|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Таблица №1 Типы инструкций | | | | | | | |
| Тип | Формат | | | | | | |
| 31 27 26 25 24 20 19 15 14 12 11 7 6 0 | | | | | | | |
| R | Funct7 | | Rs2 | Rs1 | Funct3 | Rd | Opcode |
| R4 | Rs(3) | Funct(2) | Rs2 | Rs1 | Funct3 | Rd | Opcode |
| I | Imm[11:0] | |  | Rs1 | Funct3 | Rd | Opcode |
| S | Imm[11:5] | | Rs2 | Rs1 | Funct3 | Imm[4:0][11] | Opcode |
| SB | Imm[12][10:5] | | Rs2 | Rs1 | Funct3 | Imm[4:1][11] | Opcode |
| U | Imm[31:12] | | | | | Rd | Opcode |
| UJ | Imm[20|10:1|11|19:12] | | | | | Rd | Opcode |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Таблица№2 инструкций 16 бит | | | | | | | | | |
| Тип | Значение | Формат | | | | | | | |
| 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0 | | | | | | | | | |
| CR | Register | Funct4 | | Rd/Rs | | | Rs2 | | Op |
| CI | Immediate | Funct3 | Imm | Rd/Rs | | | Imm | | Op |
| CSS | Stack –relative Store | Funct3 | Imm | | | | Rs2 | | Op |
| CIW | Wide Immediate | Funct3 | imm | | | | | Rd` | Op |
| CL | Load | Funct3 | Imm | | Rs1` | Imm | | Rd` | Op |
| CS | Store | Funct3 | Imm | | Rs1` | Imm | | Rs2` | Op |
| CB | Branch | Funct3 | Offset | | Rs1` | Offset | | | Op |
| CJ | Jump | Funct3 | Jump target | | | | | | Op |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RVS Register number | 000 | 001 | 010 | 011 | 100 | 101 | 110 | 111 |
| RISC-V Register name | X8 | X9 | X10 | X11 | X12 | X13 | X14 | X15 |
| ABI  Register name | S0 | S1 | A0 | A1 | A2 | A3 | A4 | A5 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Тип | Код | Действие | Формат | | | | | |
|  |  |  | Imm[11:0] |  | Rs1 | Funct3 | Rd | Opcode |
|  |  |  |  | | | | | |
|  |  |  |  | | | | | |
|  |  |  |  | | | | | |
|  |  |  |  | | | | | |
|  |  |  |  | | | | | |
|  |  |  |  | | | | | |
|  |  |  |  | | | | | |
|  |  |  |  | | | | | |
|  |  |  |  | | | | | |
|  |  |  |  | | | | | |
|  |  |  |  | | | | | |