

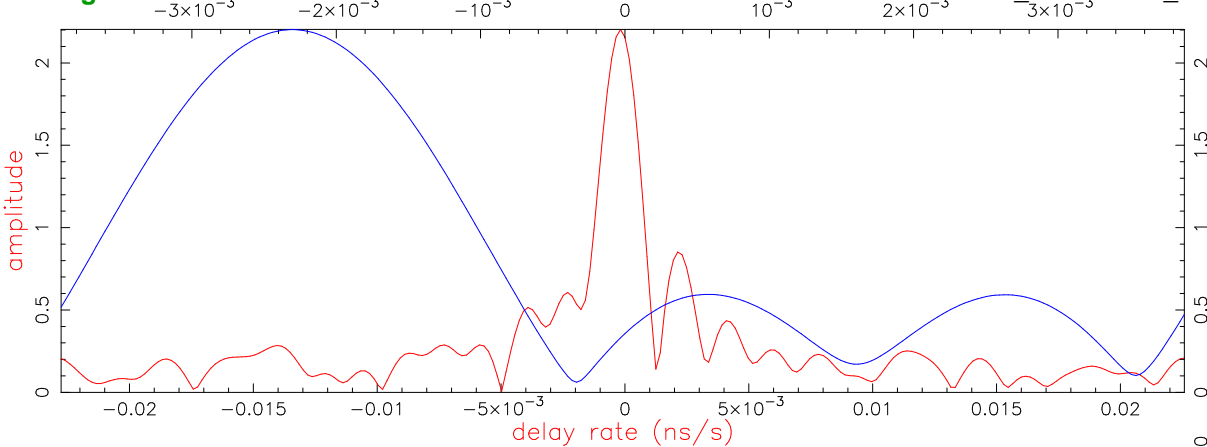
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.2119Z5, No0183, kc

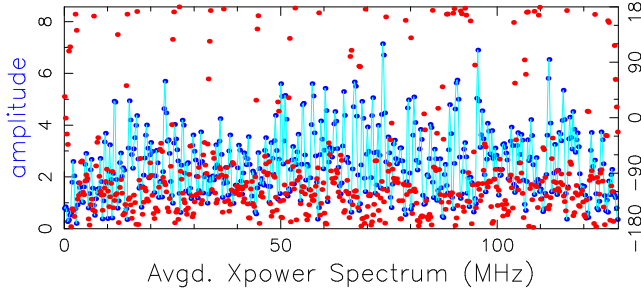
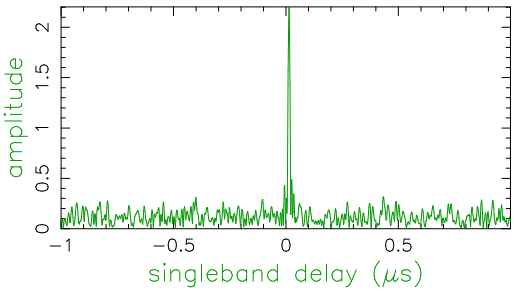
VLBA_KP - VLBA_SC, fgroup Q, pol LL

multiband delay (μ s)



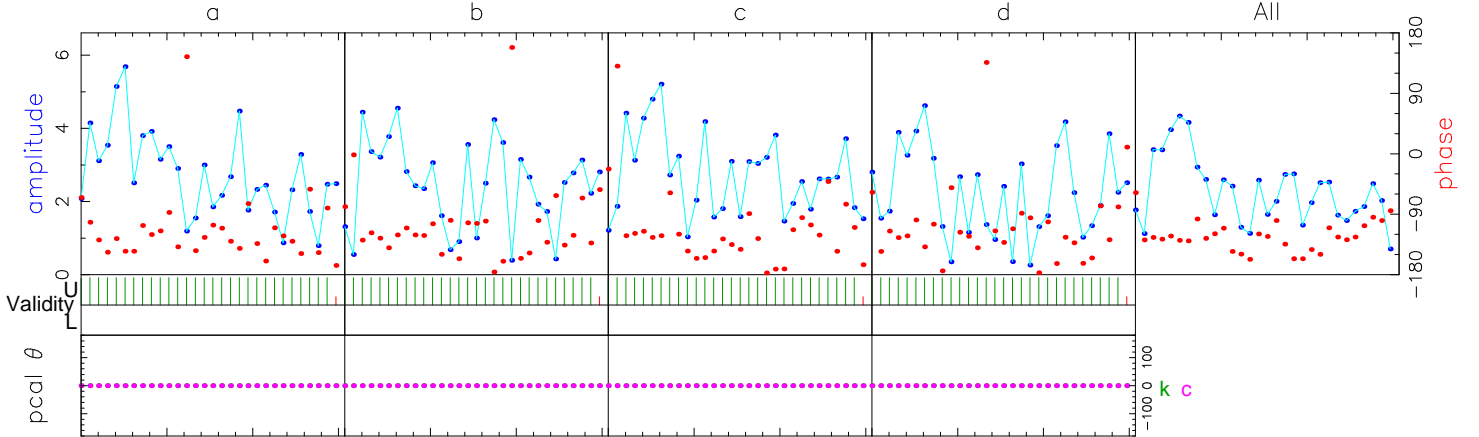
Fringe quality 9

SNR 23.3
 Int time 14.984
 Amp 2.204
 Phase -123.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.013497
 MBD -0.002316
 Fringe rate (Hz)
 -0.007779
 Ion TEC 0.000
 Ref freq (MHz)
 42912.0000
 AP (sec) 0.512



Exp. c221c
 Exper # 16383
 Yr:day 2022:093
 Start 140530.00
 Stop 140545.36
 FRT 140700.00
 Corr/FF/build
 2022:346:223026
 2022:347:140328
 2021:252:122852
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 30 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-123.6	-124.6	-123.9	-121.8	Phase	-123.5
2.5	2.2	2.3	1.9	Ampl.	2.2
520.0	519.9	520.1	519.4	Sbd box	519.9
U/L 30/0	30/0	30/0	30/0	APs used	
k 1000	1000	1000	1000	PC freqs	
c 1000	1000	1000	1000	PC freqs	
k:c 0:0	0:0	0:0	0:0	PC phase	
k:c 0:0	0:0	0:0	0:0	Manl PC	
k 1000	1000	1000	1000	PC amp	
c 1000	1000	1000	1000		
k Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

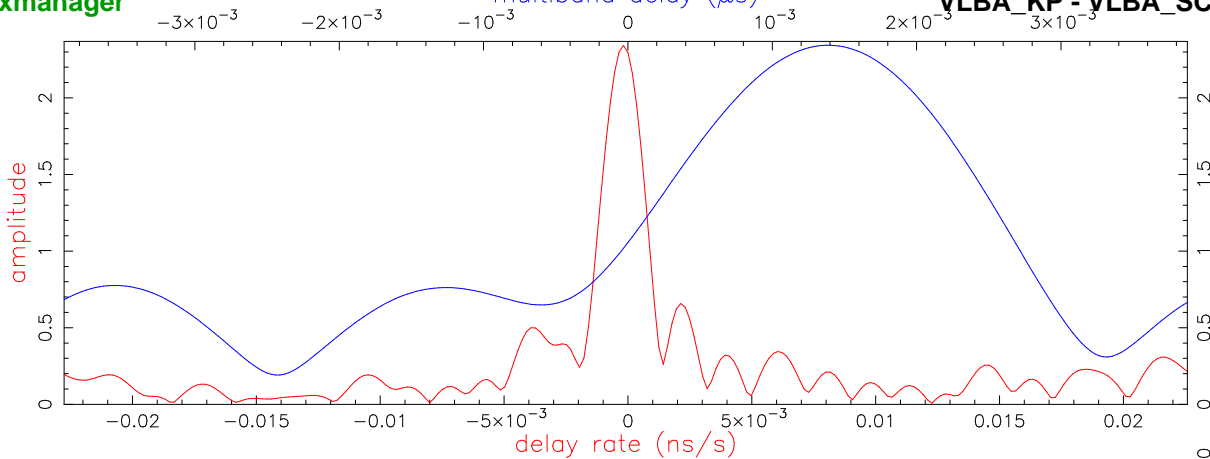
Group delay (usec)(sbd)	1.29783860509E+04	Apriori delay (usec)	1.29783727421E+04	Resid mbdelay (usec)	-2.31619E-03	+/- 4.8E-05
Sband delay (usec)	1.29783862395E+04	Apriori clock (usec)	-2.0087524E+01	Resid sbdelay (usec)	1.34974E-02	+/- 1.8E-04
Phase delay (usec)	1.29783727341E+04	Apriori clockrate (us/s)	9.8381000E-08	Resid phdelay (usec)	-7.99662E-06	+/- 3.2E-07
Delay rate (us/s)	4.69669841290E-01	Apriori rate (us/s)	4.69670022575E-01	Resid rate (us/s)	-1.81285E-07	+/- 3.6E-08
Total phase (deg)	-83.8	Apriori accel (us/s/s)	-5.29530986133E-05	Resid phase (deg)	-123.5	+/- 4.9

ph/seg (deg)	21.6	Theor.	13.5	Amplitude	2.204 +/- 0.094	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	40.2		23.5	Search (64X16)	2.138	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
ph/frq (deg)	1.5		4.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	9.4		8.6	Inc. seg. avg.	2.271	Sample rate(MSamp/s): 256		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	2.194	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

k: az 295.1 el 56.7 pa 90.6 c: az 307.9 el 13.2 pa 77.6 u,v (fr/asec) -1780.587 -944.864 simultaneous interpolator

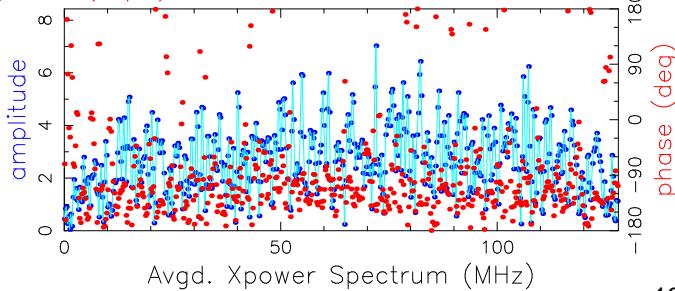
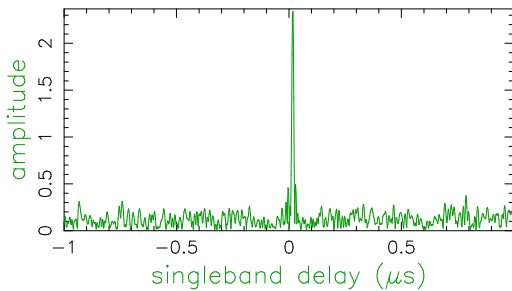
Control file: cf_1234_gmva Input file: /Exps/c221c/FRINGE/7mm/1002/No0183x/kc..2119Z5 Output file: /Exps/c221c/FRINGE/7mm/1002/No0183x/kc.Q.1.2119Z5

multiband delay (μ s)



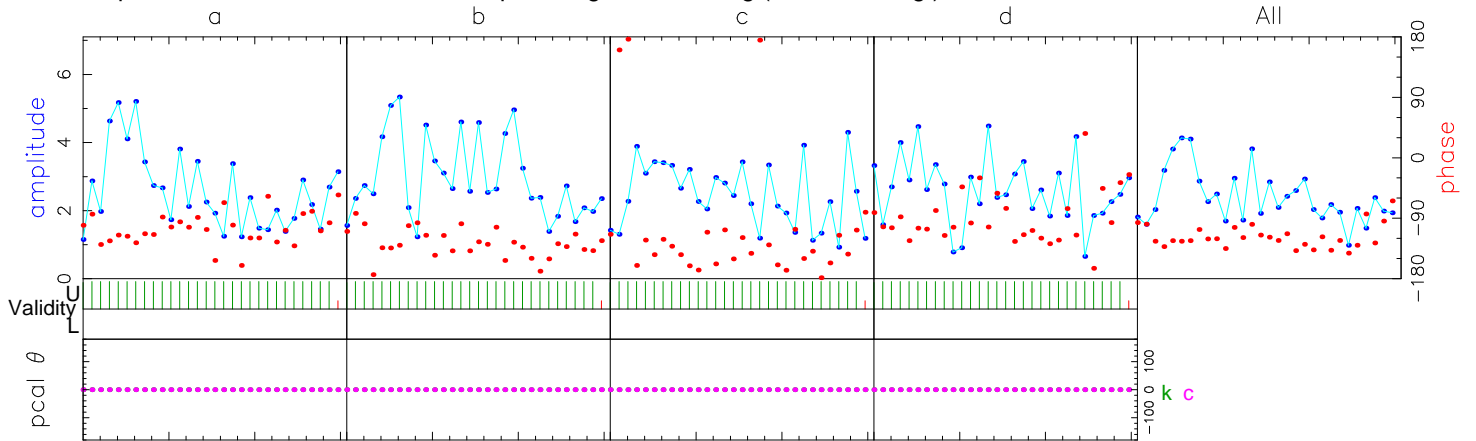
Fringe quality 7

SNR 25.1
Int time 14.984
Amp 2.369
Phase -119.0
PFD 0.0e+00
Delays (us)
SBD 0.016861
MBD 0.001353
Fringe rate (Hz)
-0.010141
Ion TEC 0.000
Ref freq (MHz)
42912.0000
AP (sec) 0.512



Exp. c221c
Exper # 16383
Yr:day 2022:093
Start 140530.00
Stop 140545.36
FRT 140700.00
Corr/FF/build
2022:346:223026
2022:347:140328
2021:252:122852
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 30 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-107.5	-127.8	-142.2	-96.8	Phase	-119.0
2.4	2.8	2.3	2.3	Ampl.	2.4
521.6	521.7	521.7	522.1	Sbd box	521.6
U/L 30/0	30/0	30/0	30/0	APs used	
k 1000	1000	1000	1000	PC freqs	
c 1000	1000	1000	1000	PC freqs	
k:c 0:0	0:0	0:0	0:0	PC phase	
k:c 0:0	0:0	0:0	0:0	ManI PC	
k 1000	1000	1000	1000	PC amp	
c 1000	1000	1000	1000		
k Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	1.29783897202E+04	Apriori delay (usec)	1.29783727421E+04	Resid mbdelay (usec)	1.35306E-03	+/-	4.4E-05
Sband delay (usec)	1.29783896034E+04	Apriori clock (usec)	-2.0087524E+01	Resid sbdelay (usec)	1.68613E-02	+/-	1.7E-04
Phase delay (usec)	1.29783727344E+04	Apriori clockrate (us/s)	9.8381000E-08	Resid phdelay (usec)	-7.70151E-06	+/-	3.0E-07
Delay rate (us/s)	4.69669786262E-01	Apriori rate (us/s)	4.69670022575E-01	Resid rate (us/s)	-2.36312E-07	+/-	3.3E-08
Total phase (deg)	-79.2	Apriori accel (us/s/s)	-5.29530986133E-05	Resid phase (deg)	-119.0	+/-	4.6

ph/seg (deg)	15.3	Theor.	12.5	Amplitude	2.369 +/- 0.094	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	33.1	Search (64X16)	2.257	Search	2.257	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	24.9	Inc. seg. avg.	2.358	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	9.8	Inc. frq. avg.	2.444	Inc. seg. avg.	2.358	Sample rate(MISamp/s): 256	nlags: 512	t_cohere infinite	dr window (ns/s)	-0.023 0.023
				Inc. frq. avg.	2.444	Data rate(Mb/s): 2048	ion window (TEC)	0.00 0.00		

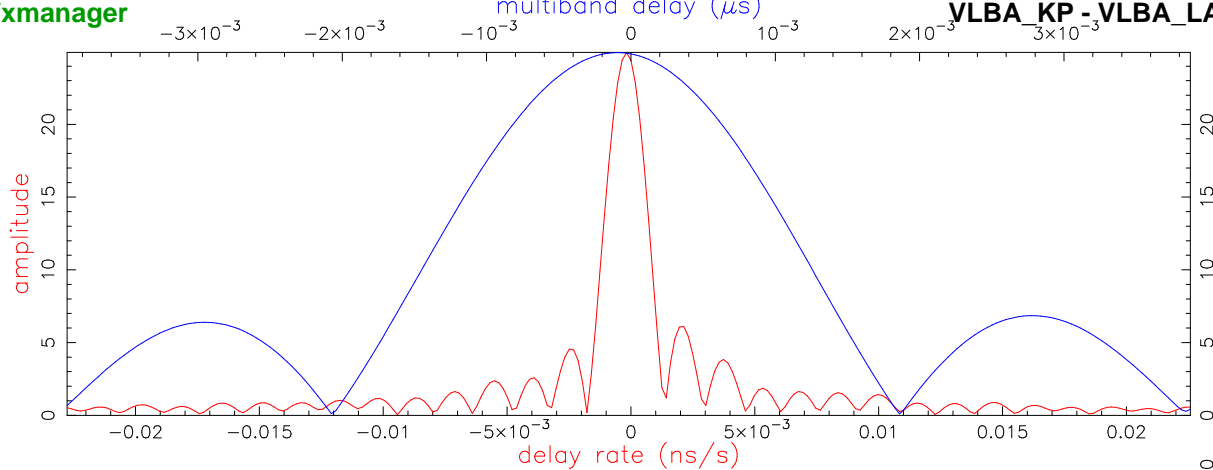
k: az 295.1 el 56.7 pa 90.6 c: az 307.9 el 13.2 pa 77.6 u,v (fr/asec) -1780.587 -944.864 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c221c/FRINGE/7mm/1002/No0183x/kc..2119Z5 Output file: /Exps/c221c/FRINGE/7mm/1002/No0183x/kc.Q.2.2119Z5

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fxmanager

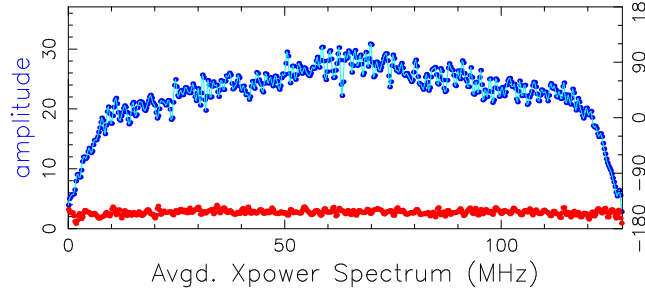
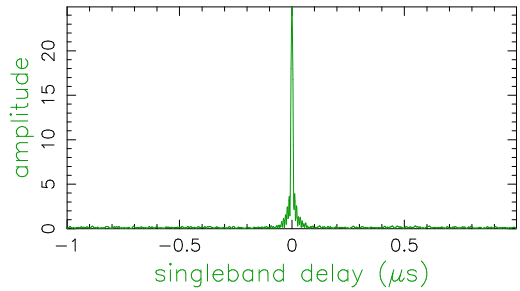
3C345.2I19Z5, No0183, kl

VLBA_KP - VLBA_LA, fgroup Q, pol LL



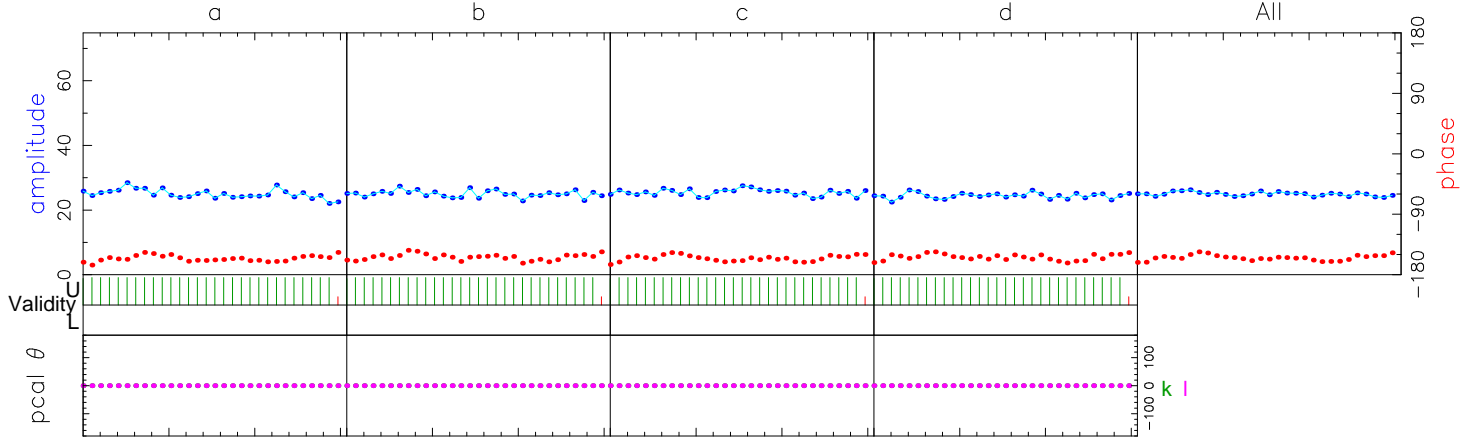
Fringe quality 9

SNR 264.0
 Int time 14.984
 Amp 24.945
 Phase -154.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.000169
 MBD -0.000102
 Fringe rate (Hz)
 -0.008937
 Ion TEC 0.000
 Ref freq (MHz)
 42912.0000
 AP (sec) 0.512



Exp. c221c
 Exper # 16383
 Yr:day 2022:093
 Start 140530.00
 Stop 140545.36
 FRT 140700.00
 Corr/FF/build
 2022:346:223026
 2022:347:140332
 2021:252:122852
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 30 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-155.9	-153.8	-155.5	-154.1	Phase	-154.8
25.0	25.0	25.4	24.4	Ampl.	24.9
513.0	512.9	512.9	512.8	Sbd box	512.9
U/L 30/0	30/0	30/0	30/0	APs used	
k 1000	1000	1000	1000	PC freqs	
l 1000	1000	1000	1000	PC freqs	
k:l 0:0	0:0	0:0	0:0	PC phase	
k:l 0:0	0:0	0:0	0:0	ManI PC	
k 1000	1000	1000	1000	PC amp	
l 1000	1000	1000	1000		
k Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
l Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	5.75617041605E+02	Apriori delay (usec)	5.75617144012E+02	Resid mbdelay (usec)	-1.02406E-04	+/-	4.2E-06
Sband delay (usec)	5.75616975262E+02	Apriori clock (usec)	9.3825798E+00	Resid sbdelay (usec)	-1.68750E-04	+/-	1.6E-05
Phase delay (usec)	5.75617133989E+02	Apriori clockrate (us/s)	3.4394999E-07	Resid phdelay (usec)	-1.00223E-05	+/-	2.8E-08
Delay rate (us/s)	3.65106976032E-02	Apriori rate (us/s)	3.65109058782E-02	Resid rate (us/s)	-2.08275E-07	+/-	3.2E-09
Total phase (deg)	163.3	Apriori accel (us/s/s)	-7.00215899709E-06	Resid phase (deg)	-154.8	+/-	0.4

	RMS	Theor.	Amplitude	24.945 +/- 0.094	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	3.9	1.2	Search (64X16)	24.138	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
amp/seg (%)	2.5	2.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
ph/frq (deg)	1.3	0.4	Inc. seg. avg.	24.984	Sample rate(MISamp/s): 256		dr window (ns/s)	-0.023 0.023	
amp/frq (%)	1.5	0.8	Inc. frq. avg.	24.934	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 295.1 el 56.7 pa 90.6 l: az 290.4 el 54.0 pa 81.4 u,v (fr/asec) -141.213 -414.092 simultaneous interpolator

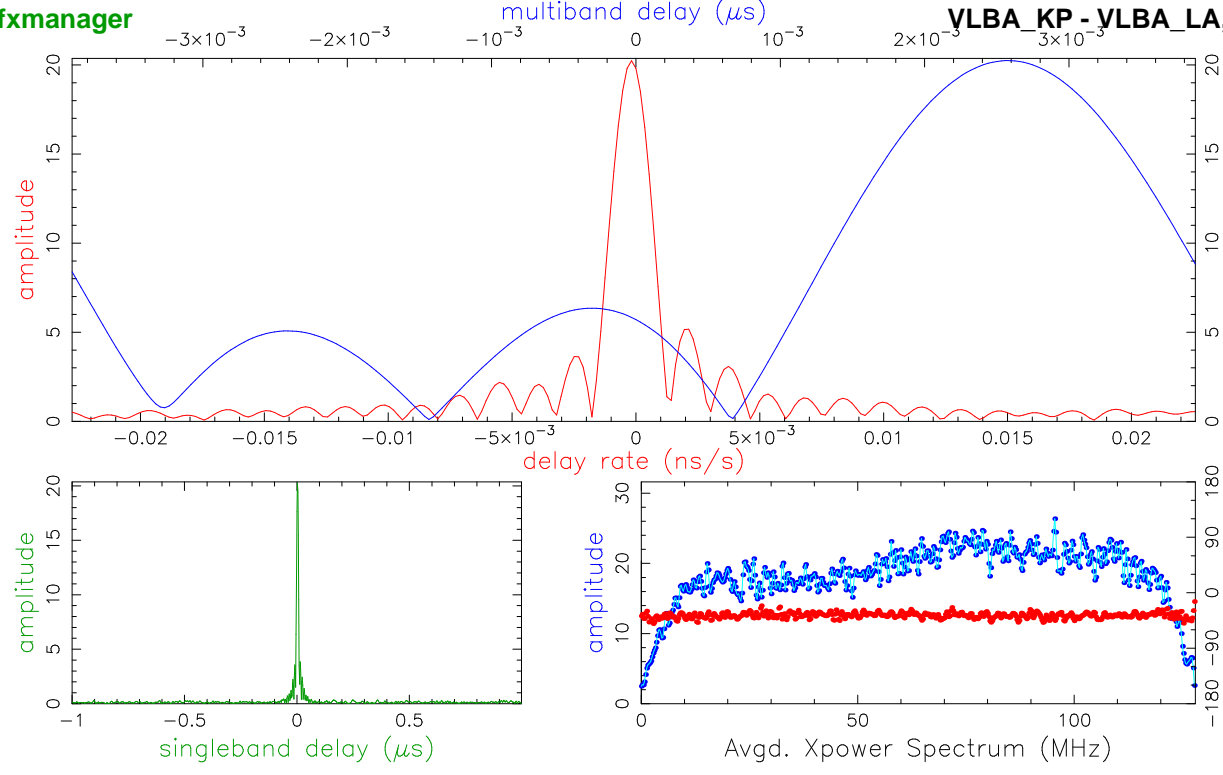
Control file: cf_1234_gmva Input file: /Exps/c221c/FRINGE/7mm/1002/No0183x/kl..2119Z5 Output file: /Exps/c221c/FRINGE/7mm/1002/No0183x/kl.Q.3.2119Z5

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.2I19Z5, No0183, kl

VLBA_KP - VLBA_LA, fgroup Q, pol RR

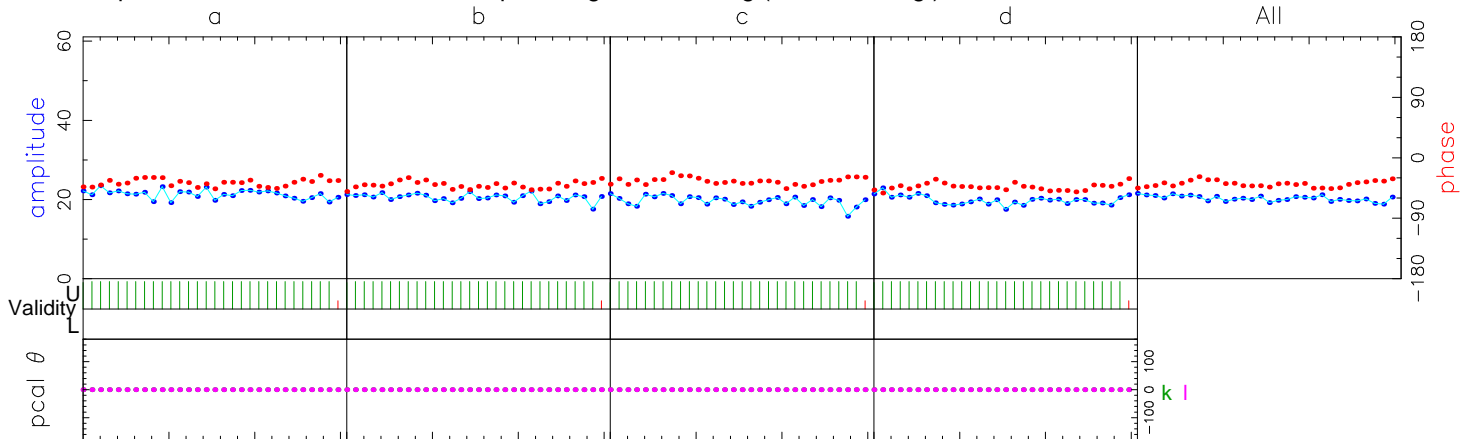


Fringe quality 9

SNR 215.6
 Int time 14.984
 Amp 20.367
 Phase -39.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.002484
 MBD 0.002606
 Fringe rate (Hz)
 -0.008965
 Ion TEC 0.000
 Ref freq (MHz)
 42912.0000
 AP (sec) 0.512

Exp. c221c
 Exper # 16383
 Yr:day 2022:093
 Start 140530.00
 Stop 140545.36
 FRT 140700.00
 Corr/FF/build
 2022:346:223026
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 2021:252:122852
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Amp. and Phase vs. time for each freq., 30 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	30/0	30/0	30/0	30/0	Sbd box	514.3
k	1000	1000	1000	1000	APs used	
l	1000	1000	1000	1000	PC freqs	
k:l	0:0	0:0	0:0	0:0	PC phase	
k:l	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
l	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	

	42912.00	43040.00	43168.00	43296.00	Resid mbdelay (usec)	2.60556E-03	+/- 5.2E-06
Group delay (usec)(sbd)	5.75619749574E+02	5.75619627887E+02	5.75617144012E+02	5.75617144012E+02	Resid sbdelay (usec)	2.48388E-03	+/- 2.0E-05
Sband delay (usec)	5.75619627887E+02	5.75617141482E+02	3.65109058782E-02	3.65109058782E-02	Resid phdelay (usec)	-2.52915E-06	+/- 3.4E-08
Phase delay (usec)	5.75617141482E+02	3.65106969660E-02	-7.00215899709E-06	-7.00215899709E-06	Resid rate (us/s)	-2.08912E-07	+/- 3.9E-09
Delay rate (us/s)	3.65106969660E-02	279.1			Resid phase (deg)	-39.1	+/- 0.5
Total phase (deg)		279.1					

	RMS	Theor.	Amplitude	20.367 +/- 0.094	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	4.4	1.5	Search (64X16)	19.450	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	3.5	2.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	4.8	0.5	Inc. seg. avg.	20.293	Sample rate(MISamp/s): 256	dr window (ns/s) -0.023 0.023
amp/frq (%)	3.3	0.9	Inc. frq. avg.	20.273	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

k: az 295.1 el 56.7 pa 90.6 l: az 290.4 el 54.0 pa 81.4 u,v (fr/asec) -141.213 -414.092 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c221c/FRINGE/7mm/1002/No0183x/kl..2119Z5 Output file: /Exps/c221c/FRINGE/7mm/1002/No0183x/kl.Q.4.2119Z5