17cm prime focus receiver, UBB (600-3000 MHz)

This is an ultra broad band (UBB) 2-channel system covering a range from 1200 to 3000 MHz. The band used to be 0.6 - 3.0 GHz, but that was changed due to RFI issues. Be aware that there is still a lot of RFI in the current frequency range. The system is mainly used for pulsar observations.

Calibration Information

Frequency [GHz]	Channel	Polarisation	Tcal [K]	Tsys [K]	Sensitivity [K/Jy]	SEFD [Jy]	Aperture Eff. [%]	TMB/S [K/Jy]	Main Beam Eff. [%]	FWHM [arcsec]	Last update
0.85 (not available any more)	A+B	2x lin	97.0	48	1.25	38	44			930	Sep 2012
1.4	A+B	2x lin	188.0	56	1.25	45	44			650	Sep 2012
2.35	A+B	2x lin	156.0	53	1.25	42	44			400	Sep 2012

normalized Gain curve (G = A0 + A1·Elv + A2·Elv2)			Observed in	confirmed
A0 = 1.0	A1 = 0.0	A2 = 0.0	Sep 2012	

Comments:

- Receiver has been modified in 2016 due to RFI issues. The frequency range was originally 0.6 - 3.0 GHz, now the lower band edge is as 1.2 GHz.

Version description for OBSINP

RX Name	Wavelength [cm]	Frequency (center) [GHz]	Nr. of Horns
P170mm UBB (1.2-3 GHz)	25.0-10.0	1.2-3.0 (1.8)	1
Version:	**Comment**		
1. Continuum/Line	Continuum and spectroscopy version		
2. Pulsar	Pulsar Version		
Horn offsets [arcsec]	0.0, 0.0		

Channel assignment in the MBFITS data files

Note that the narrow line and VLBA IF channels are usually only available when the specific line version of the receiver was selected. In addition for most receivers with narrow line channels the cables at the patch board need to be connected by the receiver group.

To select different channel numbers in OBSINP, the online plot, or the toolbox the numbers have to be specified like c(1)+c(2) to add channel 1 and 2. E.g. channel 1 and 2 contain the LCP and RCP broadband channels, then "OnlPlot pen='c(1)+c(2)'" or "toolbox use='c(1)+c(2)'" will select these channels. In OBSINP the pen can be directly specified in the receiver selection menu.

Abbreviations:

SB: narrow band channel (Schmalband-Kanal), 100 MHz band width

BB: digital broad band channel (Breitband-Kanal), band width varies for different receivers

VLBA: VLBA IF, 500 MHz band width

optical: optical fibre with 4 GHz of band width

BW: band width

TP: total power

P170mm UBB (1.2-3 GHz)			
Channel	**IF**	**Pol.**	**Comment**
1	optical	Horizontal	TP A
2	optical	Vertical	TP B

Tcal and Tsys measurements

TODO