

Event Counters

Some Typical Instrument Requirements

- High frequency counting
- Very narrow pulse widths
 - Can't sample with a clock
- Many channels
 - Number of channels exceeds low-skew resources
- Compact
- Low Power
- No rollover errors

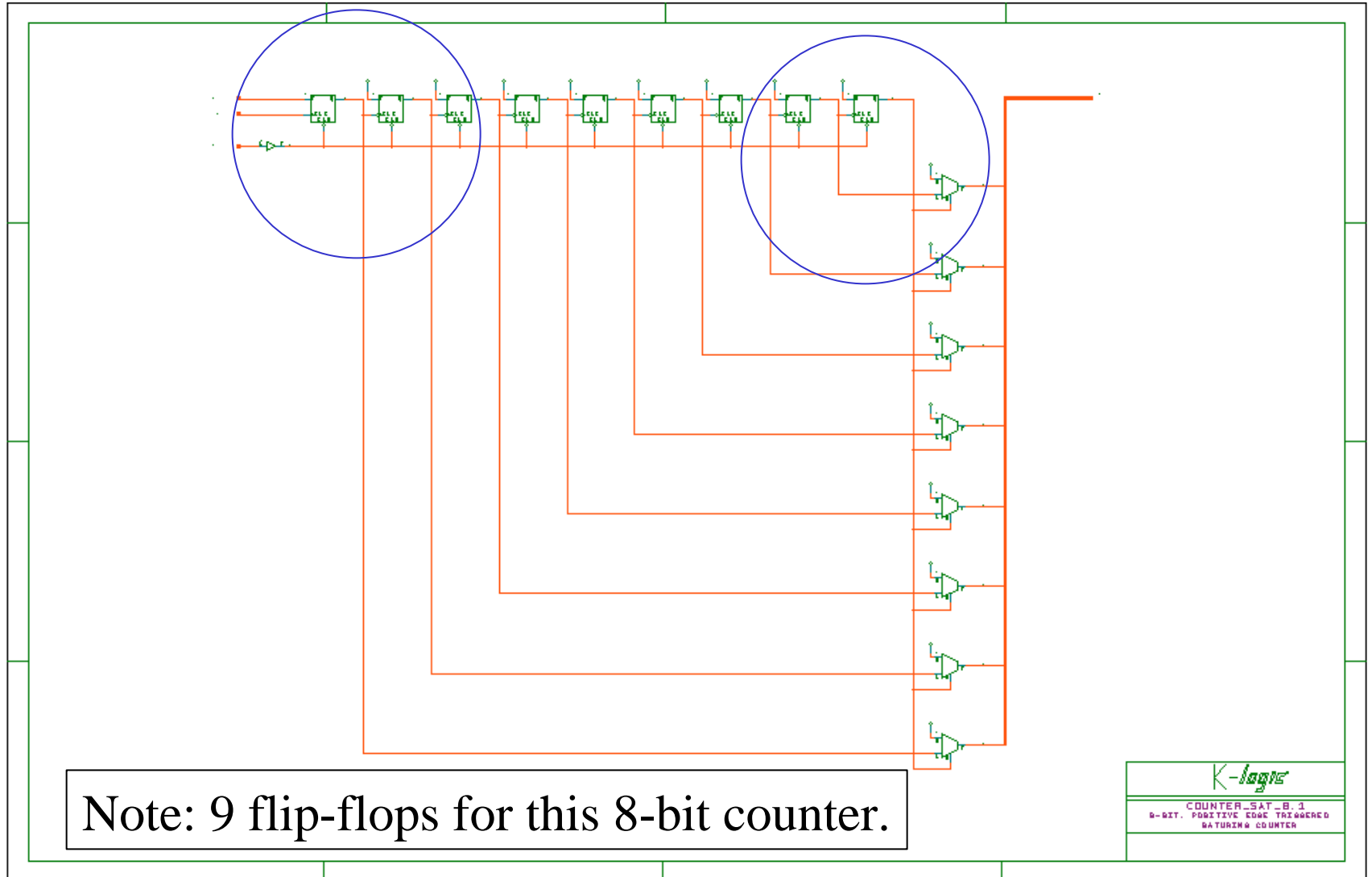
“Saturating Counter”

High-speed asynchronous pulses are input into a set of counters. To preserve information, the counter is not allowed to rollover but must lock at its highest value.

There are many implementations of high-speed counters.

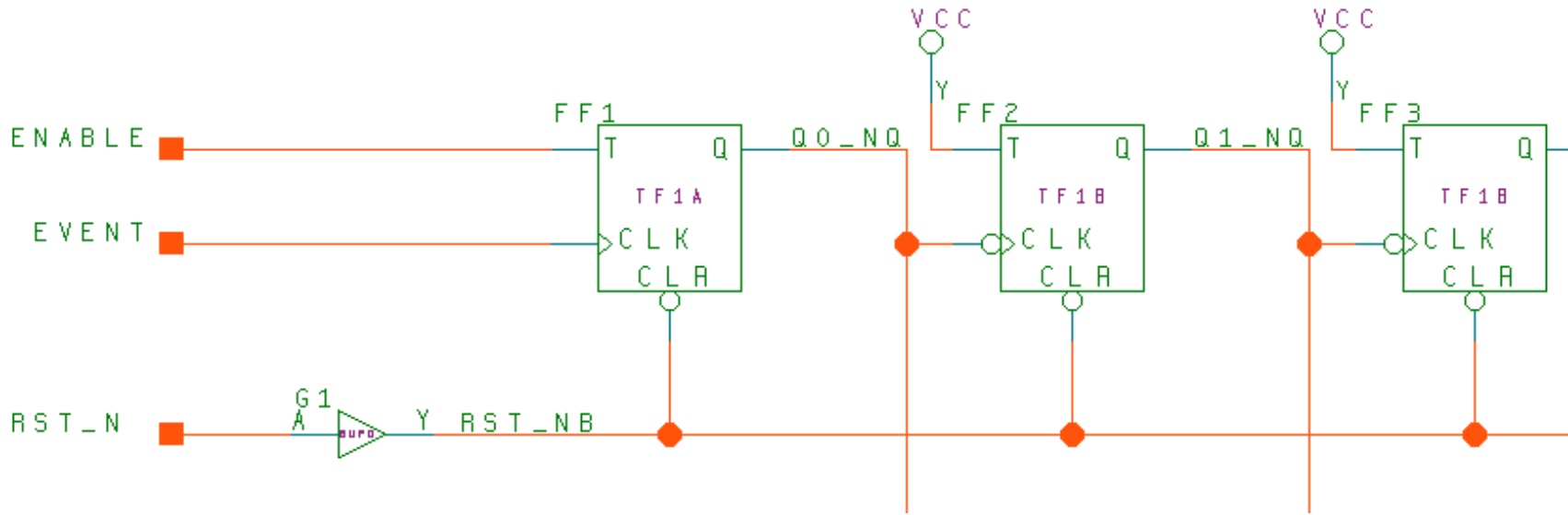
Saturating Counter Example

Schematic View



Saturating Counter Example

Schematic View: Counting Mechanism



Saturating Counter Example

Schematic View: Saturating Mechanism

