

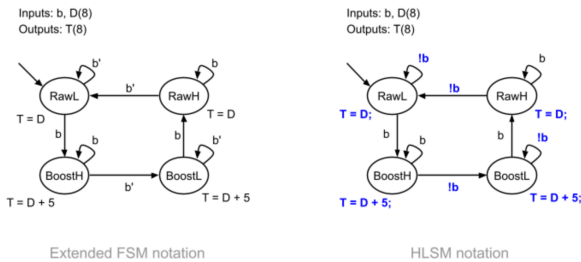
# Reading 15

## 16.1 HLSM's : Introduction

• Extended FSMs support arithmetic expressions and boolean expressions.

• A high-level state machine, or HLSM, is a form of extended FSM that supports multibit data input/output and data operations.

• HLSM notation: A value - booster example!

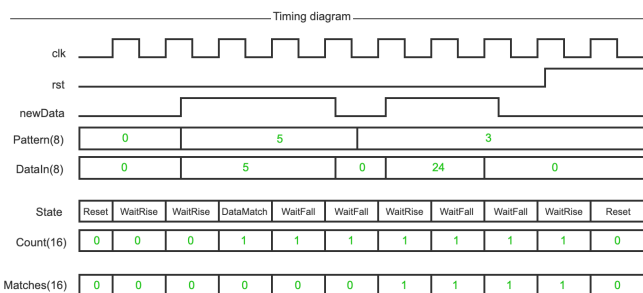
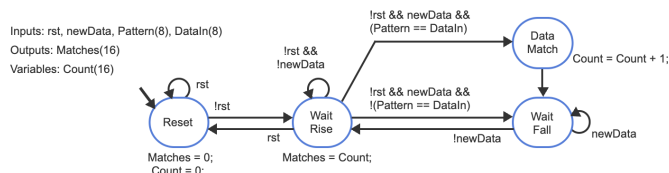


## 16.2 HLSMs with variables

• HLSM supports variables.

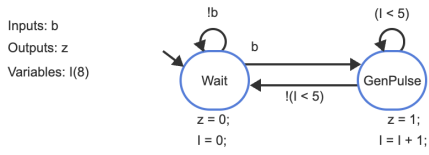
• A variable is a data item that maintains a value, and can be read or assigned.

• HLSM with variables: Network data analyzer!



# 16.3 HLSMs with a loop:

• common 'for' loop behavior in a HLSM:



Timing diagram

