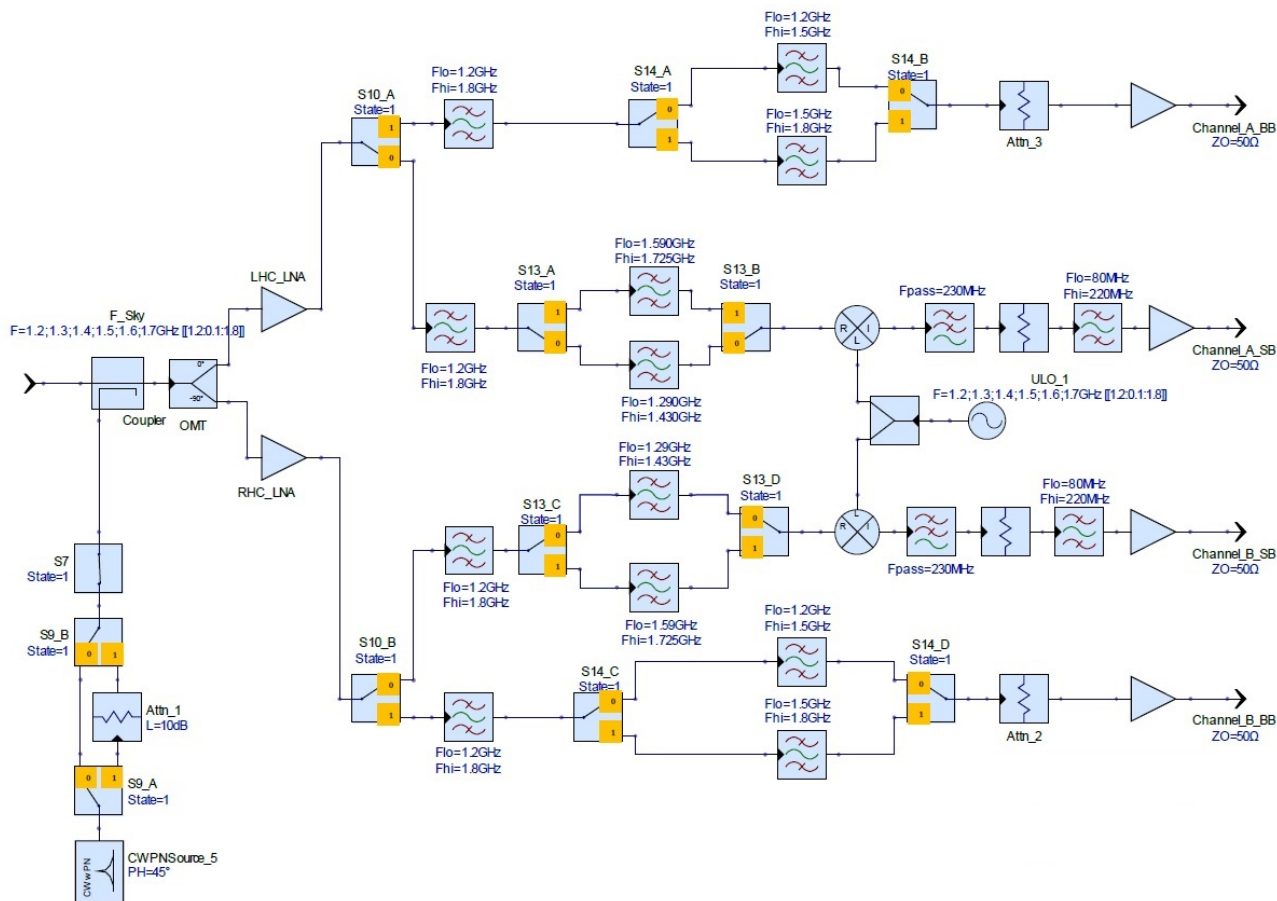


### Technical Documentation of the 18/21 cm Receiver 1.3 - 1.7 GHz (P200mm)

Type	HEMT cooled	
Channels	2	
Receiver Noise Temperature	10 K	
Feed	Prime Focus Horn	
Frequency Range	1.2 - 1.8 GHz	
Bandwidth available	Narrow Band on Coax IF	Broad Band on Optical IF
Bandwidth RF-Filters	1290 - 1430 MHz and 1580 - 1725 MHz	1.2 - 1.8 GHz and 1.5 - 1.8 GHz
Calibration	Noise diode	Noise diode
Polarization	LHC and RHC	LHC and RHC
Phaseshifter	in LO-system	no
1.IF	80 - 220 MHz	No down conversion
Local Oscillator	ULO1 or LO 1.2 - 1.8 GHz	No

### Block Diagram



Simplified Block Diagram of [p200mm\\_receiver.pdf](#) the complete receiver, (ZMK on 03.06.2019)

### Comments

The 1.2-1.8 GHz system is a prime focus receiver with cooled HEMT amplifiers. The system is built to observe circular polarization, the transducer comprises a cooled linear transducer (design NRAO)

followed by a cooled hybrid. This system is part of Primary Focus Multi Frequency Box #1 (PM 1).

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