# RTL Micro-Operations Sequence

| TIMESTAMP \ INSTRUCTION | ALU | ALU_IMM | LOAD | STORE | JR | BR | BMI | BPL | BZ | MOVE | CMOV | NOP | HALT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T1 | FETCH | FETCH | FETCH | FETCH | FETCH | FETCH | FETCH | FETCH | FETCH | FETCH | FETCH | FETCH | FETCH |
| T2 | LoadINS | LoadINS | LoadINS | LoadINS | LoadINS | LoadINS | LoadINS | LoadINS | LoadINS | LoadINS | LoadINS | LoadINS | LoadINS |
| T3 | LoadPC, writeReg, DataSel=00 | LoadPC, writeReg, DataSel = 00, IMMsel | MemEn, IMMsel, DataSel = 01 | LoadPC, MemEn, IMMsel, MemWen | LoadPC, BRANCH = 101 | LoadPC, IMMsel, BRANCH = 001 | LoadPC, IMMsel, BRANCH = 010 | LoadPC, IMMsel, BRANCH = 011 | LoadPC, IMMsel, BRANCH = 100 | LoadPC, writeReg, DataSel = 00 | LoadPC, writeReg, DataSel = 10 | LoadPC | LoadPC, halted |
| T4 | - | - | MemEn, WriteReg, LoadPC | - | - | - | - | - | - | - | - | - | - |