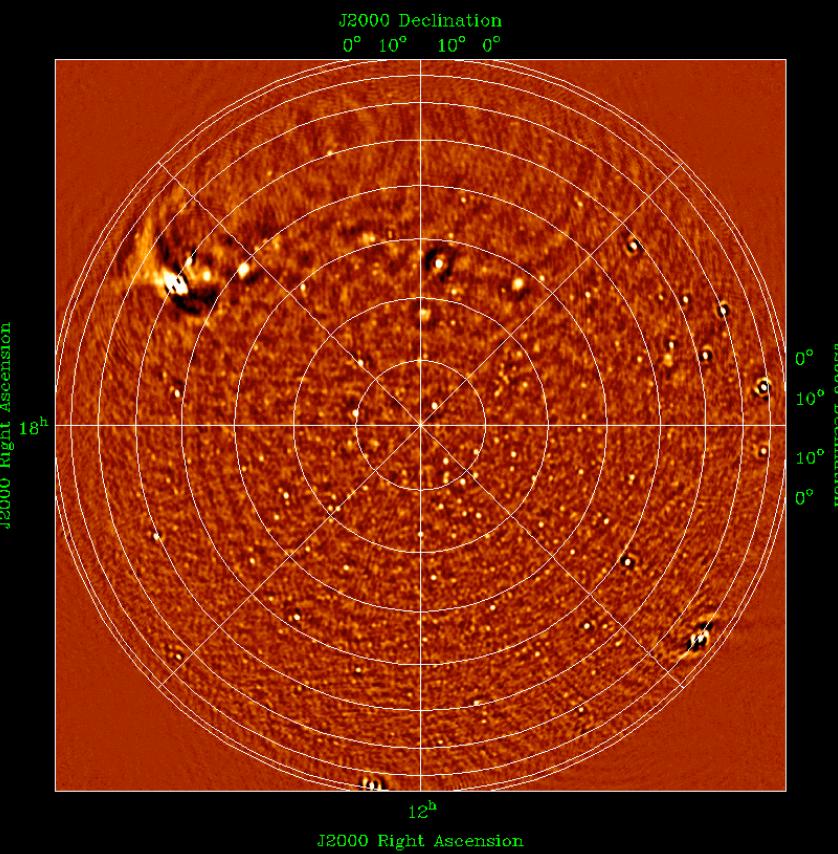


LOFAR *Station Signal Processing*

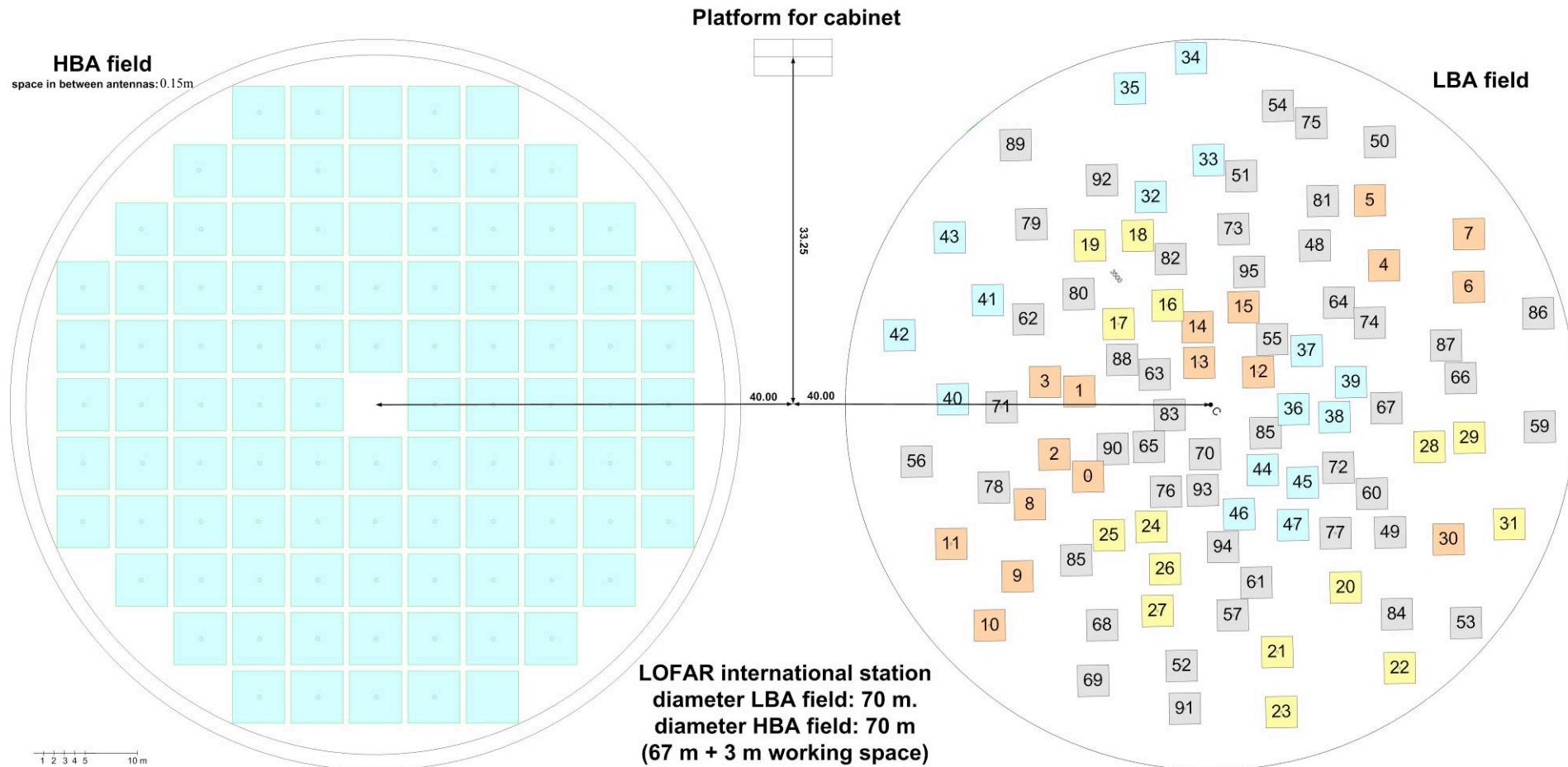
Menno Norden

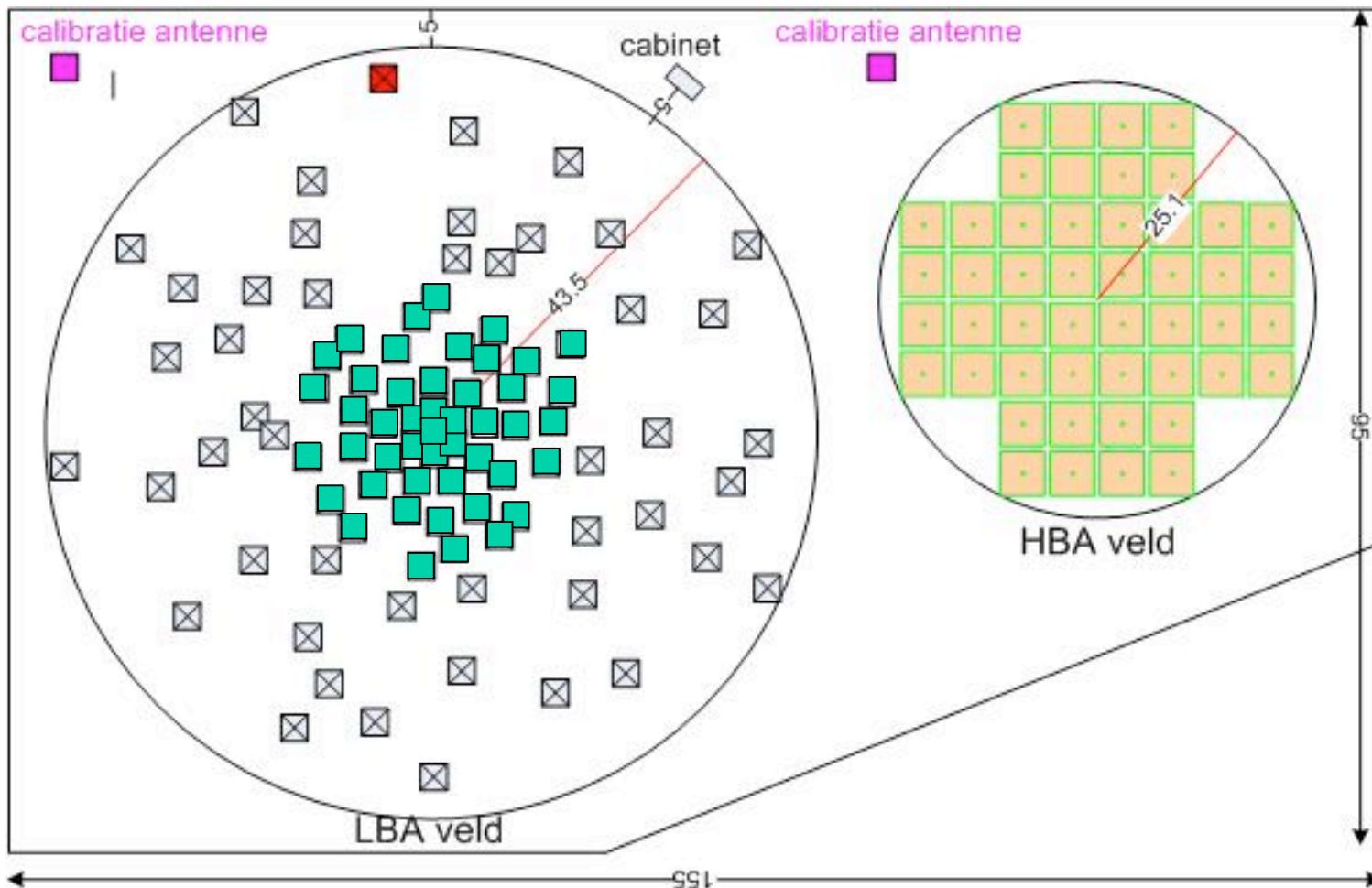


- International stations: 96 High Band Antennas
 96 Low Band Antennas

- Remote stations: 48 HBAs
 48 LBLs, 48 LBHs

- Core stations: 2x24 HBAs
 48 LBLs, 48 LBHs

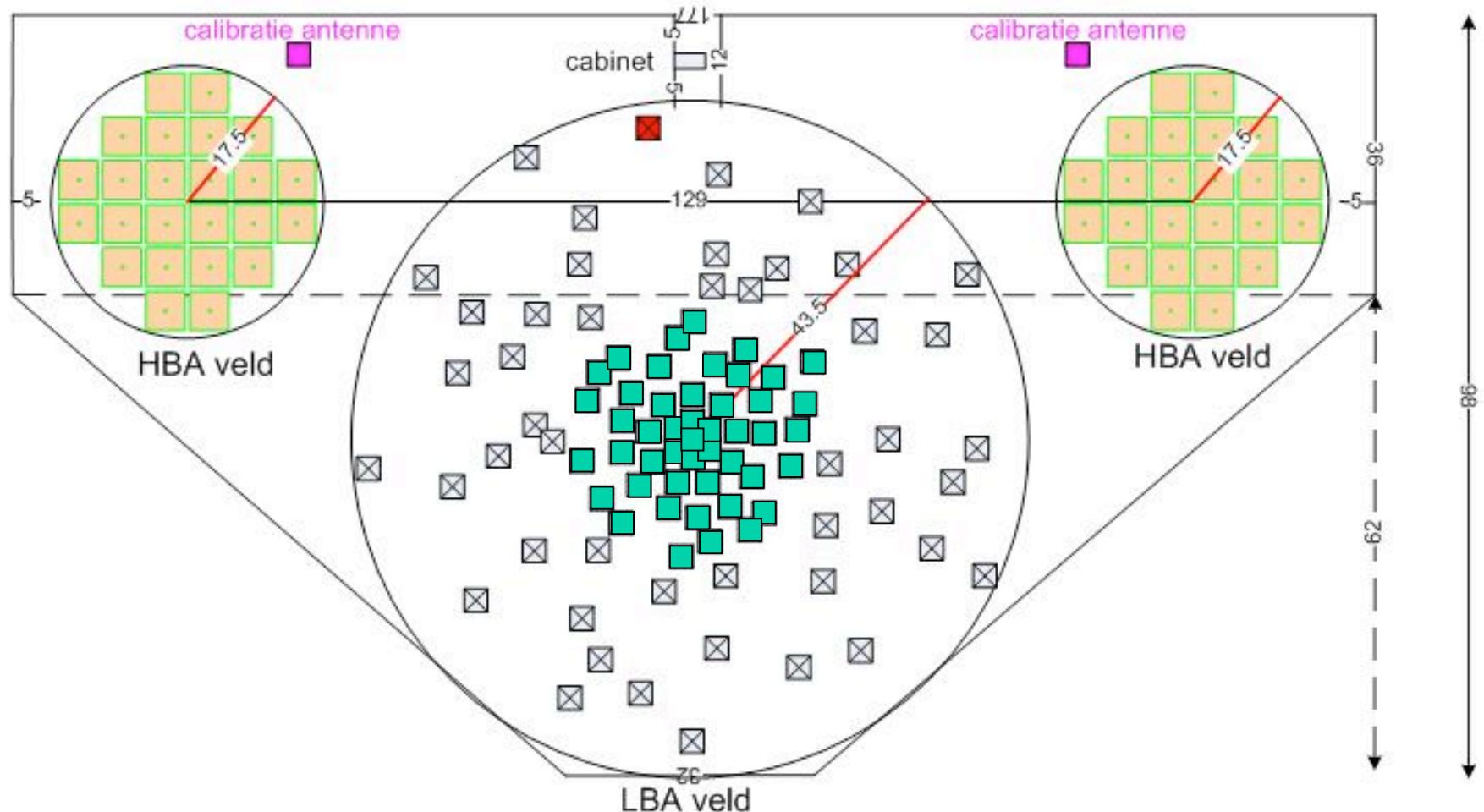




LOFAR remote station:

- => LBA veld heeft diameter van 87 meter en bevat 96 antennes
- => HBA veld heeft diameter van 50.2 meter en bevat 48 antennes

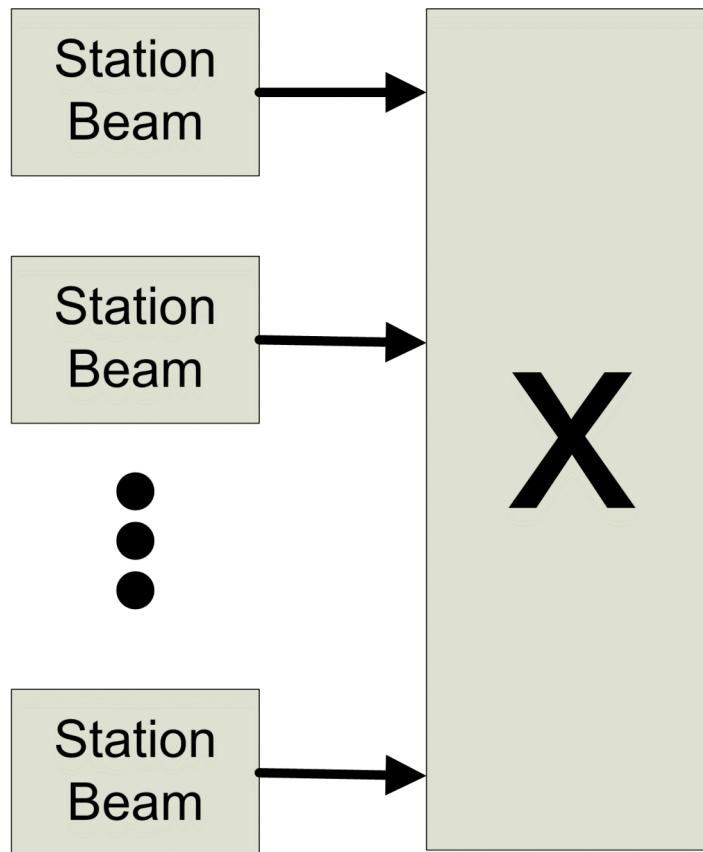
Arie Huijgen, 23 mei 2008 vs 1.0

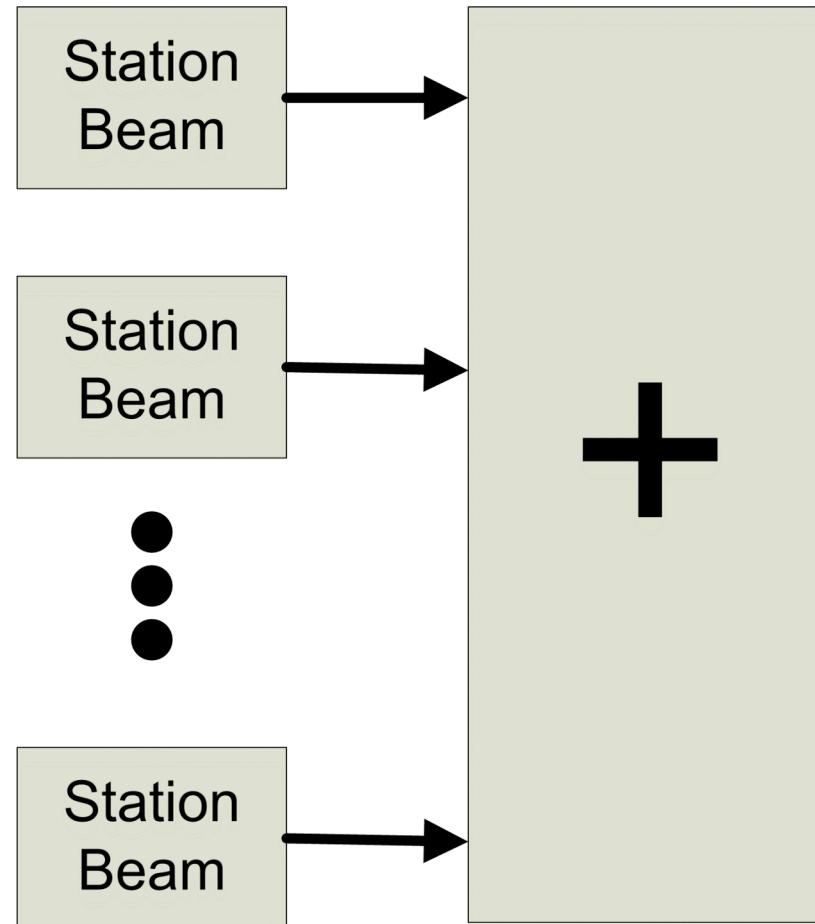


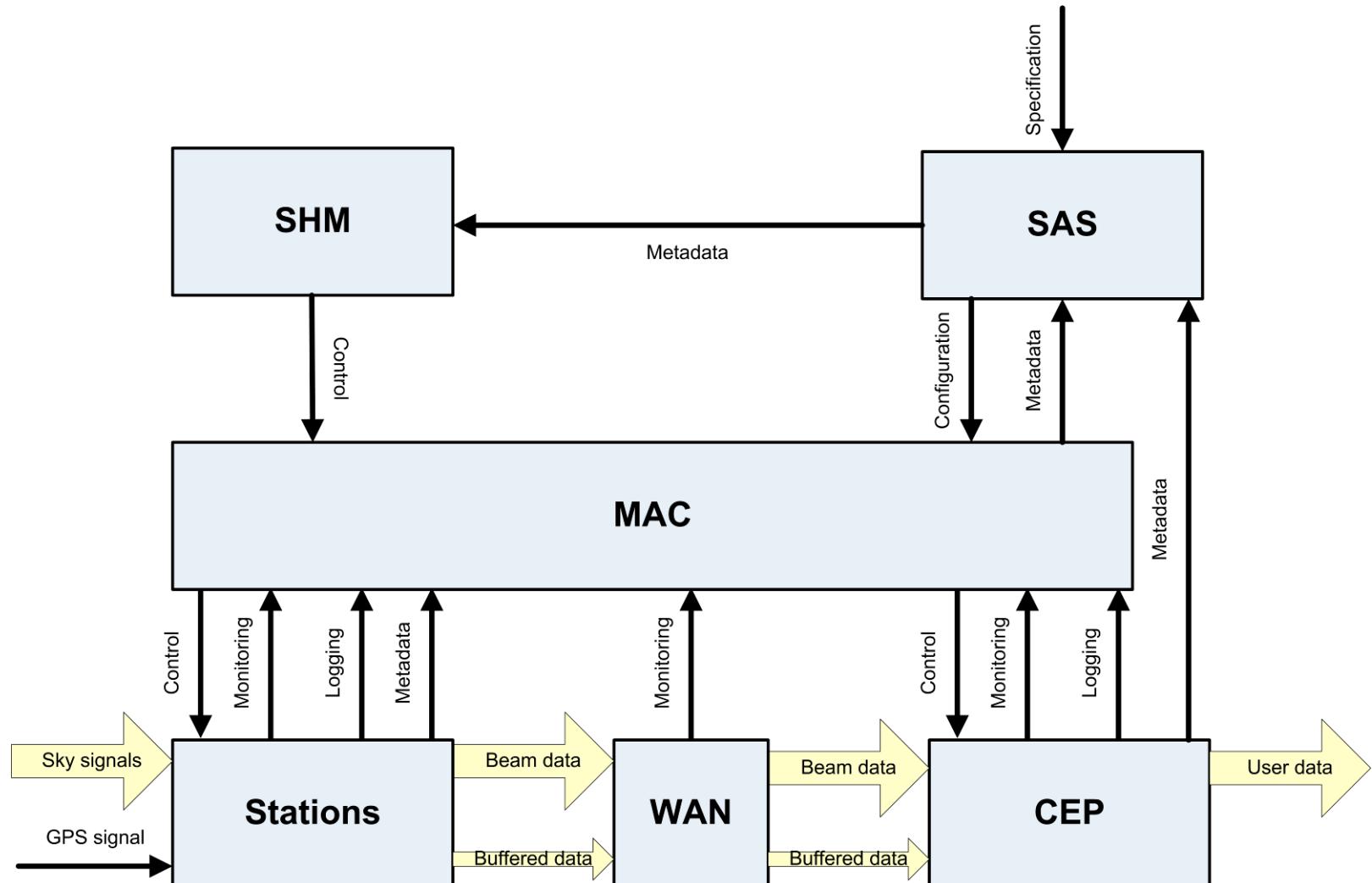
LOFAR CORE station:

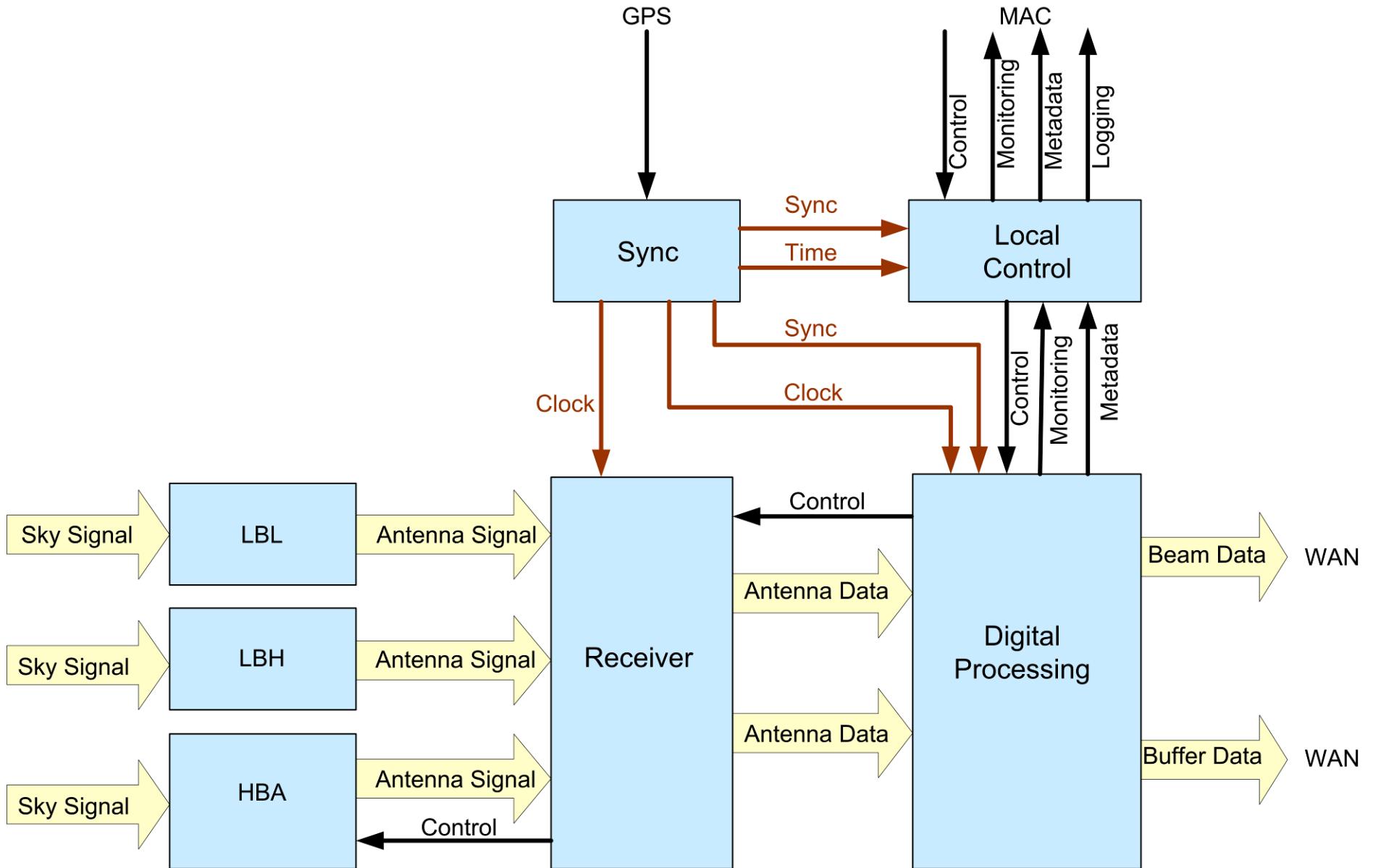
- => LBA veld heeft diameter van 87 meter en bevat 96 antennes
- => 2 HBA velden (elk met een diameter van 35 meter) bevatten elk 24 antennes

Arie Huijgen, 23 mei 2008 vs 1.0







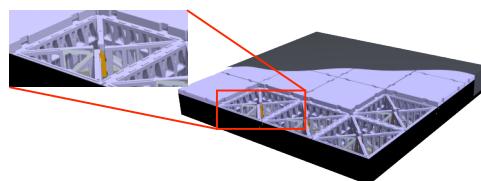




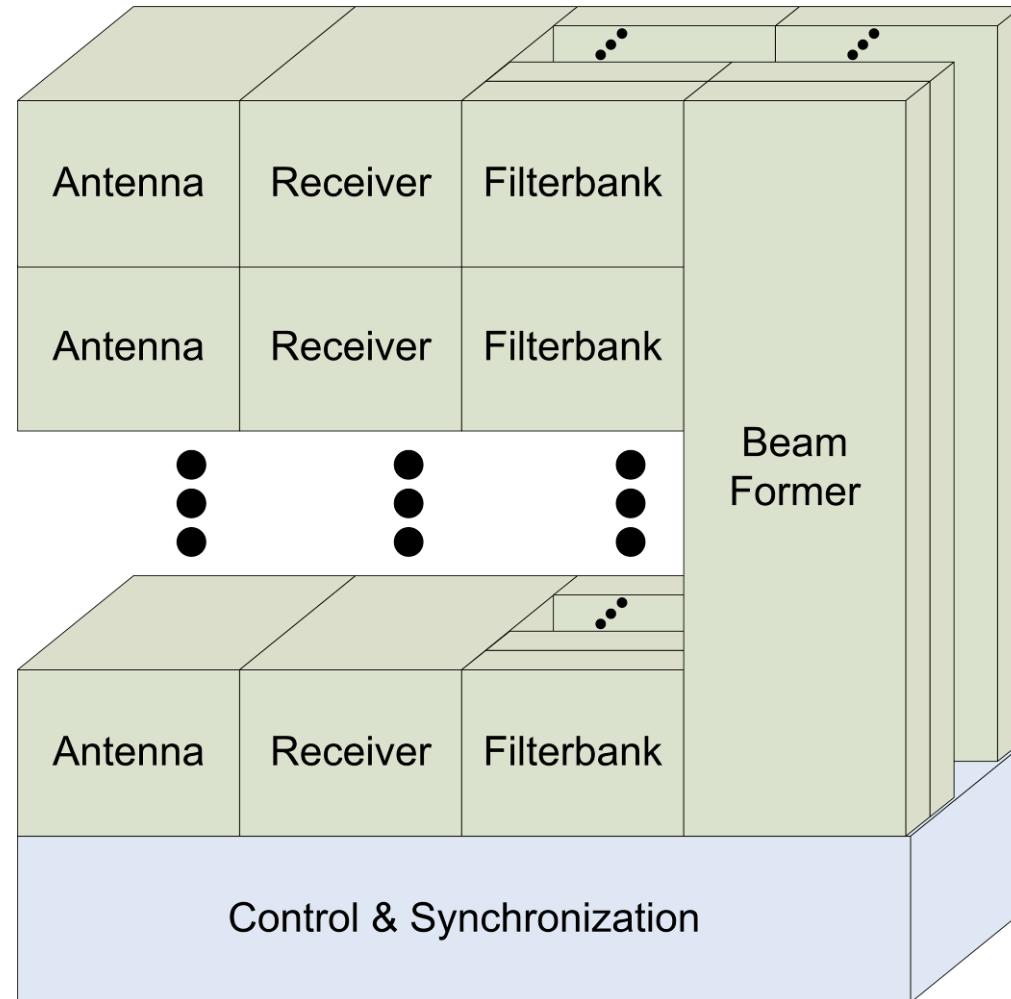
LBL 30-80 MHz

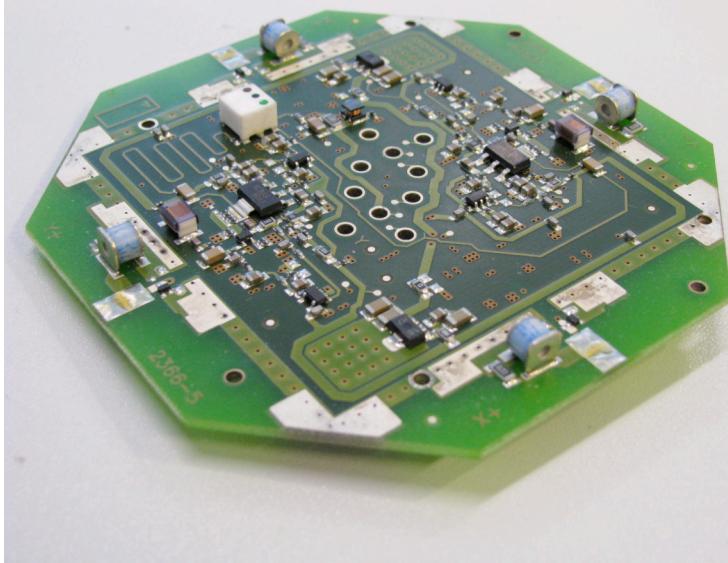


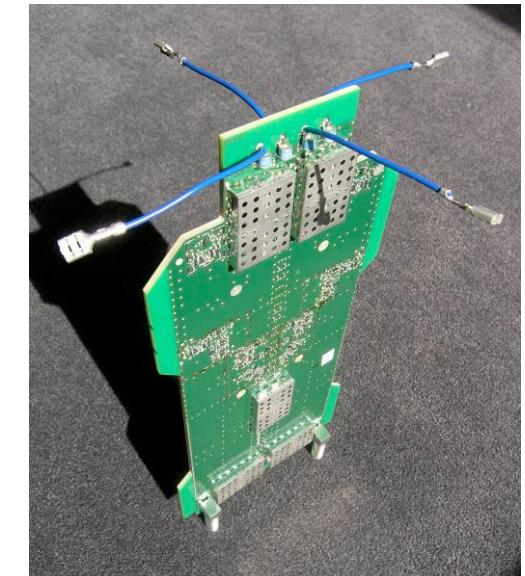
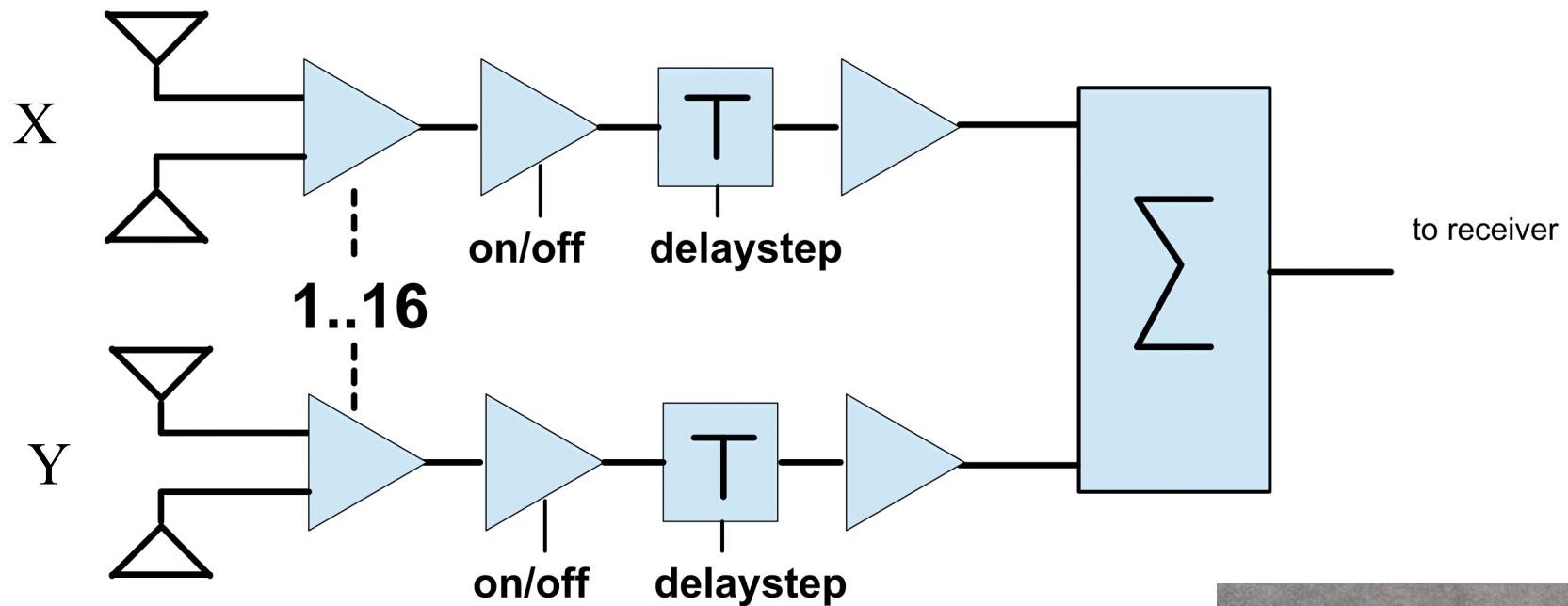
LBH 30-80 MHz

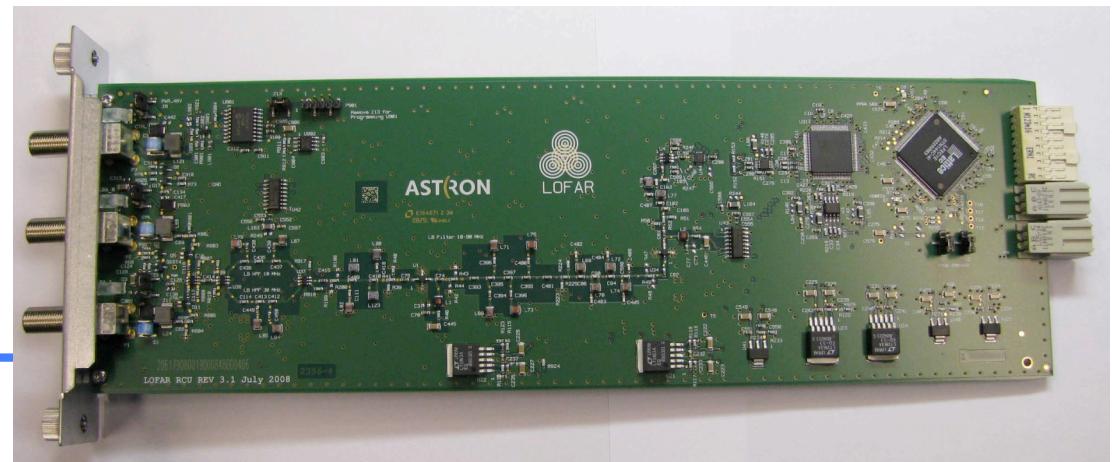
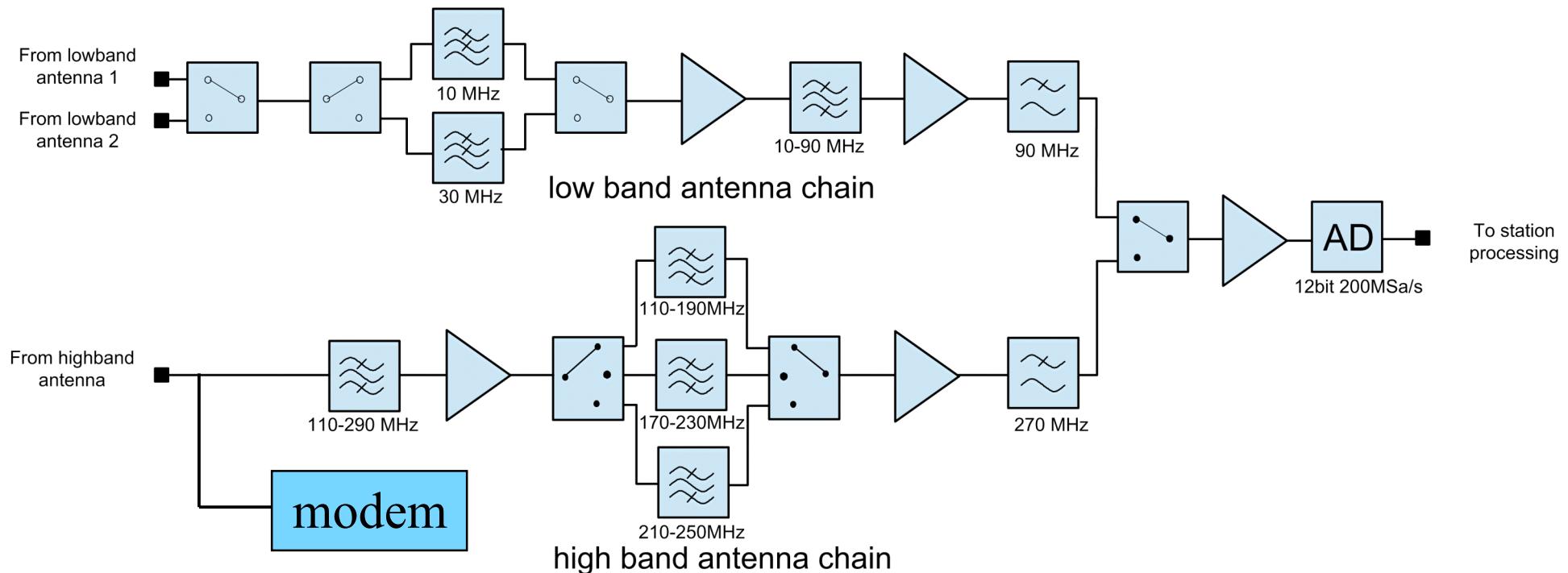


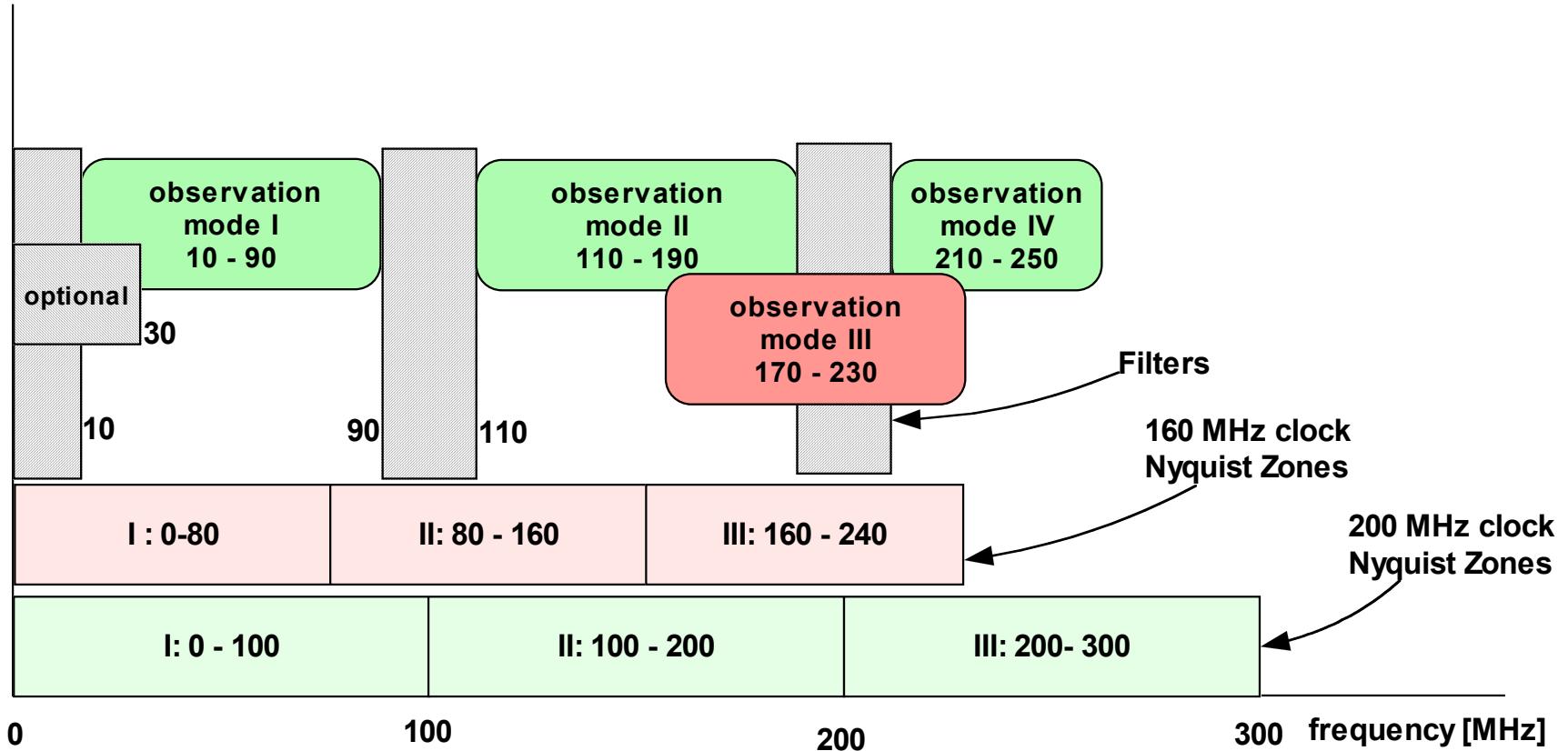
HBA 120-240 MHz

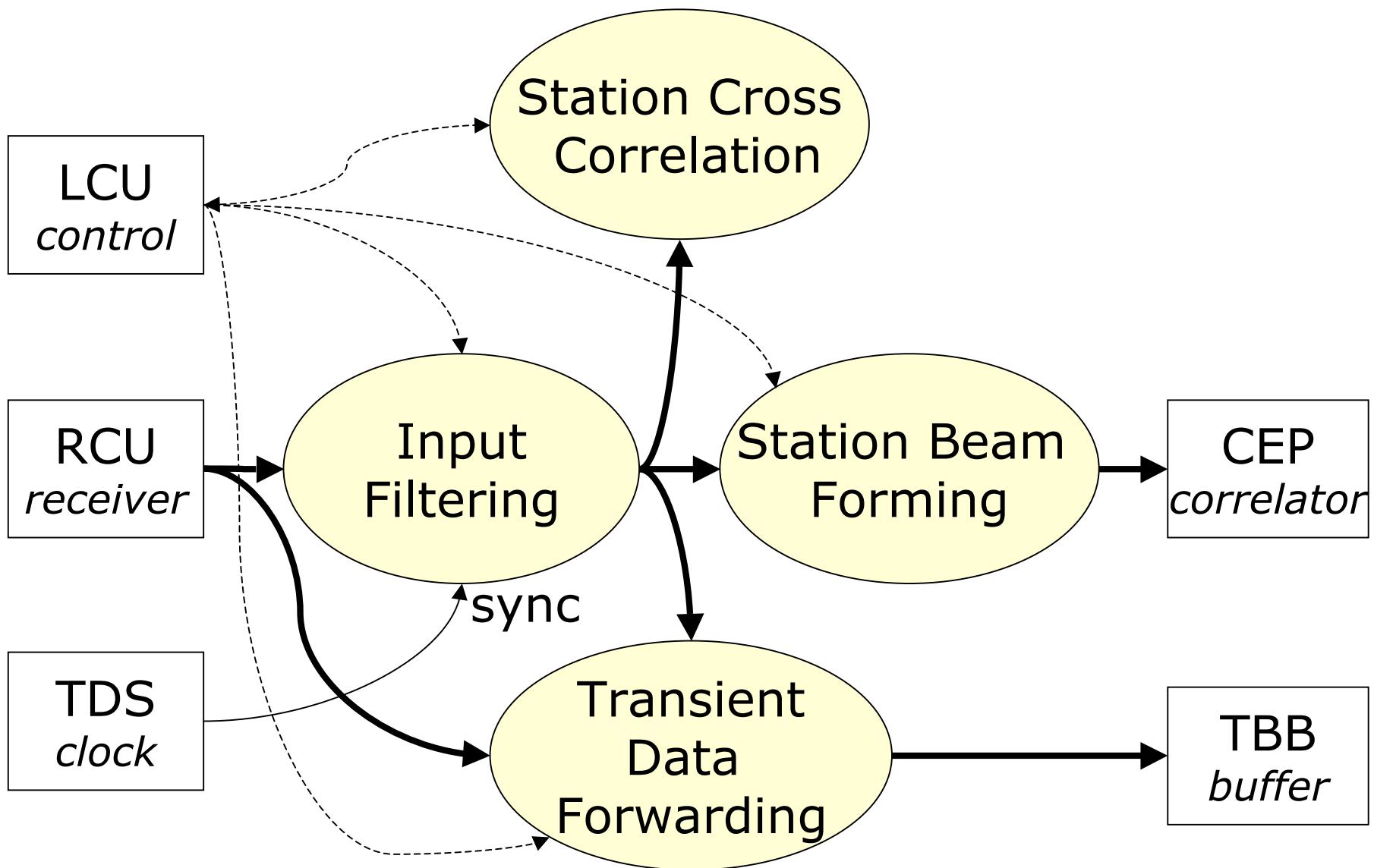




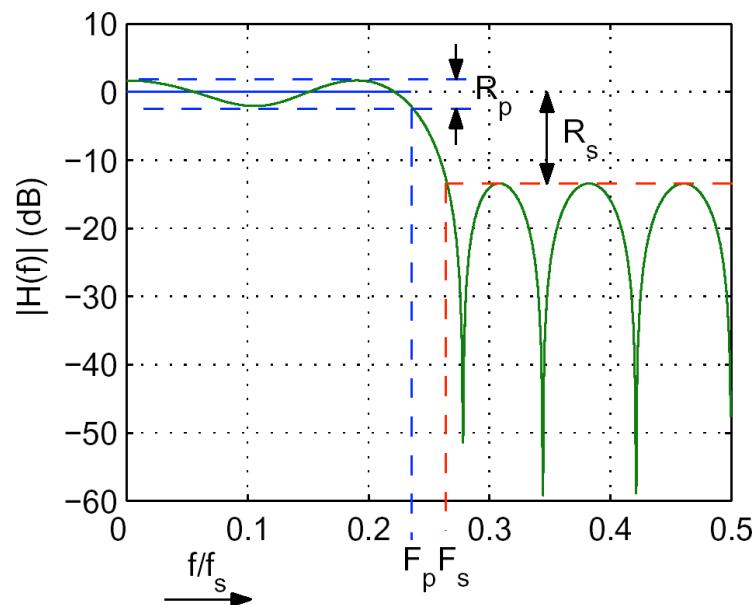
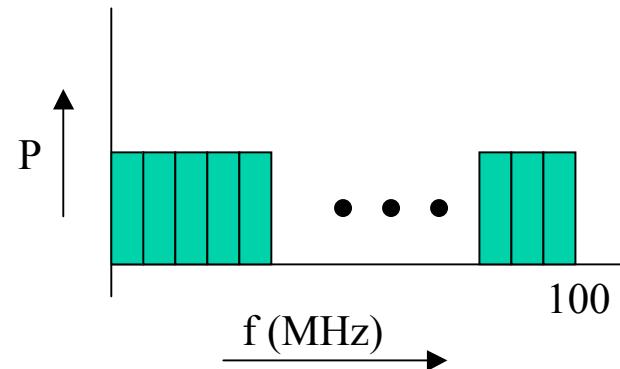




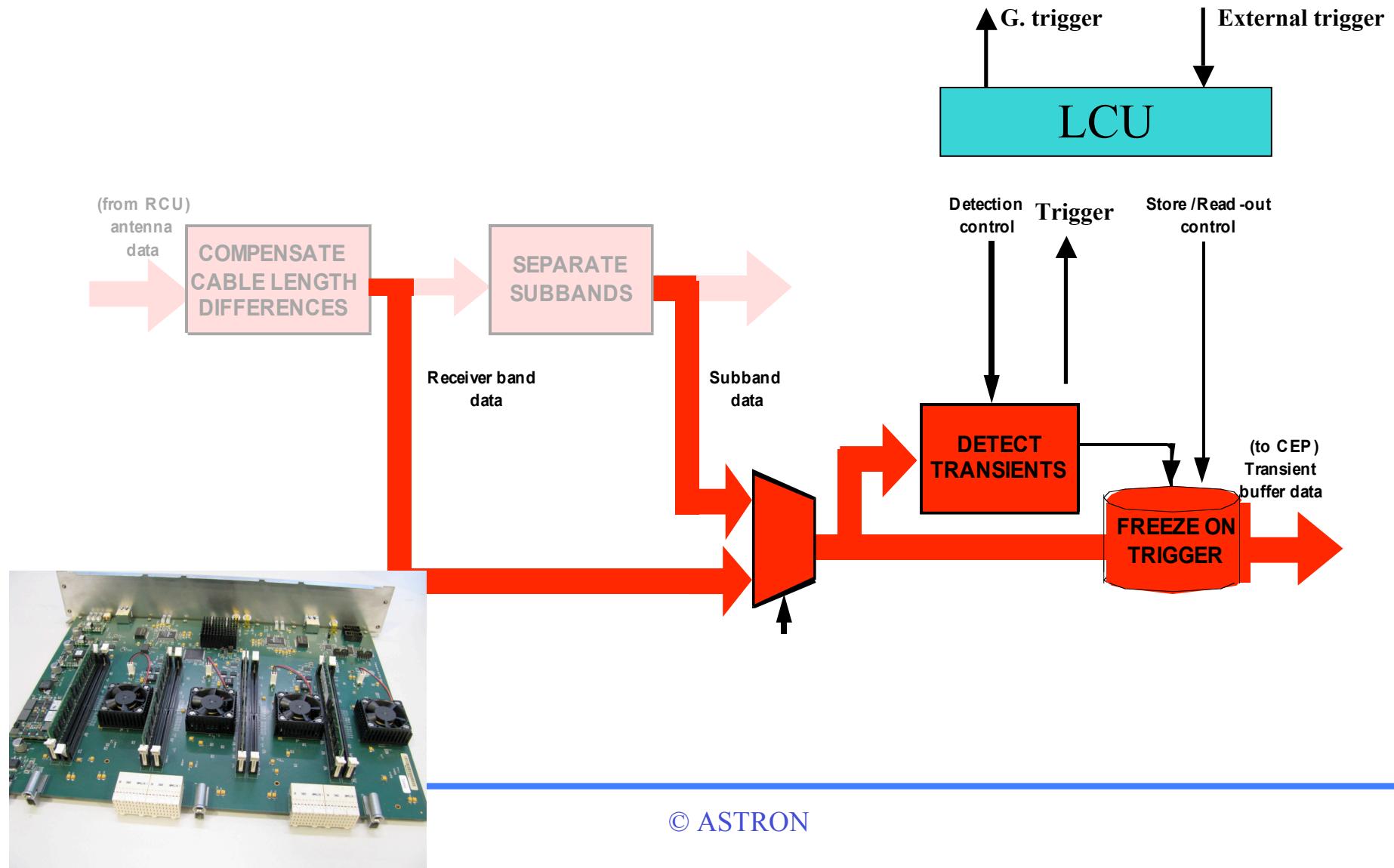




- Sample rate max. 200 MHz
- Number of FIR taps: 1024*16
- Number of subbands: 512



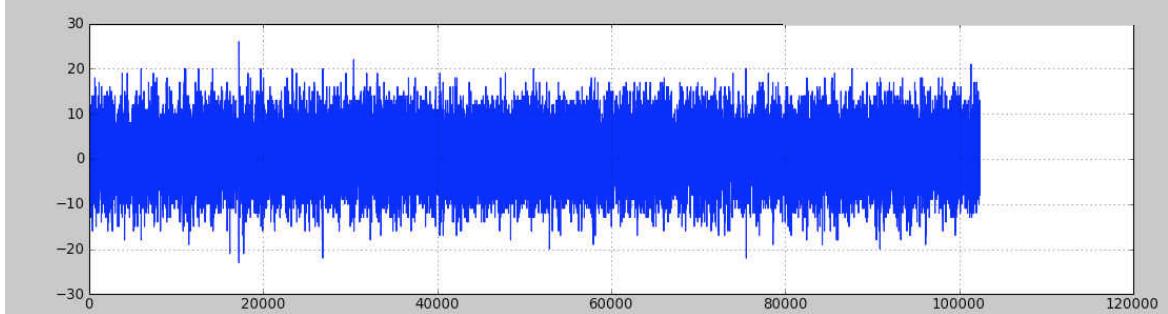
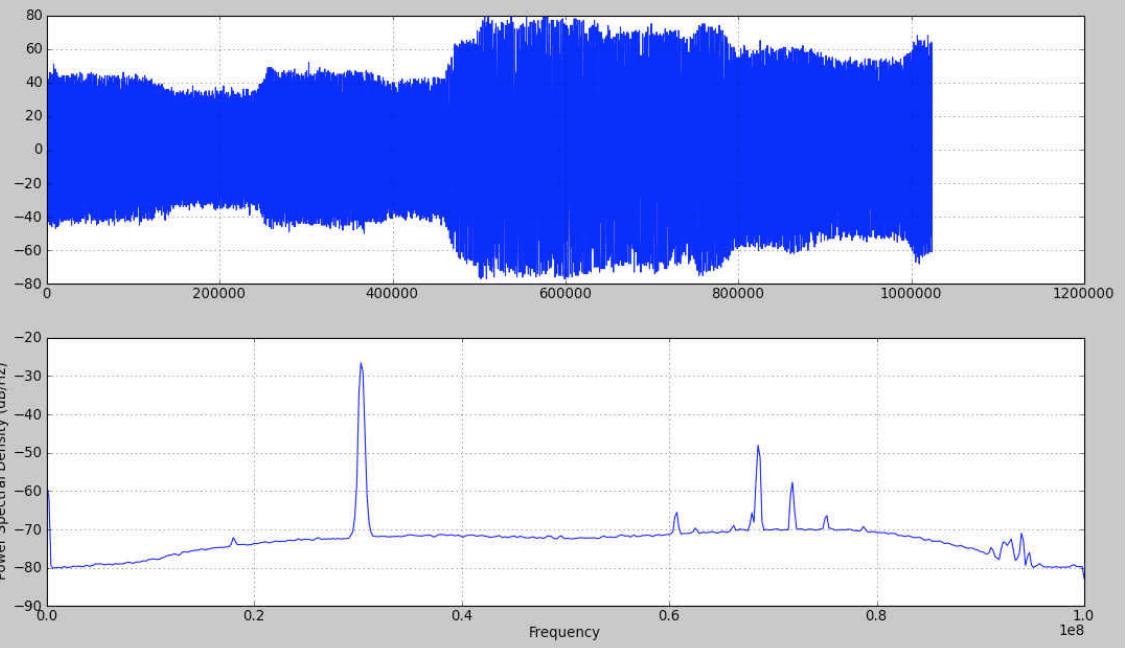




HBA



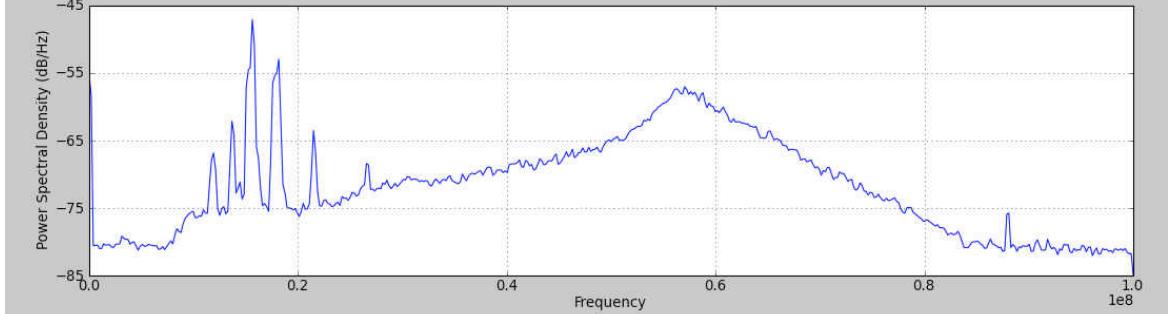
200-100 MHz



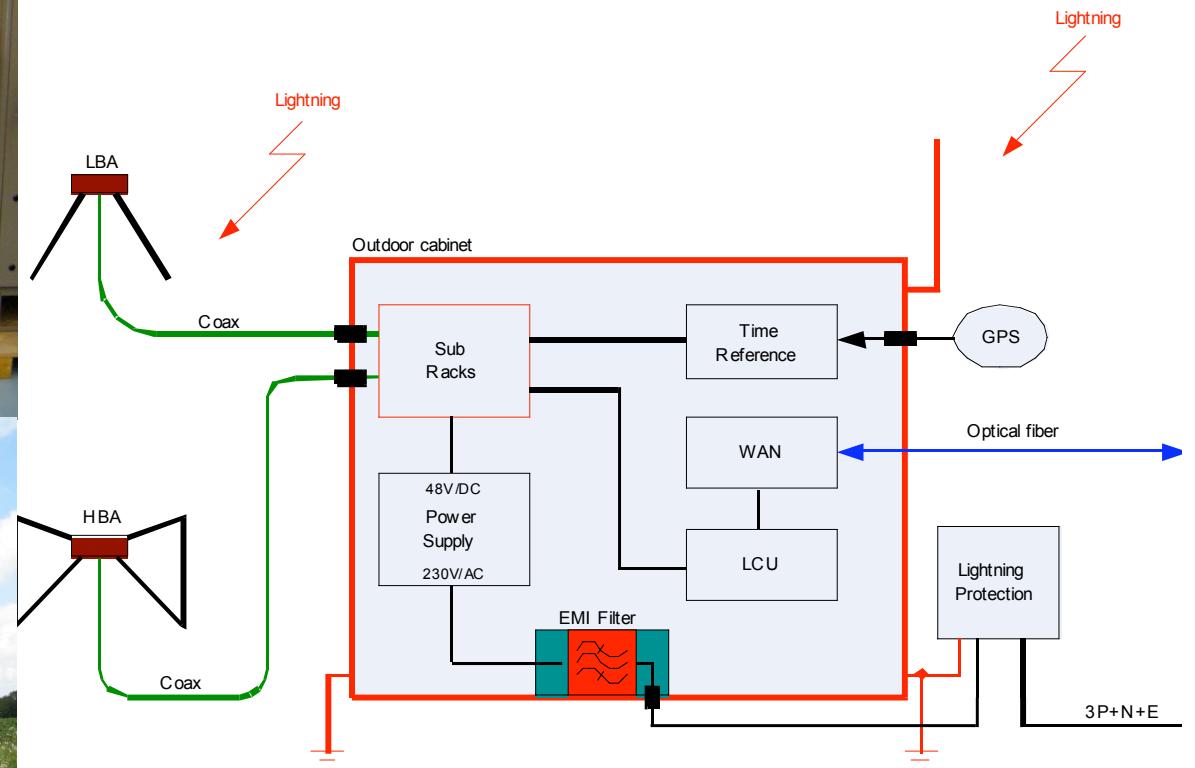
LBA



0-100 MHz



- Input data rate: ~ 460/230 Gbps (INT/NL)
- Output data rate: ~ 2-3 Gbps
- Processing capacity: ~ 1.5 Tmul/s
- Storage capacity: 70 Gbyte (lcu)



Thanks for your attention

Questions ?

