IAS Computer Application Binary Interface

Instruction Set Abstraction

Syntax : OPCODE Addr (Let **M** equals value stored in Address)

| OPCODE | Alias | Description |
|--------|--------|---|
| 00000 | HLT | Halt program (need restart) |
| 00001 | ADD | Add M to AC |
| 00010 | SUB | Subtract M from AC |
| 00011 | MUL | Multiply MQ by M |
| | | Most significant bits in AC, least ones in MQ |
| 00100 | DIV | Divide Ac by M |
| | | Quotient in AC, remainder in MQ |
| 00101 | NEGAC | Negate AC |
| 00110 | NEGMQ | Negate MQ |
| 00111 | XOR | Xor AC by M |
| 01000 | AND | And AC by M |
| 01001 | OR | Or AC by M |
| 01010 | CMP | Compare AC to M |
| | | Store result in RFLAGS |
| 01011 | MQTOAC | Store value in MQ to AC |
| 01100 | JMP | Jump PC to M |
| 01101 | JE | Jump PC to M if Equal flag is true |
| 01110 | JGE | Jump PC to M if Greater Than or Equal |
| | | flag is true |
| 01111 | JZ | Jump PC if AC is zero |
| 10001 | LOADAC | Load M to AC |
| 10010 | LOADMQ | Load M to MQ |
| 11001 | STORAC | Store AC to M |
| 11010 | STORMQ | Store MQ to M |

No callee-saved register

No redzone

SSE and AVX are not available