Cycle	Reset	PC	Instr	(FSM) state	Src A	SrcB	ALUResult	Zero	Control Word
1	1	00	0	0	00	04	04	0	5010
2	0	04	addi 20020005	1	04	x	x	0	0030
3	0	04	addi 20020005	9	00	05	05	0	0420
4	0	04	addi 20020005	10	x	x	x	0	0800
5	0	04	addi 20020005	0	04	04	08	0	5010
6	0	08	addi 2003000c	1	08	x	x	0	0030
7	0	08	addi 2003000c	9	00	0c	0c	0	0420
8	0	08	addi 2003000c	10	x	x	x	0	0800
9	0	08	addi 2003000c	0	08	0c	0c	0	5010
10	0	0c	addi 2067fff7	1	0c	x	x	0	0030
11	0	0c	addi 2067fff7	9	0c	-9	03	0	0420
12	0	0c	addi 2067fff7	10	x	x	x	0	0800
13	0	0c	addi 2067fff7	0	0c	10	10	0	5010
14	0	10	or 00e22025	1	10	x	x	0	0030
15	0	10	or 00e22025	6	03	05	07	0	0402
16	0	10	or 00e22025	7	x	x	x	0	0840
17	0	10	or 00e22025	0	10	04	14	0	5010
18	0	14	and 00642824	1	14	x	x	0	0030
19	0	14	and 00642824	6	0c	07	04	0	0402
20	0	14	and 00642824	7	x	x	x	0	0840
21	0	14	and 00642824	0	14	04	18	0	5010
22	0	18	add 00a42820	1	18	x	x	0	0030
23	0	18	add 00a42820	6	04	07	0b	0	0402
24	0	18	add 00a42820	7	x	x	x	0	0840
25	0	18	add 00a42820	0	18	04	1c	0	5010
26	0	1c	Beq 10a7000a	1	1c	x	x	0	0030
27	0	1c	Beq 10a7000a	8	0b	03	08	0	0605
28	0	1c	Beq 10a7000a	0	1c	04	20	0	5010
29	0	20	Slt 0064202a	1	20	x	x	0	0030
30	0	20	Slt 0064202a	6	0c	07	00	0	0402
31	0	20	Slt 0064202a	7	x	x	x	0	0840
32	0	20	Slt 0064202a	0	20	28	28	0	5010
33	0	28	Beq 10800001	1	28	x	x	1	0030
34	0	28	Beq 10800001	8	00	00	00	1	0605
35	0	28	Beq 10800001	0	28	04	2c	1	5010
36	0	2c	Slt 00e2202a	1	2c	x	x	0	0030
37	0	2c	Slt 00e2202a	6	03	05	01	0	0402
38	0	2c	Slt 00e2202a	7	x	x	x	0	0840
39	0	2c	Slt 00e2202a	0	2c	04	30	0	5010
40	0	30	add 00853820	1	30	x	x	0	0030
41	0	30	add 00853820	6	01	0b	0c	0	0402
42	0	30	add 00853820	7	x	x	x	0	0840
43	0	30	add 00853820	0	30	04	34	0	5010
44	0	34	sub 00e23822	1	34	x	x	0	0030
45	0	34	sub 00e23822	6	0c	05	07	0	0402
46	0	34	sub 00e23822	7	x	x	x	0	0840
47	0	34	sub 00e23822	0	34	04	38	0	5010
48	0	38	sw ac670044	1	38	x	x	0	0030
49	0	38	sw ac670044	2	0c	44	50	0	0420
50	0	38	sw ac670044	5	x	x	x	0	2100
51	0	38	sw ac670044	0	38	04	3c	0	5010
52	0	3c	lw 8c020050	1	3c	x	x	0	0030
53	0	3c	lw 8c020050	2	00	50	50	0	0420
54	0	3c	lw 8c020050	3	x	x	x	0	0100
55	0	3c	lw 8c020050	4	x	x	x	0	0880
56	0	3c	lw 8c020050	0	3c	04	40	0	5010
57	0	40	J 08000011	1	40	x	x	0	0030
58	0	40	J 08000011	b	x	x	x	0	4008
59	0	40	J 08000011	0	40	48	48	0	5010
60	0	48	Sw ac020054	1	48	x	x	0	0030
61	0	48	Sw ac020054	2	00	54	54	0	0420
62	0	48	Sw ac020054	5	x	x	x	0	2100

Table 1. Expected Instruction Trace