STATES

<u>S0</u> -
PC -> MEMA
MEMD -> IR

<u>S1</u> -
PC -> ALUA
+1 -> ALUB
ALUOUT -> PC

<u>S2</u> -
IR(11-9) -> RF-A1
IR(8-6) -> RF-A2
RF-D1 -> T1
RF-D2 -> T2

<u>S3</u> -
T1 -> ALUA
T2 -> ALUB
ALUOUT -> T3

<u>S4</u> -
T3 -> RF-D3
IR(5-3) -> RF-A3

<u>S5</u>
IR(11-9) -> RF-A1
IR(8-6) -> RF-A2
RF-D1 -> T1
RF-D2 -> T2

<u>S6</u>
T1 -> ALUA
T2 -> ALUB
ALUOUT -> T3

<u>S7</u>
T3 -> RF-D3
IR(5-3) -> RF-A3

<u>S8</u>
IR(11-9) -> RF-A1
IR(8-6) -> RF-A2
RF-D1 -> T1
RF-D2 -> T2

<u>S9</u>
T1 -> ALUA
T2 -> ALUB
ALUOUT -> T3

<u>S10</u>
T3 -> RF-D3
IR(5-3) -> RF-A3

<u>S11</u>
T1 -> ALUA
T2 -> 1S -> ALUB
ALUOUT -> T3

<u>S12</u>
IR(5-0) -> T2
IR(11-9) -> RF-A1
RF-D1 -> T1

<u>S13</u>
T1 -> ALUA
T2 -> SE10 -> ALUB
ALUOUT -> T3

<u>S14</u>
T3 -> RF-D3
IR(8-6) -> RF-A3

<u>S15</u>
IR(8-0) -> RF-A2
RF-D2 -> T2

<u>S16</u>
T2 -> SE7 -> 64S -> RFD3
IR(11-9) -> RF-A3

S17
IR(8-6) -> RF-A2
RF-D2 -> T2
IR(5-0) -> T1

S18
T1 -> SE10 -> ALUA
T2 -> ALUB
ALUOUT -> T3

S19
T3 -> MEMA
MEMD -> T3

S20
T3 -> RF-D3
IR(11-9) -> RF-A3

S21
IR(11-9) -> RF-A1
RF-D1 -> T1

S22
T1 -> MEMD
T3 -> MEMA

S28
PC -> ALUA
IR(5-0) -> SE10 -> ALUB
ALUOUT -> PC

S29
PC -> RF-D3
IR(11-9) -> RF-A3

S30
PC -> ALUA
IR(5-0) -> SE10 -> ALUB
ALUOUT -> PC

<u>S31</u>
IR(8-6) -> RF-A1
RF-D1 -> PC

<u>S32</u>
IR(11-9) -> RF-A1
RF-D1 -> T2

<u>S33</u>
T2 -> ALUA
IR(8-0) -> SE7 -> ALUB
ALUOUT -> PC