|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 指 令 | IR[15..12]  **(SD3~SD0)** | OP[2..0]  **（R2~R0）** | c\_z\_j\_flag  **R3** | lj\_instruct  **R4** | DRWr  **R5** | Mem\_Write  **R6** | DW\_instruct  **R7** | Change\_z  **R8** | Change\_c  **R9** | sel\_memdata  **R10** |
| ADD DR,SR  DR+SR=>DR | 0000 | 000 | 0 | 0 | 1 | 0 | 0 | 1' | 1 | 0 |
| INC DR  DR自增 | 0001 | 001 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 |
| SUB DR,SR  DR<=DR-SR | 0010 | 010 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 |
| DEC DR  DR自减 | 0011 | 011 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 |
| AND DR,SR  DR<=DR AND SR | 0100 | 100 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| OR DR,SR  DR or SR 存到DR中 | 0101 | 101 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| NOT DR  DR取反 | 0110 | 110 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| MOV DR,SR  SR移到DR | 0111 | 111 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| JMP ADR  跳转到目标地址 | 1000 | 111 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| JNC ADR  根据进位条件跳转 | 1001 | 111 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| JNZ ADR  不为0则跳转 | 1010 | 111 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MVRD DR,DATA  将ASCII码DARA送入DR中 | 1100 | 111 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 |
| LDR DR,SR  将SR中所存的值存到DR所指的地址中 | 1101 | 111 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| STR SR,DR  将SR中所存的值存到DR所指的地址中 | 1110 | 111 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |

表5-1 指令译码器实验（C=0且Z=0）-**-(SD4=0且SD5=0)**

表 5-2 指令译码器实验（C=1且Z=1）-**-(SD4=1且SD5=1)**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 指 令 | IR[15..12]  **(SD3~SD0)** | OP[2..0]  **（R2~R0）** | c\_z\_j\_flag  **R3** | lj\_instruct  **R4** | DRWr  **R5** | Mem\_Write  **R6** | DW\_instruct  **R7** | Change\_z  **R8** | Change\_c  **R9** | sel\_memdata  **R10** |
| ADD DR,SR | 0000 | 000 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 |
| INC DR | 0001 | 100 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 |
| UB DR,SR | 0010 | 010 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 |
| DEC DR | 0011 | 110 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 |
| AND DR,SR | 0100 | 001 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| OR DR,SR | 0101 | 101 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| NOT DR | 0110 | 011 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| MOV DR,SR | 0111 | 111 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| JMP ADR | 1000 | 111 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| JNC ADR | 1001 | 111 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| JNZ ADR | 1010 | 111 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MVRD DR,DATA | 1100 | 111 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 |
| LDR DR,SR | 1101 | 111 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| STR SR,DR | 1110 | 111 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |