ROADMAP TO YOUR OWN BRAND RECEIVER

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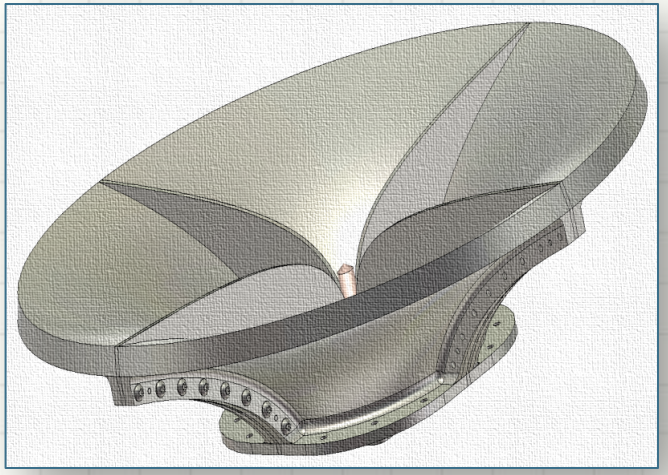
How to prepare the *project* for your receiver

- Any BRAND Rx is a partially ad-hoc project
- A relevant part is standard
- The BRAND Team is willing to help in the process
- Collaboration between the BRAND Team and the Station is required

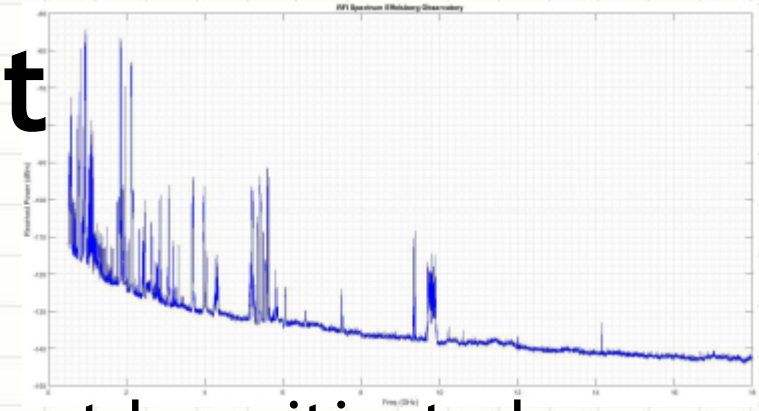
What is required for the new BRAND Receiver?

Antenna geometry



- Primary Focus Feed
  ad-hoc adapted starting from the original project
- Secondary Focus Feed
  ad-hoc based on Kashima design (under way)

RFI Environment



- RFI Status
- RFI worst case presence must be mitigated
- Reduced band?
- Notches? Where? How deep?

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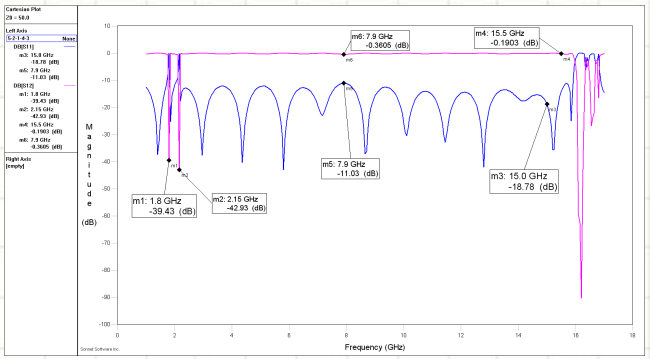
Ad-hoc
High Superconducting
Filters
original project/method



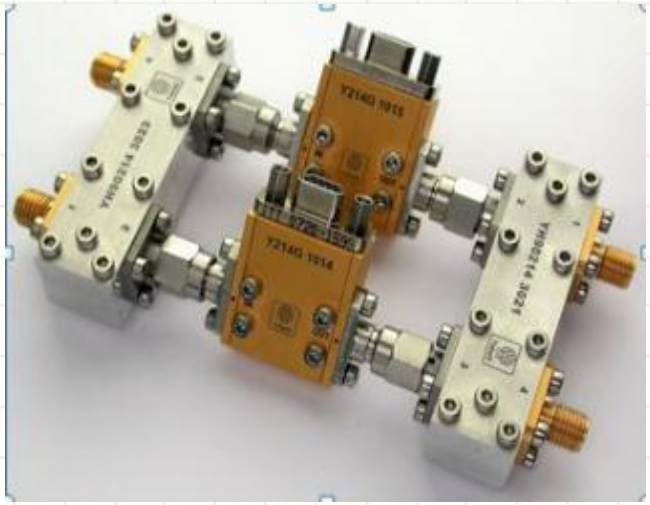
Cryostat

- Dewar adapted for the Feed

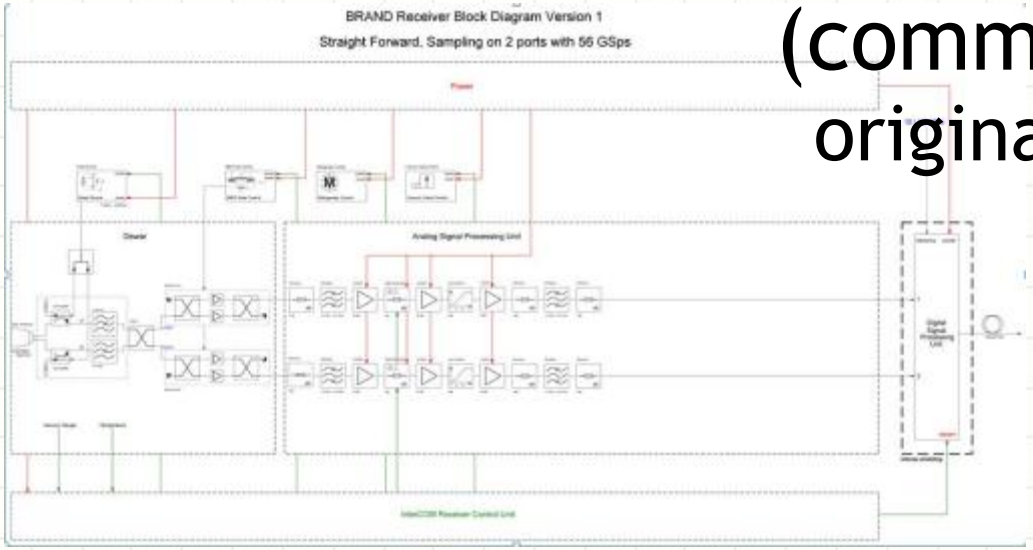
  ad-hoc starting
  from the original project

- Cryo Vacuum Pump and accessories (commercial)

Analogue Signal Chain

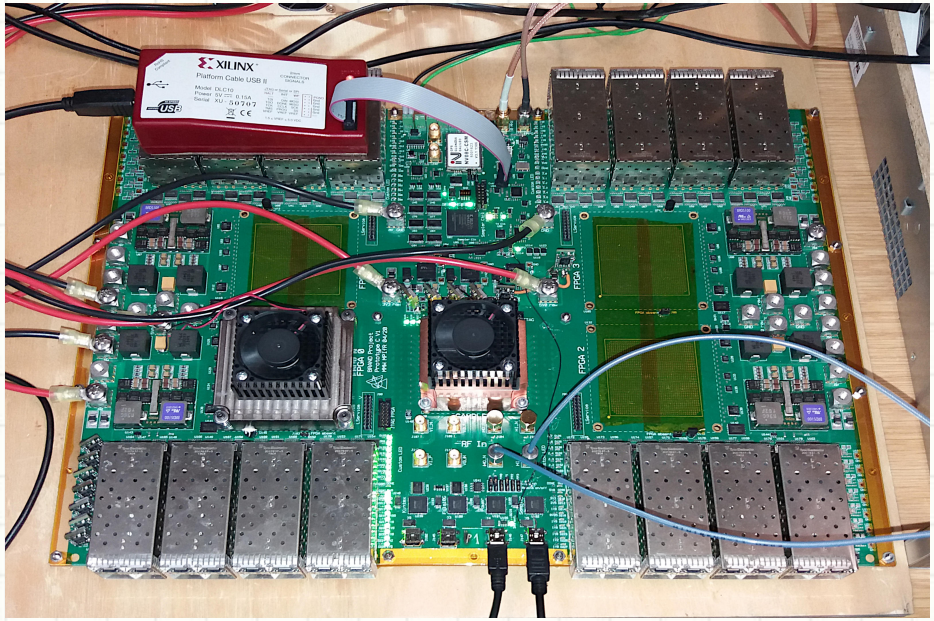


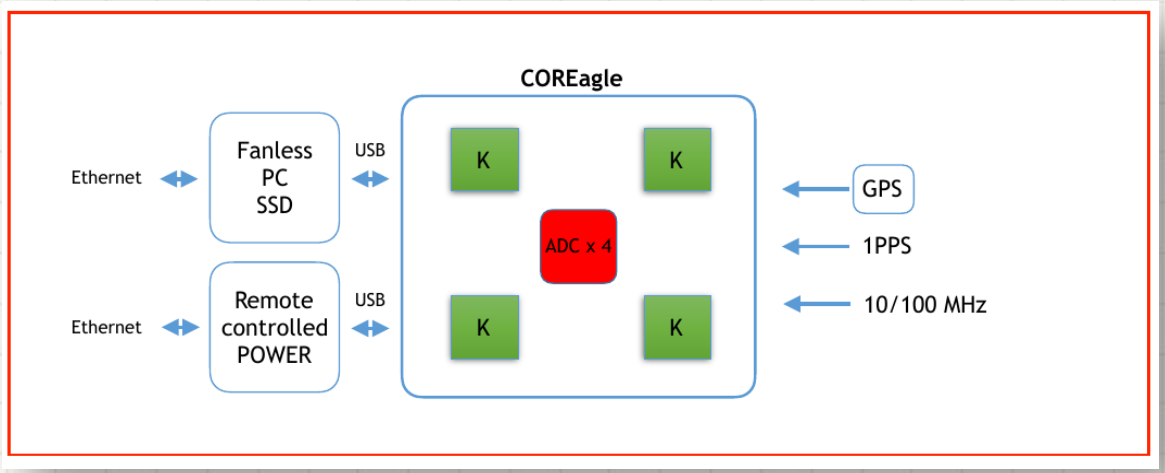
- LNA (Yebes?, commercial?)
  original project
- Couplers (commercial)
  original project
- Amplification, etc. chain (commercial)
  original project

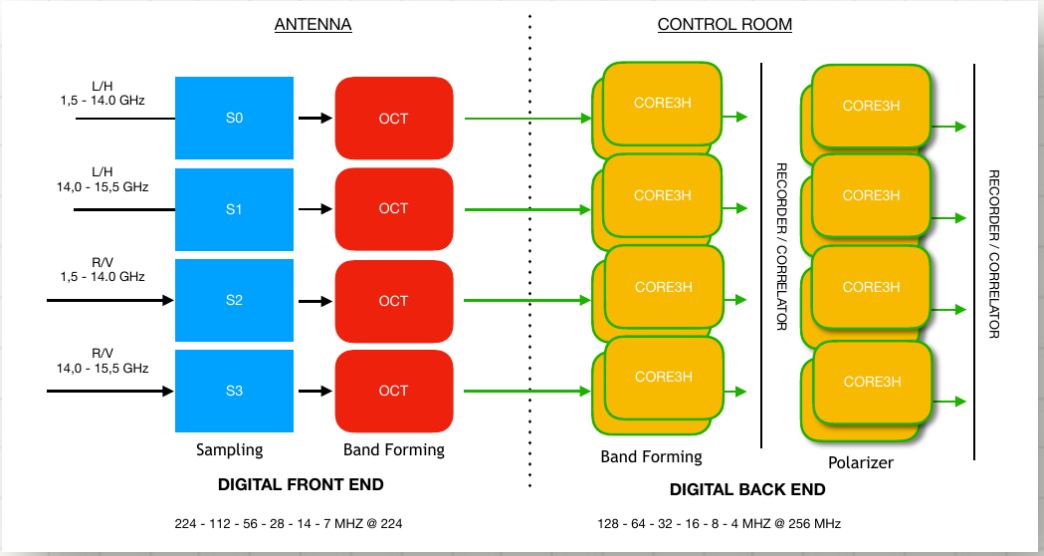


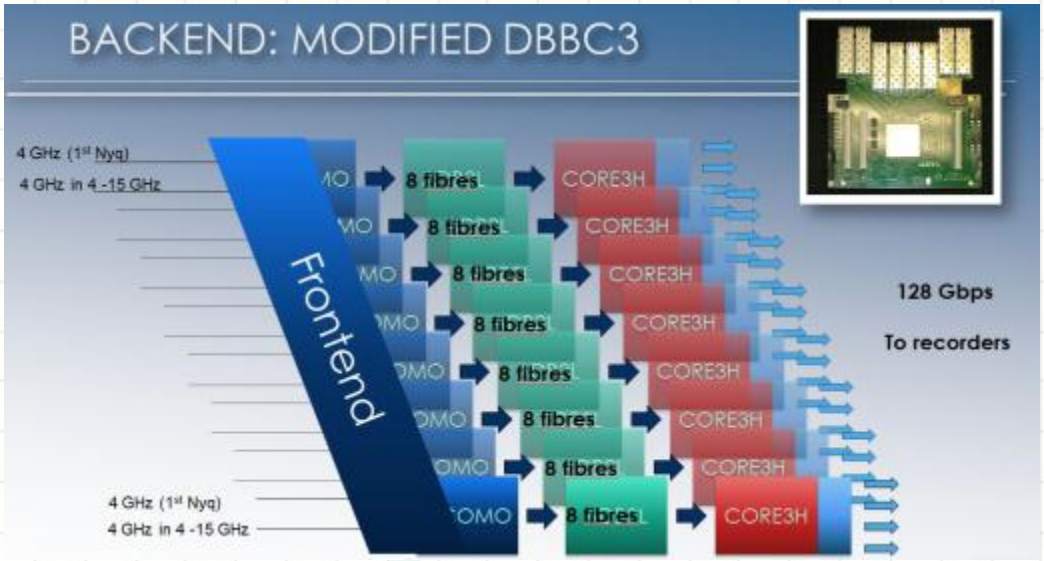
Digital Frontend

- BRAND Sampler (pool)
- COREagle FPGA Board
  from BRAND_C
  original
  project
- Control Computer and
  software
  original project
- Shielded Box with
  heat-pipes cooling
  original project









Digital Backend

- DBBC3 – (nL)8H
  n=0-8
  original project
- Support of digital Input from the Digital Frontend and the standard analogue receiver

Questions?