

Notes:

- 1) Each BPM has 4 identical DDC channels (antennas A, B, C, D). Each BPM FPGA process 2 BPMs, what gives a total of 16 identical DDC channels (ADC clock)
- 2) All components belongs to the same clock domain (ADC clock)
- 3) Since all DDC channels must have identical filters, multi-channel filter implementation (8 or 16 channels) can be considered
- 4) All components must be reconfigurable during runtime via Local bus (AXI-Lite or Wishbone, to be defined)

SIRIUS
 $\text{adc_rate} = \sim 117.5 \text{ MHz}$
 $\text{tbt_rate} = \text{adc_rate}/188$
 $\text{fob_rate} = \text{tbt_rate}/62$
 $\text{monit_rate} = \text{fob_rate}/1000$

adc_rate : ADC data rate (ADC clock)
 tbt_rate : turn-by-turn data rate (beam revolution frequency)
 fob_rate : fast orbit feedback data rate
 monit_rate : monitoring data rate

