State Equation:

A(t+1)= A(t)B(t) + XA’(t)

B(t+1) = A’(t)B(t) + XB’(t)

TRUTH TABLE:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| X | A(t) | B(t) | A(t+1) | B(t+1) | Ta | Tb |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 1 | 1 | 0 | 0 |
| 0 | 1 | 0 | 0 | 1 | 1 | 0 |
| 0 | 1 | 1 | 1 | 1 | 0 | 1 |
| 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| 1 | 1 | 0 | 1 | 0 | 1 | 1 |
| 1 | 1 | 1 | 1 | 0 | 0 | 1 |

State Diagram:

