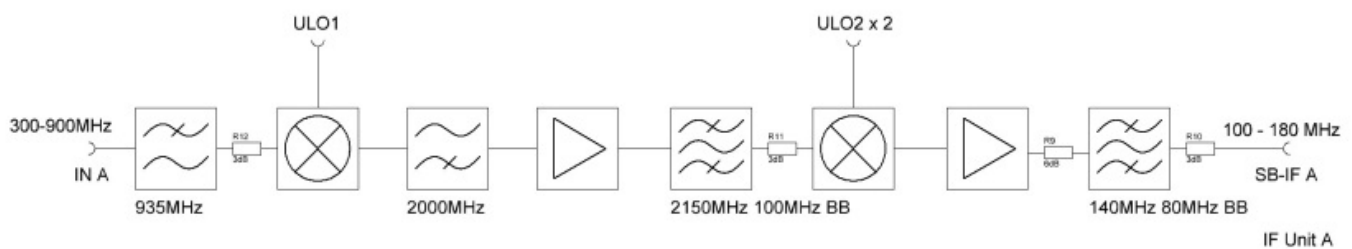
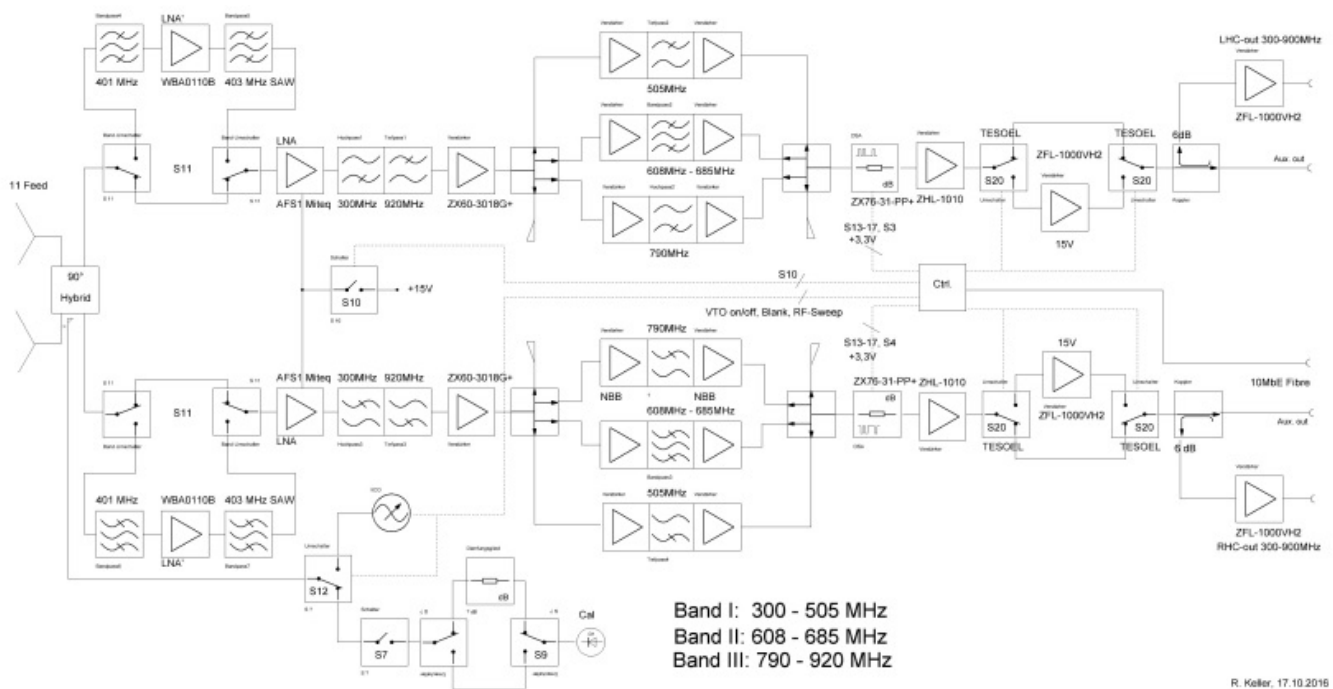


## Technical Documentation of 50cm 300-900 MHz (P500)

|                      |                           |
|----------------------|---------------------------|
| Type                 | HEMT LNA, unclooled       |
| Channel              | 2                         |
| Tsys                 | 300K(Trec~150K            |
| RF Frequency Range   | 300-900 MHz               |
| Band Width RF Filter | 300 - 505 MHz             |
| 1. Local Oscillator  | ULO1 = 1250-1850 MHz      |
| 1. IF                | 2100 - 2200 MHz           |
| 2. Lcal Oscillator   | ULO2 = 2*1000 MHz=2000MHz |
| 2. IF                | 100 - 180 MHz             |
| →                    | 608 - 685 MHz             |
| →                    | 790 - 915 MHz)            |
| Polarization         | LHC and RHC               |
| Calibration          | Noise Diode               |
| Feed                 | 11-Feed from DRAO         |
| Output               | 300 - 900 MHz             |

## Block Diagram



## Comments

This receiver is a straight forward 300 MHz to 900 MHz receiver with no down conversion. Due to intensive RFI in this broad frequency band three filter bands are installed to prevent the system from sturation by the strongest interferer. Nevertheless there is much more RFI in the band that has to be filtered in the backend. For a dedicated project a switchable RF filter plus LNA has been inserted. The filter has a bandwidth of 7 MHz and its frequency is fixed from 399 to 406 MHz. For continuum measurements an analogue filtering down converter module to an IF of 100 MHz to 180 MHz for both channels is available:

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