BCPU Instruction Formats and Definitions

Op-Code	Format	Definition
0000	Move (Rd, Ra)	Rd ← Ra
0001	Not (Rd, Ra)	Rd ← bitwise NOT Ra
0010	And (Rd, Ra, Rb)	Rd ←Ra bitwise AND Rb
0011	Or (Rd, Ra, Rb)	Rd ← Ra bitwise OR Rb
0100	Add (Rd, Ra, Rb)	Rd ← Ra + Rb
0101	Sub (Rd, Ra, Rb)	Rd ← Ra – Rb
0110	Addi (Rd, Ra, v4)	Rd ← Ra + v4 (where v is 4-bit data)
0111	Subi (Rd, Ra, v4)	Rd ← Ra – v4 (where v is 4-bit data)
1000	Set (Rd, v8)	Rd ← 8 0's follow by v8 (where v8 is 8-bit data)
1001	Seth (Rd, v8)	Rd ← v8 follow by Rd7, Rd6 … Rd0 (where v8 is 8-bit data)
1010	Store (Rd, Ra)	DataStorage[Rd] ← Ra (where Rd used as address)
1011	Load (Rd, Ra)	Rd ← DataStorage[Ra] (where Ra used as address)
1100	Movez (Rd, Ra, Rb)	Rd ← Ra IF Rb == 0 (zero)
1101	Movex (Rd, Ra, Rb)	Rd ← Ra IF Rb != 0 (not zero)
1110	Movep (Rd, Ra, Rb)	Rd ← Ra IF Rb15 == 0 (positive) (test bit 15 of Rb)
1111	Moven (Rd, Ra, Rb)	Rd ← Ra IF Rb15 == 1 (negative) (test bit 15 of Rb)