

# DESIGN OF A SIPM BASED SCINTILLATOR STRIPS TRACKER

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# DETECTOR MAIN GOALS AND COMPONENTS

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## DETECTOR MAIN GOALS:

- ◆ Generate a fast signal to be processed in the test beam global trigger chain
- ◆ Allows to track particles within the detector resolution (strip pitch/ $\sqrt{12}$ )

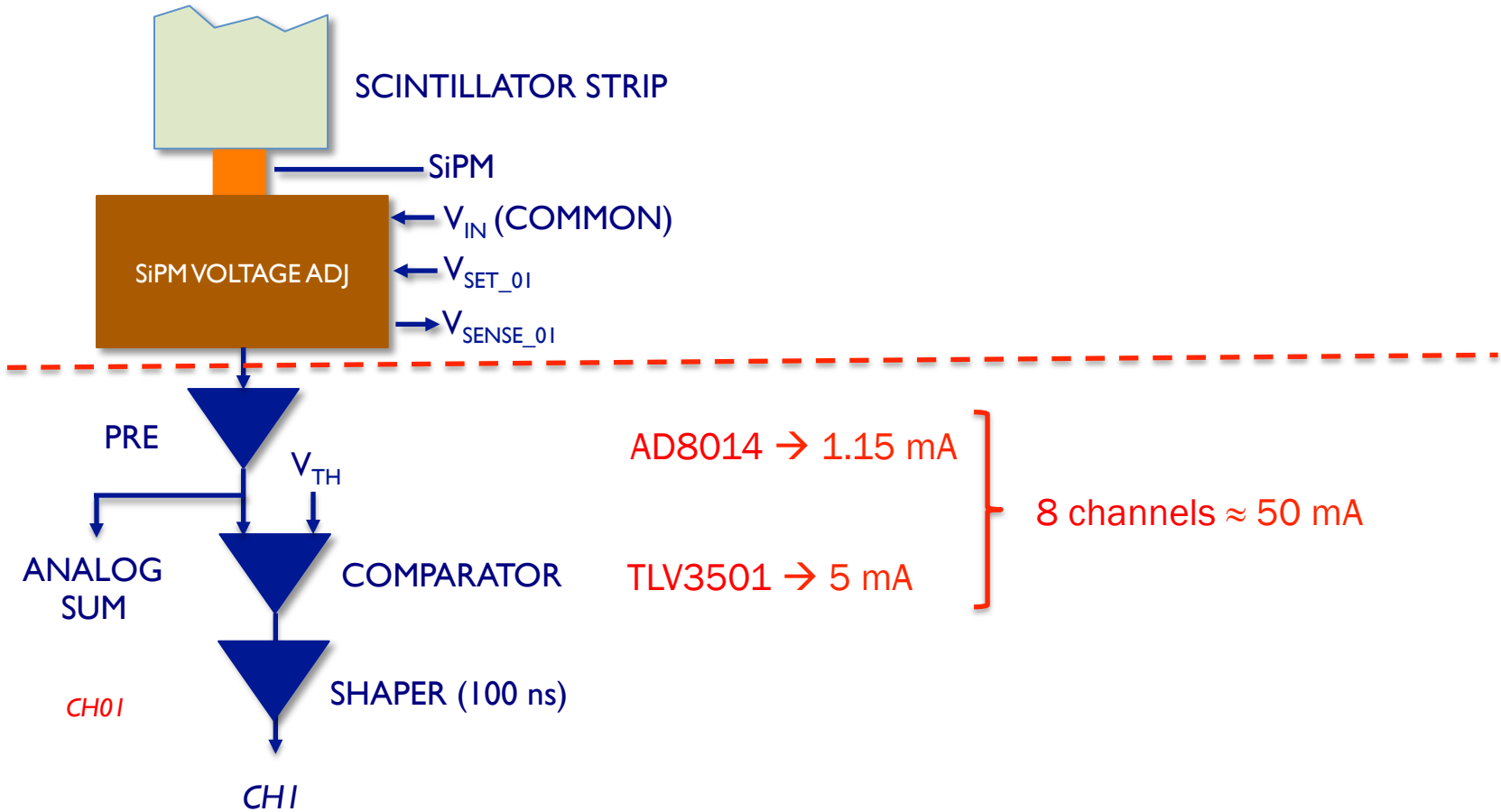
## DETECTOR MAIN COMPONENTS:

- ◆ Scintillators
- ◆ Wavelength shifting fibers
- ◆ SiPMs
- ◆ SiPM bias circuit
- ◆ SiPM readout circuit & computer interface
- ◆ Low Voltage Power Supply

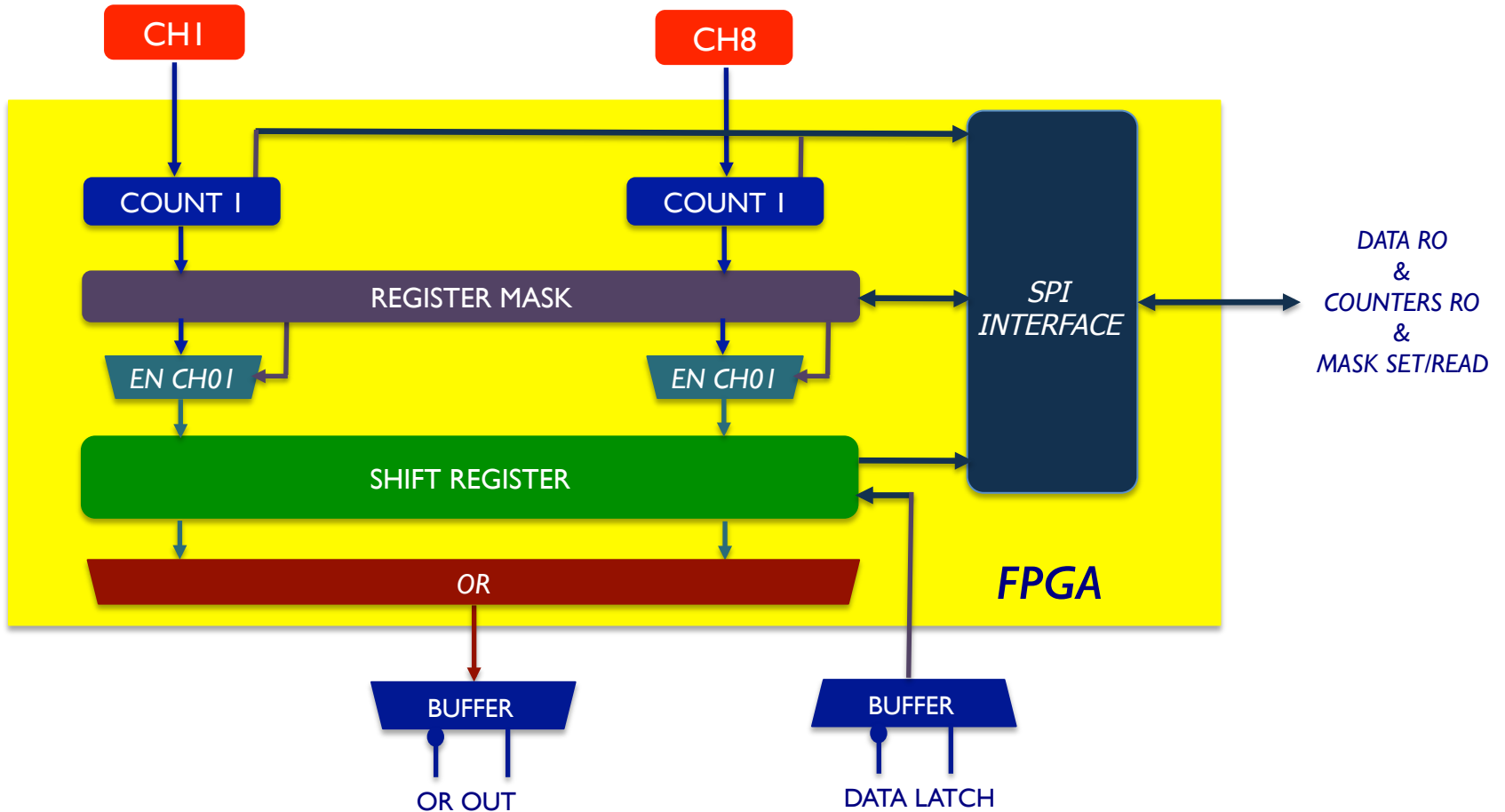
And ....

- ◆ Control system with user interface (HW and SW) for SiPM working parameters sensing/setting
- ◆ Data acquisition system (HW and SW) for data download

# SINGLE CHANNEL BLOCK DIAGRAM



# COMMON DATA READOUT



# GLOBAL RO CIRCUIT BLOCK DIAGRAM

