCA or SP				ACCB or X						
		A	B	IMM	DIR	INDX,Y*	EXT			IMM	DIR	INDX,Y*	EXT							
LS Nibble	0x0	0x1	0x2	0x3	0x4	0x5	0x6	0x7	0x8	0x9	0xA	0xB	0xC	0xD	0xE	0xF				
0x0	0000	----	SBA	BRA	TSX	NEG				SUB								0x0		
0x1	0001	NOP	CBA	BRN	INS	----	???	???	CMP									0x1		
0x2	0010	AIM, dir	----	BHI	PULA	----	???	???	SBC									0x2		
0x3	0011	OIM, dir	----	BLS	PULB	COM				SUBD				ADDD				0x3		
0x4	0100	LSRD	----	BCC/BHS	DES	LSR				AND								0x4		
0x5	0101	ASLD/LSLD	----	BCS/BLO	TXS	----	???	???	BIT									0x5		
0x6	0101	TAP	TAB	BNE	PSHA	ROR				LDA								0x6		
0x7	0111	TPA	TBA	BEQ	PSHB	ASR				BRSET,dir	STA				BRSET ind,x	STA				0x7
0x8	1000	INCX	XGXY	BVC	PULX	ASL/LSL				EORA								0x8		
0x9	1001	DECX	DAA	BVS	RTS	ROL				ADC								0x9		
0xA*	1010	CLV	XGDX	BPL	ABX	DEC				ORA								0xA*		
0xB	1011	SEV	ABA	BMI	RTI	----	???				ADD								0xB	
0xC	1100	CLC	CPD,imm	BGE	PSHX	INC				CPX				LDD				0xC		
0xD	1101	SEC	CPD,dir	BLT	MUL	TST				BSR	JSR				2Byte**	STD				0xD
0xE	1110	CLI	----	BGT	WAI	----	----	JMP				LDS				LDX				0xE*
0xF	1111	SEI	CPD,ext	BLE	SWI	CLR				BRCLR,dir	STS				BRCLR ind,x	STX				0xF
		0000	0001	0010	0011	0100	0101	0110	0111	1000	1001	1010	1011	1100	1101	1110	1111			

Missing: SLP
STOP
Does SUBA, imm work?

Example: 0xA5 = lda,xy

*Operates on x unless followed by 0x80 then it operates on y - not all instructions?

** CD = 2 byte instruction see below:

Opcode CD byte 2

Opcode		MS Nibble																
						ACC		INDX	EXT/DIR*	ACCA or SP				ACCB or X				
		A	B	IMM	DIR	INDX,Y*	EXT			IMM	DIR	INDX,Y*	EXT					
LS Nibble	0x0	0x1	0x2	0x3	0x4	0x5	0x6	0x7	0x8	0x9	0xA	0xB	0xC	0xD	0xE	0xF		
0x0	0000																	0x0
0x1	0001																	0x1
0x2	0010																	0x2
0x3	0011												CPD, Y					0x3
0x4	0100																	0x4
0x5	0101																	0x5
0x6	0101																	0x6
0x7	0111																	0x7
0x8	1000	INCY																0x8
0x9	1001	DECY																0x9
0xA*	1010		XGDY		ABY													0xA*
0xB	1011																	0xB
0xC	1100									CMPY, Y++		CMPX, Y						0xC
0xD	1101																	0xD
0xE	1110													LDY		LDY, X		0xE*
0xF	1111														STY	STX, Y		0xF
		0000	0001	0010	0011	0100	0101	0110	0111	1000	1001	1010	1011	1100	1101	1110	1111	

Note: The second byte maps as per the table for a one byte instruction