STATE	TB_EN	MEMORY(5)	RB(6)	ALUY(9)	ALUX(1)	PC(3)	TA(3)	TB(2)	TC(2)	TD(1)	IR(1)	TY	NS	CONTROL WORD	
S1	0	00101	000000	000000000	1	100	000	00	00	0	1	NS	S2	00010100000000000000001100000000001	34
S2	1	00000	010000	000000000	0	000	010	01	00	0	0	NS	S3	10000001000000000000000000010010000	34
S3	0	00000	000000	011000001	0	000	011	00	00	0	0	NS	S4	00000000000001100000100000011000000	34
S4	0	00000	001001	000000000	0	000	000	00	00	0	0	DEC (BC/IB)		00000000100100000000000000000000000	34
S5	0	00000	000000	010000001	0	000	011	00	00	0	0	NS	S4	00000000000001000000100000011000000	34
S6	0	00000	000000	010010001	0	000	011	00	00	0	0	NS	S4	00000000000001001000100000011000000	34
S7	0	00000	001111	000000000	0	000	000	00	00	0	0	IB		00000000111100000000000000000000000	34
S8	0	00000	000000	100000000	0	000	011	00	00	0	0	NS	S9	00000000000010000000000000011000000	34
S9	0	00001	000000	000000000	0	000	000	00	10	0	0	NS	S10	00000100000000000000000000000001000	34
S10	0	00000	001110	000000000	0	000	000	00	00	0	0	IB		00000000111000000000000000000000000	34
S11	0	01010	000000	000000000	0	000	000	00	00	0	0	IB		00101000000000000000000000000000000	34
S12	1	00000	000000	000000000	0	000	000	11	00	0	0	NS	S13	10000000000000000000000000000110000	34
S13	1	00001	000000	000000000	0	000	000	10	10	1	0	NS	S14	10000100000000000000000000000101010	34
S14	0	00000	000110	011010000	0	000	011	00	00	0	0	BC		00000000011001101000000000011000000	34
S15	1	00000	000000	000000000	0	000	000	10	00	1	0	NS	S16	10000000000000000000000000000100010	34
S16	0	00000	100000	000000000	0	000	000	00	01	0	0	NS	S17	00000010000000000000000000000000100	34
S17	0	10010	000000	000000000	0	000	100	00	00	0	0	BC		01001000000000000000000000100000000	34
S18	0	00000	110000	011000110	0	000	010	00	00	0	0	BC		00000011000001100011000000010000000	34
S19	0	00000	000000	010000000	0	110	000	00	00	0	0	IB		00000000000001000000000110000000000	34
S20	0	00000	110000	000000000	0	000	000	00	01	0	0	NS	S21	00000011000000000000000000000000100	34
S21	0	00000	001110	110110000	0	110	000	00	00	0	0	IB		00000000111011011000001100000000000	34
S22	0	00000	001110	000000000	0	101	000	00	00	0	0	IB		00000000111000000000000101000000000	34
S23	1	00000	010000	000000000	0	000	010	11	00	0	0	NS	S3	10000001000000000000000000010110000	34
S24	0	00000	000000	000000000	0	001	000	00	00	0	0	IB		00000000000000000000000001000000000	34
S25	0	00000	000000	000000000	0	000	000	00	00	0	0	IB		00000000000000000000000000000000000	34
S26	0	00000	000000	000000000	0	010	000	00	00	0	0	IB		00000000000000000000000010000000000	34
S27	1	00000	000000	100000000	0	000	000	00	00	0	0	NS	S11	10000000000010000000000000000000000	34

NS: Next State BC: Branch Control IB:Instruction Branch

DEC: Decoder TY: Type