|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A | B | X | A(NEXT) | B(NEXT) | O3 | O2 | O1 | O0 |
| 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 |
| 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 |
| 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 |

A(NEXT) = A’B’X + A’BX’ + ABX + AB’X’

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| X\AB | 00 | 01 | 11 | 10 |
| 0 | 0 | 1 | 0 | 1 |
| 1 | 1 | 0 | 1 | 0 |

B(NEXT) = B’

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| X\AB | 00 | 01 | 11 | 10 |
| 0 | 1 | 0 | 0 | 1 |
| 1 | 1 | 0 | 0 | 1 |

O0 = A’B’ + AB

|  |  |  |
| --- | --- | --- |
| B\A | 0 | 1 |
| 0 | 1 | 0 |
| 1 | 0 | 1 |

O1 = A’B’

|  |  |  |
| --- | --- | --- |
| B\A | 0 | 1 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |

O2 = A’B

|  |  |  |
| --- | --- | --- |
| B\A | 0 | 1 |
| 0 | 0 | 0 |
| 1 | 1 | 0 |

O3 = A

|  |  |  |
| --- | --- | --- |
| B\A | 0 | 1 |
| 0 | 0 | 1 |
| 1 | 0 | 1 |