|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| سیگنال/دستور | شماره | PC Write Cond | PC Write | IorD | Mem Read | Mem Write | Mem toReg | IR Write | PC Source | Alu op | alusrca | Alu srcb | Reg write | Reg dst | Tr write | Address reg b |
| fetch | 0 | 0 | 0 | 0 | 1 | 0 | x | 1 | x | x | x | x | 0 | x | 0 | x |
| Decode1 | 1 | 0 | 1 | 1 | 1 | 0 | X | 0 | 0 | + | 4 | 5 | 0 | X | 1 | 0 |
| Decode2 | 2 | 0 | 1 | 1 | 1 | 0 | X | 0 | 0 | + | 4 | 4 | 0 | X | 1 | 1 |
| Decode3 | 3 | 0 | 1 | 1 | 1 | 0 | x | 0 | 0 | + | 4 | 5 | 0 | x | 1 | 2 |
| WB1 | 4 | 0 | 0 | X | 0 | 0 | 0 | 0 | X | x | X | X | 1 | 2 | 0 | x |
| WB2 | 5 | 0 | 0 | X | 0 | 0 | 1 | 0 | X | X | X | X | 1 | 2 | 0 | X |
| WB3 | 6 | 0 | 0 | X | 0 | 0 | 1 | 0 | X | X | X | X | 1 | 0 | 0 | X |
| WB4 | 7 | 0 | 0 | X | 0 | 0 | 2 | 0 | x | X | x | x | 1 | 1 | 0 | X |
| jump | 8 | 1 | 0 | x | 0 | 0 | 0 | 0 | 1 | x | x | x | 0 | x | 0 | x |
| WriteMem1 | 9 | 0 | 0 | 1 | 0 | 1 | x | 0 | x | x | x | x | 0 | x | 0 | X |
| Exe1 | A | 0 | 0 | X | 0 | 0 | X | 0 | X | + | 0 | 0 | 0 | X | 0 | X |
| Exe2 | B | 0 | 0 | X | 0 | 0 | X | 0 | X | + | 1 | 1 | 0 | X | 0 | X |
| Exe3 | C | 0 | 0 | X | 0 | 0 | X | 0 | X | & | 2 | 2 | 0 | X | 0 | X |
| Exe4 | D | 0 | 0 | X | 0 | 0 | X | 0 | X | + | 3 | 3 | 0 | X | 0 | X |
| Exe5 | E | 0 | 0 | X | 0 | 0 | X | 0 | X | + | 3 | 0 | 0 | X | 0 | X |
| Exe6 | F | 0 | 0 | X | 0 | 0 | X | 0 | X | + | 1 | 2 | 0 | X | 0 | X |
| Exe8 | H | 0 | 0 | X | 0 | 0 | X | 0 | X | & | 3 | 2 | 0 | X | 0 | X |
| Exe9 | K | 0 | 0 | x | 0 | 0 | X | 0 | x | | | 3 | 2 | 0 | x | 0 | x |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| دستور | LDA | STA | ADA | ANA | MVR | ADR | ANR | ORR | JMP | LDI |
| استیت ها | 024 | 029 | 02AB5 | 02C5 | 01D6 | 01EF6 | 01H6 | 01K6 | 028 | 037 |

Jmp and pc execution