

CSIRO DIVISION OF RADIOPHYSICS

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AT FREQUENCY BANDS AND PREFERRED FREQUENCIES

Band ranges and spot frequencies preferred from an astronomical point of view for the Australia Telescope are listed below. This list was prepared in response to a request from G.L. James. The band limits have been chosen taking account of the principal spectral lines, radio astronomy spectral allocations and harmonically related frequencies for continuum work. No priority order for frequency bands is implied. Spot frequencies are given in priority order.

R.N. Manchester

Band	Band Limits (GHz)	Spot Frequencies (GHz)
327 MHz	0.310-0.330	0.3274 (Deuterium), 0.315 (Cont.)
408 MHz	0.405-0.425	0.408 (Cont.), 0.420 (Cont.)
610 MHz	0.605-0.635	0.609 (Cont.), 0.630 (Cont.)
840 MHz	0.830-0.850	0.843 (Cont.), 0.840 (Cont.)
L	1.24-1.75	1.42 (HI), 1.66 (OH), 1.61 (OH), 1.72 (OH), 1.405 (Cont.), 1.25 (Cont.)
S	2.20-2.70	2.29 (NASA Cont.), 2.69 (Cont.), 2.50 (Cont.)
C	4.50-6.10	4.83 (H ₂ CO), 6.03 (OH), 4.59 (H ₂ ¹³ CO), 5.00 (Cont.) 5.35 (Cont.)
X	8.30-10.8	8.42 (NASA Cont.), 10.7 (Cont.), 9.1 (HCCCN), 10.0 (Cont.)
K	21.0-25.5	22.23 (H ₂ O), 23.7 (NH ₃), 21.4 (Cont.), 25.0 (NH ₃ , CH ₃ OH)
Q	42.0-50.0	43.1 (SiO), 42.8 (SiO, Cont.), 49.0 (CS)
W	84.0-98.5	86.2 (SiO), 89.2 (HCO ⁺), 88.6 (HCN), 98.0 (CS), 85.6 (Cont.)
F	105-116	115.3 (CO), 110.2 (¹³ CO), 113.3 (CN), 107.0 (Cont.)