* 8 рабочих регистров (A,B,C,D,E,F,G,H)
* регистр для слова W
* регистр для констант K
* регистр M для работы с памятью
* регистр программного счетчика PC
* регистр хранения адреса возврата JAL
* регистр для 0
* временные регистры Q, R

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Описание | Ассемб лерный код | Код команды | | | | Аргументы команды | | | | | | | | | | | |
| Сложение | ADD x,y | 0 | 0 | 0 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |
| Сложение с константой | ADDI x | 0 | 0 | 0 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| Побитное ИЛИ | OR x,y | 0 | 0 | 1 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |
| Побитное И | AND x,y | 0 | 0 | 1 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| Побитное XOR | XOR x,y | 0 | 1 | 0 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |
| Инверсия | NOT x | 0 | 1 | 0 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| Сдвиг влево | SLL | 0 | 1 | 1 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |
| Циклический сдвиг | ROT | 0 | 1 | 1 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| Копирование в регистр M | LDS x | 1 | 0 | 0 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |
| Копирование из M в память | STS x | 1 | 0 | 0 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| Безусловный переход | JMP  JAL  JR | 1 | 0 | 1 | 0 | 0  1  1 | 1  0  1 |  |  |  |  |  |  |  |  |  |  |
| Условное ветвление, если не равны | BNE x,y | 1 | 0 | 1 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| Нет операции | NOP | 1 | 1 | 0 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |
| Резерв |  | 1 | 1 | 0 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| Резерв |  | 1 | 1 | 1 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |
| Резерв |  | 1 | 1 | 1 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |

|  |
| --- |
| rs |
| rt |
| rd |
| imm |
| Addr mem |
| high/low |
| Jump code |
|  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Регистр | Номер регистра | | | |
| A | 0 | 0 | 0 | 0 |
| B | 0 | 0 | 0 | 1 |
| C | 0 | 0 | 1 | 0 |
| D | 0 | 0 | 1 | 1 |
| E | 0 | 1 | 0 | 0 |
| F | 0 | 1 | 0 | 1 |
| G | 0 | 1 | 1 | 0 |
| H | 0 | 1 | 1 | 1 |
| W | 1 | 0 | 0 | 0 |
| K | 1 | 0 | 0 | 1 |
| M | 1 | 0 | 1 | 0 |
| PC | 1 | 0 | 1 | 1 |
| JAL | 1 | 1 | 0 | 0 |
| O | 1 | 1 | 0 | 1 |
| Q | 1 | 1 | 1 | 0 |
| R | 1 | 1 | 1 | 1 |