

S0

R7 → IMemA, I	-
IMemD → IR	S0
	MUX

→ S1, S5, S6, S7, S10, S12, S19, S22, S24, S40

S1

I → R7	-
IR ₁₁₋₉ → RFA1	S1
IR ₈₋₆ → RFA2	S2
RFD1 → T1	
RFD2 → T2	

S2

IR ₁₀ → ALUC2	OP
T1 → ALUA	S2
T2 → ALUB	S3
ALUC → T3	

S3

T3 → RFD3	-
IR ₅₋₃ → RFA3	S3
	IB

S4

R7 → IMemA, J	-
IMemD → IR	S4
	BC

S5

I → R7	-
	S5
	IB

S6

I → R7	-
IR → RFA1	S6
IR ₁₁₋₉ → RFA2	S2
RFD1 → T1	
RFD2 → LS1 → T2	

S7

IR ₁₁₋₉ → RFA1	-
RFD1 → T1	S7
IR ₅₋₀ → SE06 → T2	S8
I → R7	

S8

T1 → ALUA	OP
T2 → ALUB	S8
ALUC → T3	MUX S9

→ S9, S13, S14, S18, S23

S9

IR ₈₋₆ → RFA3	-
	S9
T3 → RFD3	IB

S10

IR ₈₋₉ → SE 916 → T1	-
R7 → I	S10
	MUX S11

→ S11, S8

S11

T1 → T5 → RF-D3	-
IR ₁₁₋₁₂ → RF-A3	S11
	S5

S12

IR ₈₋₉ → RF-A1	-
RF-D1 → T1	-
IR ₉₋₁₀ → SE 916 → T2	S12
S → R7	S8

S13

T3 → Dmem A	-
IR ₁₁₋₁₂ → RF-A3	S13
Dmem D → RF-D3	IB

S14

T3 → Dmem A	-
IR ₁₁₋₁₂ → RF-A1	S14
RF-D1 → Dmem D	IB

S15

IR ₈₋₉ → SE 616 → T1	-
R7 → I, T2	S15
	S16

S16

I → R7	ADD
T1 → ALWA	S16
T2 → ALUB	-
ALUC → T3	S17

S17

IR ₈₋₉ → RF-A2	-
RF-D2 → T2	S17
IR ₁₁₋₁₂ → RF-A1	-
RF-D1 → T1	BC

S18

I → RF-D3	-
IR ₁₁₋₁₂ → RF-A3	S18
T3 → R7	IB

S19

IR ₈₋₉ → RF-A1	-
RF-D1 → T1	S19
R7 → T2	S20

$R7 \rightarrow T2$	S20
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$T2 \rightarrow I$	-
	S20
	S21

$I \rightarrow RFD3$.
$IR_{11-9} \rightarrow RFA3$	S21
$T1 \rightarrow R7$	IB

$IR_{11-9} \rightarrow RF-A1$	-
$RFD1 \rightarrow T1$	S22
$IR_{11-9} \rightarrow SE916 \rightarrow T2$	S8

$T3 \rightarrow R7$	-
	S23
	IB

for further states refer LM & SM
HFCs