

## Timeline

Start building  
histogram1

Acquisition1

rough data  
(input from the  
first measurement)

9(b'1001) 11(b'1011)  
Acquisition1 in serial

Data Filter  
First histogram  
addr = rough data[3:1]

5(b'101)  
addr

Address 0(b'000)  
Address 1(b'001)  
Address 2(b'010)  
Address 3(b'011)  
Address 4(b'100)  
Address 5(b'101)  
Address 6(b'110)  
Address 7(b'111)

3 bits wide	
0 (b'000)	
0 (b'000)	
0 (b'000)	
0 (b'000)	
0 (b'000)	
1 (b'001)	
0 (b'000)	
0 (b'000)	

Pixel 1

Current addr (5(b'101))  
Counts in current  
addr (1)

Filter  
parameter  
part  
Result saving  
part  
State saving  
part

4 bits wide

TH- -> x				Pixel 1
TH+ -> x				
CH -> x				
addrSaver -> 5(b'101)				Pixel 1
peakResult -> 1				
0	0	0	0	stateRAM
0	1	0	0	

Current value in SRAM2

9(b'1001)  
Acquisition1 in serial

Data Filter  
First histogram  
addr = rough data[3:1]

4(b'100)  
addr

Address 0(b'000)  
Address 1(b'001)  
Address 2(b'010)  
Address 3(b'011)  
Address 4(b'100)  
Address 5(b'101)  
Address 6(b'110)  
Address 7(b'111)

3 bits wide	
0 (b'000)	
0 (b'000)	
0 (b'000)	
0 (b'000)	
1 (b'001)	
1 (b'001)	
0 (b'000)	
0 (b'000)	

Pixel 1

Current addr (4(b'100))  
Counts in current  
addr (1)

Filter  
parameter  
part  
Result saving  
part  
State saving  
part

4 bits wide				
TH- -> x				Pixel 1
TH+ -> x				
CH -> x				
addrSaver -> 5(b'101)				Pixel 1
peakResult -> 1				
0	0	0	0	stateRAM
1	1	0	0	
Current value in SRAM2				