

# P170mm - ultra broad-band prime focus receiver (1300-6000 MHz)

This is an ultra broad band (UBB) 2-channel system covering a range from 1300 to 6000 MHz.

## Overview

| RX Name | Band  | Frequency range [GHz] | Polarisation | Nr. of Horns | Horn position relativ to center of focus cabin |
|---------|-------|-----------------------|--------------|--------------|------------------------------------------------|
| P170mm  | L/S/C | 1.3-6.0               | dual-linear  | 1            | Az: 0 arcsec, Elv: 0 arcsec                    |

## 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        |
|--------------------------------------------------------------------|---------|--------------|----------|----------|--------------------|-----------|-------------------|-----------------------|--------------------|---------------|--------------------|
| 1.41                                                               | A+B     | 2x lin       | 5.7      | 19.8     | 1.3                | 15.2      | 46                | 1.90                  | 68                 | 569           | first observations |
| 1.665                                                              | A+B     | 2x lin       | 6.7      | 20.6     | 1.3                | 15.8      | 46                | 1.78                  | 73                 | 497           | first observations |
| 2.35                                                               | A+B     | 2x lin       | 8.8      | 16.1     | 1.3                | 12.4      | 46                | 1.68                  | 77                 | 363           | first observations |
| 3.35                                                               | A+B     | 2x lin       | 11.0     | 16.5     | 1.3                | 12.7      | 46                | 1.66                  | 78                 | 256           | first observations |
| 4.85                                                               | A+B     | 2x lin       | 12.5     | 18.8     | 1.3                | 14.5      | 46                | 1.71                  | 76                 | 174           | first observations |
| 5.54                                                               | A+B     | 2x lin       | 11.6     | 19.0     | 1.3                | 14.6      | 46                | 1.64                  | 79                 | 156           | first observations |
| normalized Gain curve ( $G = A0 + A1 \cdot Elv + A2 \cdot Elv^2$ ) |         |              |          |          |                    |           |                   | Observed in confirmed |                    |               |                    |
| A0 = 1.0                                                           |         | A1 = 0.0     |          | A2 = 0.0 |                    |           |                   |                       |                    |               |                    |

## Comments:

## Available receiver versions (for OBSINP)

| Version            | Description                                            | Details           |
|--------------------|--------------------------------------------------------|-------------------|
| EDDPOL_32k_Faraday | spectro-polarimeter backend for continuum observations | with 32k channels |
| EDDPOL_64k_Faraday | spectro-polarimeter backend for continuum observations | with 64k channels |
| EDD_PULSAR         | pulsar backend                                         |                   |

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