|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **TTHT** | **MH** | **WE** | **WA[1..0]** | **IE** | **REA** | **RAA[1..0]** | **REB** | **RAB[1..0]** | **OP[2..0]** | **OE** |
| **S0** | 0000 | 1 | 00 | 1 | 0 | XX | 0 | XX | XXX | 0 |
| **S1** | 0001 | 1 | 01 | 1 | 0 | XX | 0 | XX | XXX | 0 |
| **S2** | 0010 | 1 | 10 | 1 | 0 | XX | 0 | XX | XXX | 0 |
| **S3** | 0011 | 1 | 11 | 1 | 0 | XX | 0 | XX | XXX | 0 |
| **S4** | 0100 | 1 | 00 | 0 | 1 | 00 | 0 | XX | 000 | 0 |
| **S5** | 0101 | 1 | 01 | 0 | 1 | 01 | 0 | XX | 001 | 0 |
| **S6** | 0110 | 1 | 10 | 0 | 1 | 10 | 0 | XX | 010 | 0 |
| **S7** | 0111 | 1 | 11 | 0 | 1 | 11 | 0 | XX | 001 | 0 |
| **S8** | 1000 | 1 | 10 | 0 | 1 | 10 | 1 | 11 | 011 | 0 |
| **S9** | 1001 | 1 | 11 | 0 | 1 | 10 | 1 | 01 | 100 | 0 |
| **S10** | 1010 | 1 | 10 | 0 | 1 | 11 | 1 | 00 | 011 | 0 |
| **S11** | 1011 | 0 | XX | X | 0 | XX | 0 | XX | XXX | 1 |
|  | 1100 | X | XX | X | X | XX | X | XX | XXX | X |
|  | 1101 | X | XX | X | X | XX | X | XX | XXX | X |
|  | 1110 | X | XX | X | X | XX | X | XX | XXX | X |
|  | 1111 | X | XX | X | X | XX | X | XX | XXX | X |
|  |  |  |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **TTHT** | **IE** | **WE** | **REA** | **REB** | **WA[1..0]** | **RAA[1..0]** | **RAB[1..0]** | **OP[2..0]** | **OE** |  | **MH** |  |
| **S0** | 1 | 1 | 0 | 0 | 00 | XX | XX | XXX | 0 |  | 0000 |  |
| **S1** | 1 | 1 | 0 | 0 | 01 | XX | XX | XXX | 0 |  | 0001 |  |
| **S2** | 1 | 1 | 0 | 0 | 10 | XX | XX | XXX | 0 |  | 0010 |  |
| **S3** | 1 | 1 | 0 | 0 | 11 | XX | XX | XXX | 0 |  | 0011 |  |
| **S4** | 0 | 1 | 1 | 0 | 00 | 00 | XX | 000 | 0 |  | 0100 |  |
| **S5** | 0 | 1 | 1 | 0 | 01 | 01 | XX | 001 | 0 |  | 0101 |  |
| **S6** | 0 | 1 | 1 | 0 | 10 | 10 | XX | 010 | 0 |  | 0110 |  |
| **S7** | 0 | 1 | 1 | 0 | 11 | 11 | XX | 001 | 0 |  | 0111 |  |
| **S8** | 0 | 1 | 1 | 1 | 10 | 10 | 11 | 011 | 0 |  | 1000 |  |
| **S9** | 0 | 1 | 1 | 1 | 11 | 10 | 01 | 100 | 0 |  | 1001 |  |
| **S10** | 0 | 1 | 1 | 1 | 10 | 11 | 00 | 011 | 0 |  | 1010 |  |
| **S11** | X | 0 | 0 | 0 | XX | XX | XX | XXX | 1 |  | 1011 |  |
|  | X | X | X | X | XX | XX | XX | XXX | X |  | 1100 |  |
|  | X | X | X | X | XX | XX | XX | XXX | X |  | 1101 |  |
|  | X | X | X | X | XX | XX | XX | XXX | X |  | 1110 |  |
|  | X | X | X | X | XX | XX | XX | XXX | X |  | 1111 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |