Схемы триггеров

A diagram of a block

Description automatically generatedA diagram of a block

Description automatically generated

A diagram of a circuit

Description automatically generated

Таблицы истинности триггеров:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| D-триггер | | | |  |
| **D** | **C** | **Q** | **notQ** |  |
| 0 | 0 | Q0 | notQ0 |  |
| 0 | 1 | 0 | 1 |  |
| 1 | 0 | Q0 | notQ0 |  |
| 1 | 1 | 1 | 0 |  |
|  |  |  |  |  |
| T-триггер | | | | |
| **x** | **T** | **C** | **Q** | **notQ** |
| 0 | 0 | 0 | 0 | 1 |
| 0 | 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 0 | 1 |
| 0 | 1 | 1 | Q0 | notQ0 |
| 1 | 0 | 0 | 1 | 0 |
| 1 | 0 | 1 | 1 | 0 |
| 1 | 1 | 0 | 1 | 0 |
| 1 | 1 | 1 | Q0 | notQ0 |
|  |  |  |  |  |
| JK-триггер | | | | |
| **C** | **K** | **J** | **Q(t)** | **Q(t+1)** |
| 0 | x | x | 0 | 0 |
| 0 | x | x | 1 | 1 |
| 1 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 1 | 1 |
| 1 | 0 | 1 | 0 | 1 |
| 1 | 0 | 1 | 1 | 1 |
| 1 | 1 | 0 | 0 | 0 |
| 1 | 1 | 0 | 1 | 0 |
| 1 | 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 | 0 |

Временная диаграмма синхронного T-триггера

A black and white grid

Description automatically generated