

## v255q

<b>Description</b>	Proper motion and Parallax of Methanol Masers: A search for infalling ga
<b>Antennas</b>	At-Cd-Ho-Mp-Pa
<b>Start</b>	67 04:00:00
<b>Stop</b>	67 22:00:00
<b>PI</b>	S.P. Ellingsen

Setup v255q.5cm-icrf:

<b>Station Modes</b>	At Cd Ho Mp Pa
<b>Channel 1</b>	IFP#1-L0 6300 - 6316 MHz USB RCP
<b>Channel 2</b>	IFP#1-HI 6316 - 6332 MHz USB RCP
<b>Channel 3</b>	IFP#2-L0 6642 - 6658 MHz USB LCP
<b>Channel 4</b>	IFP#2-HI 6658 - 6674 MHz USB LCP
<b>DAS 1 Skyfreq</b>	6316 & 6658 MHz
<b>Bandwidth</b>	16 MHz
<b>DAS Mode</b>	vsop.pro ( <a href="#">telescope</a> )

Setup v255q.5cm:

<b>Station Modes</b>	At Cd Ho Mp Pa
<b>Channel 1</b>	IFP#1-L0 6642 - 6658 MHz USB RCP
<b>Channel 2</b>	IFP#1-HI 6658 - 6674 MHz USB RCP
<b>Channel 3</b>	IFP#2-L0 6642 - 6658 MHz USB LCP
<b>Channel 4</b>	IFP#2-HI 6658 - 6674 MHz USB LCP
<b>DAS 1 Skyfreq</b>	6658 MHz
<b>Bandwidth</b>	16 MHz
<b>DAS Mode</b>	vsop.pro ( <a href="#">telescope</a> )

### Mode changes:

67 04:00:00 v255q.5cm  
 67 04:10:00 v255q.5cm-icrf  
 67 05:00:00 v255q.5cm  
 67 08:30:00 v255q.5cm-icrf  
 67 09:15:00 v255q.5cm  
 67 12:30:00 v255q.5cm-icrf  
 67 13:15:00 v255q.5cm  
 67 16:45:00 v255q.5cm-icrf  
 67 17:30:00 v255q.5cm  
 67 21:15:00 v255q.5cm-icrf

Ftp: <ftp://ftp.atnf.csiro.au/pub/people/vlbi/v255/v255q>

## Comments:

The basic method and frequencies for this experiment are the same as for the earlier v255 experiments (Jul 11, Nov 11 and earlier). The frequency setup for this session is identical to v255p in November 2011. As for November the setup for the ICRF observations is to be 2 IFs with different polarizations. The times for the setup (mode) changes are given above.

The purpose of these observations is to obtain the fourth epoch for proper motion/parallax for Mon R2 and the first epoch for proper motion/parallax observations of the methanol maser sources G339.884-1.259, G339.681-1.208 and G339.682-1/207.

The Mon R2 observations run from 4-13 UT and should show a modest peak at a sky frequency of 6667.28 MHz. The G339.88-1.26 run from 13-22 UT and should show a strong peak at a sky frequency of around 6670.1 MHz during these observations.

During the ICRF runs we have sometimes had to exclude certain antennas (particularly Parkes) from observations of some sources in order to get a good spread of azimuths and elevations.

## Observing comments for each antenna:

### Hobart, Ceduna :

The 4 x 16 MHz bandpass setup requires feeding two separate LOs into IFP#1 and #2 on the DAS/frequency translator. For Hobart the LOs should be set to 468 MHz (IFP#1) and 810 MHz (IFP#2) for the 4 x 16 MHz setup and 810 MHz for the 2 x 16 MHz setup. For Ceduna, if you set the agilent to 11.1 GHz rather than 11.4 GHz, then you can use the same LOs as at Hobart.

The level into IF#1 will change significantly between the two setups. Set the level into the DAS so that it is within range for both setups. Setup the system temperature measurement so that it works for both IFs for the v255p.5cm setup - it doesn't matter if the system temperature measurement doesn't work for the first IF during the ICRF observations as these are only to calibrate the delay. Please don't change the attenuation into the DAS when the setup changes as that may change the delay.

### Parkes, ATCA, Mopra :

For the ATCA please phase-up antennas CA01 through CA05 for this experiment.

Setup as for a 2p-4IF experiment (dual DAS with Huygens cable for entire experiment) with DAS1 tuned to the lower frequency and DAS2 to the upper frequency. Use the new features in cdisco version 4 to automate the changes of channel selection as per the following table.

v255q.5cm	Channels 5-8
v255q.5cm-icrf	Channels 1,2,7,8

### Parkes :

0500-0523 UT & 1315-1443 UT : Target sources not up at Parkes, Parkes not observing. 0523-0733 UT & 1101-1230 UT : Only one of the two target sources (Mon R2) above the horizon at Parkes (G188.95 has set), Parkes will miss about 50% of scans during these times.

## Observing comments for each antenna:

At	Cd	Ho	Mp	Pa
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## Observing Logs

[Parkes onsource flagging](#)  
[ATCA onsource flagging](#)  
[Mopra onsource flagging](#)  
[Mopra Tsys \(plot\)](#)  
[Parkes Tsys](#)

## Weather

[ATCA Weather](#)  
[Mopra Weather](#)  
[Parkes Weather](#)

## Monica log information - EXPERIMENTAL:

[Mopra Tsys](#)  
[Parkes Tsys](#)  
[ATCA Tsys](#)

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