|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| S1 | S0 | req | p3s | p7s | p37s | N1 | N0 |
| 0 | 0 | 0 | x | x | x | 0 | 0 |
| 0 | 0 | 1 | x | x | x | 0 | 1 |
| 0 | 1 | x | 0 | x | x | 0 | 1 |
| 0 | 1 | x | 1 | x | x | 1 | 1 |
| 1 | 1 | x | x | 0 | x | 1 | 1 |
| 1 | 1 | x | x | 1 | x | 1 | 0 |
| 1 | 0 | x | x | x | 0 | 1 | 0 |
| 1 | 0 | x | x | x | 1 | 0 | 0 |

N1 = (S1`)(S0)(p3s) + (S1)(S0)(p7s`) + (S1)(S0)(p7s) + (S1)(S0`)(p37s`)

= (S1`)(S0)(p3s) + (S1)(S0) + (S1)(S0`)( p37s`)

= (S1`)(S0)(p3s) + (S1)( (S0) + (S0`)(p37s`))

N0 = (S1`)(S0`)(req) + (S1`)(S0)(p3s`) + (S1`)(S0)(p3s) + (S1)(S0)(p7s`)

= (S1`)(S0`)(req) + (S1`)(S0) + (S1)(S0)(p7s`)

= (S1`)( (S0`)(req) + (S0) ) + (S1)(S0)(p7s`)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S1 | S0 | redL | orrangeL | greenL | resetT |
| 0 | 0 | 1 | 0 | 0 | 1 |
| 0 | 1 | 1 | 0 | 0 | 0 |
| 1 | 1 | 0 | 1 | 0 | 0 |
| 1 | 0 | 0 | 0 | 1 | 0 |

redL = S1`S0` + S1`S0 = S1`

orrangeL = S1S0

greenL = S1S0`

reset = S1`S0`