

CPU_OPCODES

#	OPC	CMD	DATA	Description	R_ACCU	R_REG_B	F_AC	F_AZ	F_AN	Extra
0	00000	END	x	Disable CLK (last clock cycle)	-	-	-	-	-	Disables CLK
1	00001	ADI	D	Add immediate	ACCU + D	-	ALU_C	ISNULL	0	
2	00010	ADD	x	Add (w/o carry)	ACCU + REG_B	-	ALU_C	ISNULL	0	
3	00011	ADC	x	Add (w/ carry)	ACCU + REG_B + C	-	ALU_C	ISNULL	0	
4	00100	SBC	x	Sub (w/ carry)	ACCU - REG_B - C	-	ALU_C	ALU_C	ALU_C	
5	00101	SEF	x	Set flags AC and AZ, resets AN	-	-	ACCU(6)	ACCU(7)	0	
6	00110	CPR	x	Compare	-	-	(ACCU == REG_B)	(ACCU > REG_B)	(ACCU < REG_B)	
7	00111	AXO	x	Bitwise XOR	ACCU ⊗ REG_B	-	ALU_C	ISNULL	0	
8	01000	AOR	x	Bitwise OR	ACCU ∨ REG_B	-	ALU_C	ISNULL	0	
9	01001	AAN	x	Bitwise AND	ACCU ∧ REG_B	-	ALU_C	ISNULL	0	
10	01010	TAB	x	Transfer register ACCU to REG_B	-	ACCU	ALU_C	ISNULL	0	
11	01011	TBA	x	Transfer register REG_B to ACCU	REG_B	-	ALU_C	ISNULL	0	
12	01100	WRA	D	Write register ACCU	D	-	ALU_C	ISNULL	0	
13	01101	WRB	D	Write register REG_B	-	D	ALU_C	ISNULL	0	
14	01110	RRE	D	Read from RAM	RAM_DATA	-	ALU_C	ISNULL	0	D to RAM address bus, R/W to LOW
15	01111	RWR	D	Write ACCU to RAM	-	-	ALU_C	ISNULL	0	D to RAM address bus, R/W to HIGH
16	10000	JCC	D	Conditional jump if AC equals 0	-	-	ALU_C	ISNULL	0	
17	10001	JCZ	D	Conditional jump if AZ equals 0	-	-	ALU_C	ISNULL	0	
18	10010	JCN	D	Conditional jump if AN equals 1	-	-	ALU_C	ISNULL	0	
19	10011	JMP	D	Unconditional jump	-	-	ALU_C	ISNULL	0	
20	10100	WCA	x	Store current CMD_ADDR	CMD_ADDR	-	ALU_C	ISNULL	0	Stores CMD_ADDR + 1
21	10101	IOR	D	Read from I/O bus	I/O INPUT	-	ALU_C	ISNULL	0	D to I/O address bus, R/W to LOW
22	10110	IOW	D	Write ACCU to I/O bus	-	-	ALU_C	ISNULL	0	D to I/O address bus, R/W to HIGH
23	10111	DAS	x	Display value of ACCU (signed)	-	-	ALU_C	ISNULL	0	Display /CE to HIGH when writing registers
24	11000	DAU	x	Display value of ACCU (unsigned)	-	-	ALU_C	ISNULL	0	Display /CE to HIGH when writing registers
25	11001	DCH	D	Displays an ASCII char	-	-	ALU_C	ISNULL	0	Display /CE to HIGH when writing registers
26	11010	DVA	D	Displays unsigned data	-	-	ALU_C	ISNULL	0	Display /CE to HIGH when writing registers
27	11011									
28	11100									
29	11101									
30	11110									
31	11111									

* ISNULL := (ACCU == 00000000)