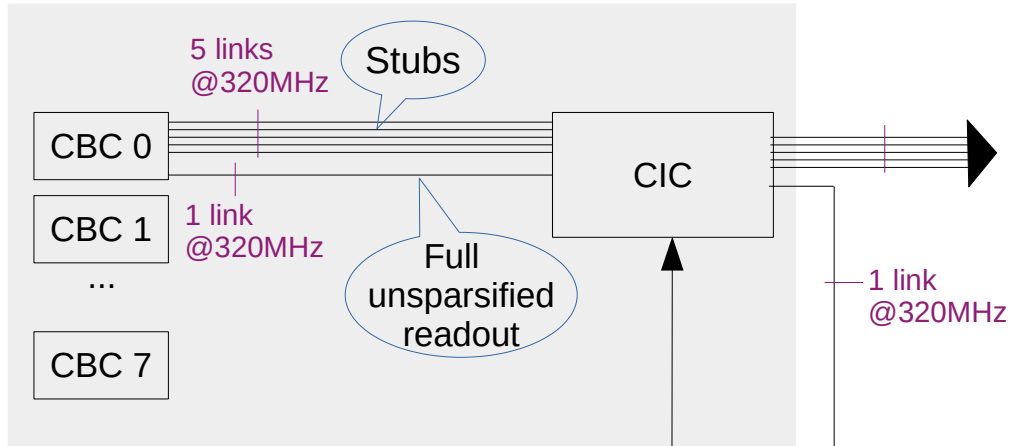
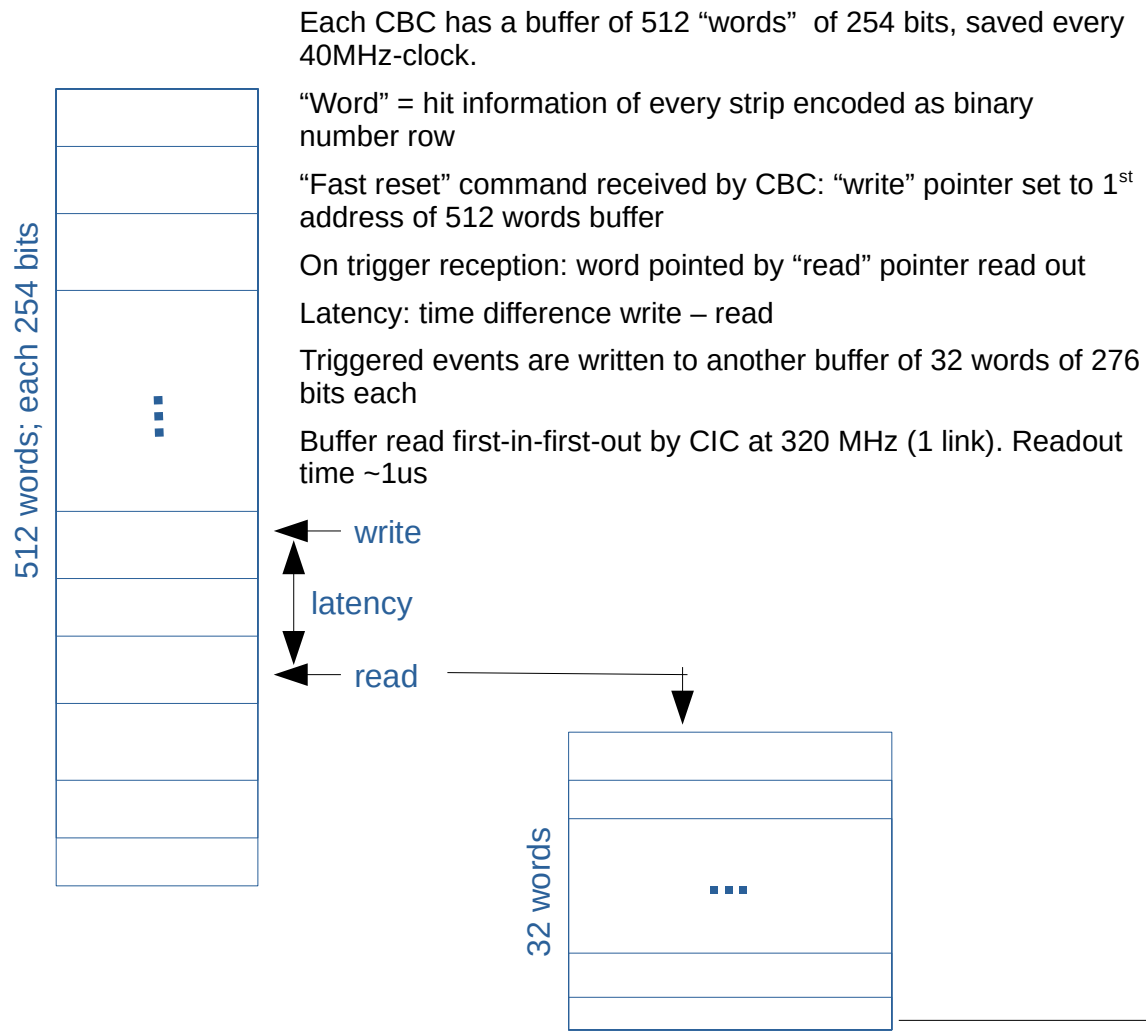


# Nice TB2S module DAQ explanation from Laurent Gross

## Full readout – 1 CBC –



## CIC readout – Stubs:

Each CBC is connected with 5 x 320MHz links to CIC

Fast readout for trigger info; sparsified mode used to reduce data size

Transmit up to 3 (first) clusters per clock (40MHz)

→ 40 bits, 8 Bits / link

Stubs transmitted every 8 bcids:  
8 x 40 MHz = 320 MHz

++ CIC header → Data header ++ CIC header → Stub header

### Hit data transmission:

- sparsified:  
payload depends on occupancy

- unsparsified:  
8x276 bits (from 8 CBCs) + 56 bits  
CIC Header  
= 2264 bits transferred via serial line  
@320MHz → 8us  
→ reasonable max. trigger rate:  
100kHz

Clock 0	320 bits
Clock 1	320 bits
Clock 2	320 bits
Clock 3	320 bits
Clock 4	320 bits
Clock 5	320 bits
Clock 6	320 bits
Clock 7	320 bits

++ CIC trailer → Data trailer ++ CIC trailer → Stub trailer

