

C211B Correlation Report

General Information

- Includes 2 science projects: [MK017B1+B2](#) and [POLCAL1](#).
- Includes 3mm and 7mm parts
- Session info: <http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/>
- Station feedback: http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/sessions/apr21/feedback_apr21.asc
- Text files with detailed antenna statistics, scroll down to get to the cumulative statistics for the whole experiment:
[c211b_3mm_ALL.antrep](#)
[c211b_7mm_ALL.antrep](#)

Current Status

Correlation finished, data **released to PI** on 25.11.2021.

The second release, v2, was prepared in February 2022 and fixes 3mm, the 7mm remains unaffected.

Fringes

Station	Code	Fringes	Plots	Comments
Ef	B	yes	<p>Fringe overview of all baselines including this antenna in LL(left for each baseline) and RR (right for each baseline).</p> <p>Legend: white box - scheduled, but no data (or sometimes fourfit had trouble with the particular baseline/pol, so no data in alist), blue - no fringe, shades of green and brown -- fringes of varying quality, with bright green designating the best and brownish-red the worst..</p> <p>c211b_3mm_FRINGE_RfAnt_Ef_LLRR_AllSrc.pdf</p> <p>Examples of fourfit fringe plots can be found in (all fringe plots with baselines including the given antenna):</p> <p>c211b_3mm_No0160_all.pdf</p> <p>Antenna statistics:</p> <p>c211b_3mm_Ef.antrep</p> <p>Same for all antennas below unless otherwise noted.</p>	<p>Mostly clear sky</p> <p>Participated in 100% scans (3mm only), fringes in 54% baselines*||pols, mean SNR 309.</p>
On	X	yes	<p>c211b_3mm_FRINGE_RfAnt_On_LLRR_AllSrc.pdf</p> <p>c211b_3mm_No0160_all.pdf</p> <p>c211b_3mm_On.antrep</p>	<p>Mostly clear sky.</p> <p>The 4mm receiver was used.</p> <p>Participated in 100% scans (3mm only), fringes in 55% baselines*||pols, mean SNR 186.</p>

Station	Code	Fringes	Plots	Comments
Ys	Y	no		missed the whole experiment due to the blind repairs
Mh	Z	yes	c211b_3mm_FRINGE_RfAnt_Mh_LLRR_AllSrc.pdf c211b_3mm_No0160_all.pdf c211b_3mm_Mh.antrep	<p>Bad weather for most of the observations (rain or wet snow, heavy clouds).</p> <p>Participated in 94% scans (3mm only), fringes in 34% baselines*||pols, mean SNR 47.</p>
Pv	P	yes	c211b_3mm_FRINGE_RfAnt_Pv_LLRR_AllSrc.pdf c211b_3mm_No0160_all.pdf c211b_3mm_Pv.antrep	<p>Bad weather.</p> <p>"Participated" in 62% scans (3mm only).</p> <p>This represents the number of recorded scans, but for part of those the antenna was stowed due to the weather. See the fringe overview for the good and bad scans.</p> <p>fringes in 21% baselines*||pols, mean SNR 68.</p>
NOEMA: Nn	N	yes	c211b_3mm_FRINGE_RfAnt_Nn_LLRR_AllSrc.pdf c211b_3mm_No0160_all.pdf , c211b_3mm_No0177_N.pdf c211b_3mm_Nn.antrep	<p>Participated in 100% scans (3mm only), fringes in 72% baselines*||pols, mean SNR 306.</p> <p>(there was a large clock drift in the first production correlation, but it was fixed in the second release by using a better phase center)</p>
GLT: Gl	g	yes	c211b_3mm_FRINGE_RfAnt_Gl_LLRR_AllSrc.pdf c211b_3mm_No0177_g.pdf c211b_3mm_Gl.antrep	<p>Storm and high wind for part of the observations.</p> <p>Participated in 100% scans (3mm only), fringes in 26% baselines*||pols, mean SNR 26.</p>
VLBA: Br	b	yes	c211b_3mm_FRINGE_RfAnt_Br_LLRR_AllSrc.pdf c211b_3mm_No0160_all.pdf , c211b_3mm_No0254_all.pdf c211b_3mm_Br.antrep c211b_7mm_FRINGE_RfAnt_Br_LLRR_AllSrc.pdf c211b_7mm_No0072_all.pdf	<p>3mm: Participated in 99% scans, fringes in 21% baselines*||pols, mean SNR 20.</p> <p>7mm: Participated in 99% scans, fringes in 95%</p>

Station	Code	Fringes	Plots	Comments
			c211b_7mm_Br.antrep	baselines*||pols, mean SNR 129.
VLBA: Fd	f	yes	c211b_3mm_FRINGE_RfAnt_Fd_LLRR_AllSrc.pdf c211b_3mm_No0160_all.pdf , c211b_3mm_No0254_all.pdf c211b_3mm_Fd.antrep c211b_7mm_FRINGE_RfAnt_Br_LLRR_AllSrc.pdf c211b_7mm_No0072_all.pdf c211b_7mm_Fd.antrep	3mm: Participated in 98% scans, fringes in 34% baselines*||pols, mean SNR 23. 7mm: Participated in 98% scans, fringes in 97% baselines*||pols, mean SNR 176.
VLBA: Kp	k	yes	c211b_3mm_FRINGE_RfAnt_Kp_LLRR_AllSrc.pdf c211b_3mm_No0160_all.pdf , c211b_3mm_No0254_all.pdf c211b_3mm_Kp.antrep c211b_7mm_FRINGE_RfAnt_Kp_LLRR_AllSrc.pdf c211b_7mm_No0072_all.pdf c211b_7mm_Kp.antrep	3mm: Participated in 100% scans, fringes in 39% baselines*||pols, mean SNR 22. 7mm: Participated in 100% scans, fringes in 98% baselines*||pols, mean SNR 205.
VLBA: La	l	yes	c211b_3mm_FRINGE_RfAnt_La_LLRR_AllSrc.pdf c211b_3mm_No0160_all.pdf , c211b_3mm_No0254_all.pdf c211b_3mm_La.antrep c211b_7mm_FRINGE_RfAnt_La_LLRR_AllSrc.pdf c211b_7mm_No0072_all.pdf c211b_7mm_La.antrep	3mm: Participated in 100% scans, fringes in 20% baselines*||pols, mean SNR 15. 7mm: Participated in 100% scans, fringes in 95% baselines*||pols, mean SNR 150.
VLBA: Mk	m	yes	c211b_3mm_FRINGE_RfAnt_Mk_LLRR_AllSrc.pdf c211b_3mm_No0160_all.pdf , c211b_3mm_No0254_all.pdf , c211b_3mm_No0122_m.pdf c211b_3mm_Mk.antrep c211b_7mm_FRINGE_RfAnt_Mk_LLRR_AllSrc.pdf c211b_7mm_No0072_all.pdf	3mm: Participated in 88% scans, fringes in 22% baselines*||pols, mean SNR 17. 7mm: Participated in 92% scans, fringes in 97% baselines*||pols, mean SNR 114.

Station	Code	Fringes	Plots	Comments
			c211b_7mm_Mk.antrep	dropped out for several scans due to USNO observations
VLBA: Nl	n	yes	c211b_3mm_FRINGE_RfAnt_Nl_LLRR_AllSrc.pdf c211b_3mm_No0160_all.pdf , c211b_3mm_No0254_all.pdf , c211b_3mm_No0166_n.pdf c211b_3mm_Nl.antrep c211b_7mm_FRINGE_RfAnt_Nl_LLRR_AllSrc.pdf c211b_7mm_No0072_all.pdf c211b_7mm_Nl.antrep	3mm: Participated in 100% scans, fringes in 20% baselines*||pols, mean SNR 15. 7mm: Participated in 100% scans, fringes in 95% baselines*||pols, mean SNR 128.
VLBA: Ov	o	yes	c211b_3mm_FRINGE_RfAnt_Ov_LLRR_AllSrc.pdf c211b_3mm_No0160_all.pdf , c211b_3mm_No0254_all.pdf , c211b_3mm_No0101_o.pdf c211b_3mm_Ov.antrep c211b_7mm_FRINGE_RfAnt_Ov_LLRR_AllSrc.pdf c211b_7mm_No0072_all.pdf c211b_7mm_Ov.antrep	. 3mm: Participated in 100% scans, fringes in 26% baselines*||pols, mean SNR 25. 7mm: Participated in 100% scans, fringes in 96% baselines*||pols, mean SNR 135.
VLBA: Pt	p	yes	c211b_3mm_FRINGE_RfAnt_Pt_LLRR_AllSrc.pdf c211b_3mm_No0160_all.pdf , c211b_3mm_No0254_all.pdf c211b_3mm_Pt.antrep c211b_7mm_FRINGE_RfAnt_Pt_LLRR_AllSrc.pdf c211b_7mm_No0072_all.pdf c211b_7mm_Pt.antrep	3mm: Participated in 93% scans, fringes in 19% baselines*||pols, mean SNR 17. 7mm: Participated in 94% scans, fringes in 95% baselines*||pols, mean SNR 133. dropped out for several scans due to USNO observations
VLBA: Hn	h		c211b_7mm_FRINGE_RfAnt_Hn_LLRR_AllSrc.pdf c211b_7mm_No0072_all.pdf c211b_7mm_Hn.antrep	Participated in 100% scans (7mm only), fringes in 86% baselines*||pols, mean SNR 66

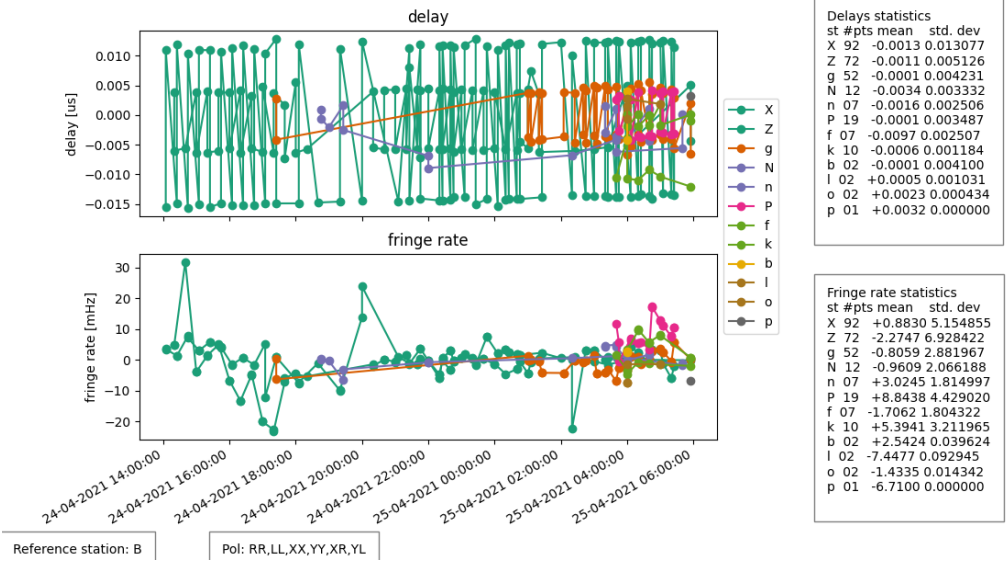
Station	Code	Fringes	Plots	Comments
VLBA: Sc	c		c211b 7mm FRINGE RfAnt Sc LLRR AllSrc.pdf c211b 7mm No0072_all.pdf c211b 7mm Sc.antrep	Participated in 92% scans (7mm only), fringes in 91% baselines*||pols, mean SNR 50

Notes

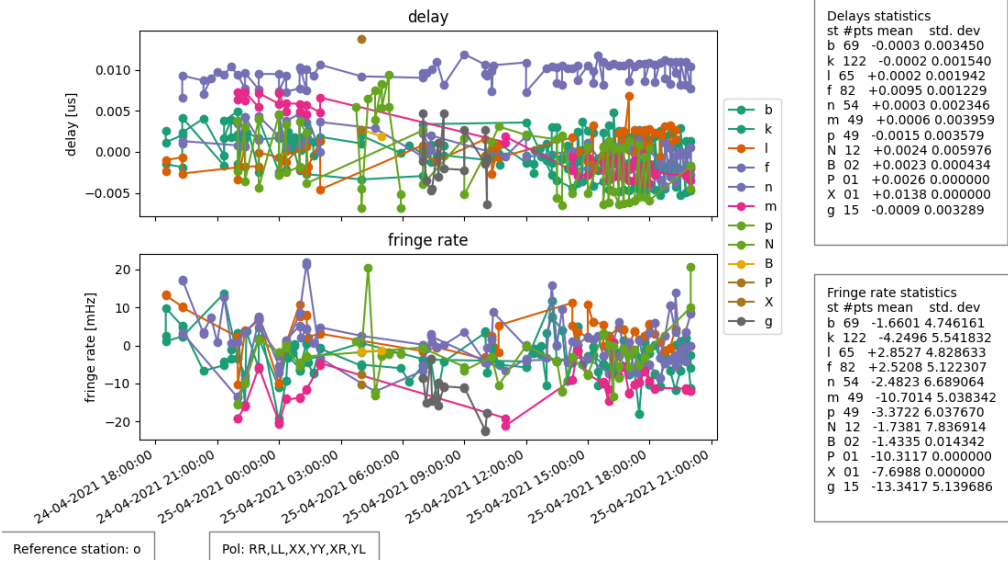
Post-Correlation checks

Residuals

c211b 3mm, Ef as reference:



c211b 3mm, Ov as reference:



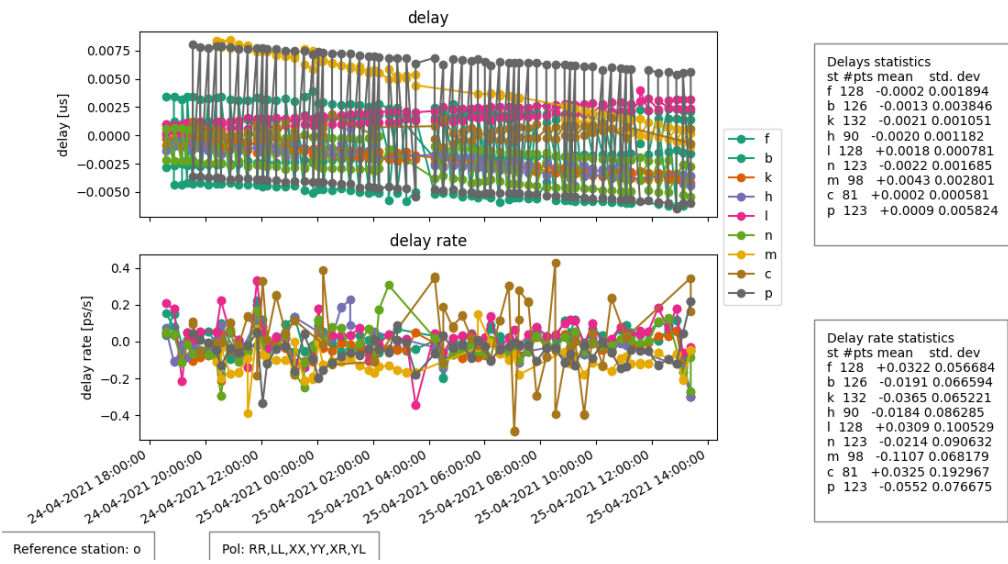
Delays statistics

st	#pts	mean	std. dev
b	69	-0.0003	0.003450
k	122	-0.0002	0.001540
l	65	+0.0002	0.001942
f	82	+0.0095	0.001229
n	54	+0.0003	0.002346
m	49	+0.0006	0.003959
p	49	-0.0015	0.003579
N	12	+0.0024	0.005976
B	02	+0.0023	0.000434
P	01	+0.0026	0.000000
X	01	+0.0138	0.000000
g	15	-0.0009	0.003289

Fringe rate statistics

st	#pts	mean	std. dev
b	69	-1.6601	4.746161
k	122	-4.2496	5.541832
l	65	+2.8527	4.828633
f	82	+2.5208	5.122307
n	54	-2.4823	6.689064
m	49	-10.7014	5.038342
p	49	-3.3722	6.037670
N	12	-1.7381	7.836914
B	02	-1.4335	0.014342
P	01	-10.3117	0.000000
X	01	-7.6988	0.000000
g	15	-13.3417	5.139686

c211b 7mm, Ov as reference:



Delays statistics

st	#pts	mean	std. dev
f	128	-0.0002	0.001894
b	126	-0.0013	0.003846
k	132	-0.0021	0.001051
h	90	-0.0020	0.001182
l	128	+0.0018	0.000781
n	123	-0.0022	0.001685
m	98	+0.0043	0.002801
c	81	+0.0002	0.000581
p	123	+0.0009	0.005824

Delay rate statistics

st	#pts	mean	std. dev
f	128	+0.0322	0.056684
b	126	-0.0191	0.066594
k	132	-0.0365	0.065221
h	90	-0.0184	0.086285
l	128	+0.0309	0.100529
n	123	-0.0214	0.090632
m	98	-0.1107	0.068179
c	81	+0.0325	0.192967
p	123	-0.0552	0.076675

FITS completeness (plist)

legend:

- o -- station scheduled and fully accounted for in the fits file
- 42 (or another number) -- station scheduled, but data found only for 42% of the scheduled interval
- x -- station scheduled, but corresponding entry not found in the fits file
- . -- station not scheduled

c211b.3mm.fits:

EF ON YS PV NN MH GL FD NL OV PT BR KP LA MK
c211b_001 No0001 0420-014 86ghz o o x x o o

c211b_052	No0064	3C279	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_053	No0065	1502+106	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_054	No0066	0420-014	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o
c211b_055	No0067	0506+056	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o
c211b_056	No0069	3C279	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_057	No0070	1502+106	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_058	No0071	0420-014	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o
c211b_059	No0073	0506+056	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o
c211b_060	No0075	3C279	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_061	No0076	0420-014	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o
c211b_062	No0077	0506+056	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o
c211b_063	No0079	3C279	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_064	No0080	1502+106	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_065	No0081	0723-008	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o
c211b_066	No0082	0506+056	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o
c211b_067	No0084	3C279	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_068	No0085	1502+106	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_069	No0086	0420-014	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o
c211b_070	No0087	0506+056	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o
c211b_071	No0089	3C279	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_072	No0090	1502+106	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_073	No0091	0420-014	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o
c211b_074	No0092	0506+056	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o
c211b_075	No0094	3C279	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_076	No0095	1502+106	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_077	No0096	0723-008	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o
c211b_078	No0097	0506+056	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o
c211b_079	No0099	3C279	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_080	No0100	1502+106	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_081	No0101	0420-014	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o
c211b_082	No0103	0506+056	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o
c211b_083	No0105	3C279	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_084	No0106	1502+106	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_085	No0107	0420-014	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o
c211b_086	No0108	0506+056	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o
c211b_087	No0110	3C279	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_088	No0111	1502+106	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_089	No0112	0723-008	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o
c211b_090	No0113	0506+056	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o
c211b_091	No0115	3C273	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_092	No0116	1502+106	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_093	No0117	0420-014	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o
c211b_094	No0118	0506+056	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o
c211b_095	No0120	3C273	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_096	No0121	1502+106	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_097	No0122	0420-014	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o
c211b_098	No0123	0506+056	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o
c211b_099	No0125	3C273	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_100	No0126	1502+106	86ghz	o	o	x	o	o	o	.	.	.	.	.	.	.	.	.	.
c211b_101	No0127	0723-008	86ghz	.	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o

c211b_38	No0174	1502+106	43ghz	o	o	o	o	o	o	o	o	o	.
c211b_39	No0176	1502+106	43ghz	o	o	o	o	o	o	o	o	o	o
c211b_40	No0178	3C345	43ghz	o	o	o	o	o	o	o	o	o	.
c211b_41	No0180	1502+106	43ghz	o	o	o	o	o	o	o	o	o	o
c211b_42	No0183	1502+106	43ghz	o	o	o	o	o	o	o	o	o	o
c211b_43	No0186	1502+106	43ghz	o	o	o	o	o	o	o	o	o	o
c211b_44	No0188	3C345	43ghz	o	o	o	o	o	o	o	o	o	o
c211b_45	No0190	1502+106	43ghz	o	o	o	o	o	o	o	o	o	o
c211b_46	No0193	1502+106	43ghz	o	o	o	o	o	o	o	o	o	x
c211b_47	No0196	1502+106	43ghz	o	o	o	o	o	o	o	o	o	x
c211b_48	No0199	1502+106	43ghz	o	o	o	o	o	o	o	o	o	x
c211b_49	No0202	1502+106	43ghz	o	o	o	o	o	o	o	o	o	x
c211b_50	No0205	1502+106	43ghz	o	o	o	o	o	o	o	o	o	o
c211b_51	No0207	3C345	43ghz	o	o	o	o	o	o	o	o	o	o
c211b_52	No0209	1502+106	43ghz	o	o	o	o	o	o	o	o	o	o
c211b_53	No0212	1502+106	43ghz	o	o	o	o	o	o	o	o	o	o
c211b_54	No0215	1502+106	43ghz	o	o	o	o	o	o	o	o	o	o
c211b_55	No0218	1502+106	43ghz	o	o	o	o	o	o	o	o	o	o
c211b_56	No0221	1502+106	43ghz	o	o	o	o	o	o	o	o	o	o
c211b_57	No0224	1502+106	43ghz	o	o	o	o	o	o	o	o	o	o
c211b_58	No0226	3C345	43ghz	o	o	o	o	o	o	o	o	o	o
c211b_59	No0228	1502+106	43ghz	o	o	o	o	o	o	o	.	.	o
c211b_60	No0231	1502+106	43ghz	o	o	o	o	o	o	o	.	.	o
c211b_61	No0234	1502+106	43ghz	o	o	o	o	o	o	o	.	.	o
c211b_62	No0237	1502+106	43ghz	o	o	o	o	o	o	o	.	.	o
c211b_63	No0240	1502+106	43ghz	o	o	o	o	o	o	o	.	.	o
c211b_64	No0243	1502+106	43ghz	o	o	o	o	o	o	o	.	.	o
c211b_65	No0245	3C345	43ghz	o	o	o	o	o	o	o	o	o	o
c211b_66	No0247	3C454.3	43ghz	o	o	o	o	o	o	o	o	o	o