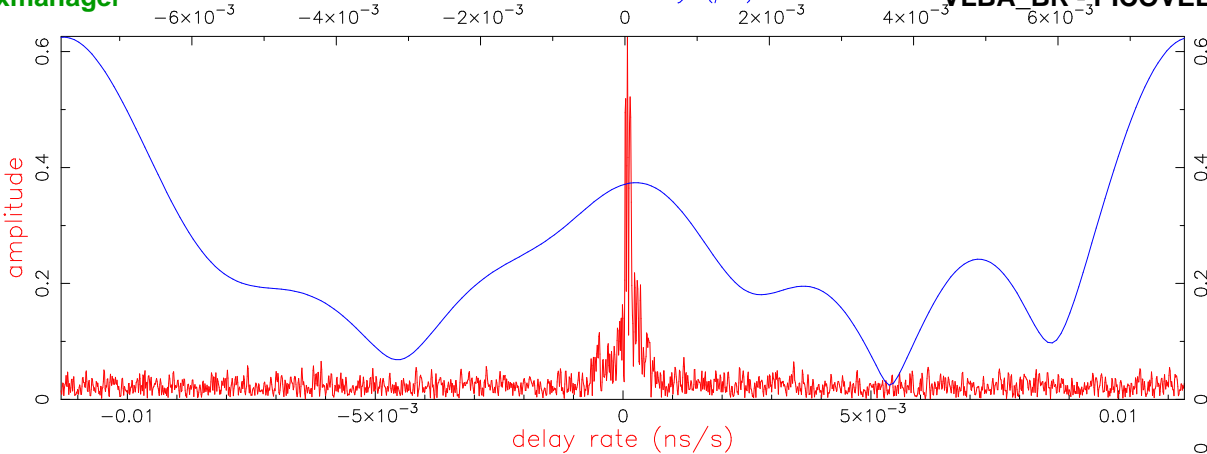
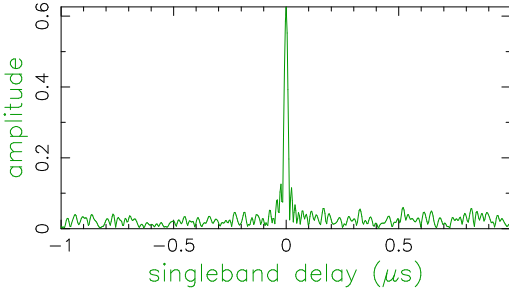


multiband delay (μ s)

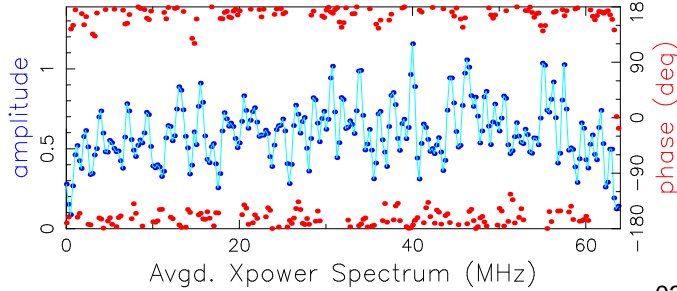


Fringe quality 3

SNR 35.1
 Int time 419.388
 Amp 0.626
 Phase -94.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.000614
 MBD -0.007796
 Fringe rate (Hz)
 0.007183
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

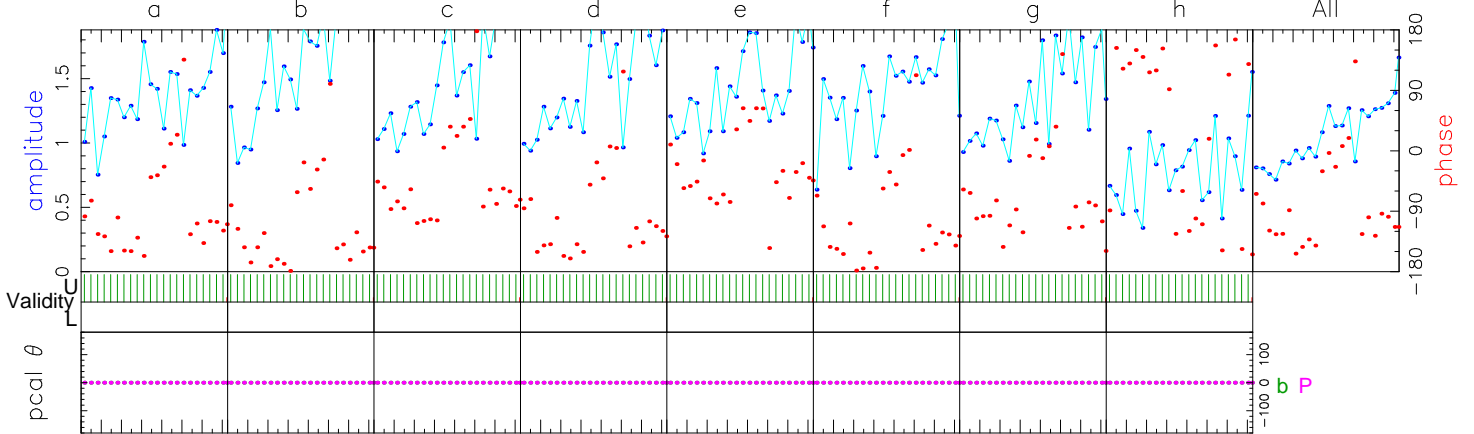


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.00
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130859
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



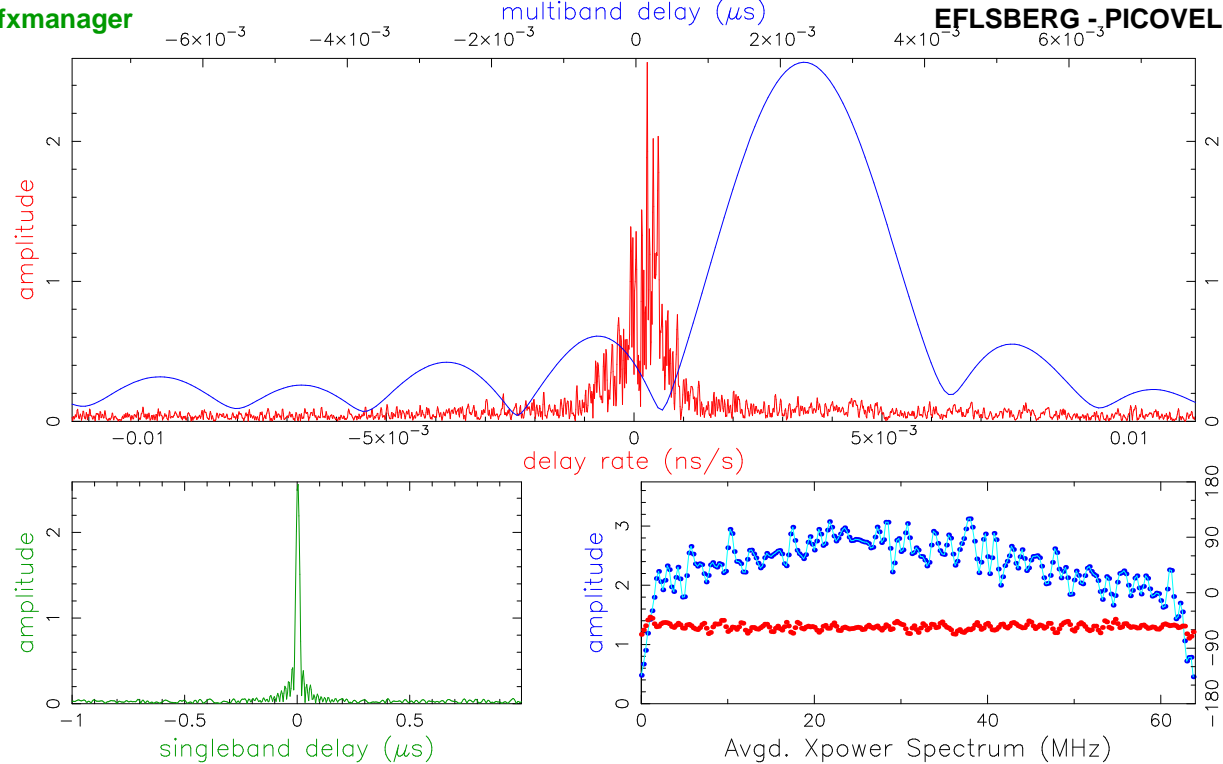
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-106.4	-129.0	-58.7	-105.5	-25.0	-123.4	-79.6	164.3	Phase	-94.8
	0.8	0.9	1.0	0.9	0.9	0.8	0.8	0.4	Ampl.	0.8
	256.2	256.4	256.6	256.1	256.3	256.3	256.0	253.9	Sbd box	256.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 1.38279155810E+04 Apriori delay (usec) 1.38279233774E+04 Resid mbdelay (usec) -7.79639E-03 +/- 3.1E-05
 Sband delay (usec) 1.38279227639E+04 Apriori clock (usec) -1.5037956E+00 Resid sbdelay (usec) -6.13500E-04 +/- 2.5E-04
 Phase delay (usec) 1.38279233743E+04 Apriori clockrate (us/s) 3.9999999E-07 Resid phdelay (usec) -3.05573E-06 +/- 1.1E-07
 Delay rate (us/s) 1.16421040804E+00 Apriori rate (us/s) 1.16421032465E+00 Resid rate (us/s) 8.33894E-08 +/- 4.3E-10
 Total phase (deg) 167.4 Apriori accel (us/s/s) -6.29206495230E-05 Resid phase (deg) -94.8 +/- 3.3

RMS Theor. Amplitude 0.626 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 57.5 7.8 Search (2048X32) 0.574 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 75.4 13.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 56.0 4.6 Inc. seg. avg. 1.037 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 41.6 8.1 Inc. frq. avg. 0.819 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

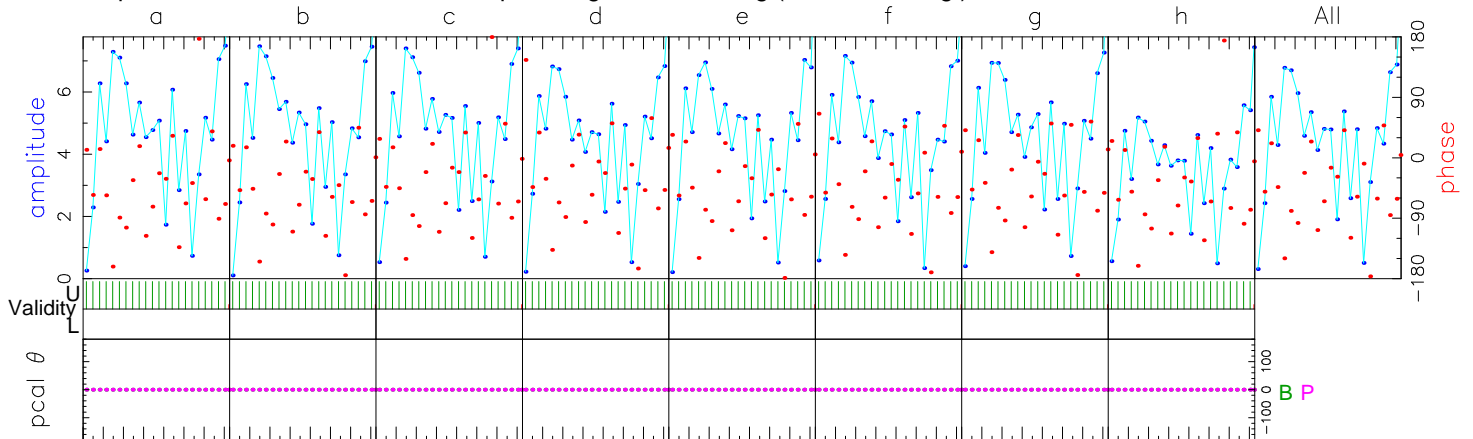
b: az 108.1 el 74.7 pa -57.7 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -9034.309 -3347.127 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/bP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/bP.W.17.1ILPVT



Fringe quality 5
SNR 145.1
Int time 419.394
Amp 2.592
Phase -52.4
PFD 0.0e+00
Delays (us)
SBD 0.002521
MBD 0.002287
Fringe rate (Hz) 0.023282
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 084500.00
Stop 085159.84
FRT 084830.00
Corr/FF/build
2021:023:032807
2021:023:130859
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-60.6	-56.1	-55.7	-41.4	-50.7	-49.2	-44.8	-61.7	Phase	-52.4
	2.7	2.8	2.7	2.6	2.7	2.6	2.6	2.0	Ampl.	2.6
	257.6	257.4	257.8	257.6	257.7	257.7	257.7	256.6	Sbd box	257.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 9.74644159085E+02 Apriori delay (usec) 9.74641872479E+02 Resid mbdelay (usec) 2.28661E-03 +/- 7.5E-06
 Sband delay (usec) 9.74644393479E+02 Apriori clock (usec) 1.0311262E+01 Resid sbdelay (usec) 2.52100E-03 +/- 5.9E-05
 Phase delay (usec) 9.74641870791E+02 Apriori clockrate (us/s) 2.0000000E-07 Resid phdelay (usec) -1.68816E-06 +/- 2.5E-08
 Delay rate (us/s) 2.16245992455E-01 Apriori rate (us/s) 2.16245722173E-01 Resid rate (us/s) 2.70281E-07 +/- 1.1E-10
 Total phase (deg) 270.0 Apriori accel (us/s/s) 7.53300218549E-06 Resid phase (deg) -52.4 +/- 0.8

RMS Theor. Amplitude 2.592 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 60.3 1.9 Search (2048X32) 2.392 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 102.4 3.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 7.8 1.1 Inc. seg. avg. 4.444 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 8.2 1.9 Inc. frq. avg. 2.580 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

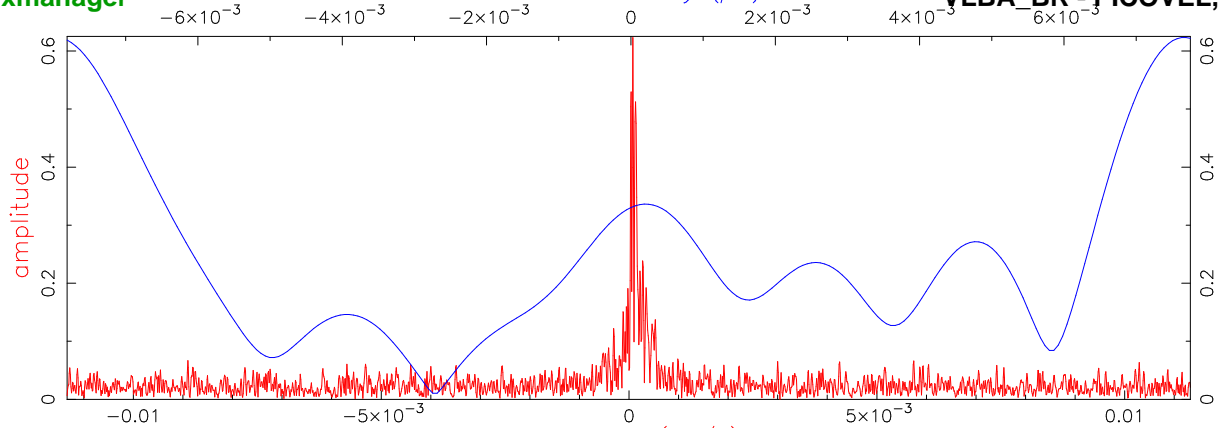
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, bP

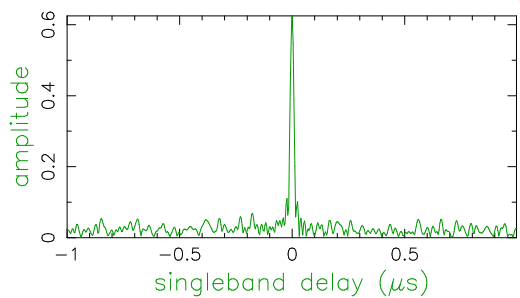
VLBA_BR - PICOVEL, fgroup W, pol RR

multiband delay (μ s)

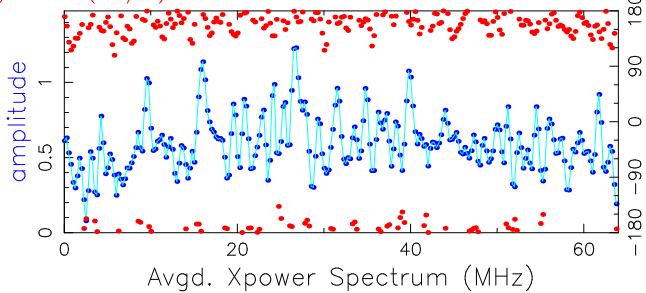


Fringe quality 4

SNR 35.0
 Int time 419.388
 Amp 0.625
 Phase -111.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.000700
 MBD -0.007975
 Fringe rate (Hz)
 0.007123
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

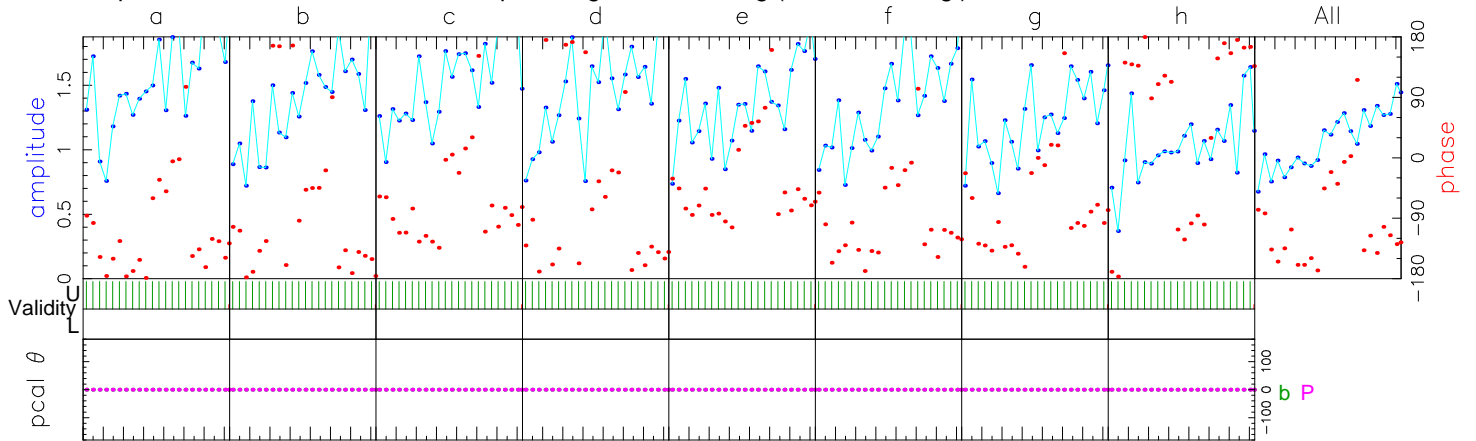


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.00
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130902
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-124.0	-139.7	-78.8	-139.9	-52.4	-101.5	-88.1	166.1	Phase	-111.0
	0.9	0.8	1.0	0.8	0.8	0.8	0.7	0.6	Ampl.	0.8
	256.1	256.6	256.7	256.4	256.4	256.3	255.6	254.9	Sbd box	256.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.38279154022E+04		Apriori delay (usec)		1.38279233774E+04		Resid mbdelay (usec)		-7.97518E-03	+/- 3.1E-05
Sband delay (usec)	1.38279226774E+04		Apriori clock (usec)		-1.5037956E+00		Resid sbdelay (usec)		-7.00000E-04	+/- 2.5E-04
Phase delay (usec)	1.38279233738E+04		Apriori clockrate (us/s)		3.9999999E-07		Resid phdelay (usec)		-3.57814E-06	+/- 1.1E-07
Delay rate (us/s)	1.16421040734E+00		Apriori rate (us/s)		1.16421032465E+00		Resid rate (us/s)		8.26922E-08	+/- 4.4E-10
Total phase (deg)	151.2		Apriori accel (us/s/s)		-6.29206495230E-05		Resid phase (deg)		-111.0	+/- 3.3

	RMS	Theor.	Amplitude	0.625 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	58.4	7.8	Search (2048X32)	0.565	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	78.9	13.7	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	47.9	4.6	Inc. seg. avg.	1.058	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	30.9	8.1	Inc. frq. avg.	0.788	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

b: az 108.1 el 74.7 pa -57.7 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -9034.309 -3347.127 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/bP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/bP.W.34.1ILPVT

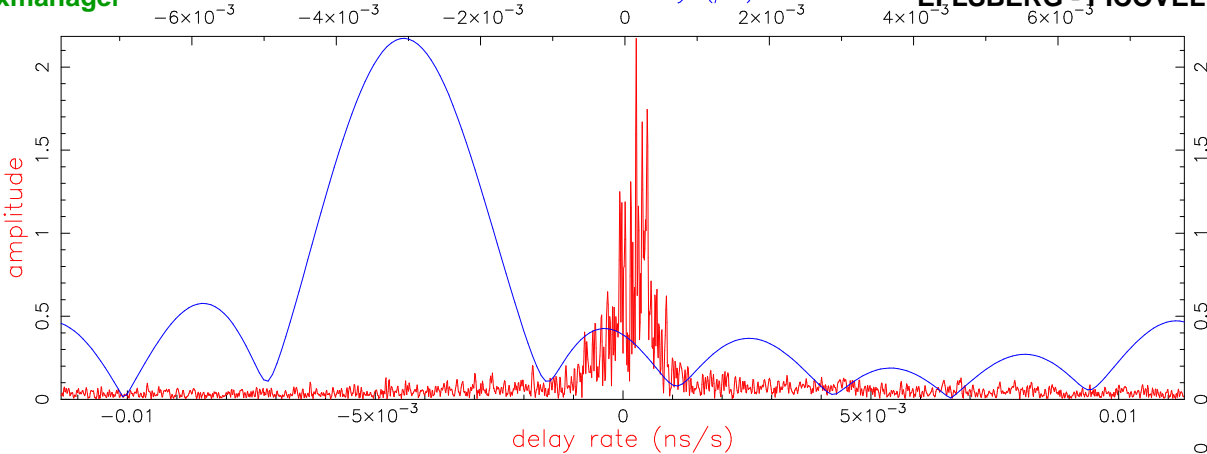
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, BP

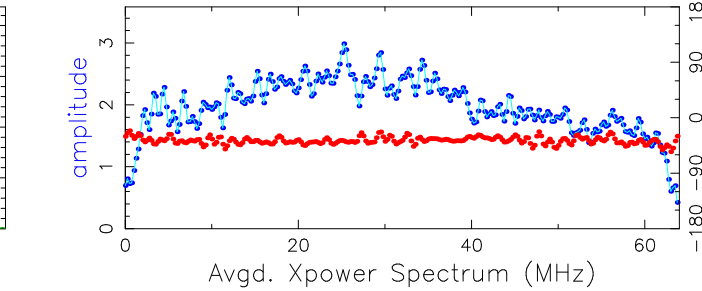
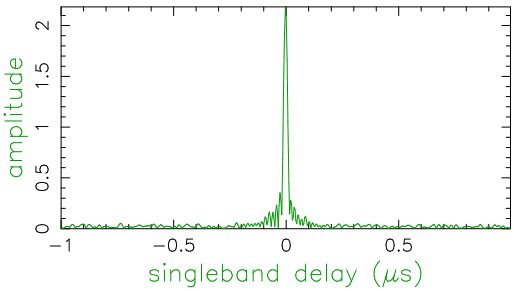
EFLSBERG - PICOVEL, fgroup W, pol RR

multiband delay (μ s)



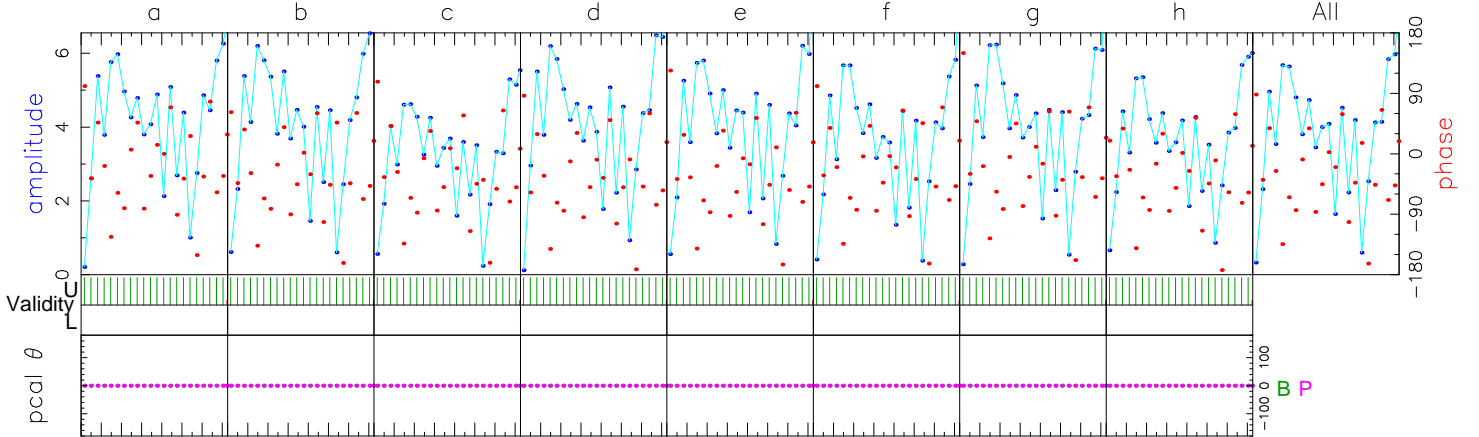
Fringe quality 5

SNR 122.3
 Int time 419.394
 Amp 2.185
 Phase -35.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.002911
 MBD -0.003037
 Fringe rate (Hz)
 0.023316
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.00
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130903
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-25.2	-36.5	-38.6	-43.4	-40.6	-34.5	-29.7	-39.2	Phase	-35.9
	2.3	2.3	1.8	2.4	2.3	2.0	2.3	2.1	Ampl.	2.2
	255.9	256.0	256.3	256.2	256.6	256.5	256.4	255.5	Sbd box	256.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) 9.74638835554E+02 Apriori delay (usec) 9.74641872479E+02 Resid mbdelay (usec) -3.03693E-03 +/- 8.9E-06
 Sband delay (usec) 9.74638960979E+02 Apriori clock (usec) 1.0311262E+01 Resid sbdelay (usec) -2.91150E-03 +/- 7.0E-05
 Phase delay (usec) 9.74641871322E+02 Apriori clockrate (us/s) 2.0000000E-07 Resid phdelay (usec) -1.15776E-06 +/- 3.0E-08
 Delay rate (us/s) 2.16245992853E-01 Apriori rate (us/s) 2.16245722173E-01 Resid rate (us/s) 2.70680E-07 +/- 1.2E-10
 Total phase (deg) 286.4 Apriori accel (us/s/s) 7.53300218549E-06 Resid phase (deg) -35.9 +/- 0.9

RMS Theor. Amplitude 2.185 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 63.3 2.2 Search (2048X32) 2.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 103.5 3.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 6.5 1.3 Inc. seg. avg. 3.802 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 8.1 2.3 Inc. frq. avg. 2.183 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

B: az 309.6 el 21.9 pa 40.6 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -1643.274 1663.459 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/BP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/BP.W.38.1ILPVT

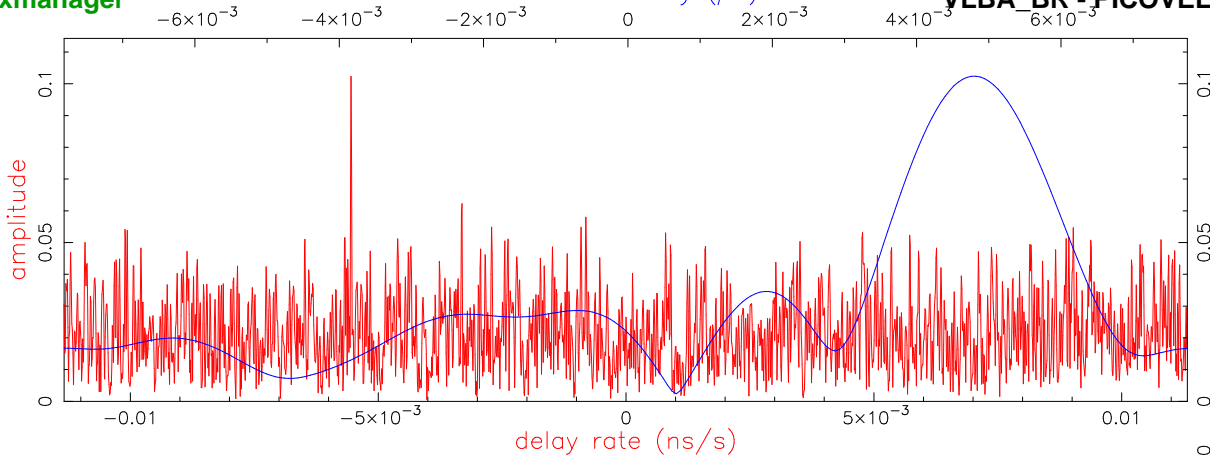
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11LPVT, No0079, bP

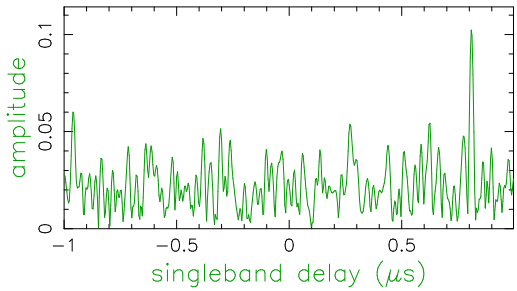
VLBA_BR - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

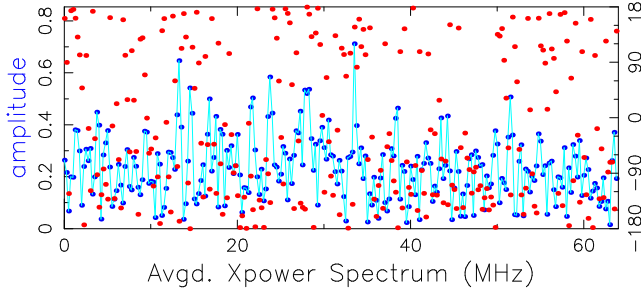


Fringe quality 0

SNR 5.8
 Int time 419.388
 Amp 0.114
 Phase 121.9
 PFD 8.3e-01
 Delays (us)
 SBD 0.809895
 MBD 0.004842
 Fringe rate (Hz)
 -0.478531
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

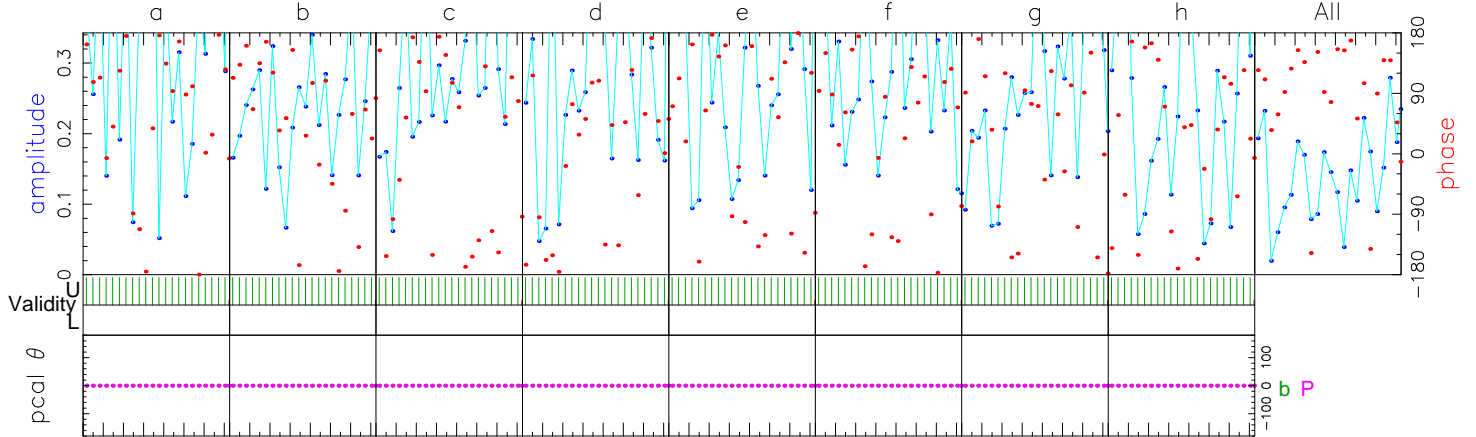


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.00
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130907
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



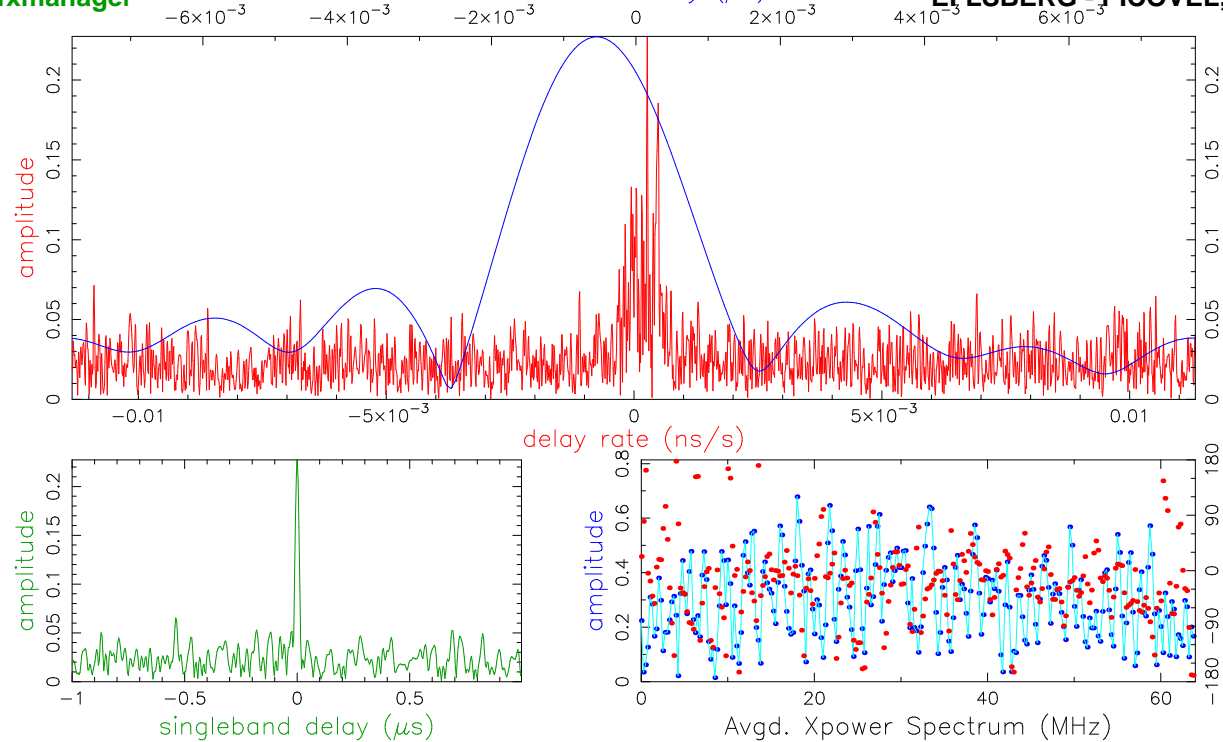
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	1.38287407190E+04	Apriori delay (usec)	1.38279233774E+04	Resid mbdelay (usec)	4.84161E-03	+/-	1.9E-04
Sband delay (usec)	1.38287332726E+04	Apriori clock (usec)	-1.5037956E+00	Resid sbdelay (usec)	8.09895E-01	+/-	1.5E-03
Phase delay (usec)	1.38279233813E+04	Apriori clockrate (us/s)	3.9999999E-07	Resid phdelay (usec)	3.93132E-06	+/-	6.4E-07
Delay rate (us/s)	1.16420476938E+00	Apriori rate (us/s)	1.16421032465E+00	Resid rate (us/s)	-5.55527E-06	+/-	2.6E-09
Total phase (deg)	24.1	Apriori accel (us/s/s)	-6.29206495230E-05	Resid phase (deg)	121.9	+/-	19.8

ph/seg (deg)	49.7	Theor.	47.5	Amplitude	0.114 +/- 0.020	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	71.8	Search (2048X32)	0.099	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	28.4	Inc. seg. avg.	0.116	Inc. frq. avg.	0.109	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	26.6	Inc. frq. avg.	0.109			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

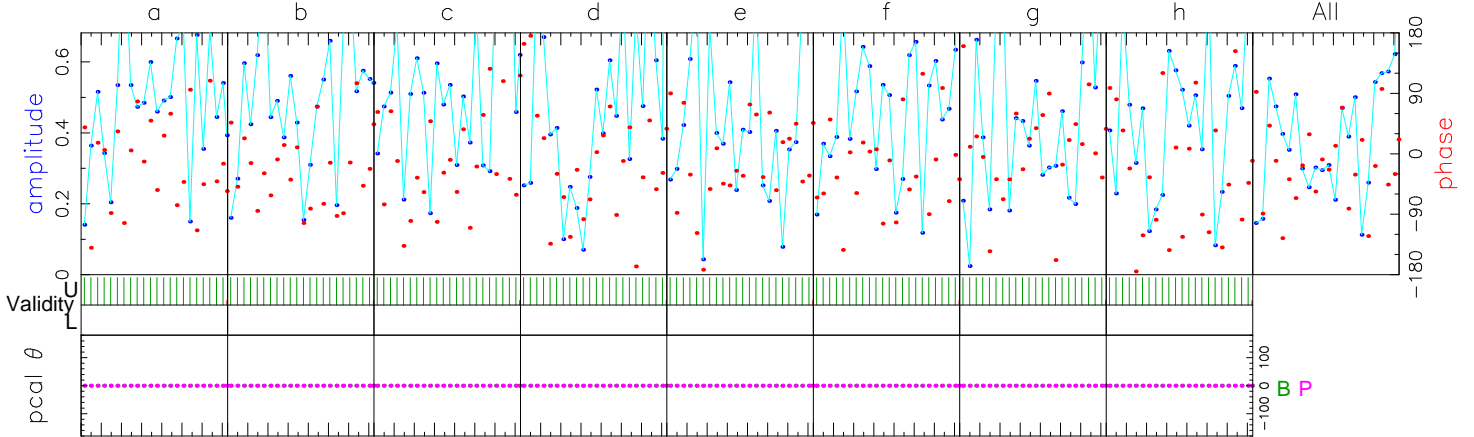
b: az 108.1 el 74.7 pa -57.7 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -9034.309 -3347.127 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/bP..11LPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/bP.W.55.11LPVT

multiband delay (μ s)



Fringe quality 9
SNR 12.7
Int time 419.394
Amp 0.227
Phase -20.2
PFD 2.2e-28
Delays (us)
SBD -0.000391
MBD -0.000549
Fringe rate (Hz) 0.023084
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 084500.00
Stop 085159.84
FRT 084830.00
Corr/FF/build
2021:023:032807
2021:023:130907
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-16.4	-27.8	-27.2	1.2	-17.6	-31.9	7.7	-75.0	Phase	-20.2
	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.1	Ampl.	0.2
	255.7	257.0	256.6	257.1	256.8	257.7	256.6	149.2	Sbd box	256.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	9.74641323804E+02		Apriori delay (usec)		9.74641872479E+02		Resid mbdelay (usec)		-5.48675E-04	+/- 8.5E-05
Sband delay (usec)	9.74641481729E+02		Apriori clock (usec)		1.0311262E+01		Resid sbdelay (usec)		-3.90750E-04	+/- 6.8E-04
Phase delay (usec)	9.74641871828E+02		Apriori clockrate (us/s)		2.0000000E-07		Resid phdelay (usec)		-6.51474E-07	+/- 2.9E-07
Delay rate (us/s)	2.16245990153E-01		Apriori rate (us/s)		2.16245722173E-01		Resid rate (us/s)		2.67980E-07	+/- 1.2E-09
Total phase (deg)	302.1		Apriori accel (us/s/s)		7.53300218549E-06		Resid phase (deg)		-20.2	+/- 9.0

	RMS	Theor.	Amplitude	0.227 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	59.4	21.6	Search (2048X32)	0.222	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	95.9	37.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	27.4	12.7	Inc. seg. avg.	0.355	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011		
amp/frq (%)	29.8	22.2	Inc. frq. avg.	0.234	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00	

B: az 309.6 el 21.9 pa 40.6 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -1643.274 1663.459 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/BP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/BP.W.60.1ILPVT

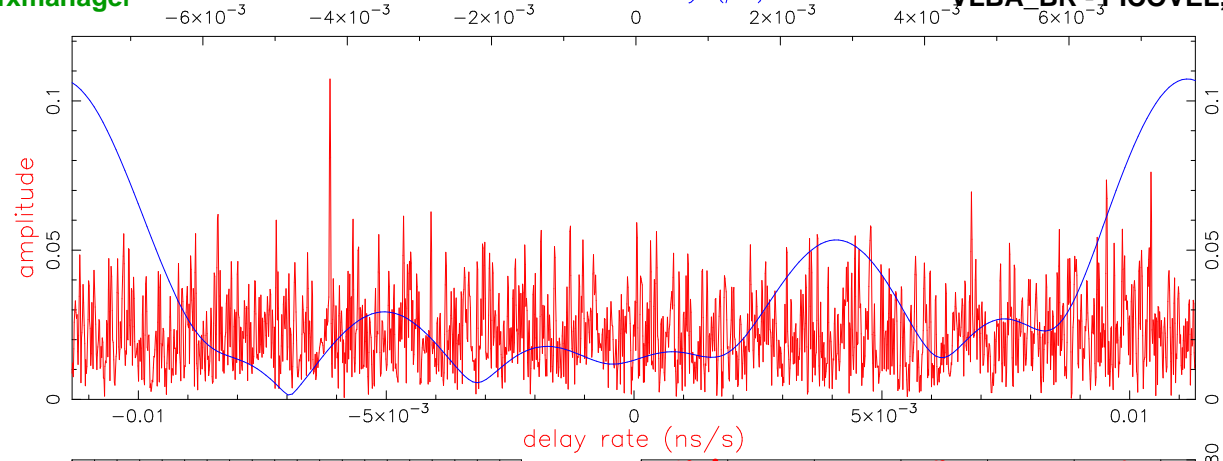
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11LPVT, No0079, bP

VLBA_BR - PICOVEL, fgroup W, pol RL

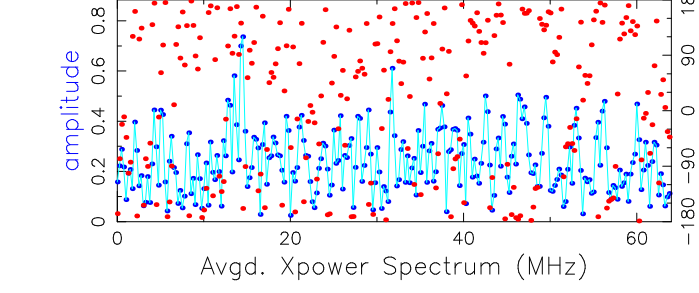
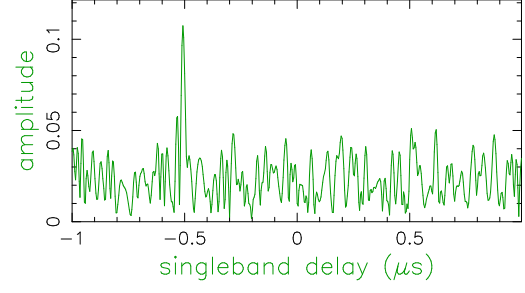
multiband delay (μ s)



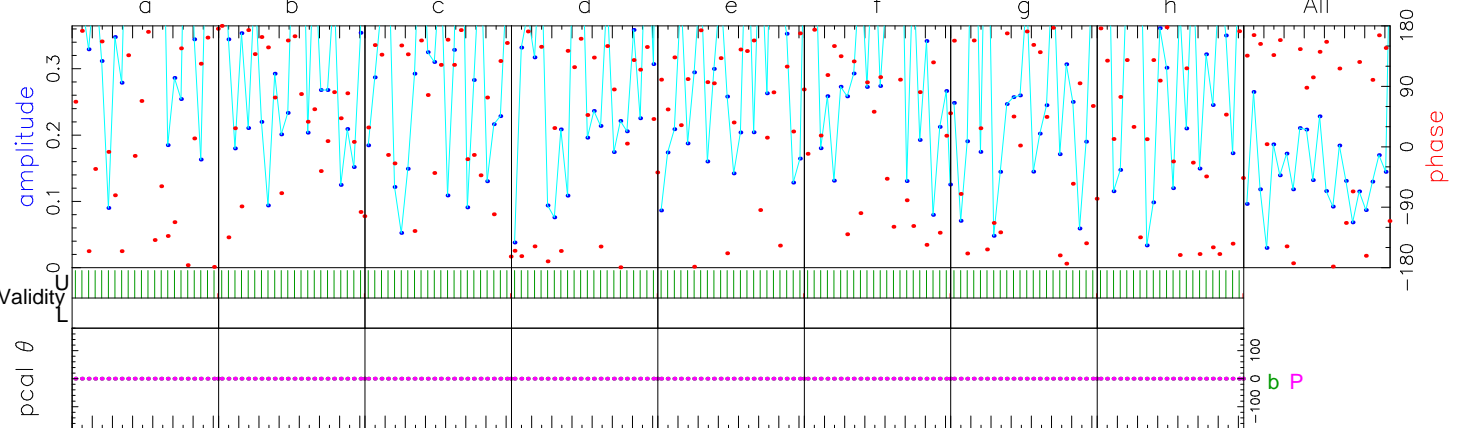
Fringe quality 0

SNR 6.0
 Int time 419.388
 Amp 0.122
 Phase 151.6
 PFD 3.7e-01
 Delays (us)
 SBD -0.507403
 MBD -0.007981
 Fringe rate (Hz)
 -0.529201
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.00
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130910
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-178.2	118.8	144.8	148.2	127.6	146.4	169.7	161.6	Phase	151.6
	0.2	0.1	0.1	0.2	0.2	0.0	0.1	0.1	Ampl.	0.1
	205.2	184.2	458.7	126.1	372.0	246.7	167.9	121.0	Sbd box	127.1
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 1.38274153960E+04 Apriori delay (usec) 1.38279233774E+04 Resid mbdelay (usec) -7.98137E-03 +/- 1.8E-04
 Sband delay (usec) 1.38274159739E+04 Apriori clock (usec) -1.5037956E+00 Resid sbdelay (usec) -5.07403E-01 +/- 1.4E-03
 Phase delay (usec) 1.38279233823E+04 Apriori clockrate (us/s) 3.9999999E-07 Resid phdelay (usec) 4.88882E-06 +/- 6.1E-07
 Delay rate (us/s) 1.16420418115E+00 Apriori rate (us/s) 1.16421032465E+00 Resid rate (us/s) -6.14349E-06 +/- 2.5E-09
 Total phase (deg) 53.8 Apriori accel (us/s/s) -6.29206495230E-05 Resid phase (deg) 151.6 +/- 19.0

RMS Theor. Amplitude 0.122 +/- 0.020 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 57.2 45.7 Search (2048X32) 0.105 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 66.3 79.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 22.6 26.9 Inc. seg. avg. 0.125 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 40.6 47.0 Inc. frq. avg. 0.116 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 108.1 el 74.7 pa -57.7 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -9034.309 -3347.127 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/bP..11LPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/bP.W.72.11LPVT

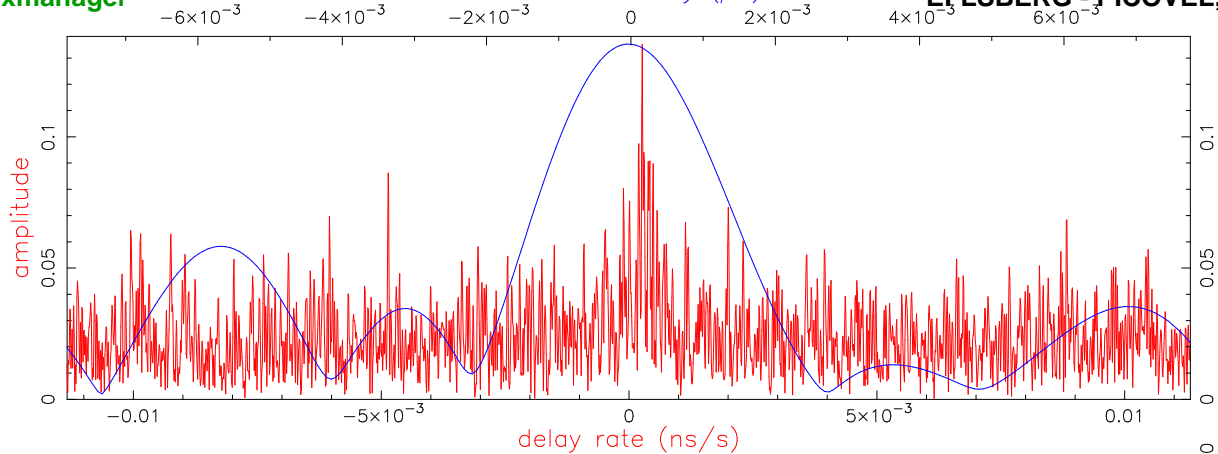
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, BP

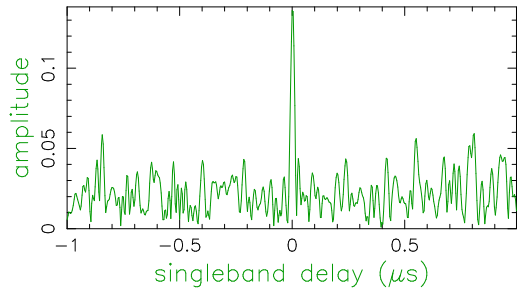
EFLSBERG - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

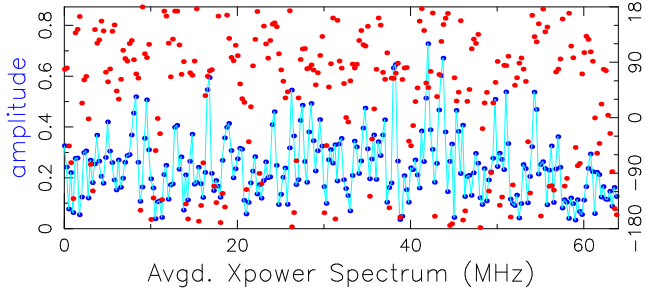


Fringe quality 9

SNR 7.7
 Int time 419.394
 Amp 0.138
 Phase 132.0
 PFD 3.3e-06
 Delays (us)
 SBD 0.001867
 MBD -0.000070
 Fringe rate (Hz)
 0.023266
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

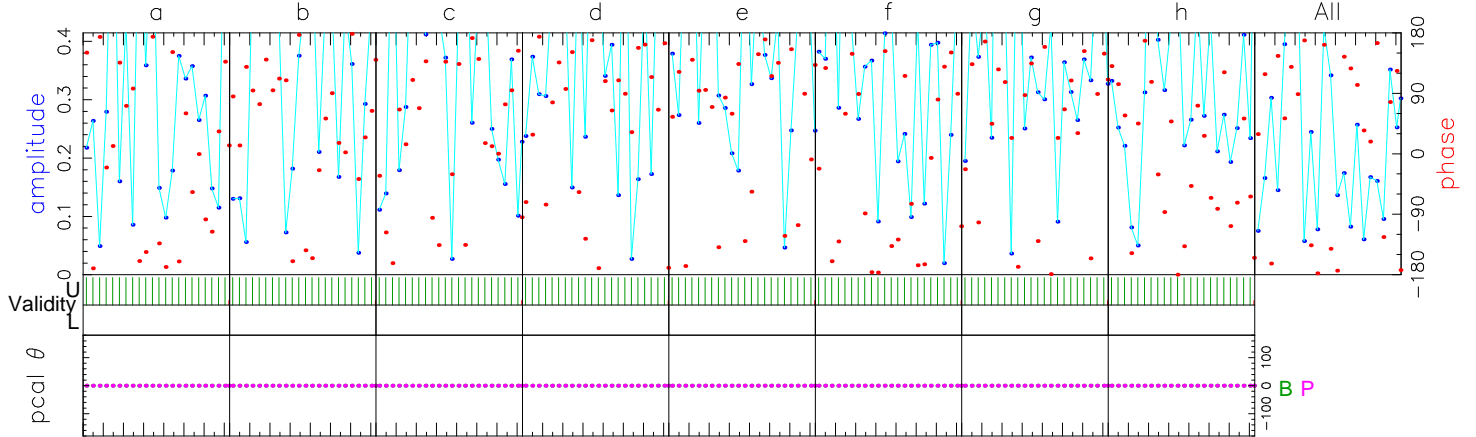


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.00
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130911
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	169.2	104.2	139.2	130.3	129.1	155.1	138.1	81.4	Phase	132.0
	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.0	Ampl.	0.1
	397.1	256.8	158.0	257.3	256.5	198.5	258.1	271.0	Sbd box	257.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	9.74641802054E+02		Apriori delay (usec)		9.74641872479E+02		Resid mbdelay (usec)		-7.04254E-05	+/- 1.4E-04
Sband delay (usec)	9.74643738979E+02		Apriori clock (usec)		1.0311262E+01		Resid sbdelay (usec)		1.86650E-03	+/- 1.1E-03
Phase delay (usec)	9.74641876735E+02		Apriori clockrate (us/s)		2.0000000E-07		Resid phdelay (usec)		4.25594E-06	+/- 4.8E-07
Delay rate (us/s)	2.16245992263E-01		Apriori rate (us/s)		2.16245722173E-01		Resid rate (us/s)		2.70090E-07	+/- 2.0E-09
Total phase (deg)	94.3		Apriori accel (us/s/s)		7.53300218549E-06		Resid phase (deg)		132.0	+/- 14.8

	RMS	Theor.	Amplitude	0.138 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	62.3	35.5	Search (2048X32)	0.130	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	126.8	62.0	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	29.9	20.9	Inc. seg. avg.	0.194	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	46.5	36.5	Inc. frq. avg.	0.134	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

B: az 309.6 el 21.9 pa 40.6 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -1643.274 1663.459 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/BP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/BP.W.76.1ILPVT

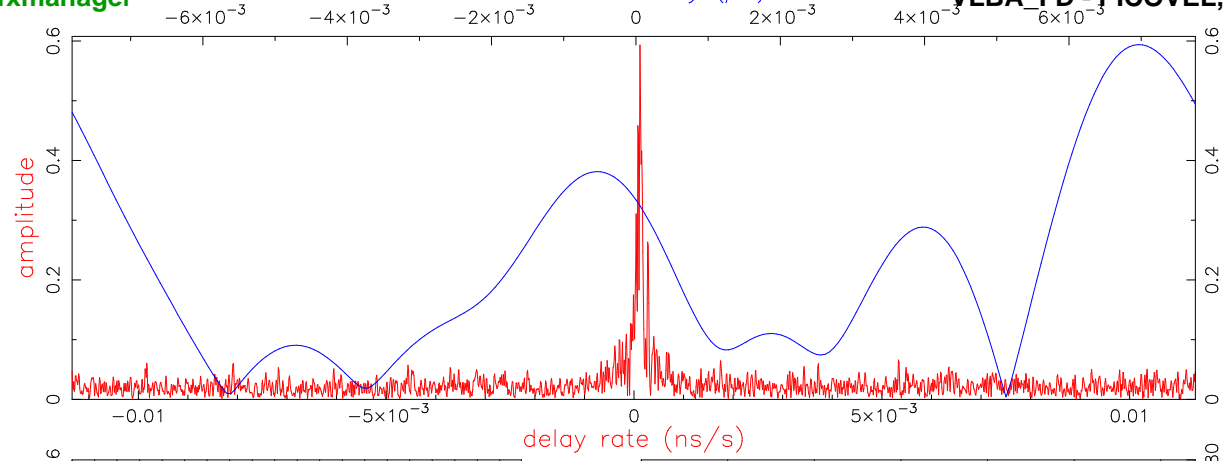
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11LPVT, No0079, fP

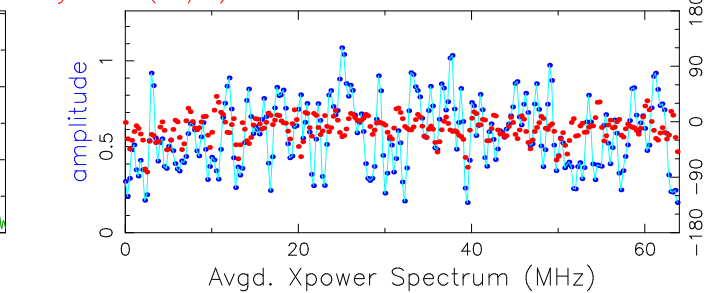
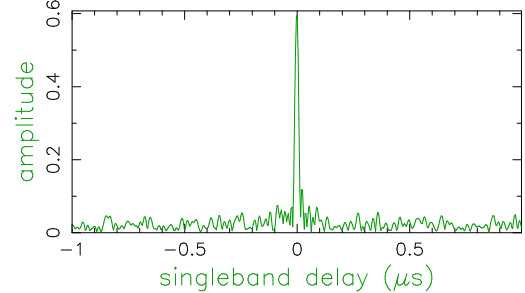
VLBA_FD - PICOVEL, fgroup W, pol RR

multiband delay (μ s)



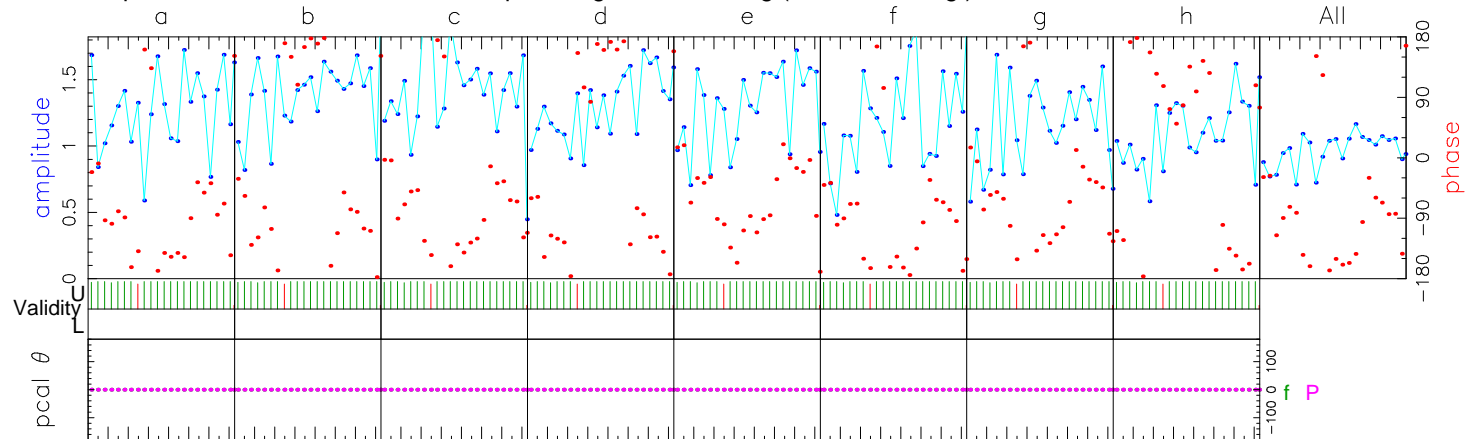
Fringe quality 4

SNR 33.9
 Int time 415.846
 Amp 0.608
 Phase -112.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.001929
 MBD 0.007024
 Fringe rate (Hz)
 0.010897
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.51
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130918
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-105.2	-136.0	-96.8	-148.6	-54.0	-119.4	-77.2	160.9	Phase	-112.3
	0.8	0.8	0.9	0.8	0.9	0.7	0.7	0.6	Ampl.	0.8
	256.2	256.2	256.2	256.2	256.0	255.9	255.9	255.2	Sbd box	256.5
U/L	815/0	815/0	815/0	815/0	815/0	815/0	815/0	815/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.41254798632E+04		Apriori delay (usec)		1.41254884644E+04		Resid mbdelay (usec)		7.02389E-03	+/- 3.2E-05
Sband delay (usec)	1.41254865356E+04		Apriori clock (usec)		8.0740881E+00		Resid sbdelay (usec)		-1.92875E-03	+/- 2.5E-04
Phase delay (usec)	1.41254884607E+04		Apriori clockrate (us/s)		7.9999999E-07		Resid phdelay (usec)		-3.62106E-06	+/- 1.1E-07
Delay rate (us/s)	9.65865371898E-01		Apriori rate (us/s)		9.65865245397E-01		Resid rate (us/s)		1.26502E-07	+/- 4.5E-10
Total phase (deg)	2.9		Apriori accel (us/s/s)		-8.20503117113E-05		Resid phase (deg)		-112.3	+/- 3.4

ph/seg (deg) 56.5 8.1 Search (2048X32) 0.560 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 62.4 14.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 49.0 4.8 Inc. seg. avg. 0.957 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 29.6 8.3 Inc. frq. avg. 0.760 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 14.7 el 78.6 pa -161.7 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -7549.334 -6254.153 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/fP..11LPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/fP.W.103.11LPVT

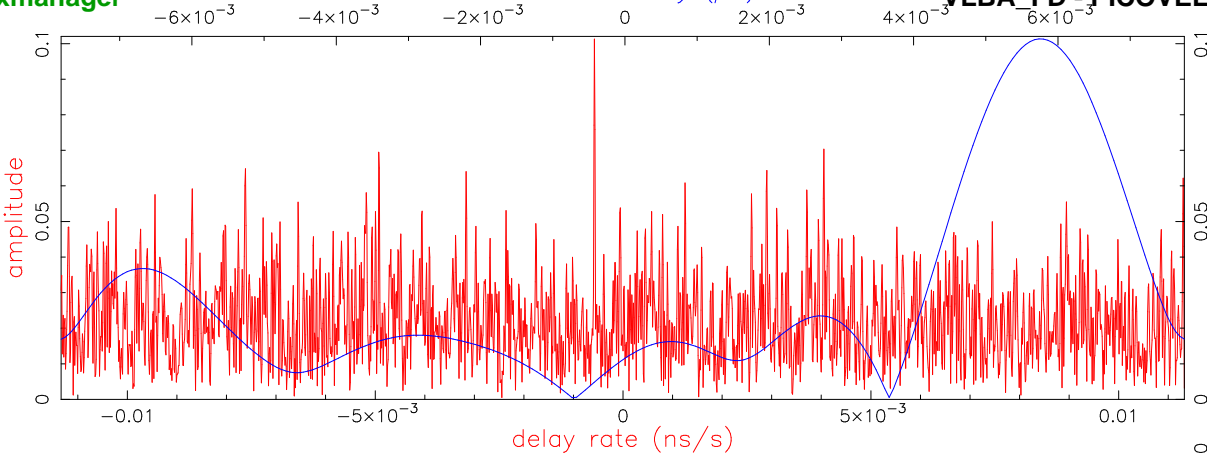
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11LPVT, No0079, fP

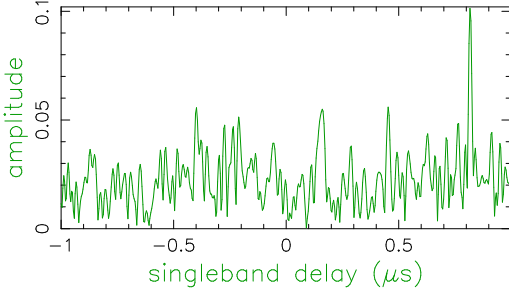
VLBA_FD - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

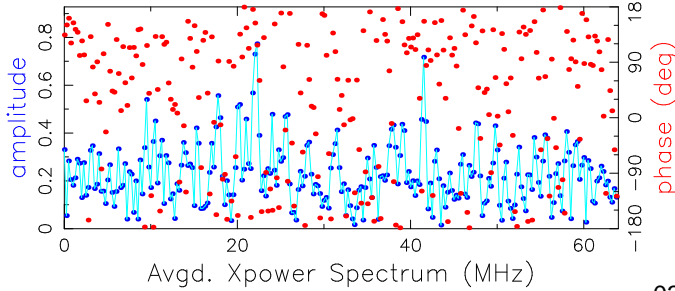


Fringe quality 0

SNR 5.7
 Int time 415.846
 Amp 0.102
 Phase 114.8
 PFD 9.6e-01
 Delays (us)
 SBD 0.817332
 MBD 0.005798
 Fringe rate (Hz)
 -0.049561
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

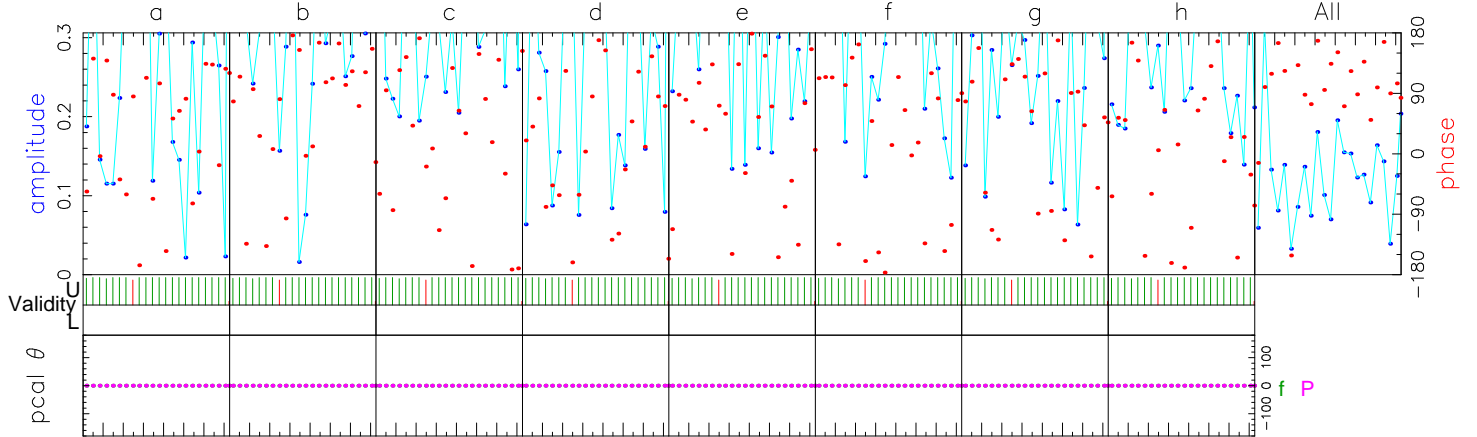


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.51
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130922
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	815/0	815/0	815/0	815/0	815/0	815/0	815/0	815/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	1.41263067622E+04	Apriori delay (usec)	1.41254884644E+04	Resid mbdelay (usec)	5.79779E-03	+/-	1.9E-04
Sband delay (usec)	1.41263057961E+04	Apriori clock (usec)	8.0740881E+00	Resid sbdelay (usec)	8.17332E-01	+/-	1.5E-03
Phase delay (usec)	1.41254884681E+04	Apriori clockrate (us/s)	7.9999999E-07	Resid phdelay (usec)	3.70238E-06	+/-	6.5E-07
Delay rate (us/s)	9.65864670043E-01	Apriori rate (us/s)	9.65865245397E-01	Resid rate (us/s)	-5.75354E-07	+/-	2.7E-09
Total phase (deg)	230.0	Apriori accel (us/s/s)	-8.20503117113E-05	Resid phase (deg)	114.8	+/-	20.2

ph/seg (deg)	45.9	Theor.	48.2	Amplitude	0.102 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	63.9	Search (2048X32)	0.100	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	12.5	Inc. seg. avg.	0.092	Inc. seg. avg.	0.092	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	37.5	Inc. frq. avg.	0.092	Inc. frq. avg.	0.092	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
						Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

f: az 14.7 el 78.6 pa -161.7 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -7549.334 -6254.153 simultaneous interpolator

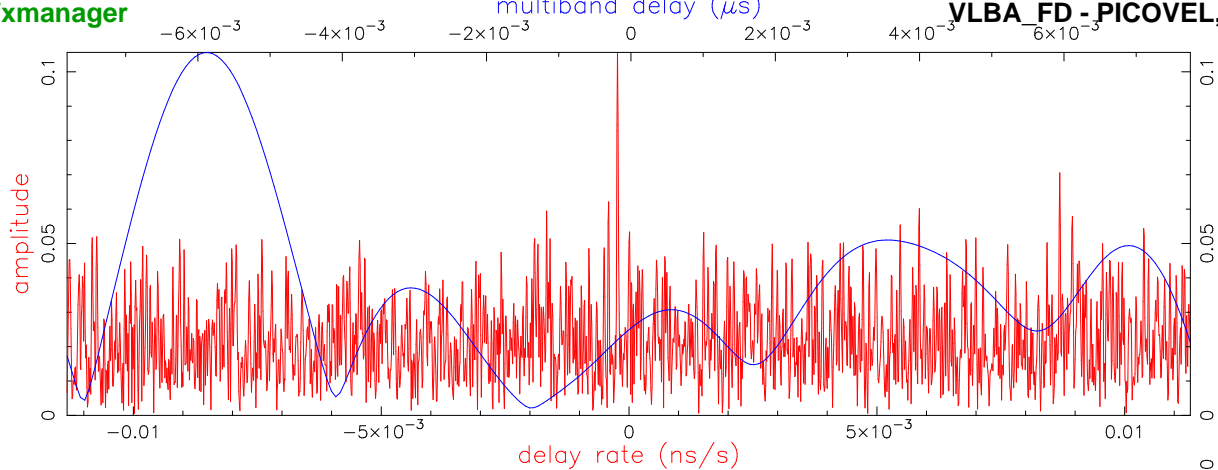
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/fP..11LPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/fP.W.123.11LPVT

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

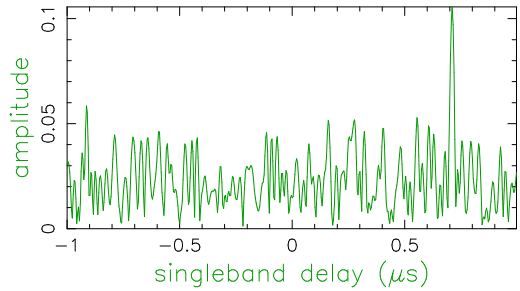
3C84.1ILPVT, No0079, fP

VLBA_FD - PICOVEL, fgroup W, pol RL

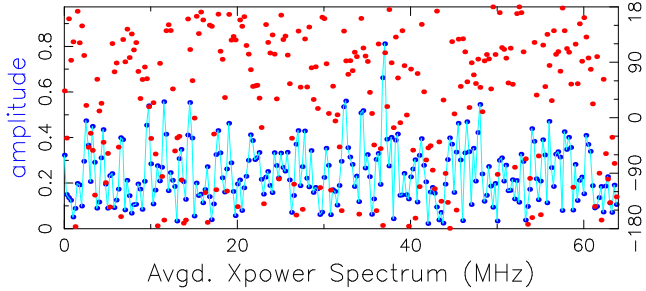


Fringe quality 0

SNR 5.9
 Int time 415.846
 Amp 0.106
 Phase 85.9
 PFD 6.3e-01
 Delays (us)
 SBD 0.710769
 MBD -0.005885
 Fringe rate (Hz)
 -0.020201
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

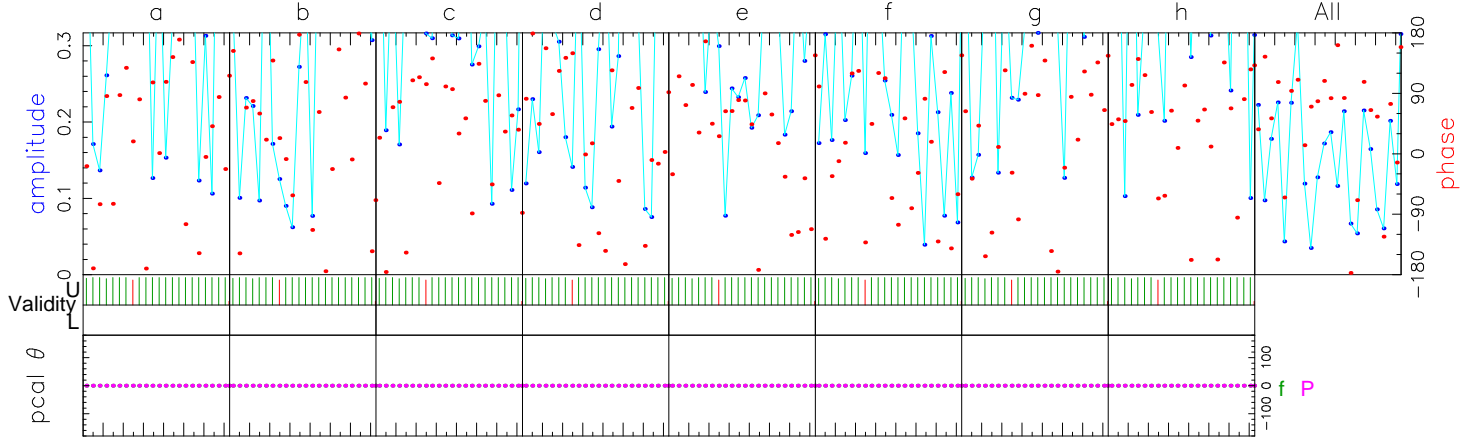


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.51
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130926
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	815/0	815/0	815/0	815/0	815/0	815/0	815/0	815/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	1.41262013291E+04	Apriori delay (usec)	1.41254884644E+04	Resid mbdelay (usec)	-5.88524E-03	+/-	1.8E-04
Sband delay (usec)	1.41261992334E+04	Apriori clock (usec)	8.0740881E+00	Resid sbdelay (usec)	7.10769E-01	+/-	1.5E-03
Phase delay (usec)	1.41254884671E+04	Apriori clockrate (us/s)	7.9999999E-07	Resid phdelay (usec)	2.77023E-06	+/-	6.3E-07
Delay rate (us/s)	9.65865010887E-01	Apriori rate (us/s)	9.65865245397E-01	Resid rate (us/s)	-2.34509E-07	+/-	2.6E-09
Total phase (deg)	201.1	Apriori accel (us/s/s)	-8.20503117113E-05	Resid phase (deg)	85.9	+/-	19.5

ph/seg (deg)	71.0	Theor.	46.5	Amplitude	0.106 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	82.7	Search (2048X32)	0.104	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	30.6	Inc. seg. avg.	0.112	Inc. frq. avg.	0.102	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	52.5	Inc. frq. avg.	0.102			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
						Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

f: az 14.7 el 78.6 pa -161.7 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -7549.334 -6254.153 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/fP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/fP.W.143.1ILPVT

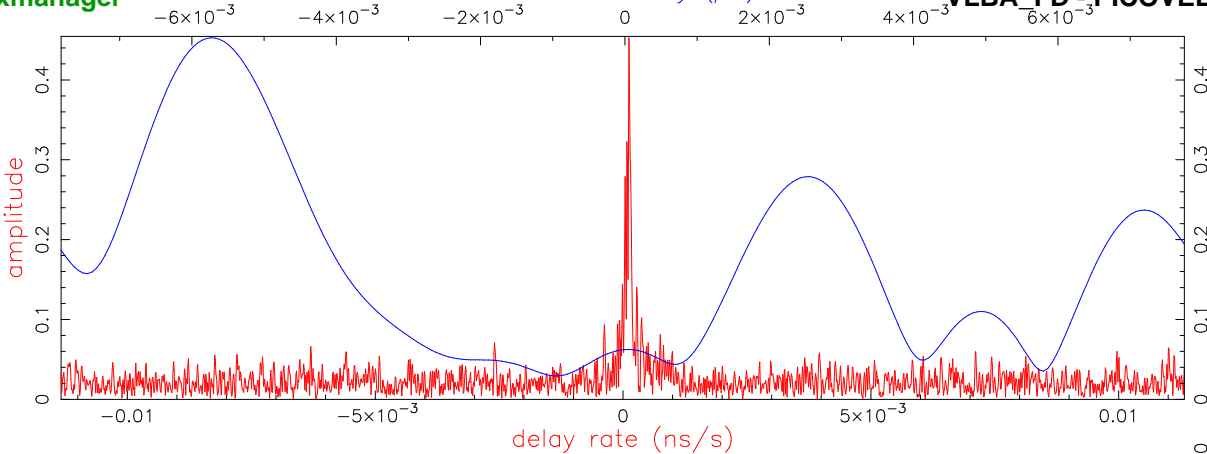
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11LPVT, No0079, fP

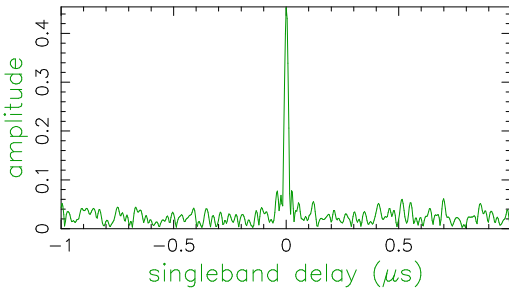
VLBA_FD - PICOVEL, fgroup W, pol LL

multiband delay (μ s)

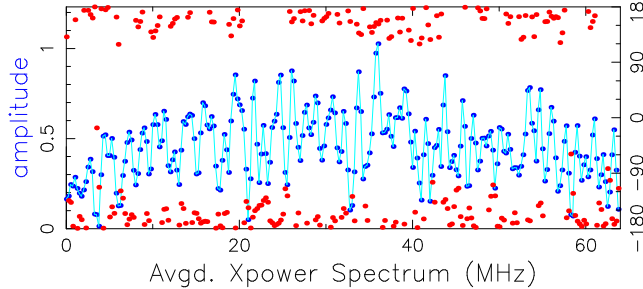


Fringe quality 5

SNR 25.3
 Int time 415.846
 Amp 0.454
 Phase -104.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000838
 MBD -0.005697
 Fringe rate (Hz)
 0.010889
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

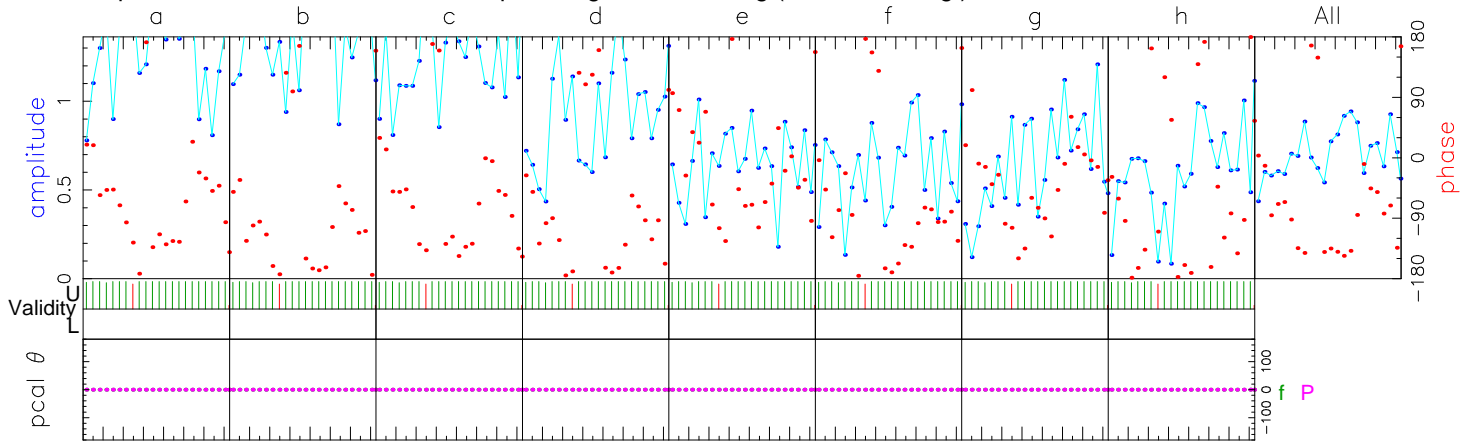


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.51
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130915
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-83.4	-128.1	-93.4	-135.9	-44.7	-119.3	-41.8	-150.3	Phase	-104.0
	0.8	0.9	0.7	0.6	0.3	0.4	0.4	0.4	Ampl.	0.5
	257.0	256.4	257.0	256.8	256.4	257.5	256.6	255.3	Sbd box	257.2
U/L	815/0	815/0	815/0	815/0	815/0	815/0	815/0	815/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.41254827678E+04		Apriori delay (usec)		1.41254884644E+04		Resid mbdelay (usec)		-5.69655E-03	+/- 4.3E-05
Sband delay (usec)	1.41254893024E+04		Apriori clock (usec)		8.0740881E+00		Resid sbdelay (usec)		8.38000E-04	+/- 3.4E-04
Phase delay (usec)	1.41254884610E+04		Apriori clockrate (us/s)		7.9999999E-07		Resid phdelay (usec)		-3.35247E-06	+/- 1.5E-07
Delay rate (us/s)	9.65865371805E-01		Apriori rate (us/s)		9.65865245397E-01		Resid rate (us/s)		1.26409E-07	+/- 6.1E-10
Total phase (deg)	11.3		Apriori accel (us/s/s)		-8.20503117113E-05		Resid phase (deg)		-104.0	+/- 4.5

ph/seg (deg) 56.4 10.8 Theor. Amplitude 0.454 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 63.8 18.9 Search (2048X32) 0.430 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 44.5 6.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 46.4 11.2 Inc. seg. avg. 0.698 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 f: az 14.7 el 78.6 pa -161.7 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -7549.334 -6254.153 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/fP..11LPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/fP.W.88.11LPVT

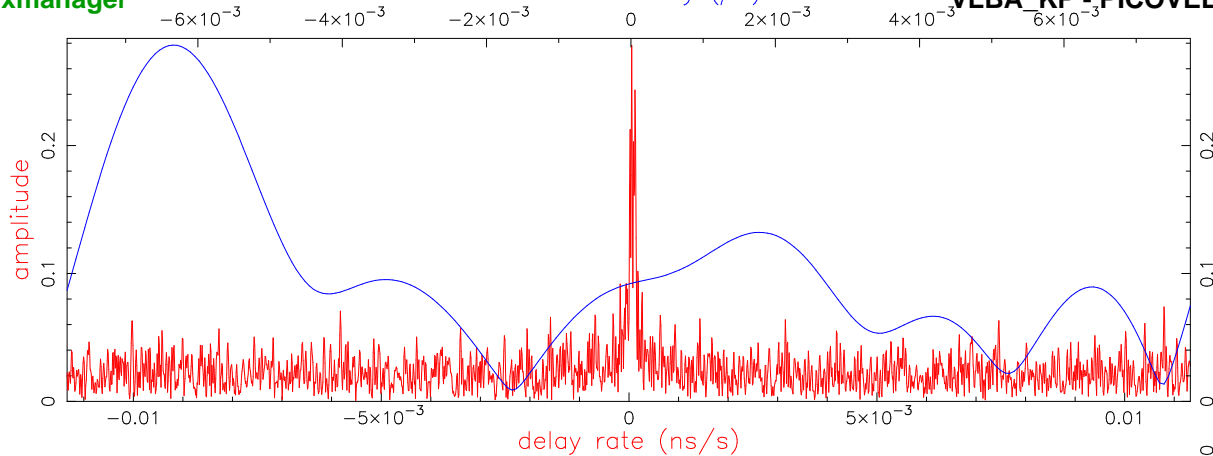
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, kP

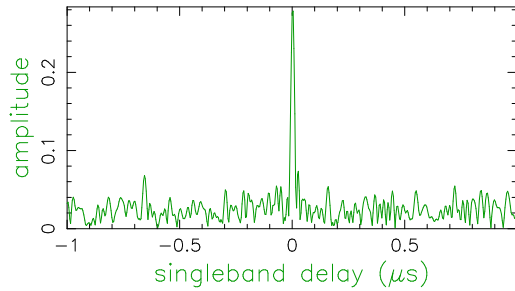
VLBA_KP - PICOVEL, fgroup W, pol LL

multiband delay (μ s)

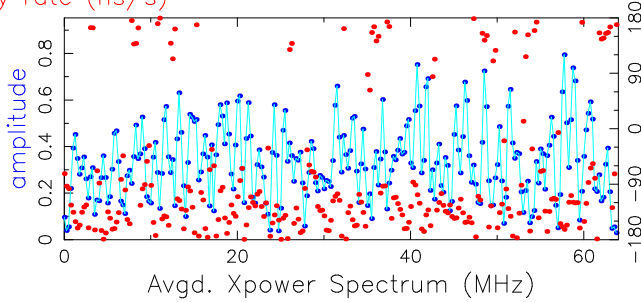


Fringe quality 8

SNR 15.8
 Int time 417.046
 Amp 0.284
 Phase -42.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.002147
 MBD -0.006378
 Fringe rate (Hz)
 0.004560
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

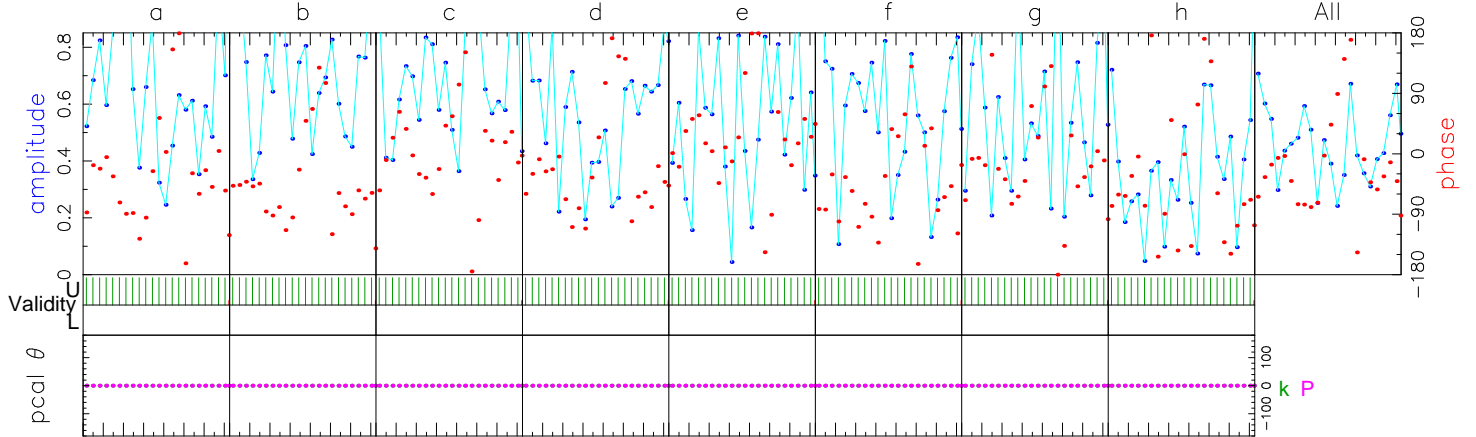


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.00
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130931
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	1.40007814633E+04	Apriori delay (usec)	1.40007722164E+04	Resid mbdelay (usec)	-6.37808E-03	+/-	6.8E-05
Sband delay (usec)	1.40007743637E+04	Apriori clock (usec)	5.4317474E-01	Resid sbdelay (usec)	2.14725E-03	+/-	5.4E-04
Phase delay (usec)	1.40007722151E+04	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	-1.35668E-06	+/-	2.3E-07
Delay rate (us/s)	1.09618185306E+00	Apriori rate (us/s)	1.09618180012E+00	Resid rate (us/s)	5.29385E-08	+/-	9.6E-10
Total phase (deg)	217.9	Apriori accel (us/s/s)	-7.99513344238E-05	Resid phase (deg)	-42.1	+/-	7.2

ph/seg (deg)	67.6	Theor.	17.3	Search (2048X32)	0.273	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	78.2		30.3	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	42.5		10.2	Inc. seg. avg.	0.443	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	34.1		17.8	Inc. frq. avg.	0.324	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 40.4 el 76.7 pa -134.9 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -8543.156 -5966.338 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/kP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/kP.W.158.1ILPVT

Mk4/DiFX fourfit 3.21 rev 2937

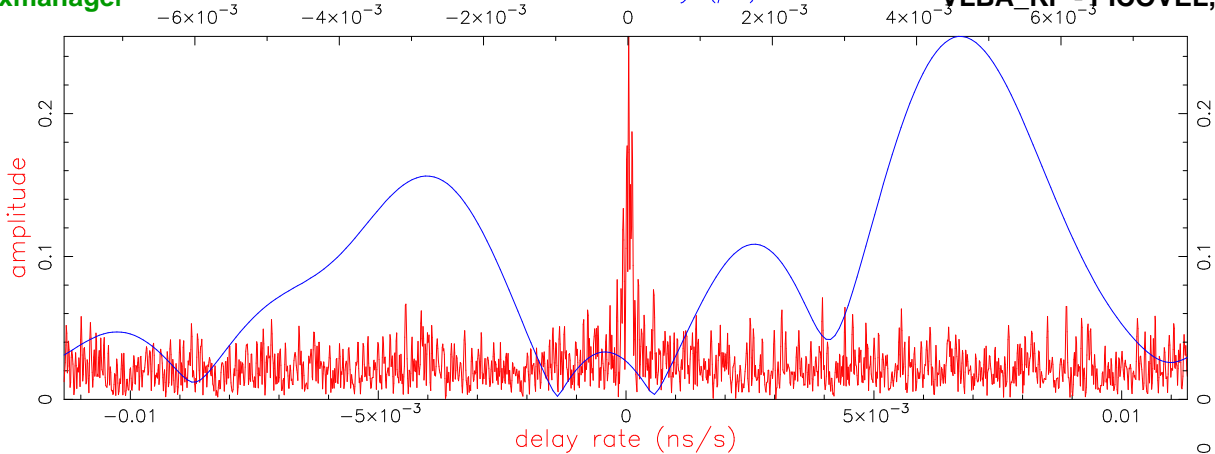
fxmanager

3C84.1ILPVT, No0079, kP

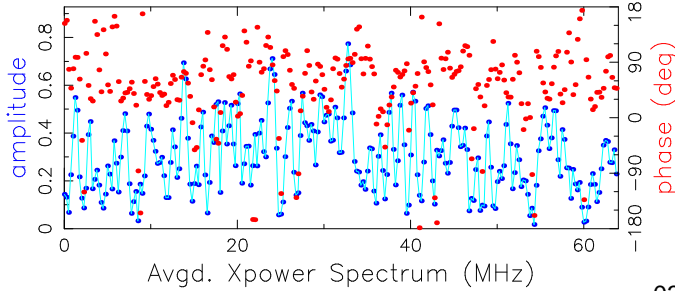
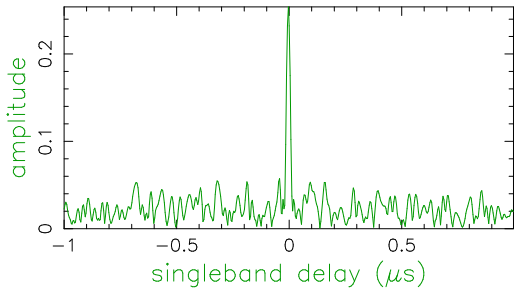
VLBA_KP - PICOVEL, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 8

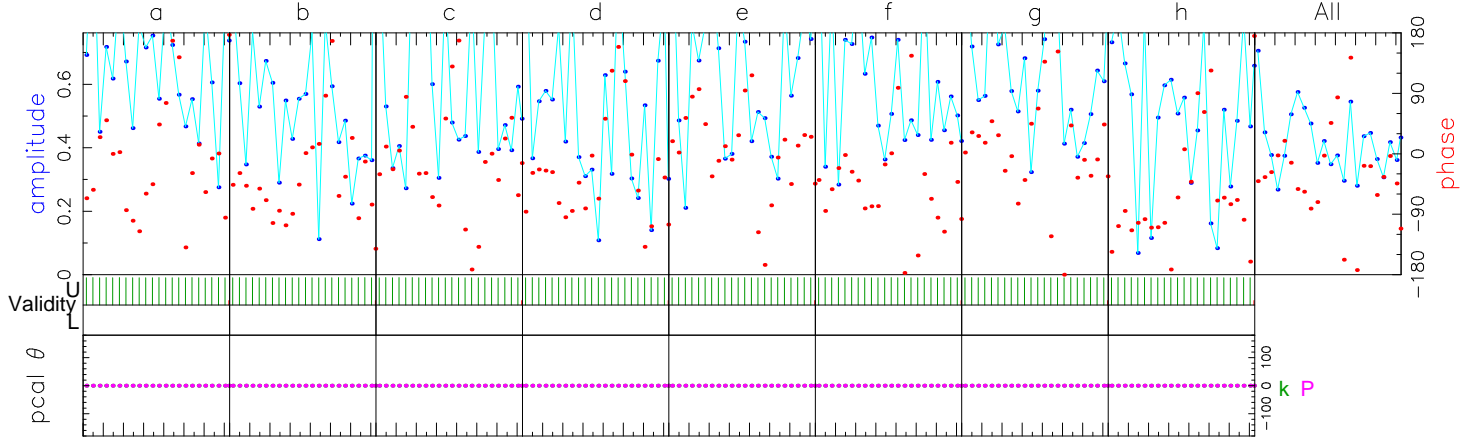


SNR 14.2
 Int time 417.045
 Amp 0.254
 Phase -31.2
 PFD 6.7e-37
 Delays (us)
 SBD -0.003917
 MBD 0.004604
 Fringe rate (Hz) 0.004725
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.00
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130935
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-39.4	-54.7	-12.5	-52.6	21.0	-48.6	12.1	-99.4		Phase
	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3		Ampl.
	255.4	255.2	255.5	255.7	255.5	256.1	255.2	256.7		Sbd box
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used
k	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
P	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC
k	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
P	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks
										Chan ids
										Tracks
Group delay (usec)(sbd)	1.40007611958E+04		Apriori delay (usec)		1.40007722164E+04		Resid mbdelay (usec)		4.60442E-03	+/- 7.7E-05
Sband delay (usec)	1.40007682994E+04		Apriori clock (usec)		5.4317474E-01		Resid sbdelay (usec)		-3.91700E-03	+/- 6.1E-04
Phase delay (usec)	1.40007722154E+04		Apriori clockrate (us/s)		5.0000000E-07		Resid phdelay (usec)		-1.00700E-06	+/- 2.6E-07
Delay rate (us/s)	1.09618185497E+00		Apriori rate (us/s)		1.09618180012E+00		Resid rate (us/s)		5.48480E-08	+/- 1.1E-09
Total phase (deg)	228.7		Apriori accel (us/s/s)		-7.99513344238E-05		Resid phase (deg)		-31.2	+/- 8.1

	RMS	Theor.	Amplitude	0.254 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	66.7	19.4	Search (2048X32)	0.250	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008 0.008
amp/seg (%)	76.6	33.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	42.8	11.4	Inc. seg. avg.	0.396	Sample rate(MISamp/s): 128		ion window (TEC)	0.00 0.00
amp/frq (%)	29.4	19.9	Inc. frq. avg.	0.309	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite		

k: az 40.4 el 76.7 pa -134.9 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -8543.156 -5966.338 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/kP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/kP.W.173.1ILPVT

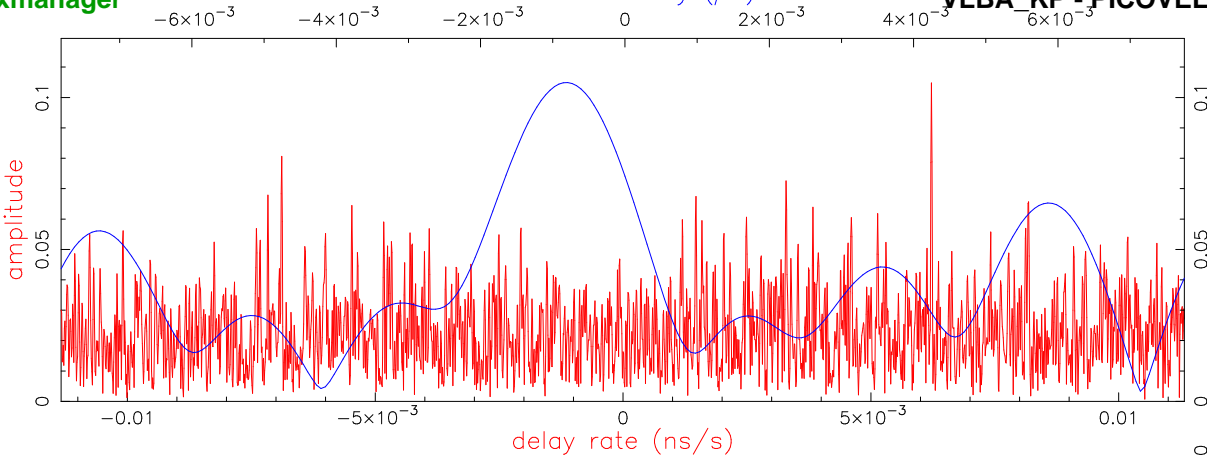
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11LPVT, No0079, kP

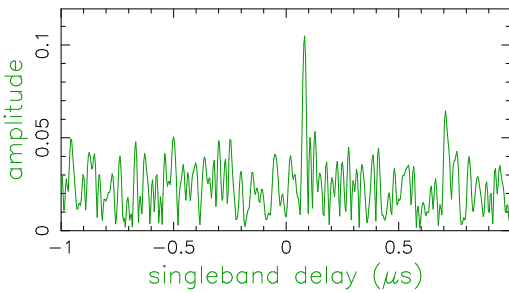
VLBA_KP - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

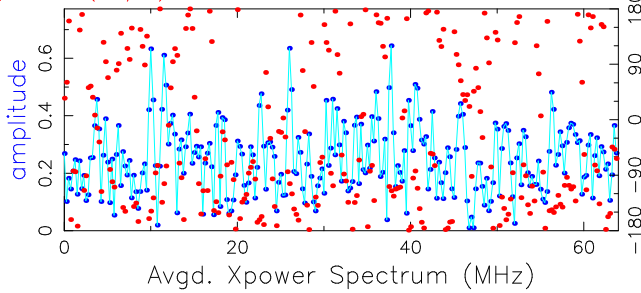


Fringe quality 0

SNR 5.9
Int time 417.046
Amp 0.119
Phase 80.8
PFD 6.7e-01
Delays (us)
SBD 0.081199
MBD -0.000864
Fringe rate (Hz)
0.536939
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

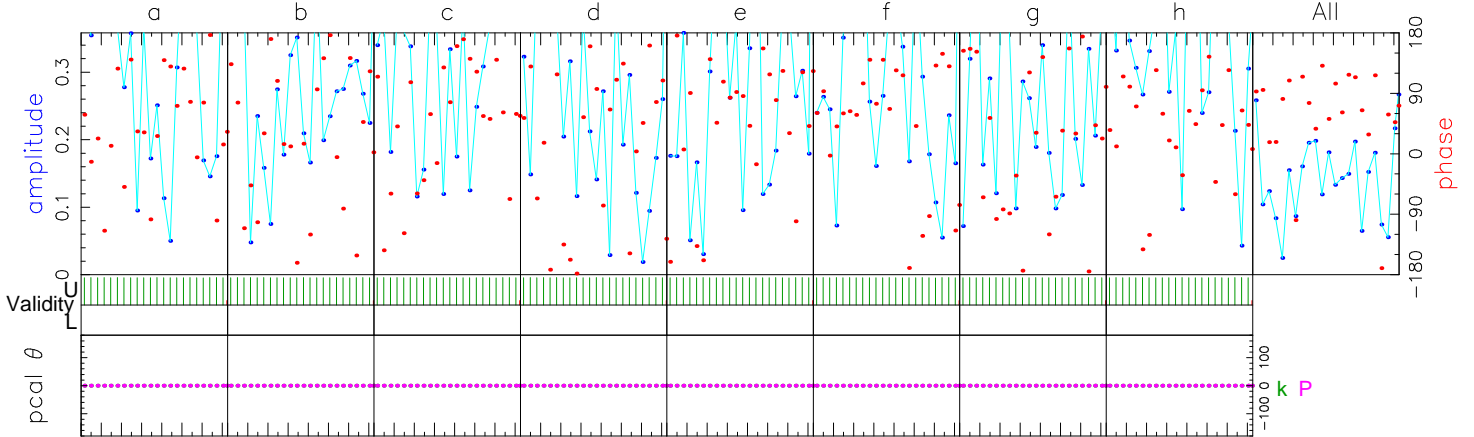


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 084500.00
Stop 085159.84
FRT 084830.00
Corr/FF/build
2021:023:032807
2021:023:130938
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	1.40008494773E+04	Apriori delay (usec)	1.40007722164E+04	Resid mbdelay (usec)	-8.64146E-04	+/-	1.8E-04
Sband delay (usec)	1.40008534159E+04	Apriori clock (usec)	5.4317474E-01	Resid sbdelay (usec)	8.11995E-02	+/-	1.5E-03
Phase delay (usec)	1.40007722190E+04	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	2.60436E-06	+/-	6.3E-07
Delay rate (us/s)	1.09618803345E+00	Apriori rate (us/s)	1.09618180012E+00	Resid rate (us/s)	6.23333E-06	+/-	2.6E-09
Total phase (deg)	340.7	Apriori accel (us/s/s)	-7.99513344238E-05	Resid phase (deg)	80.8	+/-	19.5

ph/seg (deg)	55.8	RMS	Theor.	Amplitude	0.119 +/- 0.020	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5			
amp/seg (%)	64.5	55.8	46.8	Search (2048X32)	0.102	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000			
ph/frq (deg)	44.8	64.5	81.7	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008		
amp/frq (%)	48.1	44.8	27.6	Inc. seg. avg.	0.119	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011			
		48.1	48.2	Inc. frq. avg.	0.125	Data rate (Mb/s):	2048	nlags:	256	t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 40.4 el 76.7 pa -134.9 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -8543.156 -5966.338 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/kP..11LPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/kP.W.193.11LPVT

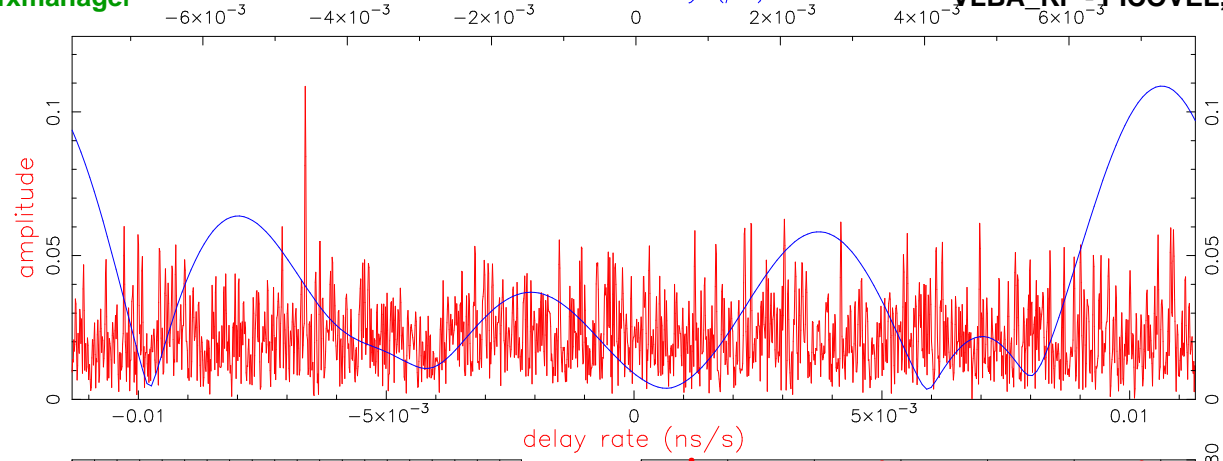
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

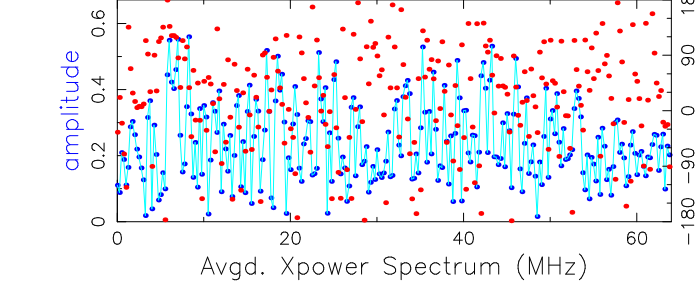
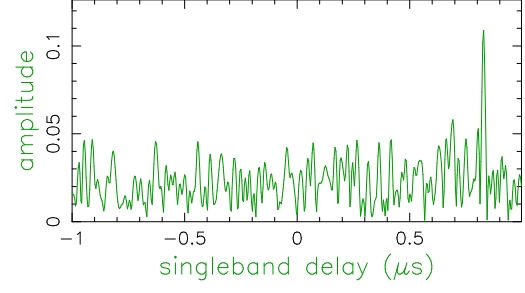
3C84.1ILPVT, No0079, kP

VLBA_KP - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

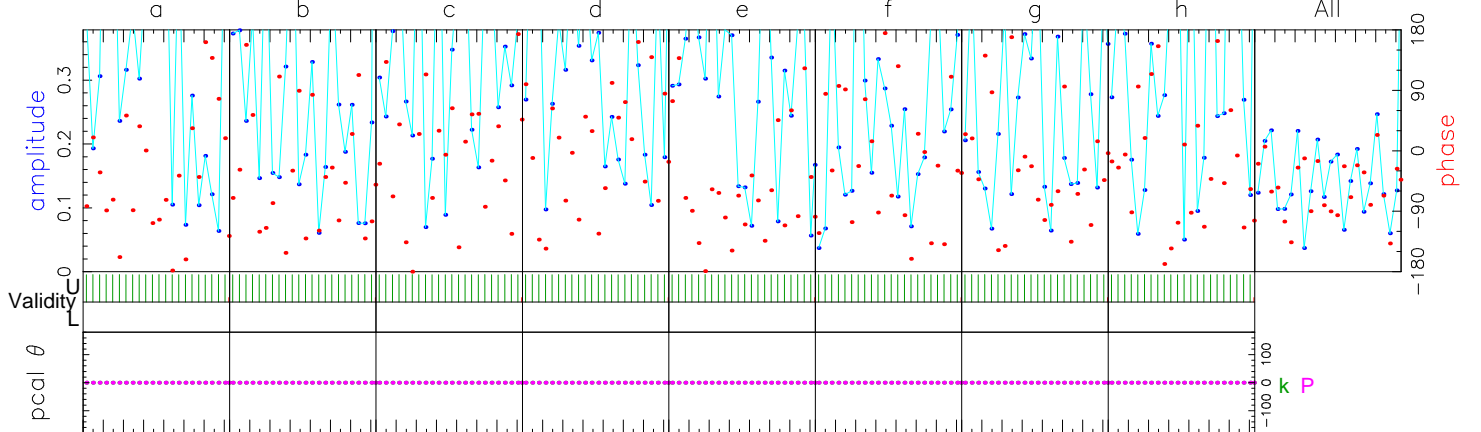


Fringe quality 0
 SNR 6.1
 Int time 417.045
 Amp 0.126
 Phase -48.4
 PFD 2.5e-01
 Delays (us)
 SBD 0.827483
 MBD -0.008301
 Fringe rate (Hz)
 -0.572143
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.00
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130942
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-57.8	-58.7	1.8	-2.8	-102.3	-37.1	-47.3	-53.9	Phase	-48.4
	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.1	Ampl.	0.1
	470.0	421.1	470.8	186.9	187.1	138.8	123.4	466.9	Sbd box	468.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.40015920406E+04		Apriori delay (usec)		1.40007722164E+04		Resid mbdelay (usec)		-8.30078E-03	+/- 1.8E-04
Sband delay (usec)	1.40015996989E+04		Apriori clock (usec)		5.4317474E-01		Resid sbdelay (usec)		8.27483E-01	+/- 1.4E-03
Phase delay (usec)	1.40007722149E+04		Apriori clockrate (us/s)		5.0000000E-07		Resid phdelay (usec)		-1.56166E-06	+/- 6.1E-07
Delay rate (us/s)	1.09617515810E+00		Apriori rate (us/s)		1.09618180012E+00		Resid rate (us/s)		-6.64201E-06	+/- 2.5E-09
Total phase (deg)	211.5		Apriori accel (us/s/s)		-7.99513344238E-05		Resid phase (deg)		-48.4	+/- 18.8

ph/seg (deg) 43.5 45.1 Search (2048X32) 0.107 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 66.7 78.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 36.2 26.6 Inc. seg. avg. 0.128 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 30.9 46.4 Inc. frq. avg. 0.133 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 40.4 el 76.7 pa -134.9 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -8543.156 -5966.338 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/kP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/kP.W.212.1ILPVT

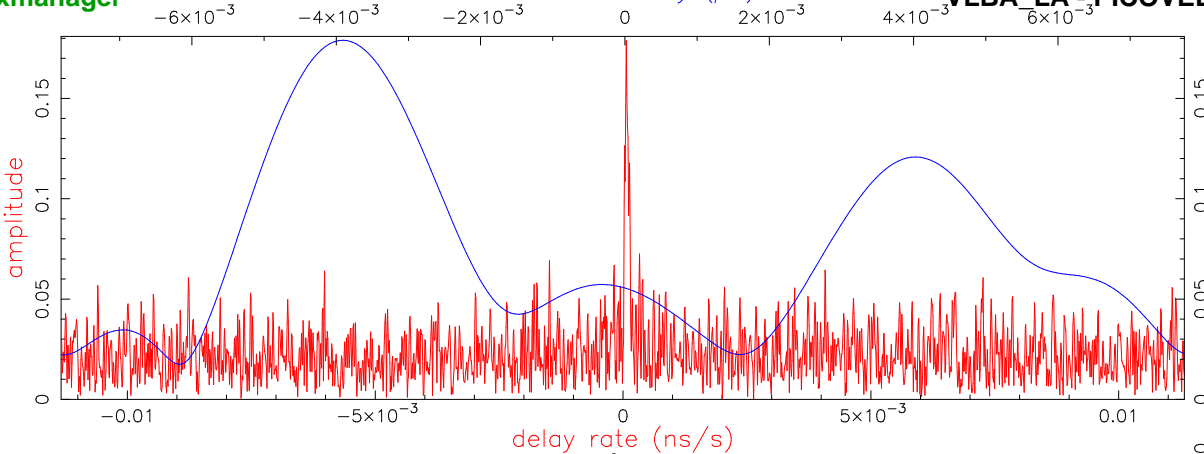
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, IP

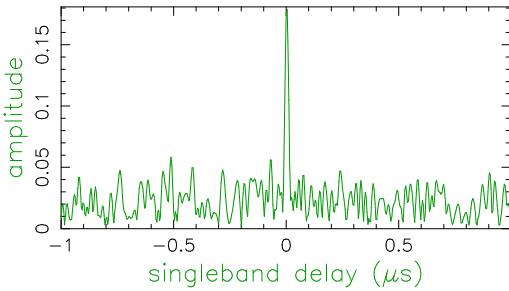
VLBA_LA - PICOVEL, fgroup W, pol LL

multiband delay (μ s)

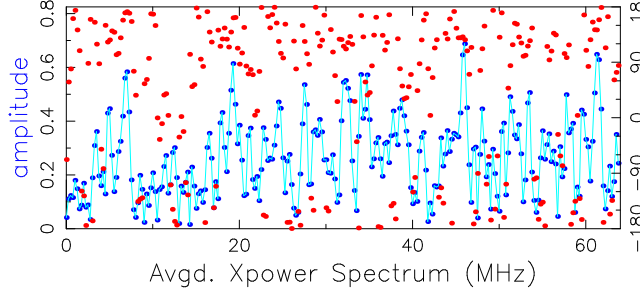


Fringe quality 9

SNR 10.1
 Int time 417.389
 Amp 0.181
 Phase -147.2
 PFD 2.2e-15
 Delays (us)
 SBD 0.002512
 MBD -0.003970
 Fringe rate (Hz)
 0.006065
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

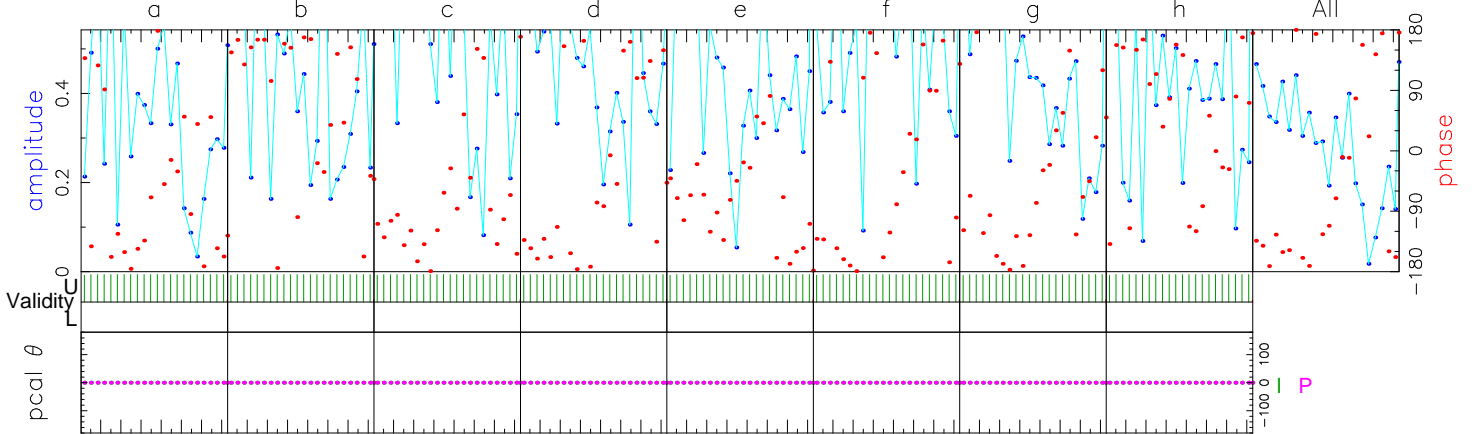


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084501.54
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130932
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
I:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	1.43614914067E+04	Apriori delay (usec)	1.43614953767E+04	Resid mbdelay (usec)	-3.96995E-03	+/-	1.1E-04
Sband delay (usec)	1.43614978884E+04	Apriori clock (usec)	-1.9476700E-01	Resid sbdelay (usec)	2.51175E-03	+/-	8.5E-04
Phase delay (usec)	1.43614953719E+04	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	-4.74707E-06	+/-	3.7E-07
Delay rate (us/s)	1.00096558883E+00	Apriori rate (us/s)	1.00096551842E+00	Resid rate (us/s)	7.04065E-08	+/-	1.5E-09
Total phase (deg)	120.9	Apriori accel (us/s/s)	-7.77317635615E-05	Resid phase (deg)	-147.2	+/-	11.3

ph/seg (deg)	69.4	Theor.	Amplitude	0.181 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
amp/seg (%)	86.2	27.2	Search (2048X32)	0.174	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	51.6	16.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	53.4	28.0	Inc. seg. avg.	0.252	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
			Inc. frq. avg.	0.220	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

I: az 37.6 el 82.5 pa -141.7 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -7810.806 -5453.161 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/IP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/IP.W.166.1ILPVT

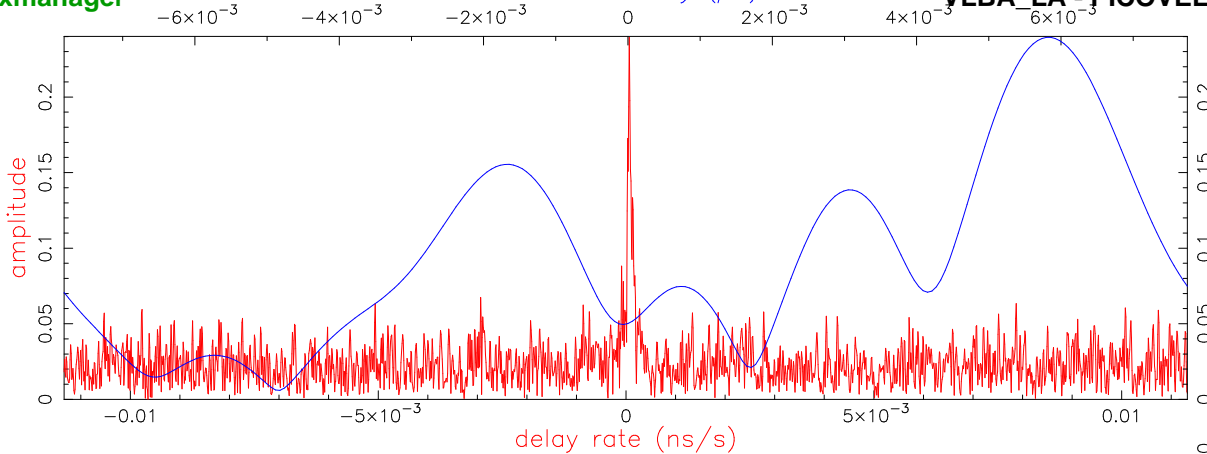
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11LPVT, No0079, IP

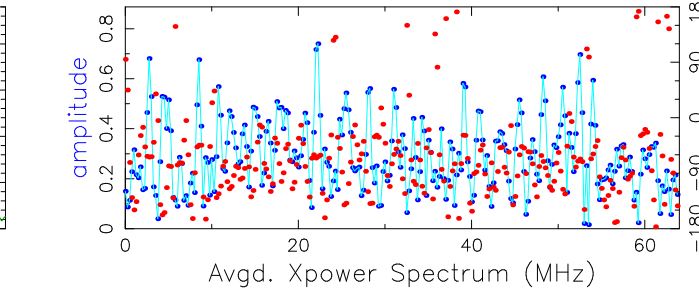
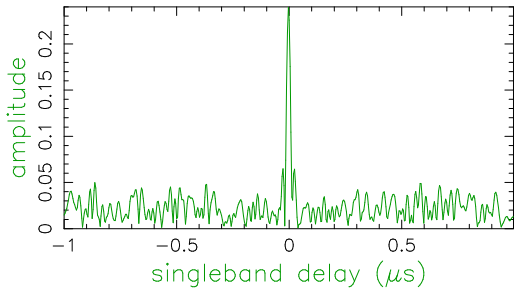
VLBA_LA - PICOVEL, fgroup W, pol RR

multiband delay (μ s)



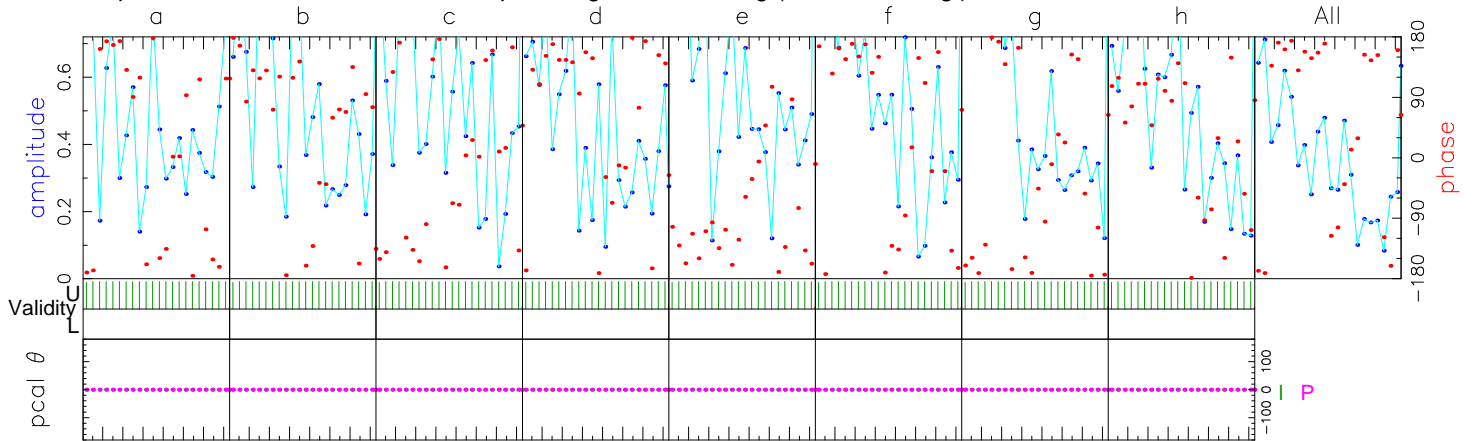
Fringe quality 9

SNR 13.4
 Int time 417.389
 Amp 0.240
 Phase 172.2
 PFD 2.9e-32
 Delays (us)
 SBD -0.003262
 MBD 0.005846
 Fringe rate (Hz)
 0.005956
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084501.54
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130936
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
Validity	168.8	129.2	-151.5	152.7	-123.4	170.1	-163.1	100.8	Phase	172.2
U/L	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	Ampl.	0.3
I	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	256.2
P	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
I:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
I:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
I	1000	1000	1000	1000	1000	1000	1000	1000	ManI PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	1.43614855980E+04	Apriori delay (usec)		1.43614953767E+04	Resid mbdelay (usec)		5.84630E-03	+/-	8.1E-05	
Sband delay (usec)	1.43614921152E+04	Apriori clock (usec)		-1.9476700E-01	Resid sbdelay (usec)		-3.26150E-03	+/-	6.4E-04	
Phase delay (usec)	1.43614953822E+04	Apriori clockrate (us/s)		2.9999999E-07	Resid phdelay (usec)		5.55298E-06	+/-	2.8E-07	
Delay rate (us/s)	1.00096558756E+00	Apriori rate (us/s)		1.00096551842E+00	Resid rate (us/s)		6.91403E-08	+/-	1.1E-09	
Total phase (deg)	80.3	Apriori accel (us/s/s)		-7.77317635615E-05	Resid phase (deg)		172.2	+/-	8.5	

	RMS	Theor.	Amplitude	0.240 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	65.1	20.5	Search (2048X32)	0.236	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	86.5	35.8	Interp.	0.000	SampCntNorm: enabled	mb window (us) -0.008 0.008
ph/frq (deg)	47.3	12.1	Inc. seg. avg.	0.334	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	34.1	21.1	Inc. frq. avg.	0.306	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

I: az 37.6 el 82.5 pa -141.7 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -7810.806 -5453.161 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/IP..11LPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/IP.W.185.11LPVT

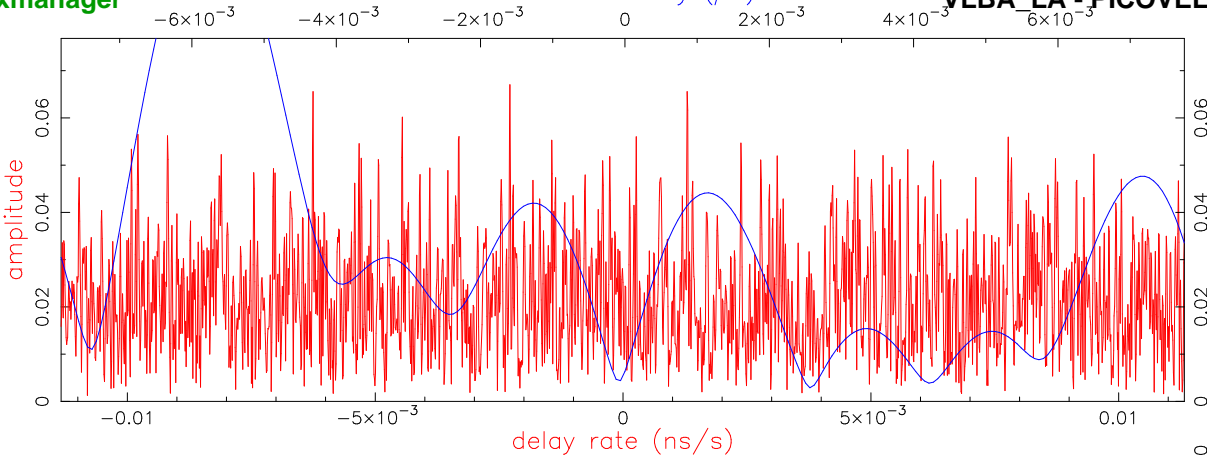
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, IP

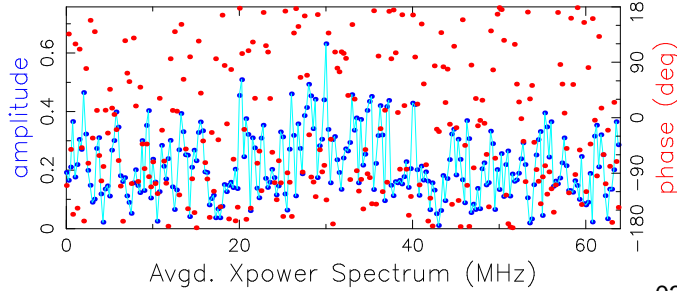
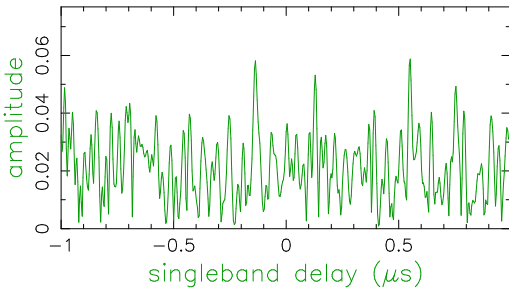
VLBA_LA - PICOVEL, fgroup W, pol LR

multiband delay (μ s)



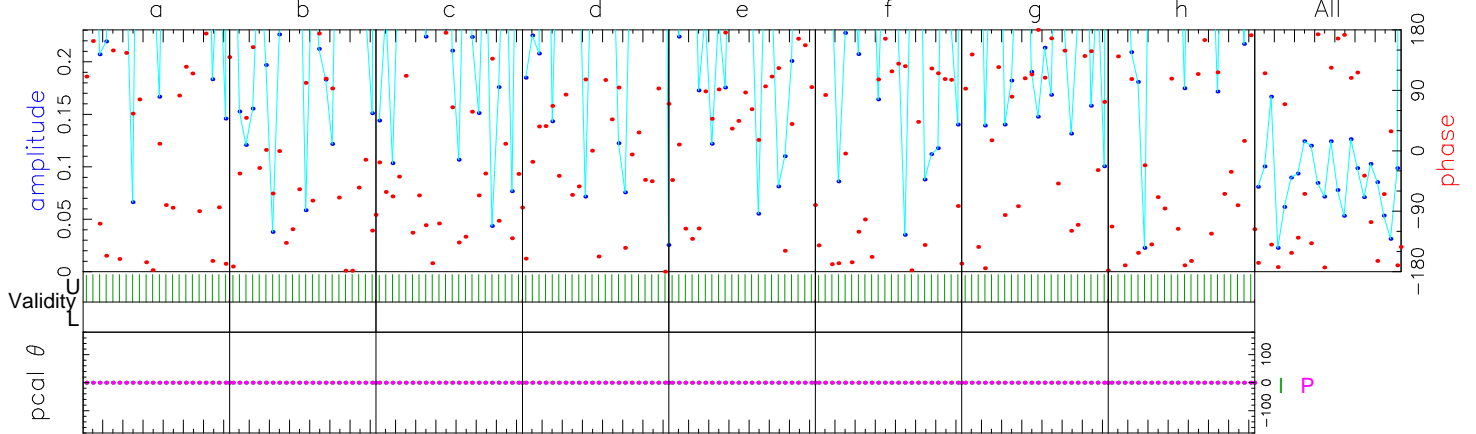
Fringe quality 0

SNR 2.8
 Int time 417.389
 Amp 0.077
 Phase -168.6
 PFD 1.0e+00
 Delays (us)
 SBD 0.753162
 MBD 0.007324
 Fringe rate (Hz)
 0.966842
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



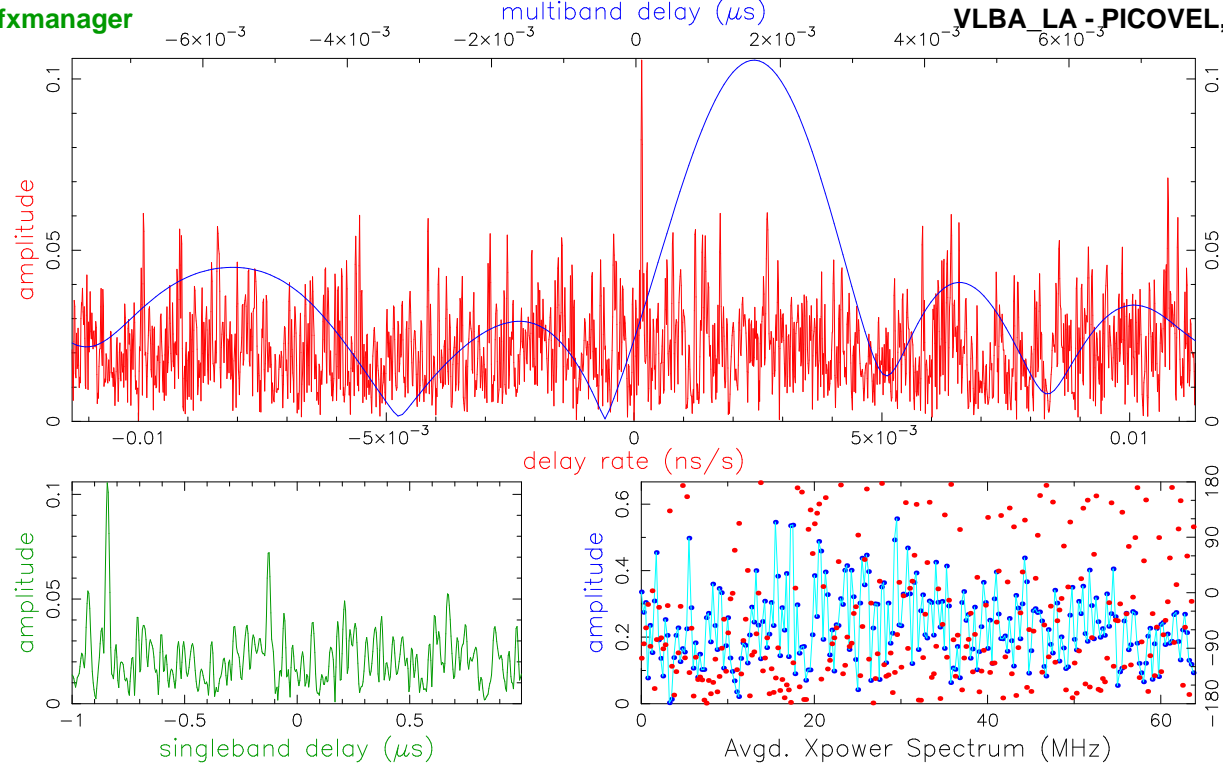
Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084501.54
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130940
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0			
I	1000	1000	1000	1000	1000	1000	1000	1000			
P	1000	1000	1000	1000	1000	1000	1000	1000			
I:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
I:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
I	1000	1000	1000	1000	1000	1000	1000	1000			
P	1000	1000	1000	1000	1000	1000	1000	1000			
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)		1.43622527009E+04			1.43614953767E+04				7.32422E-03	+/- 3.9E-04	
Sband delay (usec)		1.43622485389E+04			-1.9476700E-01				7.53162E-01	+/- 3.1E-03	
Phase delay (usec)		1.43614953712E+04			2.9999999E-07				-5.43821E-06	+/- 1.3E-06	
Delay rate (us/s)		1.00097674250E+00			1.00096551842E+00				1.12241E-05	+/- 5.5E-09	
Total phase (deg)			99.4		-7.77317635615E-05				-168.6	+/- 41.5	
ph/seg (deg)	RMS 71.3	Theor. 99.6	Amplitude Search (2048X32)	0.077 +/- 0.028	0.106	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	137.1	173.8	Interp.	0.000	0.056	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	94.7	58.7	Inc. seg. avg.	0.056	0.119	Bits/sample: 2x2			dr window (ns/s)	-0.011	0.011
amp/frq (%)	145.2	102.5	Inc. frq. avg.	0.119		Sample rate(MISamp/s): 128			ion window (TEC)	0.00	0.00
						Data rate(Mb/s): 2048					
						nlags: 256 t_cohere infinite					

I: az 37.6 el 82.5 pa -141.7 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -7810.806 -5453.161 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/IP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/IP.W.200.1ILPVT

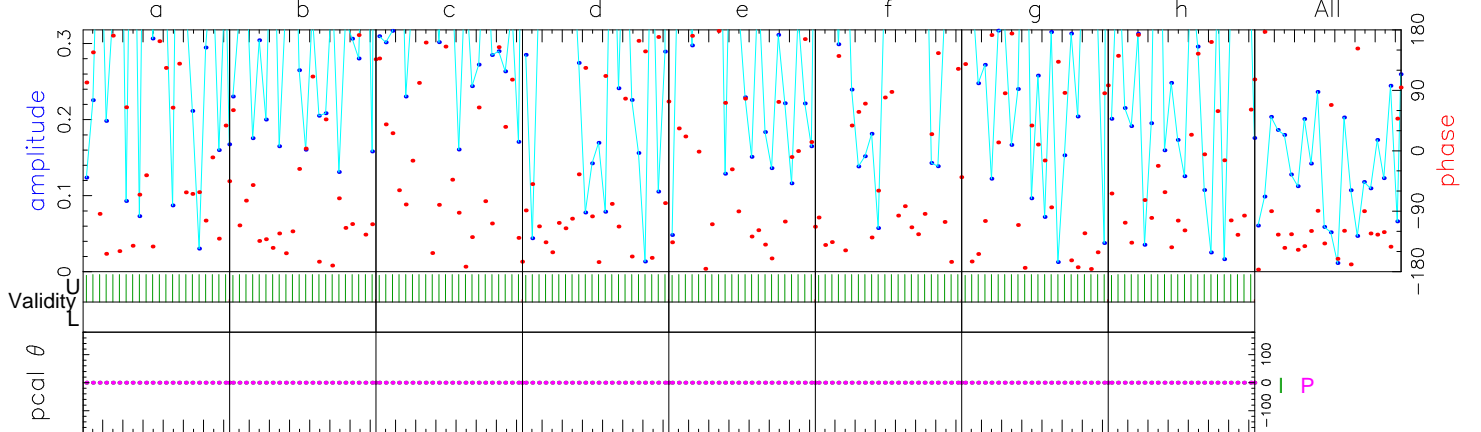


Fringe quality 0

SNR 5.9
 Int time 417.389
 Amp 0.106
 Phase -128.7
 PFD 5.5e-01
 Delays (us)
 SBD -0.842813
 MBD 0.001639
 Fringe rate (Hz)
 0.013239
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084501.54
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130943
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-138.0	-126.3	-130.8	-121.2	-73.6	-131.0	-167.6	-97.2	Phase	-128.7
	0.1	0.2	0.0	0.2	0.0	0.2	0.1	0.1	Ampl.	0.1
	228.8	41.1	171.9	42.8	256.2	350.1	446.9	430.8	Sbd box	41.2
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	APs used	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
I:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
I:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 1.43606532660E+04 Apriori delay (usec) 1.43614953767E+04 Resid mbdelay (usec) 1.63937E-03 +/- 1.8E-04
 Sband delay (usec) 1.43606525637E+04 Apriori clock (usec) 0.104 Pcal rate: 0.000E+00, 0.000E+00 (us/s) Resid sbdelay (usec) -8.42813E-01 +/- 1.5E-03
 Phase delay (usec) 1.43614953725E+04 Apriori clockrate (us/s) 2.9999999E-07 Resid phdelay (usec) -4.14928E-06 +/- 6.2E-07
 Delay rate (us/s) 1.00096567212E+00 Apriori rate (us/s) 1.00096551842E+00 Resid rate (us/s) 1.53694E-07 +/- 2.6E-09
 Total phase (deg) 139.4 Apriori accel (us/s/s) -7.77317635615E-05 Resid phase (deg) -128.7 +/- 19.3

ph/seg (deg) RMS Theor. Amplitude 0.106 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 60.0 46.4 Search (2048X32) 0.104 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 65.4 81.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 30.8 27.4 Inc. seg. avg. 0.098 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 amp/frq (%) 49.6 47.7 Inc. frq. avg. 0.101 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

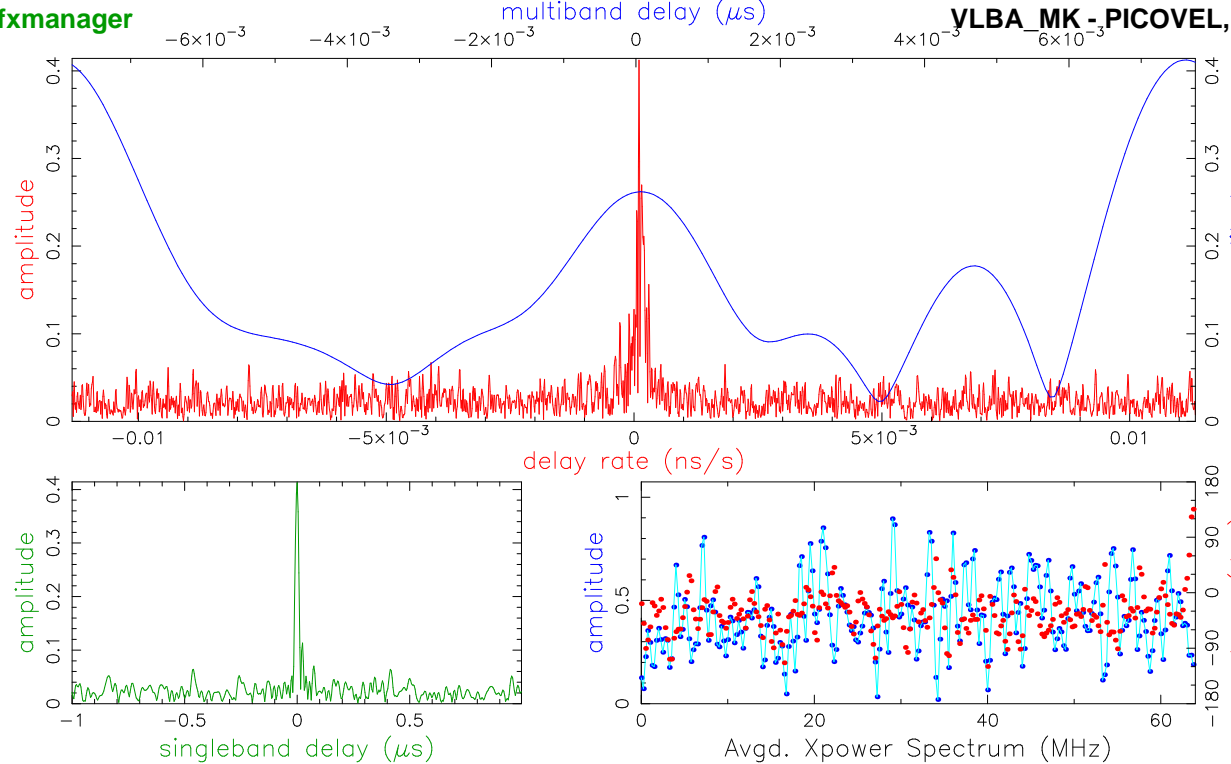
I: az 37.6 el 82.5 pa -141.7 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -7810.806 -5453.161 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/IP..11LPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/IP.W.219.11LPVT

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

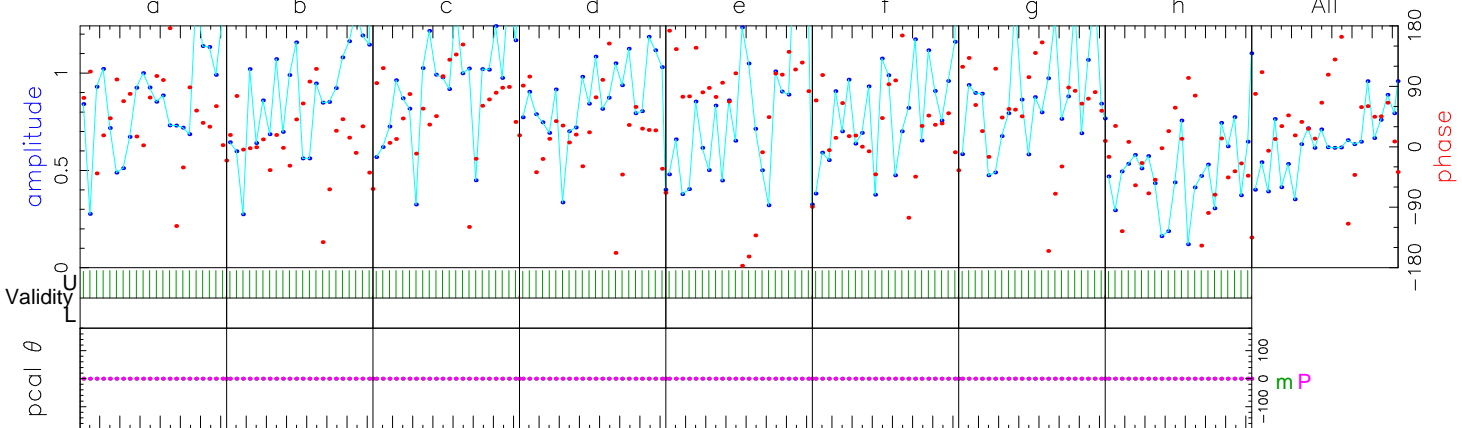
3C84.1ILPVT, No0079, mP

VLBA_MK - PICOVEL, fgroup W, pol LL



Fringe quality 8
 SNR 23.1
 Int time 417.397
 Amp 0.414
 Phase 47.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.000872
 MBD -0.008040
 Fringe rate (Hz) 0.008885
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084501.54
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130947
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		
m	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
m:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd) 6.80405981438E+03 Apriori delay (usec) 6.80406785394E+03 Resid mbdelay (usec) -8.03957E-03 +/- 4.7E-05
 Sband delay (usec) 6.80406698169E+03 Apriori clock (usec) 1.3573175E+01 Resid sbdelay (usec) -8.72250E-04 +/- 3.7E-04
 Phase delay (usec) 6.80406785546E+03 Apriori clockrate (us/s) 5.0000000E-07 Resid phdelay (usec) 1.52191E-06 +/- 1.6E-07
 Delay rate (us/s) 1.80528878036E+00 Apriori rate (us/s) 1.80528867721E+00 Resid rate (us/s) 1.03144E-07 +/- 6.6E-10
 Total phase (deg) 25.1 Apriori accel (us/s/s) -5.58473109704E-05 Resid phase (deg) 47.2 +/- 5.0

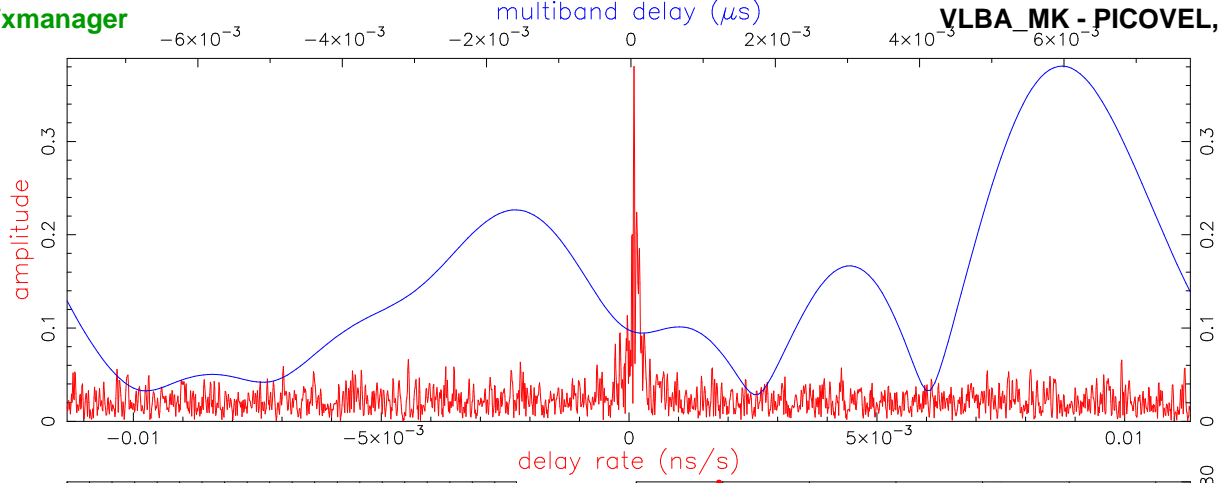
ph/seg (deg) 57.6 11.9 Search (2048X32) 0.392 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 64.7 20.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 48.8 7.0 Inc. seg. avg. 0.621 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 34.9 12.2 Inc. frq. avg. 0.521 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 m: az 52.0 el 38.7 pa -97.2 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -13922.536 -5486.800 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/mP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/mP.W.230.1ILPVT

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, mP

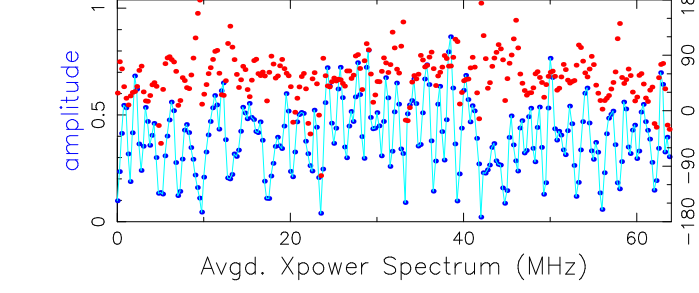
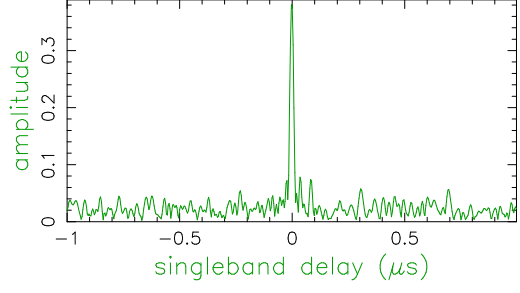
VLBA_MK - PICOVEL, fgroup W, pol RR



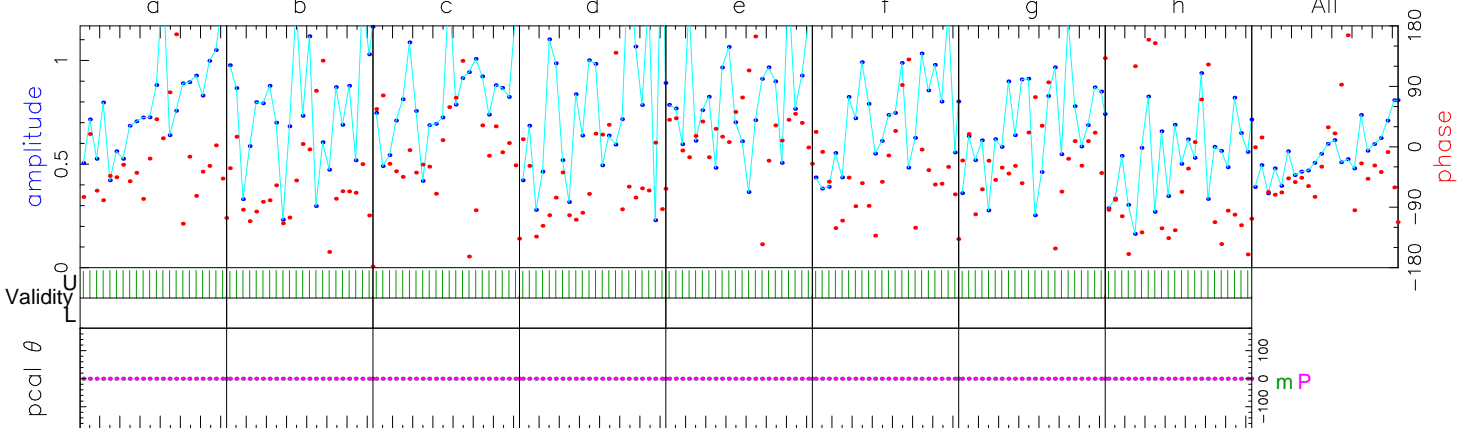
Fringe quality 8

SNR 21.7
 Int time 417.397
 Amp 0.389
 Phase -35.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.002015
 MBD 0.006021
 Fringe rate (Hz) 0.008723
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084501.54
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130950
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-34.1	-60.9	-2.3	-68.4	21.7	-47.7	-20.3	-121.6		Phase
	0.5	0.5	0.5	0.6	0.6	0.4	0.4	0.3		Ampl.
	256.1	255.8	255.9	255.8	255.9	256.4	255.6	253.9		Sbd box
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0		256.5
m	1000	1000	1000	1000	1000	1000	1000	1000		APs used
P	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
m:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
m:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC
m	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
P	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks
										Chan ids
										Tracks
Group delay (usec)(sbd)	6.80405825006E+03		Apriori delay (usec)		6.80406785394E+03		Resid mbdelay (usec)		6.02112E-03	+/- 5.0E-05
Sband delay (usec)	6.80406583919E+03		Apriori clock (usec)		1.3573175E+01		Resid sbdelay (usec)		-2.01475E-03	+/- 4.0E-04
Phase delay (usec)	6.80406785280E+03		Apriori clockrate (us/s)		5.0000000E-07		Resid phdelay (usec)		-1.14735E-06	+/- 1.7E-07
Delay rate (us/s)	1.80528877847E+00		Apriori rate (us/s)		1.80528867721E+00		Resid rate (us/s)		1.01260E-07	+/- 7.0E-10
Total phase (deg)	302.3		Apriori accel (us/s/s)		-5.58473109704E-05		Resid phase (deg)		-35.6	+/- 5.3

ph/seg (deg) 53.8 12.6 Search (2048X32) 0.375 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 48.5 22.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 48.1 7.5 Inc. seg. avg. 0.528 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 33.1 13.0 Inc. frq. avg. 0.472 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 m: az 52.0 el 38.7 pa -97.2 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -13922.536 -5486.800 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/mP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/mP.W.245.1ILPVT

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

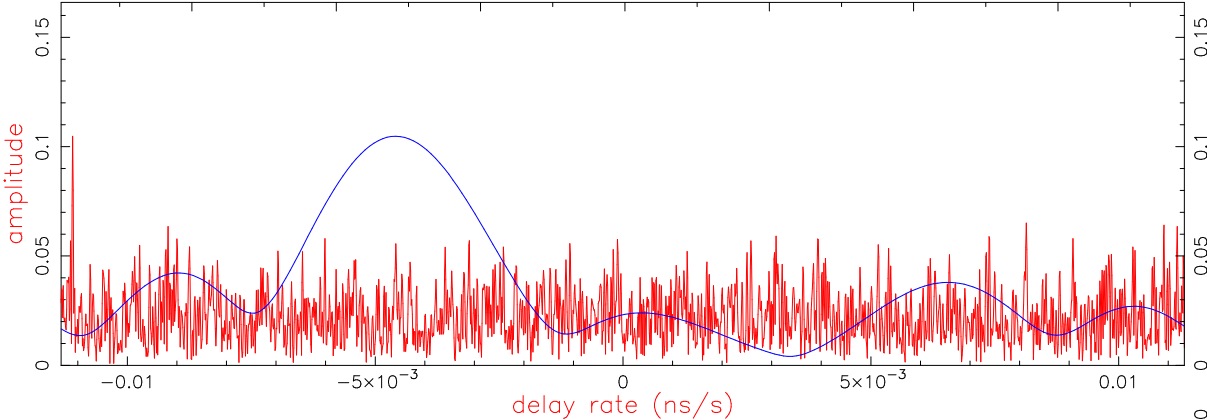
3C84.1ILPVT, No0079, mP

VLBA_MK - PICOVEL, fgroup W, pol LR

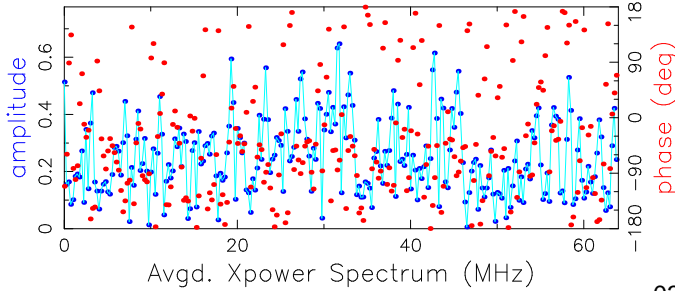
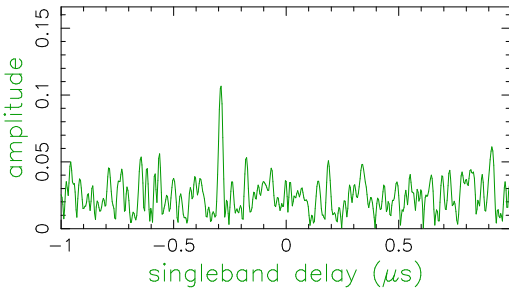
multiband delay (μ s)

-6×10^{-3} -4×10^{-3} -2×10^{-3} 0 2×10^{-3} 4×10^{-3} 6×10^{-3}

Fringe quality 0

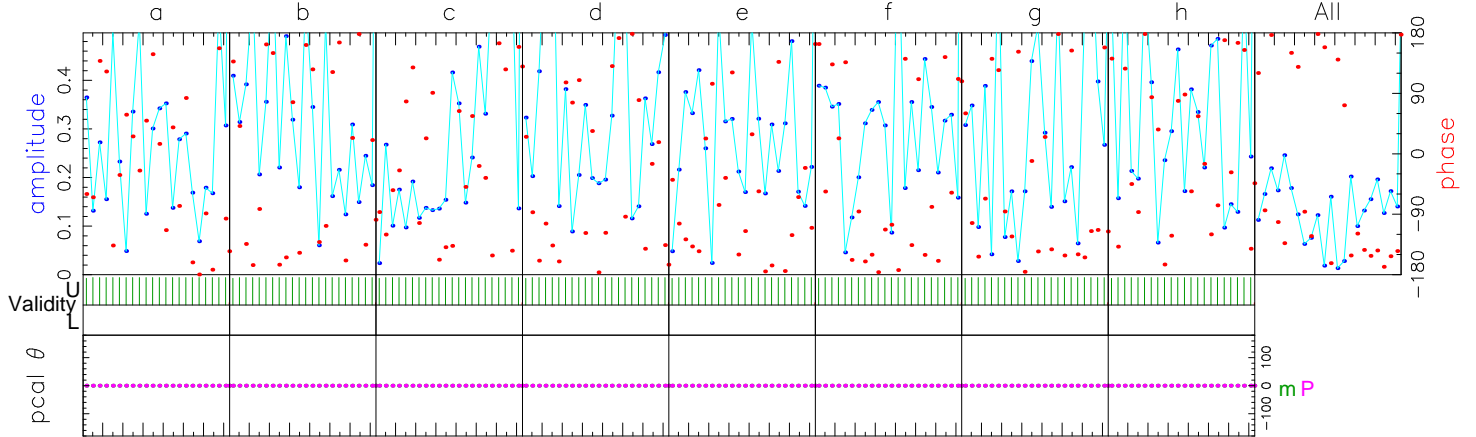


SNR 6.0
 Int time 417.397
 Amp 0.166
 Phase -154.6
 PFD 3.7e-01
 Delays (us)
 SBD -0.290529
 MBD -0.003174
 Fringe rate (Hz)
 -0.957794
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084501.54
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130954
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-103.0	176.6	-164.4	-142.5	-115.4	-160.7	-147.3	172.7	Phase	-154.6
	0.1	0.3	0.1	0.2	0.2	0.2	0.2	0.1	Ampl.	0.2
	61.2	182.3	467.8	302.2	410.1	148.6	385.3	236.9	Sbd box	182.6
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

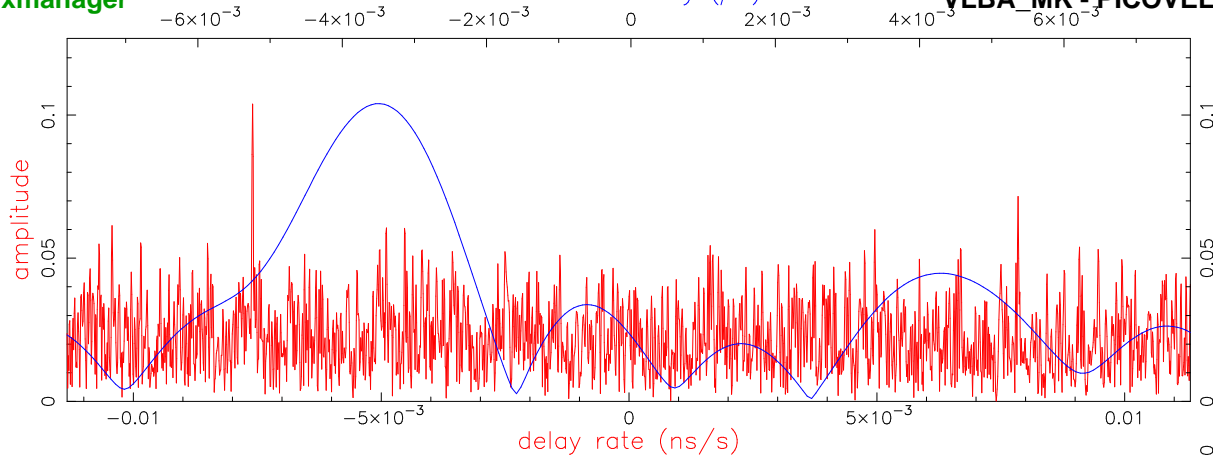
Group delay (usec)(sbd)	6.80378343036E+03	Apriori delay (usec)	6.80406785394E+03	Resid mbdelay (usec)	-3.17359E-03	+/-	1.8E-04
Sband delay (usec)	6.80377732544E+03	Apriori clock (usec)	1.3573175E+01	Resid sbdelay (usec)	-2.90529E-01	+/-	1.4E-03
Phase delay (usec)	6.80406784896E+03	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	-4.98593E-06	+/-	6.1E-07
Delay rate (us/s)	1.80527755817E+00	Apriori rate (us/s)	1.80528867721E+00	Resid rate (us/s)	-1.11190E-05	+/-	2.5E-09
Total phase (deg)	183.3	Apriori accel (us/s/s)	-5.58473109704E-05	Resid phase (deg)	-154.6	+/-	19.0

ph/seg (deg)	51.1	Theor.	45.7	Amplitude	0.166 +/- 0.028	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	66.9	Search (2048X32)	0.102	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	32.8	Inc. seg. avg.	0.158	Inc. frq. avg.	0.160	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	40.5	Inc. frq. avg.	0.160			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
						Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

m: az 52.0 el 38.7 pa -97.2 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -13922.536 -5486.800 simultaneous interpolator

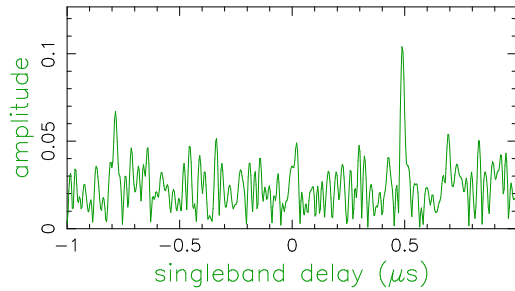
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/mP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/mP.W.262.1ILPVT

multiband delay (μ s)

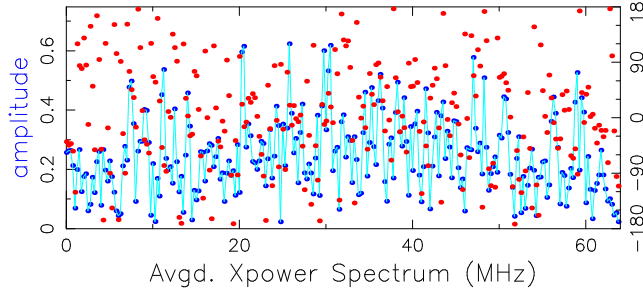


Fringe quality 0

SNR 5.8
 Int time 417.397
 Amp 0.127
 Phase -71.2
 PFD 7.3e-01
 Delays (us)
 SBD 0.489460
 MBD -0.003437
 Fringe rate (Hz)
 -0.655412
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

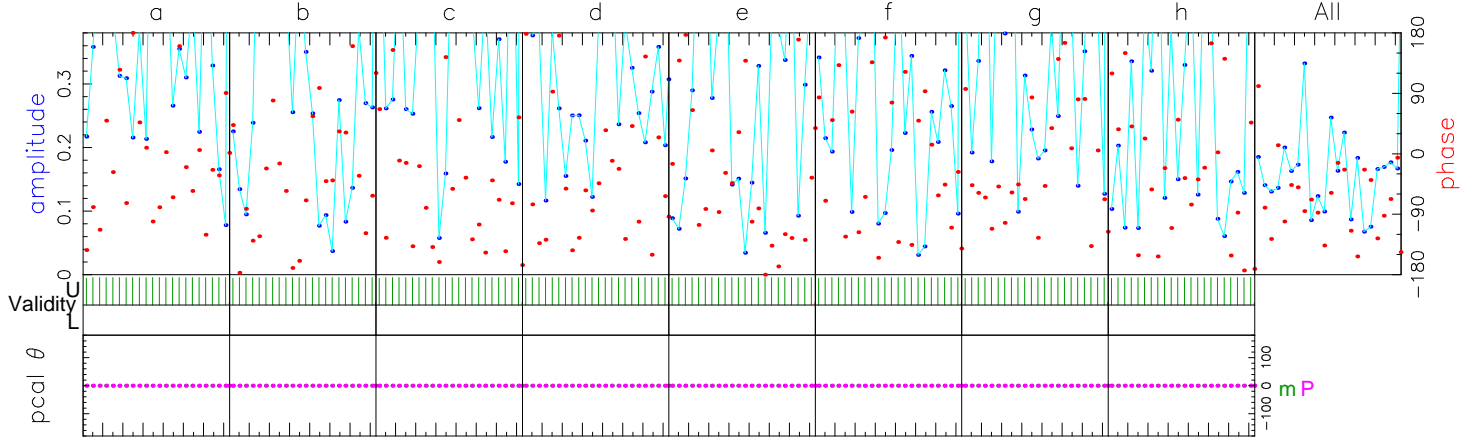


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084501.54
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130957
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-57.2	-59.8	-70.4	-81.4	-90.7	-141.9	-56.7	-36.0	Phase	-71.2
	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	Ampl.	0.1
	379.8	484.2	383.2	495.2	18.9	223.4	269.5	345.7	Sbd box	382.3
U/L	817/0	817/0	817/0	817/0	817/0	817/0	817/0	817/0	APs used	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	6.80456441673E+03	Apriori delay (usec)	6.80406785394E+03	Resid mbdelay (usec)	-3.43721E-03	+/-	1.9E-04
Sband delay (usec)	6.80455731394E+03	Apriori clock (usec)	1.3573175E+01	Resid sbdelay (usec)	4.89460E-01	+/-	1.5E-03
Phase delay (usec)	6.80406785165E+03	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	-2.29701E-06	+/-	6.3E-07
Delay rate (us/s)	1.80528106853E+00	Apriori rate (us/s)	1.80528867721E+00	Resid rate (us/s)	-7.60869E-06	+/-	2.6E-09
Total phase (deg)	266.7	Apriori accel (us/s/s)	-5.58473109704E-05	Resid phase (deg)	-71.2	+/-	19.6

ph/seg (deg)	56.9	Theor.	47.0	Amplitude	0.127 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	80.2		82.1	Search (2048X32)	0.102	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	34.8		27.7	Inc. seg. avg.	0.145	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	42.4		48.4	Inc. frq. avg.	0.122	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

m: az 52.0 el 38.7 pa -97.2 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -13922.536 -5486.800 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/mP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/mP.W.279.1ILPVT

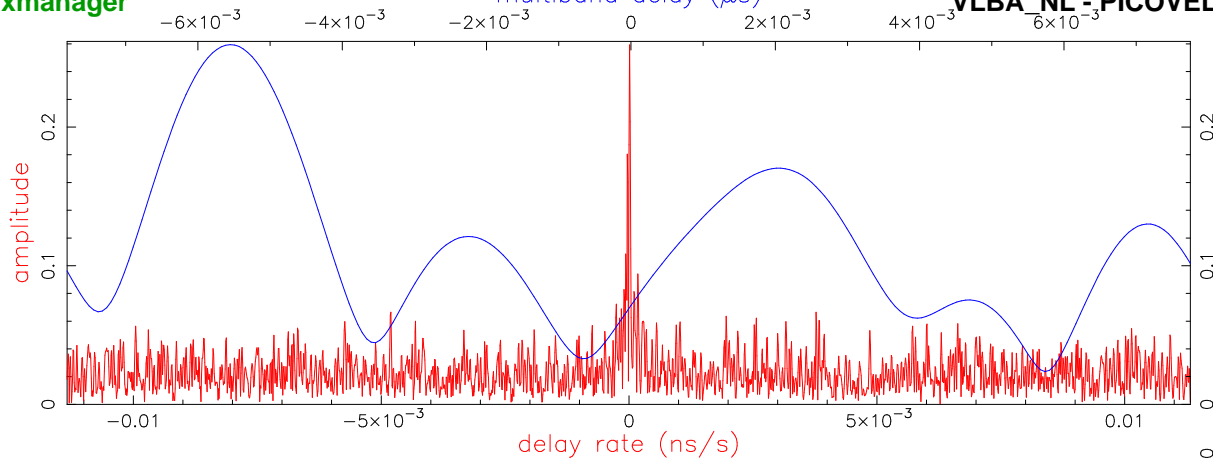
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, nP

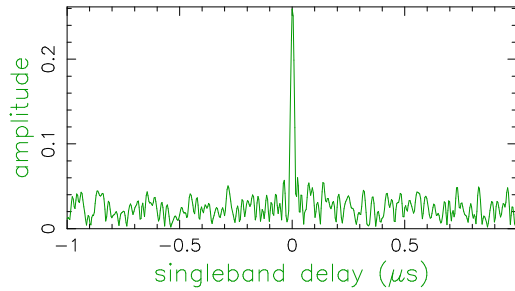
VLBA_NL - PICOVEL, fgroup W, pol LL

multiband delay (μ s)

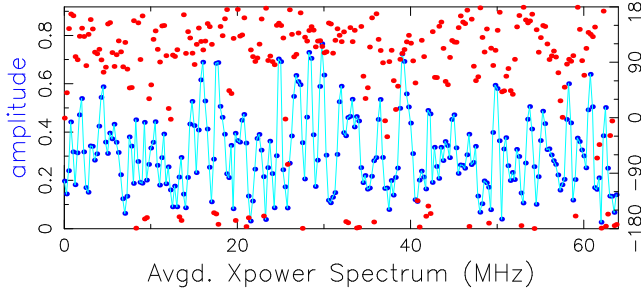


Fringe quality 7

SNR 14.7
 Int time 419.387
 Amp 0.262
 Phase -153.5
 PFD 7.1e-40
 Delays (us)
 SBD 0.001276
 MBD -0.005510
 Fringe rate (Hz) 0.000644
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

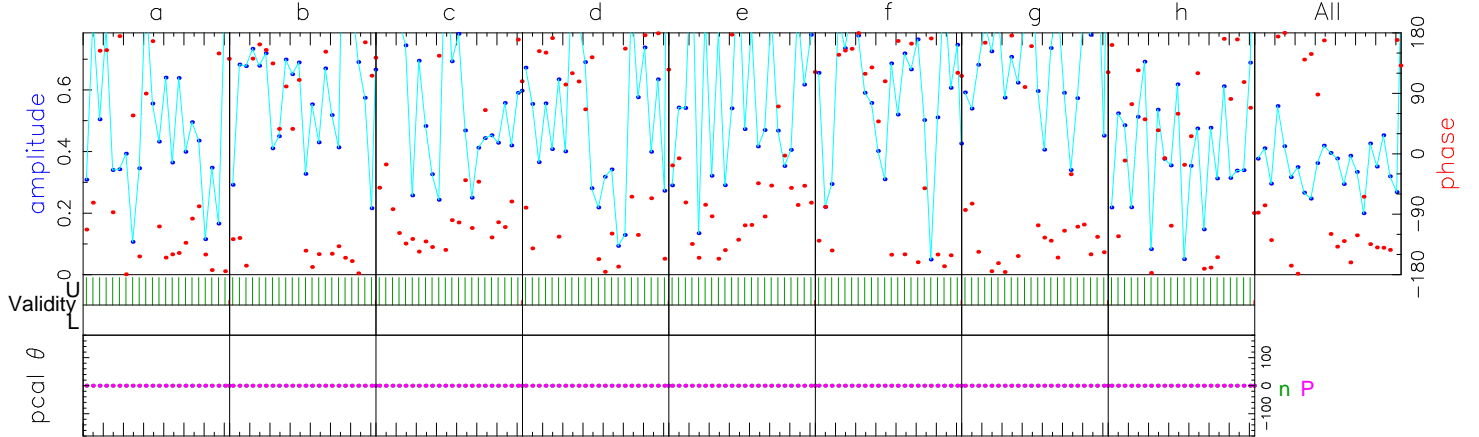


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.00
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130949
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-159.3	174.2	-104.6	-179.0	-89.3	175.7	-147.4	97.6	Phase	-153.5
	0.3	0.4	0.4	0.2	0.4	0.4	0.5	0.1	Ampl.	0.3
	256.3	257.2	257.1	257.0	256.9	257.0	256.3	254.6	Sbd box	257.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 1.43453687789E+04 Apriori delay (usec) 1.43453742887E+04 Resid mbdelay (usec) -5.50987E-03 +/- 7.4E-05
 Sband delay (usec) 1.43453755650E+04 Apriori clock (usec) 0.250 Pcal rate: 0.000E+00, 0.000E+00 (us/s) Resid sbdelay (usec) 1.27625E-03 +/- 5.9E-04
 Phase delay (usec) 1.43453742838E+04 Apriori clockrate (us/s) 9.0000002E-07 Resid phdelay (usec) -4.94920E-06 +/- 2.5E-07
 Delay rate (us/s) 7.73178641705E-01 Apriori rate (us/s) 7.73178634226E-01 Resid rate (us/s) 7.47953E-09 +/- 1.0E-09
 Total phase (deg) -70.6 Apriori accel (us/s/s) -7.15481517502E-05 Resid phase (deg) -153.5 +/- 7.8

RMS Theor. Amplitude 0.262 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 47.9 18.7 Search (2048X32) 0.250 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 49.7 32.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 59.3 11.1 Inc. seg. avg. 0.341 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 52.9 19.3 Inc. frq. avg. 0.335 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

n: az 271.2 el 83.6 pa 84.9 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -6056.408 -4502.013 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/nP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/nP.W.234.1ILPVT

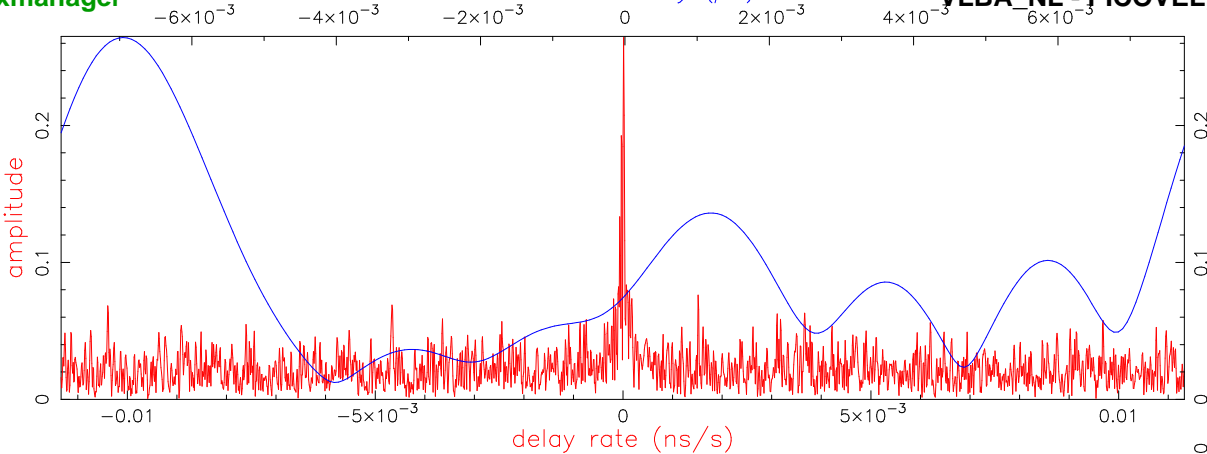
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, nP

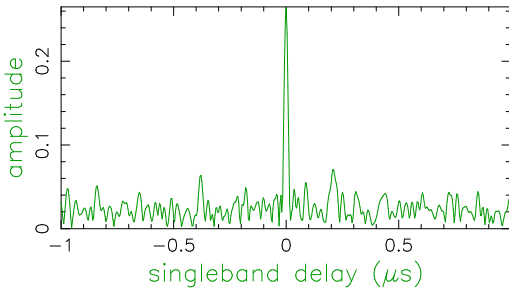
VLBA_NL - PICOVEL, fgroup W, pol RR

multiband delay (μ s)

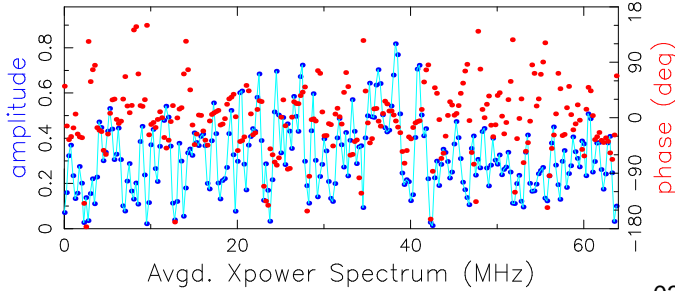


Fringe quality 8

SNR 14.8
 Int time 419.387
 Amp 0.265
 Phase 67.5
 PFD 5.0e-41
 Delays (us)
 SBD -0.000783
 MBD -0.006976
 Fringe rate (Hz) 0.000694
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

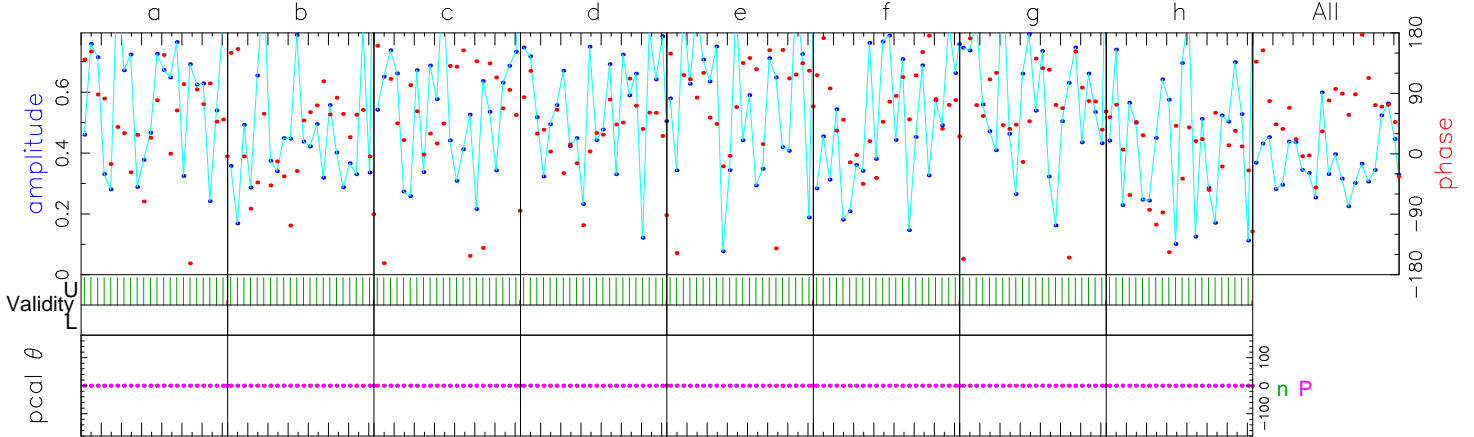


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.00
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130952
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)		1.43453673125E+04				1.43453742887E+04			Resid mbdelay (usec)	-6.97624E-03 +/- 7.3E-05
Sband delay (usec)		1.43453735060E+04				3.7305927E-01			Resid sbdelay (usec)	-7.82750E-04 +/- 5.8E-04
Phase delay (usec)		1.43453742909E+04				9.0000002E-07			Resid phdelay (usec)	2.17669E-06 +/- 2.5E-07
Delay rate (us/s)		7.73178642278E-01				7.73178634226E-01			Resid rate (us/s)	8.05205E-09 +/- 1.0E-09
Total phase (deg)			150.3			-7.15481517502E-05			Resid phase (deg)	67.5 +/- 7.7

ph/seg (deg) 51.7 18.5
 amp/seg (%) 56.1 32.3
 ph/frq (deg) 40.3 10.9
 amp/frq (%) 28.9 19.1

RMS Theor. Amplitude 0.265 +/- 0.018
 Search (2048X32) 0.258
 Interp. 0.000
 Inc. seg. avg. 0.360
 Inc. frq. avg. 0.308

Group delay (usec)(sbd) 1.43453673125E+04
 Apriori delay (usec) 1.43453742887E+04
 Apriori clock (usec) 3.7305927E-01
 Apriori clockrate (us/s) 9.0000002E-07
 Apriori rate (us/s) 7.73178634226E-01
 Apriori accel (us/s/s) -7.15481517502E-05

Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 Pcal rate: 0.000E+00, 0.000E+00 (us/s)
 Bits/sample: 2x2 SampCntNorm: enabled
 Sample rate(MISamp/s): 128
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite

sb window (us) -1.000 1.000
 mb window (us) -0.008 0.008
 dr window (ns/s) -0.011 0.011
 ion window (TEC) 0.00 0.00

n: az 271.2 el 83.6 pa 84.9 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -6056.408 -4502.013 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/nP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/nP.W.251.1ILPVT

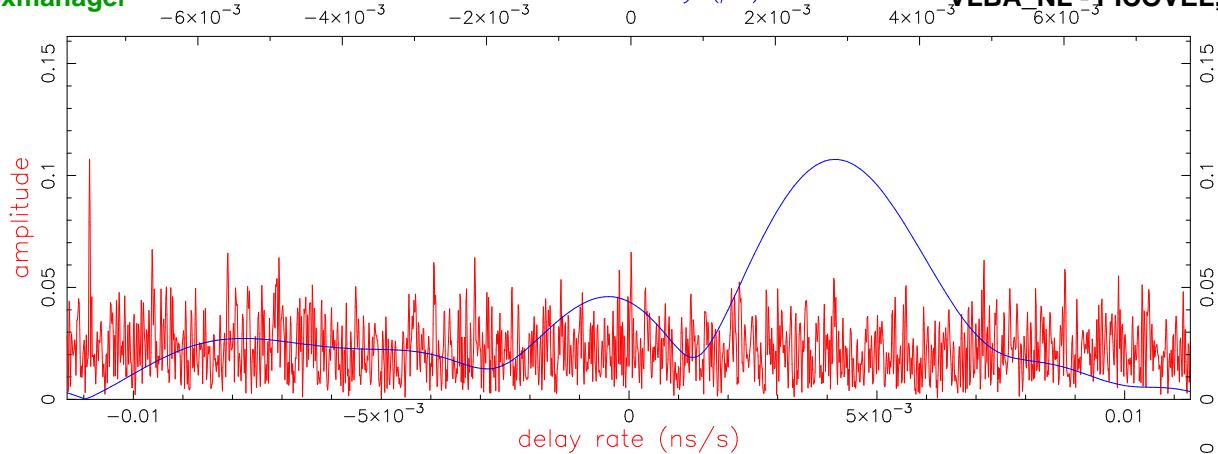
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, nP

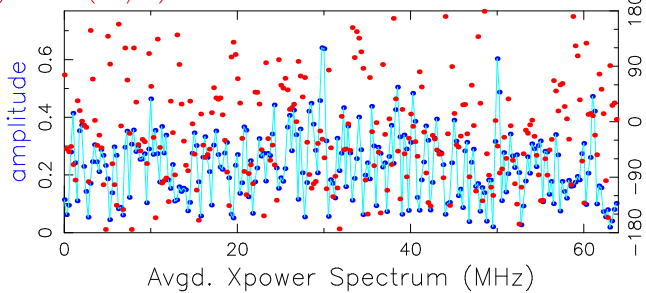
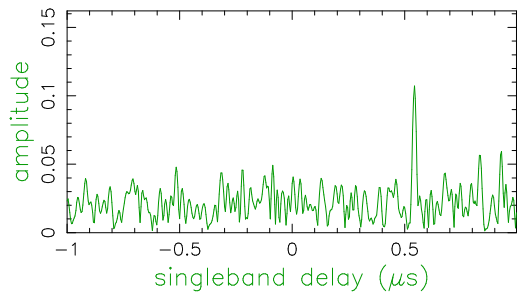
VLBA_NL - PICOVEL, fgroup W, pol LR

multiband delay (μ s)



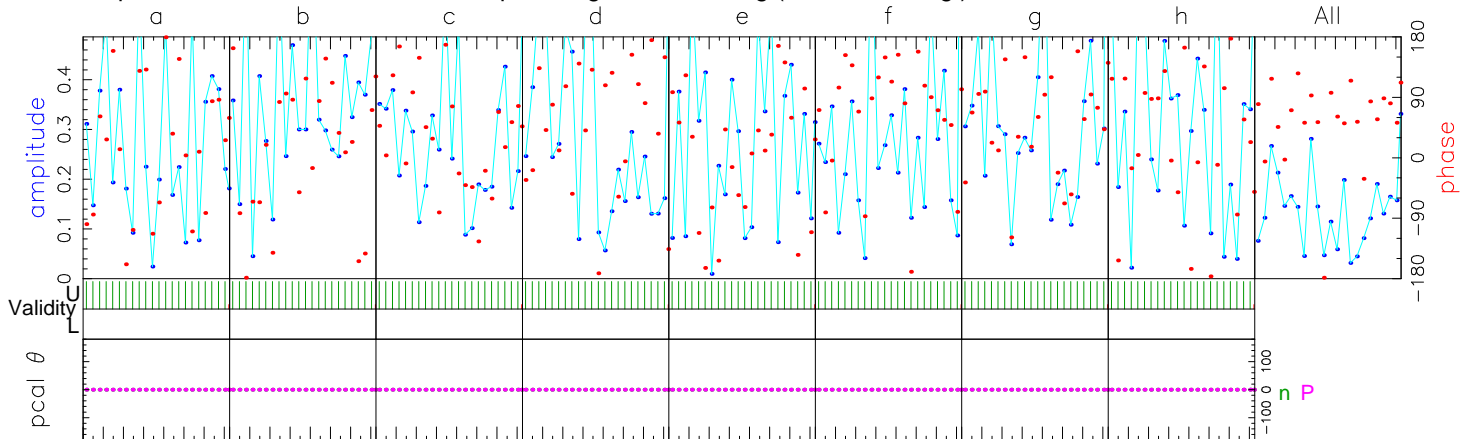
Fringe quality 0

SNR 6.0
 Int time 419.387
 Amp 0.162
 Phase 71.0
 PFD 4.0e-01
 Delays (us)
 SBD 0.542998
 MBD 0.002831
 Fringe rate (Hz)
 -0.938715
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.00
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130956
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0			
n	1000	1000	1000	1000	1000	1000	1000	1000			
P	1000	1000	1000	1000	1000	1000	1000	1000			
n:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
n:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
n	1000	1000	1000	1000	1000	1000	1000	1000			
P	1000	1000	1000	1000	1000	1000	1000	1000			
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)		1.43459239949E+04				1.43453742887E+04			Resid mbdelay (usec)	2.83122E-03 +/- 1.8E-04	
Sband delay (usec)		1.43459172867E+04				3.7305927E-01			Resid sbdelay (usec)	5.42998E-01 +/- 1.4E-03	
Phase delay (usec)		1.43453742910E+04				9.0000002E-07			Resid phdelay (usec)	2.28831E-06 +/- 6.2E-07	
Delay rate (us/s)		7.73167736676E-01				7.73178634226E-01			Resid rate (us/s)	-1.08975E-05 +/- 2.5E-09	
Total phase (deg)			153.8			-7.15481517502E-05			Resid phase (deg)	71.0 +/- 19.1	
RMS	45.4	45.8			0.162 +/- 0.027				PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
ph/seg (deg)	45.4	45.8			0.102				PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
amp/seg (%)	70.4	79.9			0.000				Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
ph/frq (deg)	24.4	27.0			0.156				Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011
amp/frq (%)	42.9	47.1			0.155				Data rate(Mb/s): 2048		ion window (TEC) 0.00 0.00
n: az 271.2 el 83.6 pa 84.9		P: az 308.1 el 19.3 pa 58.6			u, v (fr/asec) -6056.408 -4502.013						simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/nP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/nP.W.270.1ILPVT

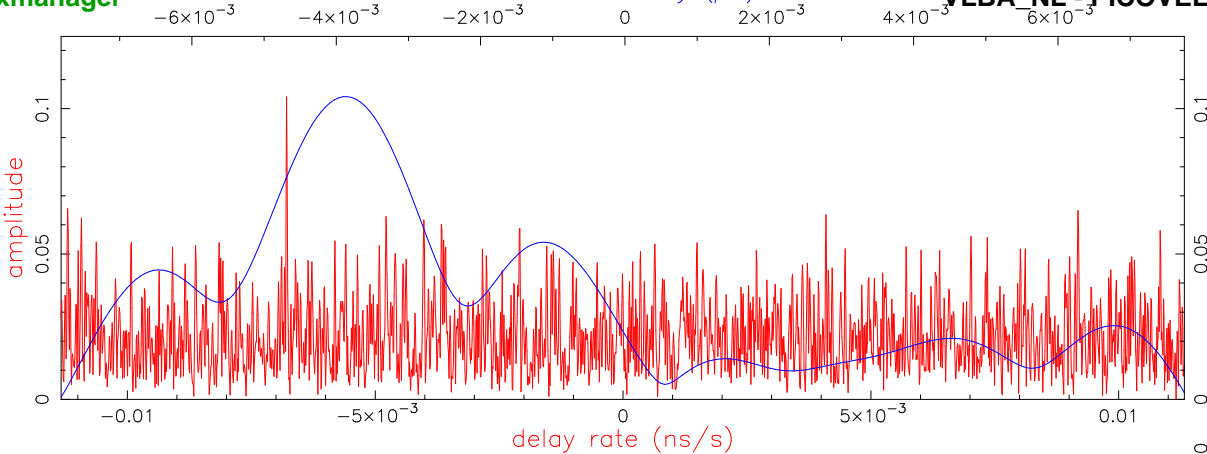
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, nP

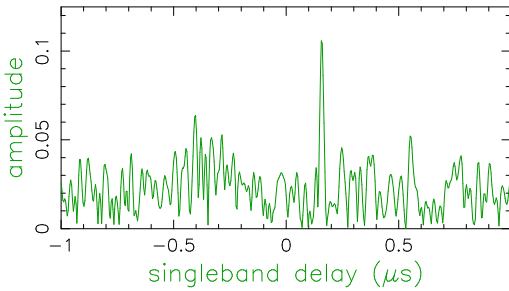
VLBA_NL - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

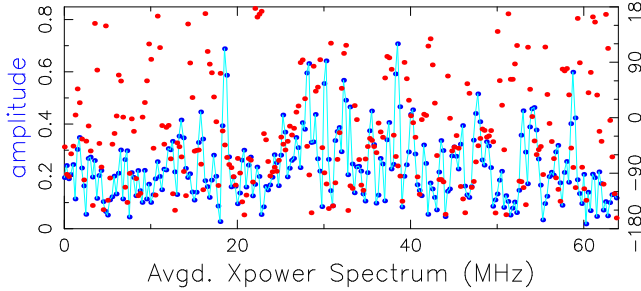


Fringe quality 0

SNR 6.0
 Int time 419.387
 Amp 0.125
 Phase 10.6
 PFD 3.9e-01
 Delays (us)
 SBD 0.157826
 MBD -0.003916
 Fringe rate (Hz)
 -0.585204
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

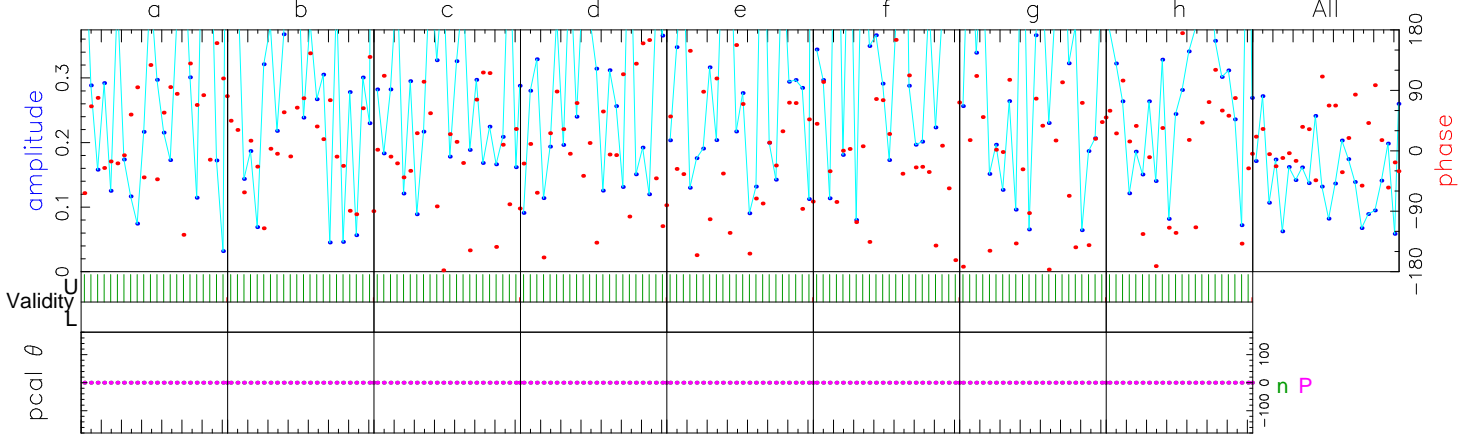


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.00
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130959
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	33.6	24.6	1.9	-23.2	-33.7	-17.5	43.2	41.2	Phase	10.6
	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	Ampl.	0.1
	369.6	225.1	180.8	490.1	413.5	59.3	351.3	279.0	Sbd box	297.4
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.43455266231E+04	Apriori delay (usec)	1.43453742887E+04	Resid mbdelay (usec)	-3.91559E-03	+/-	1.8E-04
Sband delay (usec)	1.43455321150E+04	Apriori clock (usec)	3.7305927E-01	Resid sbdelay (usec)	1.57826E-01	+/-	1.4E-03
Phase delay (usec)	1.43453742891E+04	Apriori clockrate (us/s)	9.0000002E-07	Resid phdelay (usec)	3.40342E-07	+/-	6.2E-07
Delay rate (us/s)	7.73171840592E-01	Apriori rate (us/s)	7.73178634226E-01	Resid rate (us/s)	-6.79363E-06	+/-	2.5E-09
Total phase (deg)	93.4	Apriori accel (us/s/s)	-7.15481517502E-05	Resid phase (deg)	10.6	+/-	19.1

ph/seg (deg)	46.9	Theor.	45.8	Amplitude	0.125 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	62.1		79.9	Search (2048X32)	0.101	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	33.4		27.0	Inc. seg. avg.	0.127	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	24.4		47.1	Inc. frq. avg.	0.124	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
						Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

n: az 271.2 el 83.6 pa 84.9 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -6056.408 -4502.013 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/nP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/nP.W.289.1ILPVT

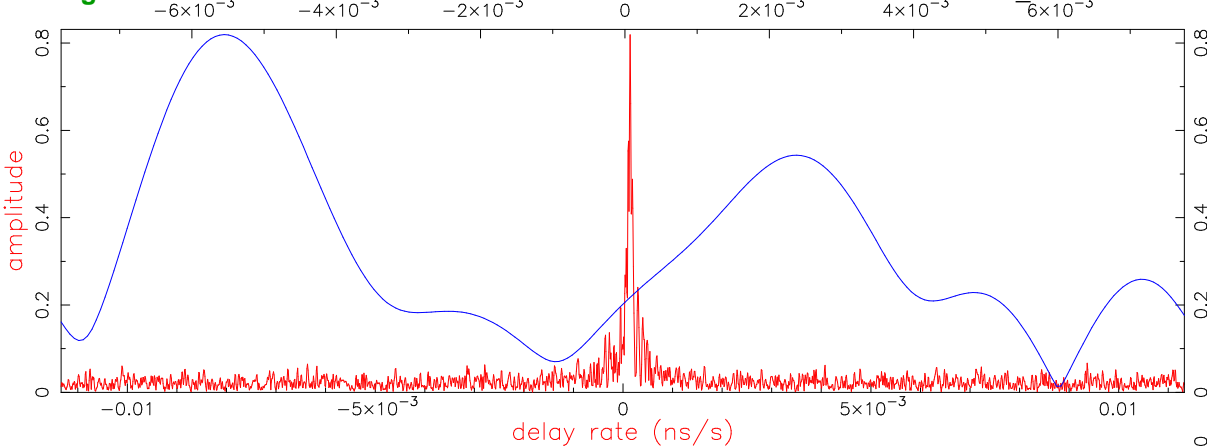
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, oP

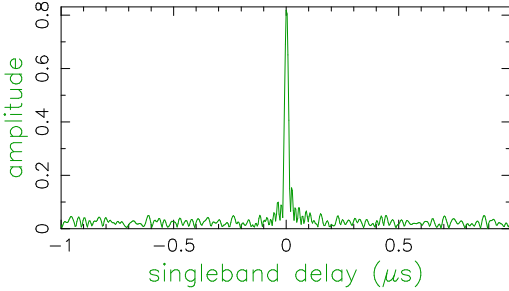
VLBA_OV - PICOVEL, fgroup W, pol LL

multiband delay (μ s)

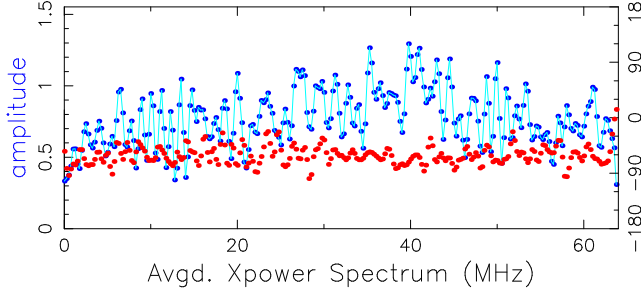


Fringe quality 4

SNR 46.3
 Int time 415.727
 Amp 0.831
 Phase 21.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.001589
 MBD -0.005504
 Fringe rate (Hz)
 0.012616
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

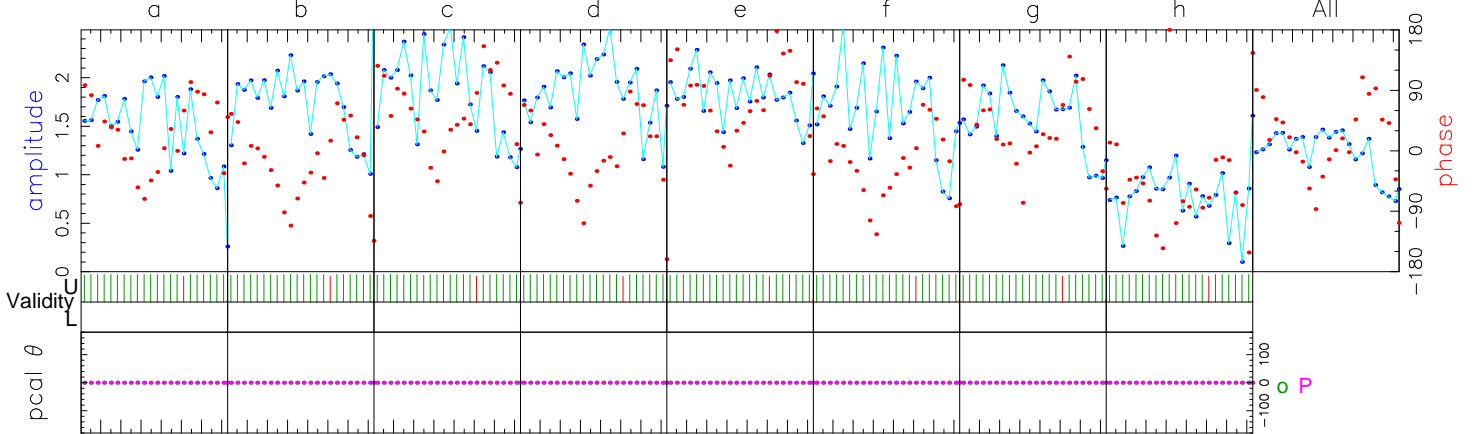


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084501.54
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130950
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	816/0	816/0	816/0	816/0	816/0	816/0	816/0	816/0		
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.39212753357E+04	Apriori delay (usec)	1.39212808395E+04	Resid mbdelay (usec)	-5.50375E-03	+/-	2.3E-05
Sband delay (usec)	1.39212824282E+04	Apriori clock (usec)	2.1606234E+01	Resid sbdelay (usec)	1.58875E-03	+/-	1.9E-04
Phase delay (usec)	1.39212808401E+04	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	6.84093E-07	+/-	8.0E-08
Delay rate (us/s)	1.18978799608E+00	Apriori rate (us/s)	1.18978784962E+00	Resid rate (us/s)	1.46461E-07	+/-	3.3E-10
Total phase (deg)	205.3	Apriori accel (us/s/s)	-7.37506284996E-05	Resid phase (deg)	21.2	+/-	2.5

ph/seg (deg)	51.6	Theor.	5.9	Search (2048X32)	0.795	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	55.7		10.3	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	52.8		3.5	Inc. seg. avg.	1.228	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	39.4		6.1	Inc. frq. avg.	1.058	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

o: az 67.1 el 75.3 pa -100.5 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -9248.889 -5024.978 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/oP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/oP.W.244.1ILPVT

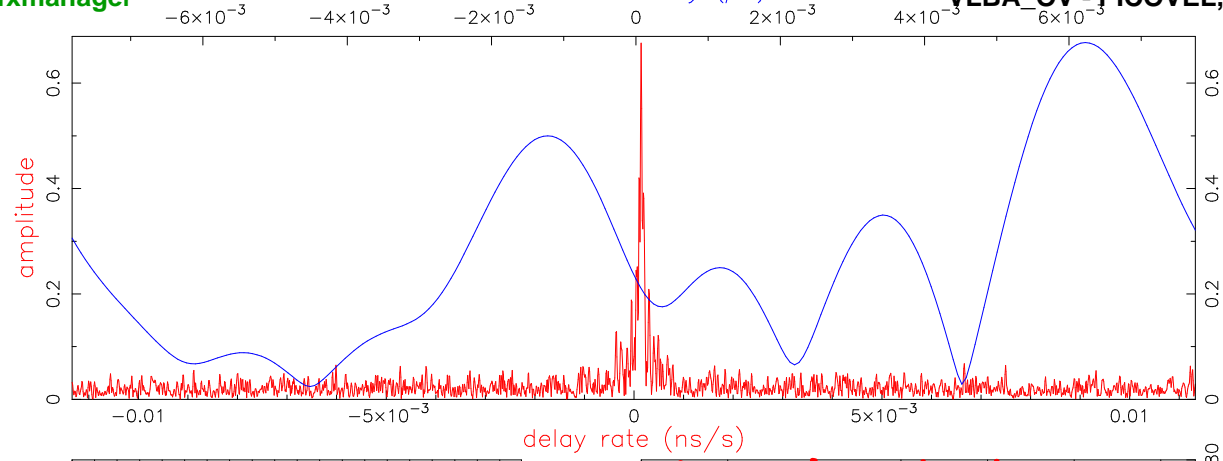
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, oP

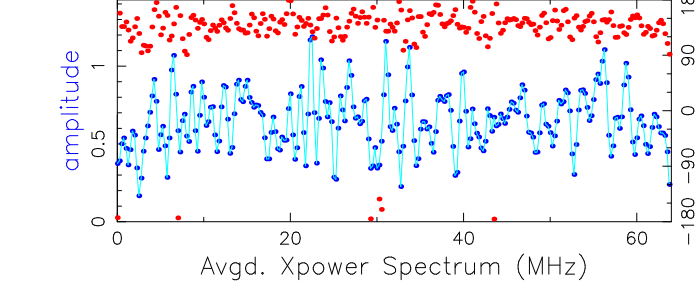
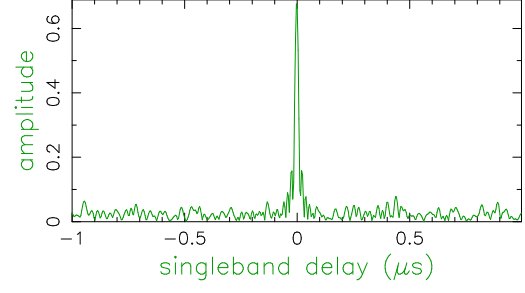
VLBA_OV - PICOVEL, fgroup W, pol RR

multiband delay (μ s)



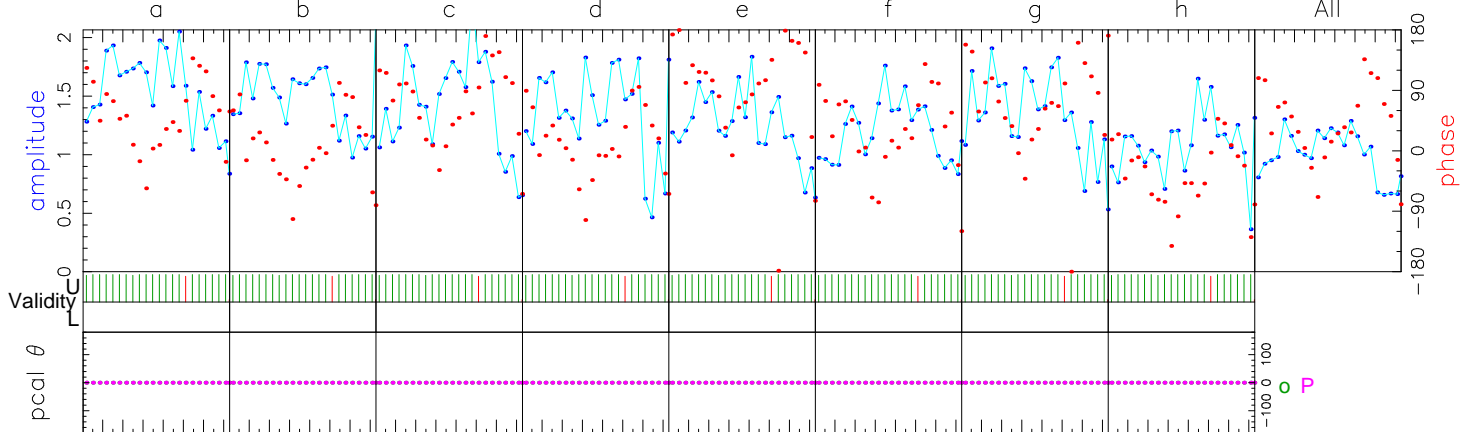
Fringe quality 4

SNR 38.4
 Int time 415.727
 Amp 0.689
 Phase 43.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.002222
 MBD 0.006288
 Fringe rate (Hz)
 0.012609
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



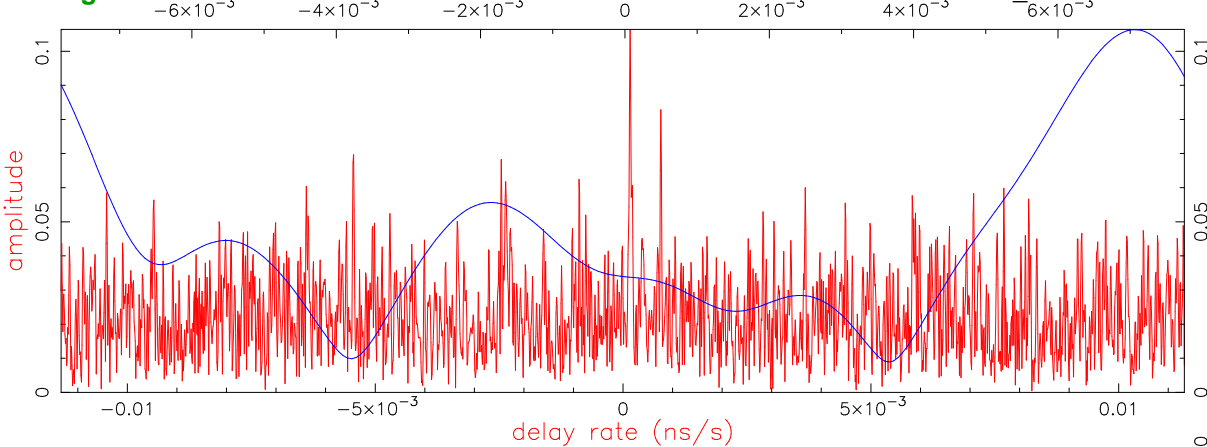
Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084501.54
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130954
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



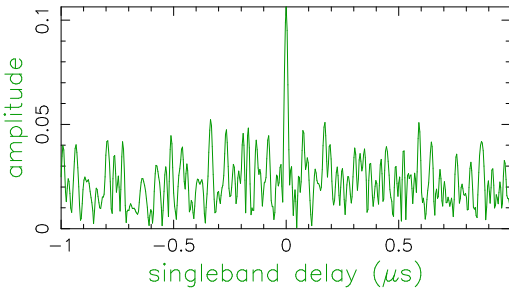
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	816/0	816/0	816/0	816/0	816/0	816/0	816/0	816/0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
o:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		1.39212715026E+04				1.39212808395E+04			6.28809E-03	+/- 2.8E-05
Sband delay (usec)		1.39212786175E+04				2.1606234E+01			-2.22200E-03	+/- 2.2E-04
Phase delay (usec)		1.39212808409E+04				2.9999999E-07			1.38842E-06	+/- 9.6E-08
Delay rate (us/s)		1.18978799601E+00				1.18978784962E+00			1.46384E-07	+/- 4.0E-10
Total phase (deg)			227.2			-7.37506284996E-05			43.1	+/- 3.0
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
PC period (AP's) 5, 5										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00
ph/seg (deg)	50.8	7.2								
amp/seg (%)	54.4	12.5								
ph/frq (deg)	50.1	4.2								
amp/frq (%)	33.6	7.4								
Search (2048X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
0.689 +/- 0.018										
0.661										
0.000										
0.998										
0.893										
PCal mode: MANUAL, MANUAL										
PCal rate: 0.000E+00, 0.000E+00 (us/s)										
SampCntNorm: enabled										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
simultaneous interpolator										

multiband delay (μ s)

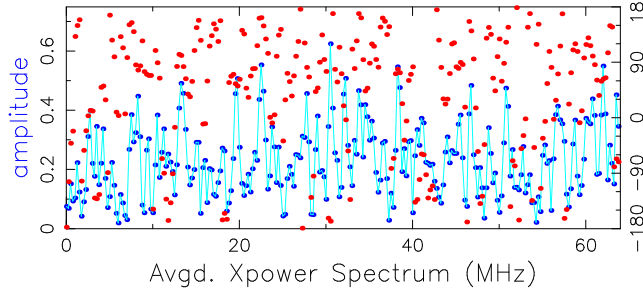


Fringe quality 0

SNR 5.9
 Int time 415.727
 Amp 0.106
 Phase 12.4
 PFD 5.4e-01
 Delays (us)
 SBD -0.000412
 MBD 0.007033
 Fringe rate (Hz)
 0.012653
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

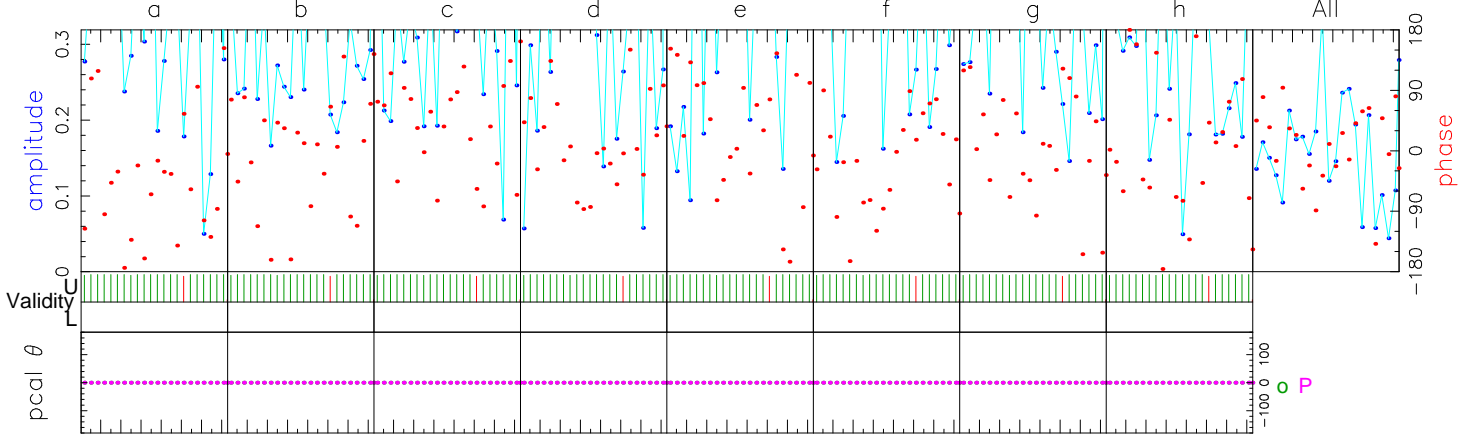


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084501.54
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130959
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



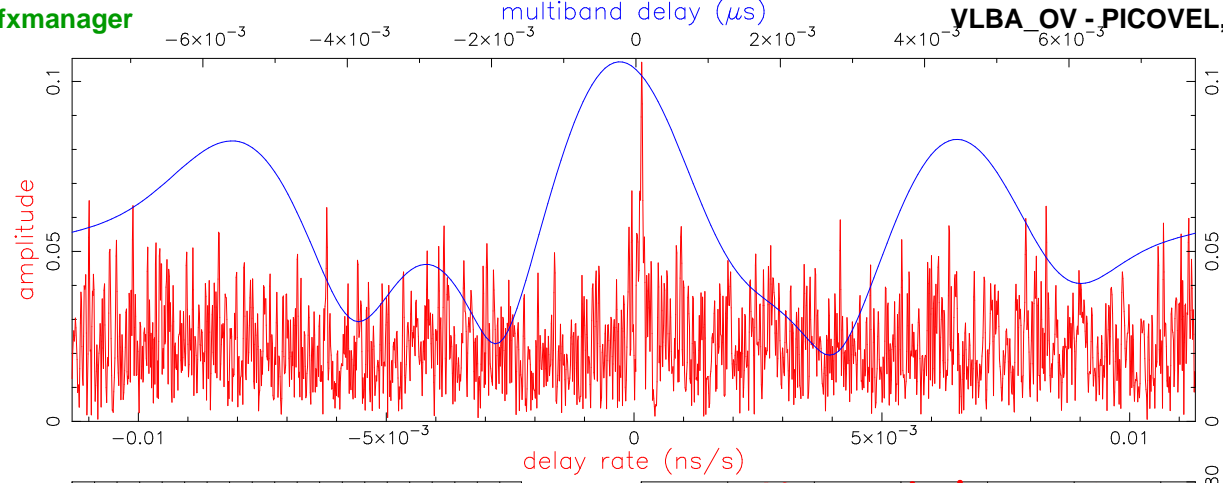
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	816/0	816/0	816/0	816/0	816/0	816/0	816/0	816/0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
o:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	1.39212878727E+04	Apriori delay (usec)	1.39212808395E+04	Resid mbdelay (usec)	7.03328E-03	+/-	1.8E-04
Sband delay (usec)	1.39212804272E+04	Apriori clock (usec)	2.1606234E+01	Resid sbdelay (usec)	-4.12250E-04	+/-	1.5E-03
Phase delay (usec)	1.39212808399E+04	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	3.99902E-07	+/-	6.2E-07
Delay rate (us/s)	1.18978799651E+00	Apriori rate (us/s)	1.18978784962E+00	Resid rate (us/s)	1.46885E-07	+/-	2.6E-09
Total phase (deg)	196.5	Apriori accel (us/s/s)	-7.37506284996E-05	Resid phase (deg)	12.4	+/-	19.3

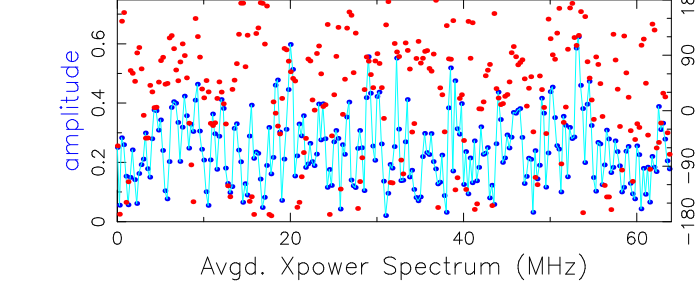
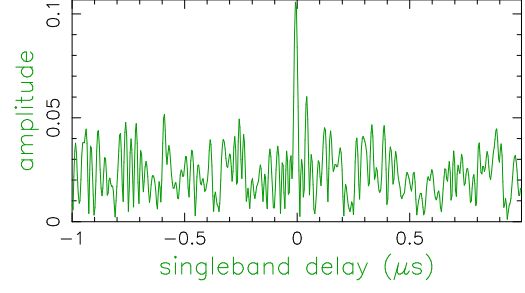
ph/seg (deg)	56.2	RMS	46.3	Theor.	46.3	Amplitude	0.106 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	79.3	56.2	46.3	Search (2048X32)	0.103	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000		
ph/frq (deg)	52.4	79.3	80.8	Inc. seg. avg.	0.118	Inc. frq. avg.	0.126	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008	
amp/frq (%)	46.5	52.4	27.3	Inc. frq. avg.	0.126	Sample rate(MISamp/s): 128		Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	dr window (ns/s) -0.011 0.011
		46.5	47.7							ion window (TEC)	0.00 0.00

o: az 67.1 el 75.3 pa -100.5 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -9248.889 -5024.978 simultaneous interpolator

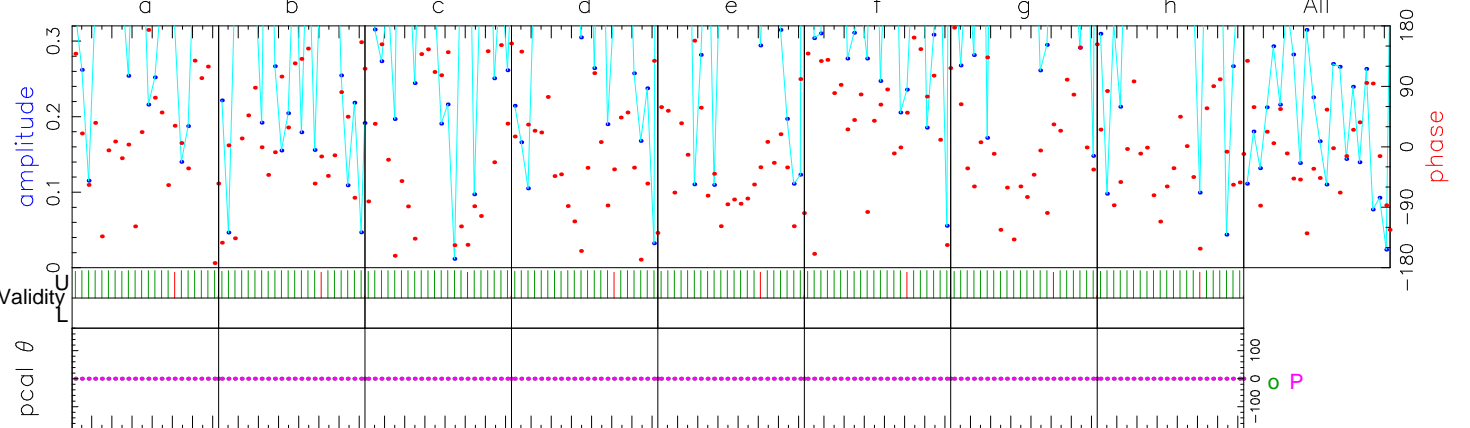
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/oP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/oP.W.286.1ILPVT



Fringe quality 0
 SNR 6.0
 Int time 415.727
 Amp 0.107
 Phase -5.0
 PFD 4.9e-01
 Delays (us)
 SBD -0.006451
 MBD -0.000171
 Fringe rate (Hz)
 0.013102
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084501.54
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131002
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	816/0	816/0	816/0	816/0	816/0	816/0	816/0	816/0		
o	1000	1000	1000	1000	1000	1000	1000	1000	APs used	255.3
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
Group delay (usec)(sbd)		1.39212806685E+04			1.39212808395E+04				Resid mbdelay (usec)	-1.71010E-04 +/- 1.8E-04
Sband delay (usec)		1.39212743885E+04			2.1606234E+01				Resid sbdelay (usec)	-6.45100E-03 +/- 1.4E-03
Phase delay (usec)		1.39212808393E+04			2.9999999E-07				Resid phdelay (usec)	-1.62464E-07 +/- 6.2E-07
Delay rate (us/s)		1.18978800173E+00			1.18978784962E+00				Resid rate (us/s)	1.52105E-07 +/- 2.6E-09
Total phase (deg)		179.1			-7.37506284996E-05				Resid phase (deg)	-5.0 +/- 19.3

ph/seg (deg) 64.8 46.1 Search (2048X32) 0.103 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 114.1 80.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 73.8 27.2 Inc. seg. avg. 0.146 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 76.2 47.5 Inc. frq. avg. 0.147 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 o: az 67.1 el 75.3 pa -100.5 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -9248.889 -5024.978 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/oP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/oP.W.301.1ILPVT

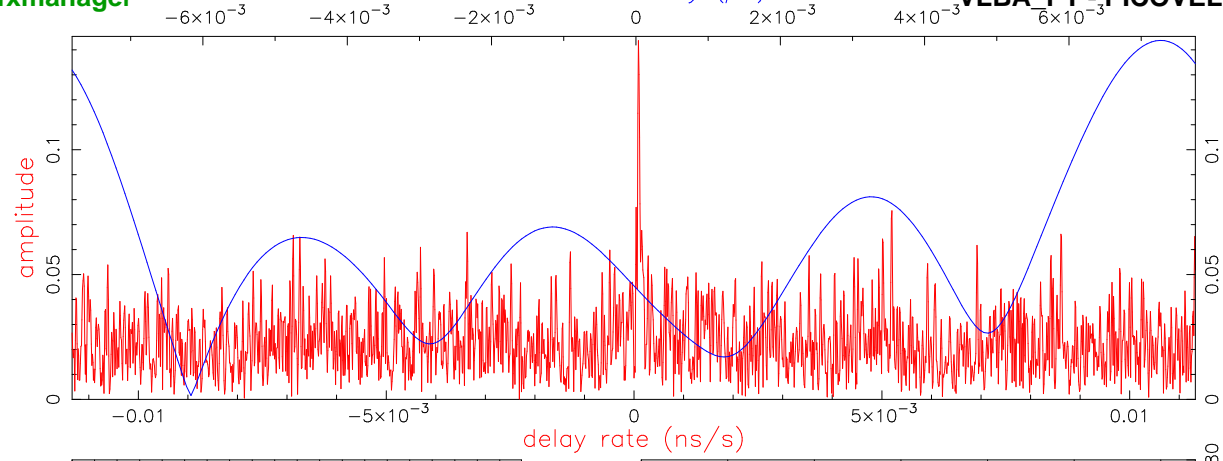
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, pP

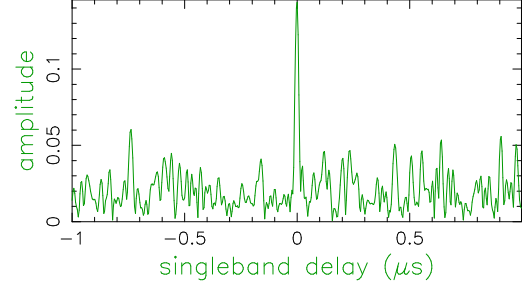
VLBA_PT - PICOVEL, fgroup W, pol LL

multiband delay (μ s)

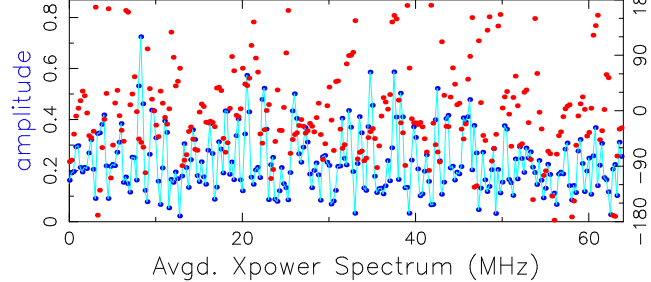


Fringe quality 9

SNR 8.1
 Int time 419.387
 Amp 0.145
 Phase -116.6
 PFD 1.4e-07
 Delays (us)
 SBD -0.001395
 MBD 0.007224
 Fringe rate (Hz)
 0.007776
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

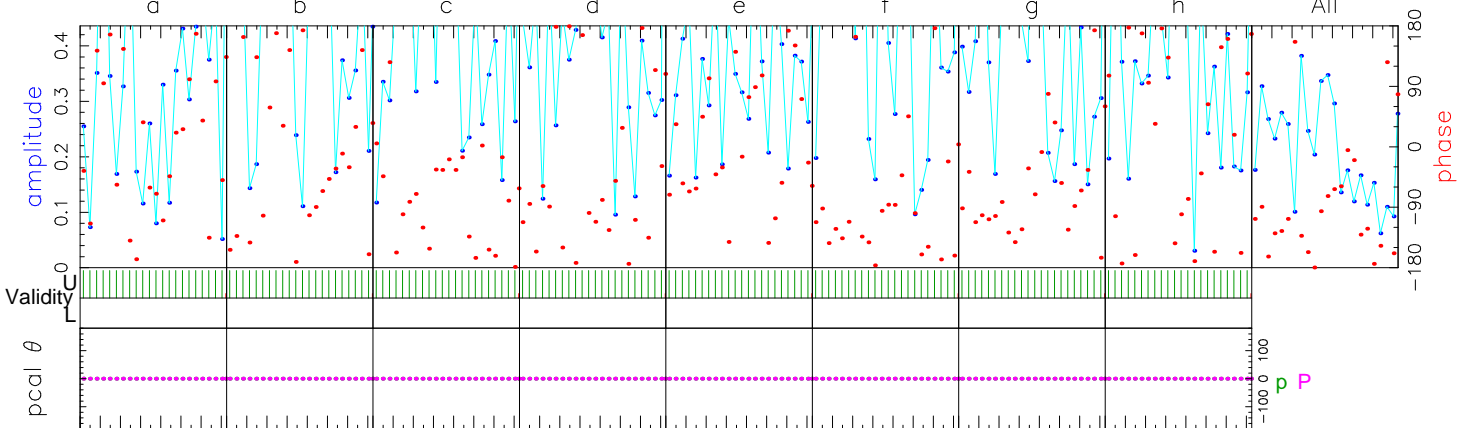


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.00
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130950
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec

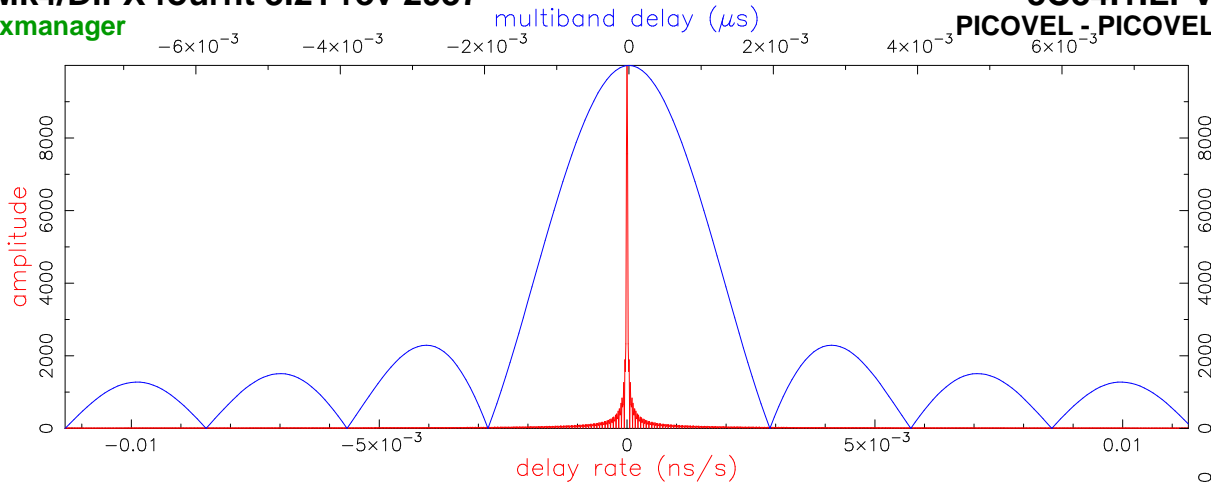


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	125.7	-125.5	-90.8	-133.0	-12.4	-119.8	-94.1	-161.3	Phase	-116.6
	0.1	0.1	0.2	0.2	0.1	0.3	0.3	0.1	Ampl.	0.2
	400.5	10.1	256.9	256.1	88.7	256.0	256.2	253.9	Sbd box	256.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

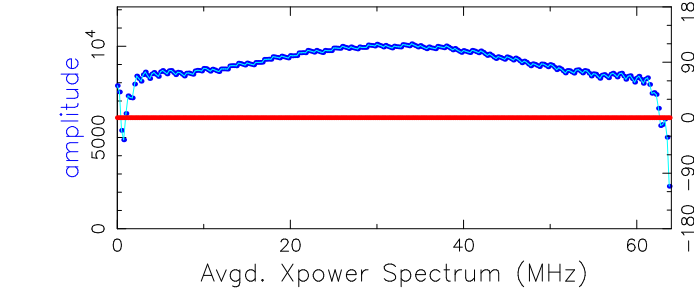
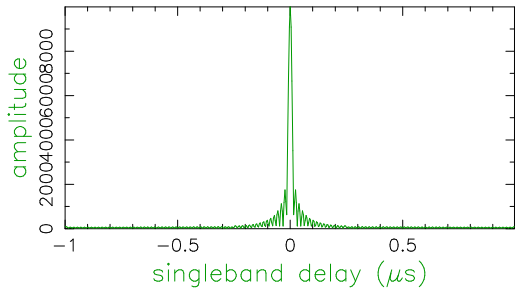
Group delay (usec)(sbd)	1.42556704922E+04	Apriori delay (usec)	1.42556788931E+04	Resid mbdelay (usec)	7.22414E-03	+/-	1.3E-04
Sband delay (usec)	1.42556774983E+04	Apriori clock (usec)	2.8508759E-01	Resid sbdelay (usec)	-1.39475E-03	+/-	1.1E-03
Phase delay (usec)	1.42556788893E+04	Apriori clockrate (us/s)	7.9999999E-07	Resid phdelay (usec)	-3.76037E-06	+/-	4.5E-07
Delay rate (us/s)	1.03368247142E+00	Apriori rate (us/s)	1.03368238115E+00	Resid rate (us/s)	9.02688E-08	+/-	1.9E-09
Total phase (deg)	189.0	Apriori accel (us/s/s)	-7.87407105035E-05	Resid phase (deg)	-116.6	+/-	14.1

ph/seg (deg)	56.8	Theor.	33.8	Amplitude	0.145 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	76.8		58.9	Search (2048X32)	0.142	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	68.6		19.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	63.6		34.7	Inc. seg. avg.	0.178	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.166	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

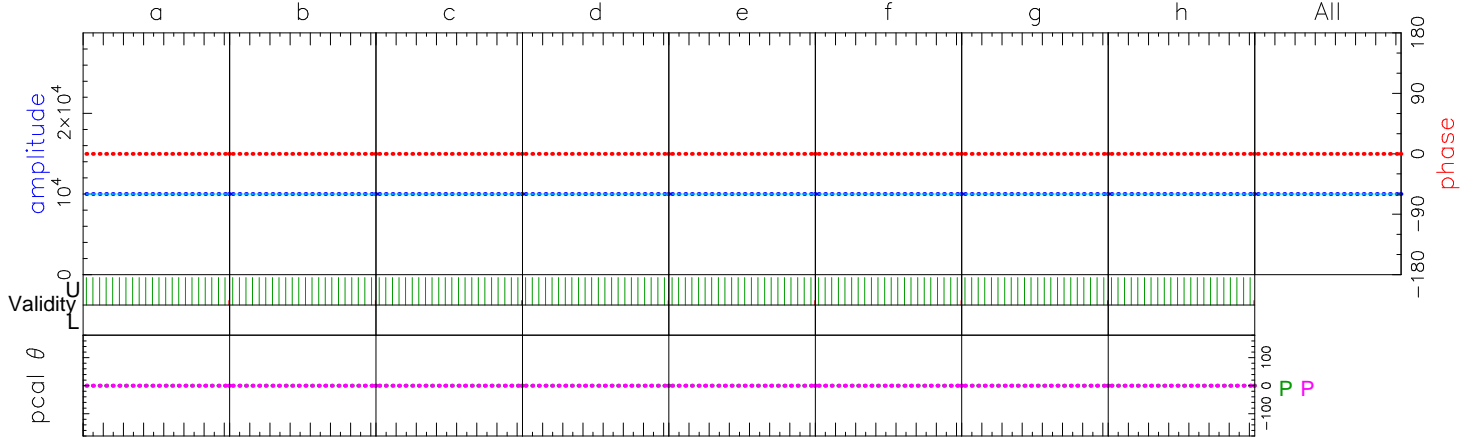
p: az 38.5 el 80.4 pa -139.1 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -8062.886 -5660.023 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/pP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/pP.W.246.1ILPVT



Fringe quality 9
SNR 560012.3
Int time 419.401
Amp 9999.654
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz)
0.000000
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c202b
Yr:day # 16383
Yr:day 2020:284
Start 084500.00
Stop 085159.84
FRT 084830.00
Corr/FF/build
2021:023:032807
2021:023:130953
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0
P	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
P	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
P	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	1.9E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	1.5E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	6.6E-12
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	2.7E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	RMS	Theor.	Amplitude	9999.653 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	0.0	0.0	0.0	Search (2048X32)	9999.654	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	0.0	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	0.0	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	9999.653	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

P: az 308.1 el 19.3 pa 58.6 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/PP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/PP.W.254.1ILPVT

Mk4/DiFX fourfit 3.21 rev 2937

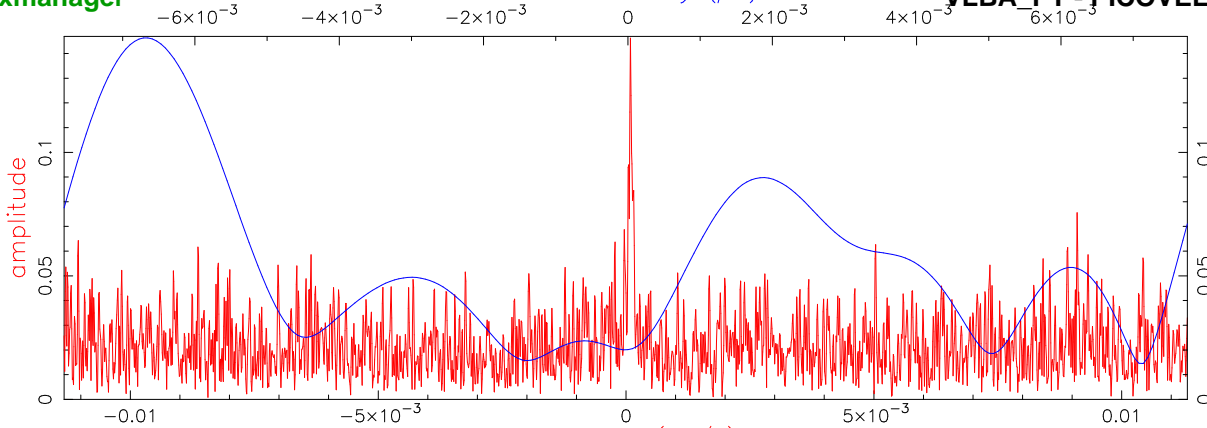
fxmanager

3C84.1ILPVT, No0079, pP

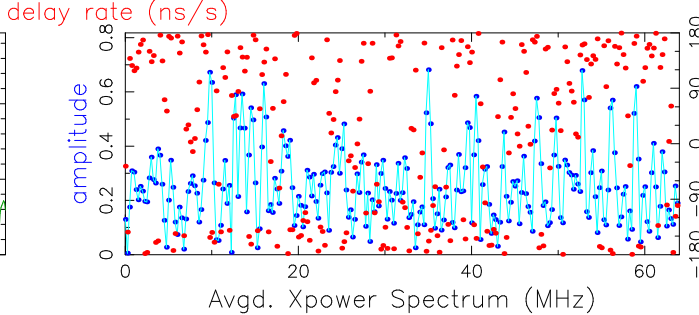
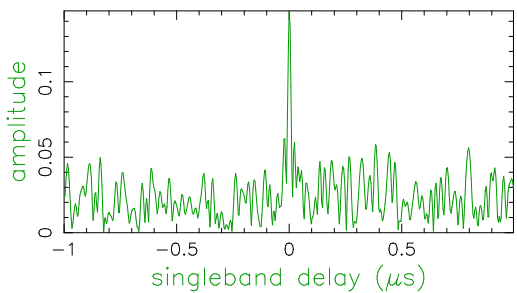
VLBA_PT - PICOVEL, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 9

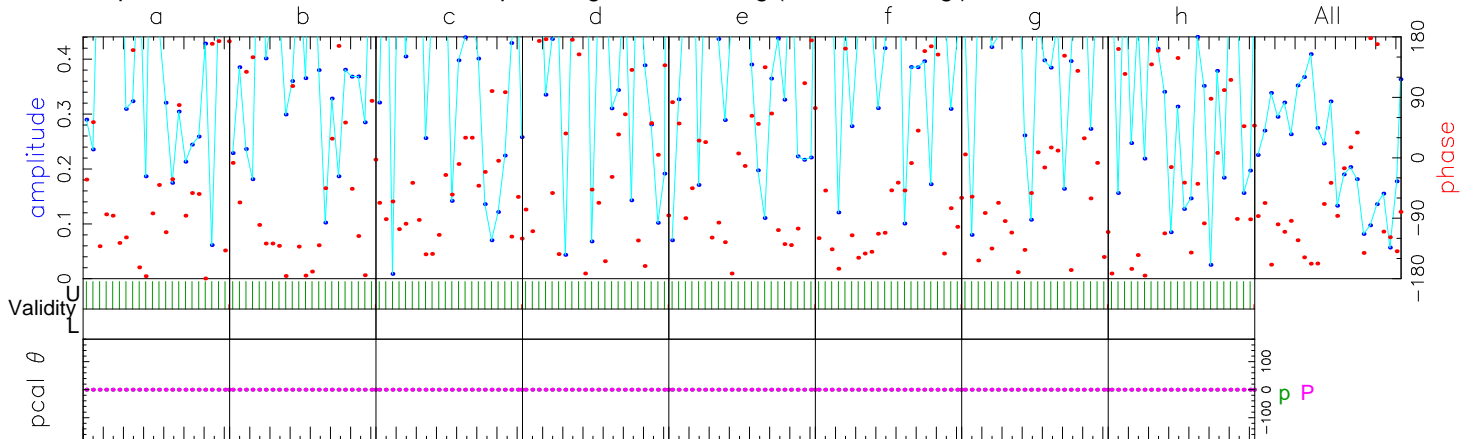


SNR 8.2
 Int time 419.387
 Amp 0.147
 Phase -110.4
 PFD 6.6e-08
 Delays (us)
 SBD 0.000781
 MBD -0.006637
 Fringe rate (Hz) 0.008116
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.00
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130954
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec

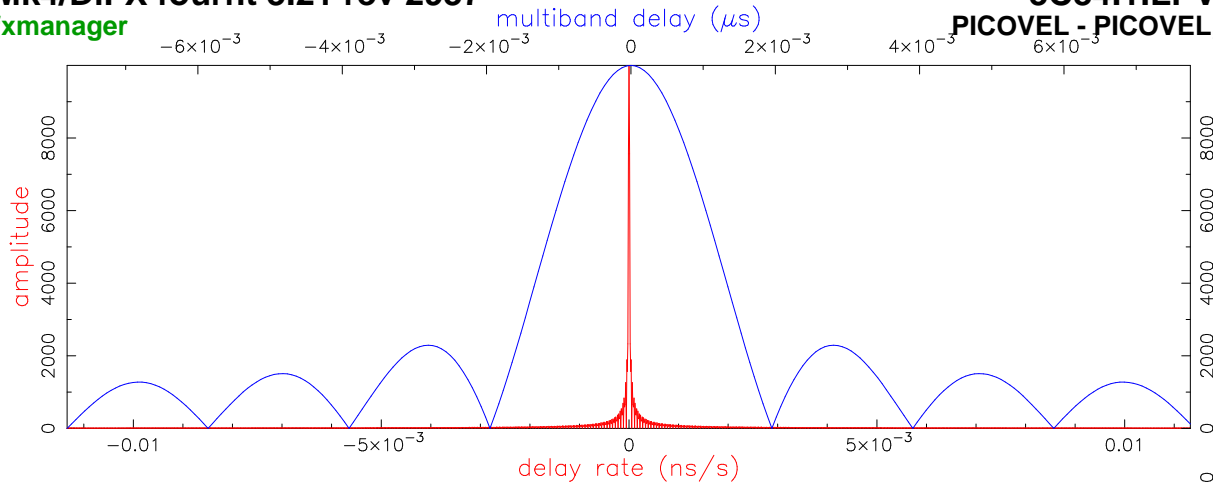


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
p	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
p	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

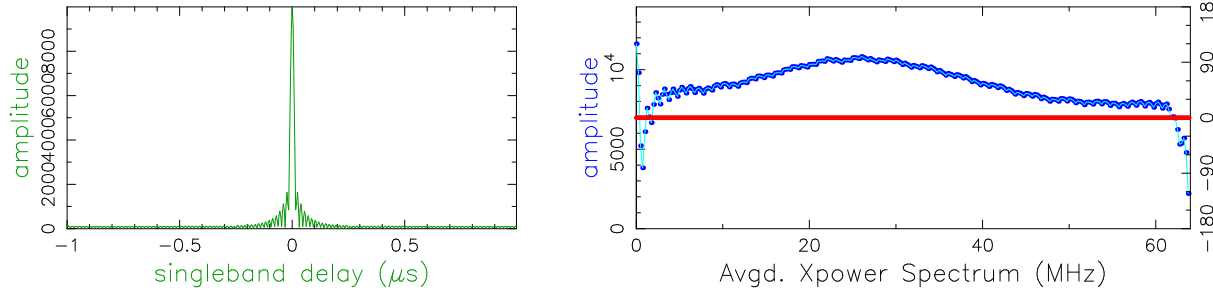
Group delay (usec)(sbd)	1.42556722563E+04	Apriori delay (usec)	1.42556788931E+04	Resid mbdelay (usec)	-6.63673E-03	+/-	1.3E-04
Sband delay (usec)	1.42556796741E+04	Apriori clock (usec)	2.8508759E-01	Resid sbdelay (usec)	7.81000E-04	+/-	1.0E-03
Phase delay (usec)	1.42556788895E+04	Apriori clockrate (us/s)	7.9999999E-07	Resid phdelay (usec)	-3.55967E-06	+/-	4.5E-07
Delay rate (us/s)	1.03368247537E+00	Apriori rate (us/s)	1.03368238115E+00	Resid rate (us/s)	9.42148E-08	+/-	1.9E-09
Total phase (deg)	195.2	Apriori accel (us/s/s)	-7.87407105035E-05	Resid phase (deg)	-110.4	+/-	13.9

ph/seg (deg)	59.8	RMS	33.4	Theor.	Amplitude	0.147 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	88.0	Search (2048X32)	0.138	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	Interp.	0.000	SampCntNorm: enabled	sb window (us)	-1.000 1.000	
ph/frq (deg)	45.5	Inc. seg. avg.	0.199	Sample rate(MISamp/s): 128	Inc. frq. avg.	0.167	nlags: 256	t_cohere infinite	mb window (us)	-0.008 0.008
amp/frq (%)	44.7	Inc. frq. avg.	0.167	Data rate(Mb/s): 2048				ion window (TEC)	-0.011 0.011	

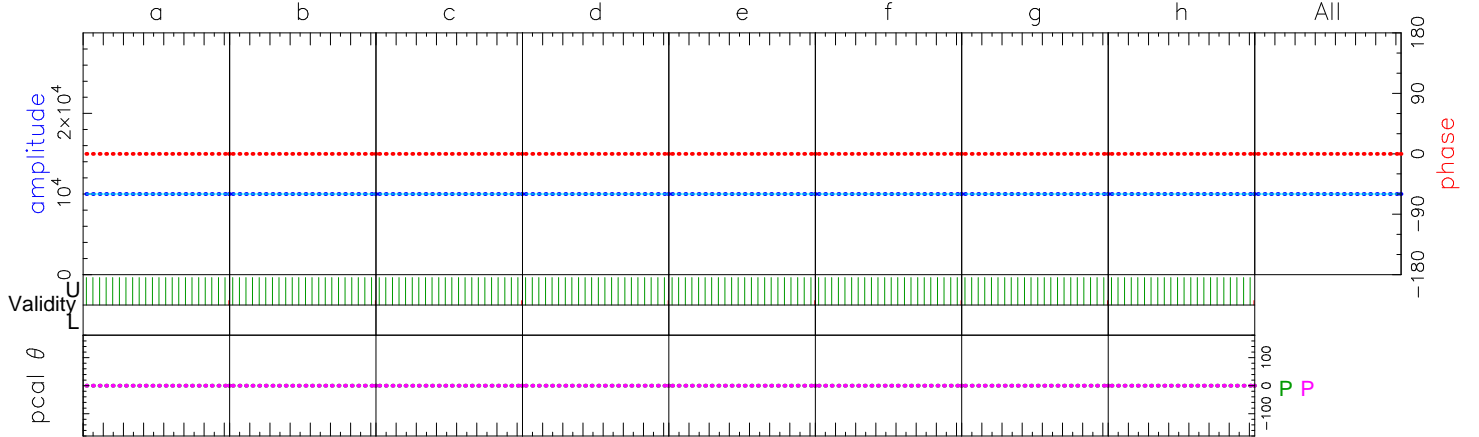
p: az 38.5 el 80.4 pa -139.1 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -8062.886 -5660.023 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/pP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/pP.W.266.1ILPVT



Fringe quality 9
SNR 560012.3
Int time 419.401
Amp 9999.654
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c202b
Yr:day 16383
Start 2020:284
Stop 2021:023:032807
FRT 084500.00
Corr/FF/build 2021:023:130956
2020:247:085004
RA & Dec (J2000) 03h19m48.160095s +41°30'42.104042"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0
P	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
P	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
P	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 1.9E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.5E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 6.6E-12
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 2.7E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

RMS Theor. Amplitude 9999.653 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (2048X32) 9999.654 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 9999.653 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

P: az 308.1 el 19.3 pa 58.6 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/PP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/PP.W.271.1ILPVT

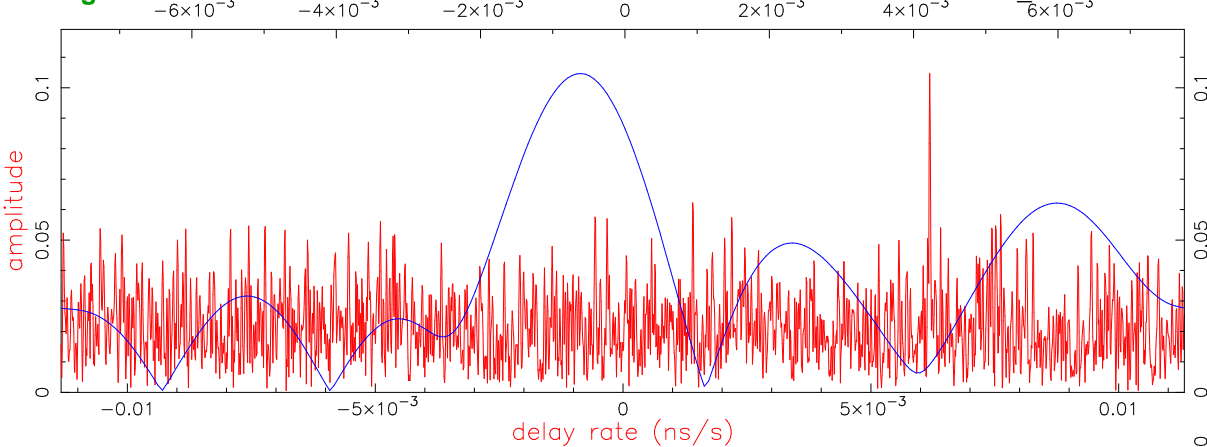
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, pP

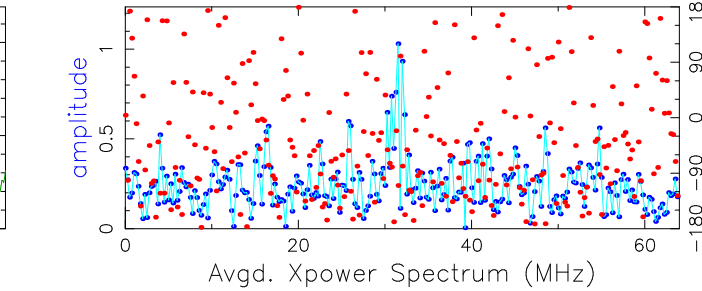
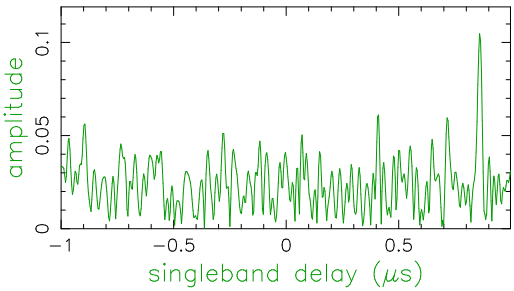
VLBA_PT - PICOVEL, fgroup W, pol LR

multiband delay (μ s)



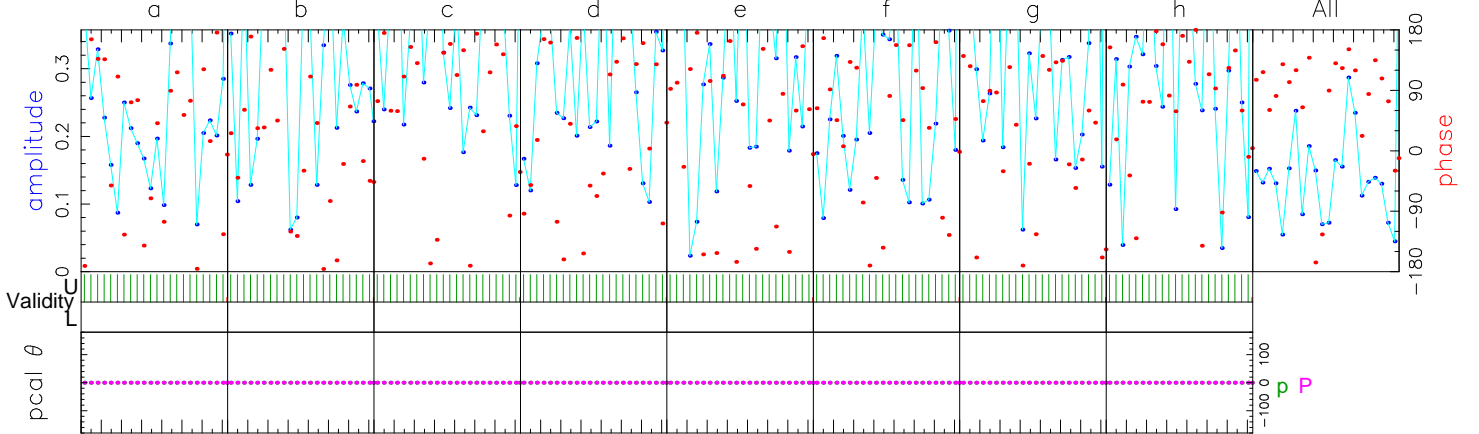
Fringe quality 0

SNR 5.9
 Int time 419.387
 Amp 0.119
 Phase 113.4
 PFD 6.4e-01
 Delays (us)
 SBD 0.860311
 MBD -0.000611
 Fringe rate (Hz)
 0.533782
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.00
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130959
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	118.5	50.6	131.8	-178.2	108.3	126.7	92.2	118.3	Phase	113.4
p	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.2	Ampl.	0.1
P	498.7	497.7	478.1	164.2	28.1	440.2	444.8	224.3	Sbd box	477.2
p:P	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
p:P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	

Group delay (usec)(sbd)	1.42565376567E+04	Apriori delay (usec)	1.42556788931E+04	Resid mbdelay (usec)	-6.11394E-04	+/-	1.8E-04
Sband delay (usec)	1.42565392038E+04	Apriori clock (usec)	2.8508759E-01	Resid sbdelay (usec)	8.60311E-01	+/-	1.5E-03
Phase delay (usec)	1.42556788967E+04	Apriori clockrate (us/s)	7.9999999E-07	Resid phdelay (usec)	3.65651E-06	+/-	6.3E-07
Delay rate (us/s)	1.03368857782E+00	Apriori rate (us/s)	1.03368238115E+00	Resid rate (us/s)	6.19667E-06	+/-	2.6E-09
Total phase (deg)	59.0	Apriori accel (us/s/s)	-7.87407105035E-05	Resid phase (deg)	113.4	+/-	19.5

ph/seg (deg)	54.3	Theor.	46.7	Amplitude	0.119 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	71.3		81.5	Search (2048X32)	0.102	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	40.1		27.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	46.5		48.1	Inc. seg. avg.	0.120	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.121	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

p: az 38.5 el 80.4 pa -139.1 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -8062.886 -5660.023 simultaneous interpolator

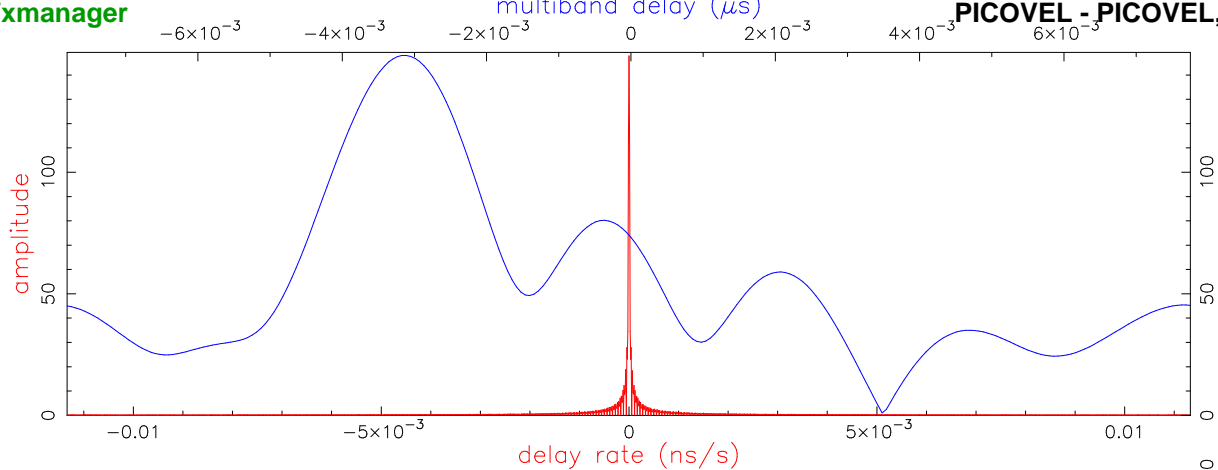
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/pP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/pP.W.287.1ILPVT

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

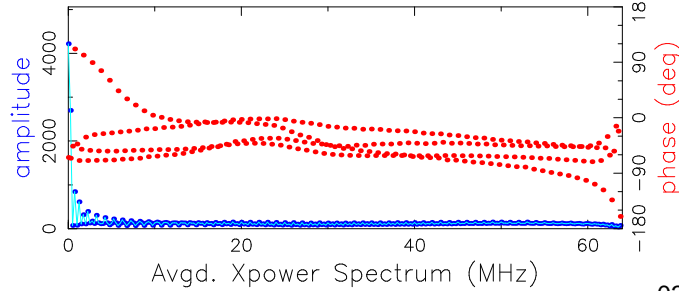
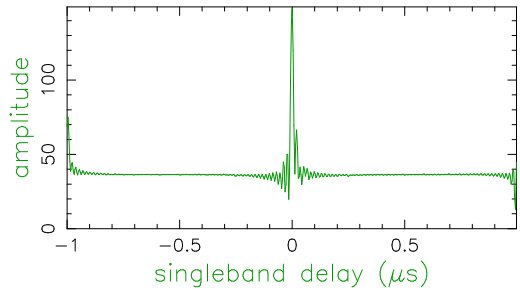
3C84.1ILPVT, No0079, PP

PICOVEL - PICOVEL, fgroup W, pol LR



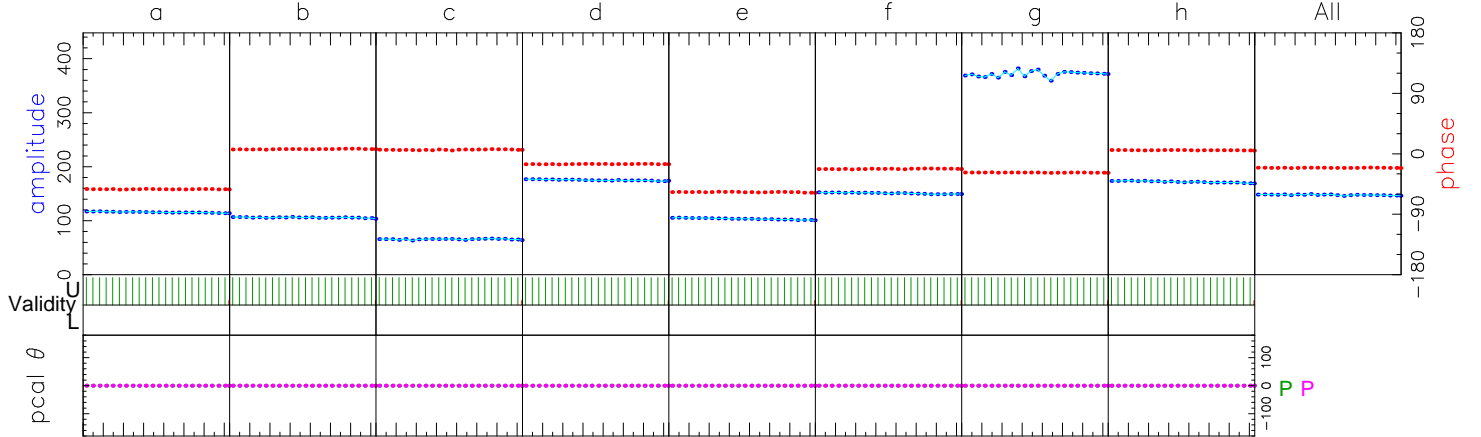
Fringe quality 5

SNR 8361.3
 Int time 419.401
 Amp 149.300
 Phase -20.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.001067
 MBD -0.003202
 Fringe rate (Hz)
 0.000007
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.00
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:130959
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
P	1000	1000	1000	1000	1000	1000	1000	1000		
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
P	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-3.20237500000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-3.20238E-03	+/-	1.3E-07
Sband delay (usec)	-1.06700000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-1.06700E-03	+/-	1.0E-06
Phase delay (usec)	-6.73469759518E-07	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-6.73470E-07	+/-	4.4E-10
Delay rate (us/s)	7.79413381543E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	7.79413E-11	+/-	1.8E-12
Total phase (deg)		Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-20.9	+/-	0.0

ph/seg (deg)	0.2	0.0	Amplitude	149.300 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	1.1	0.1	Search (2048X32)	145.566	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	27.6	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	59.3	0.0	Inc. seg. avg.	147.857	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011		
			Inc. frq. avg.	157.613	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

P: az 308.1 el 19.3 pa 58.6 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/PP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/PP.W.288.1ILPVT

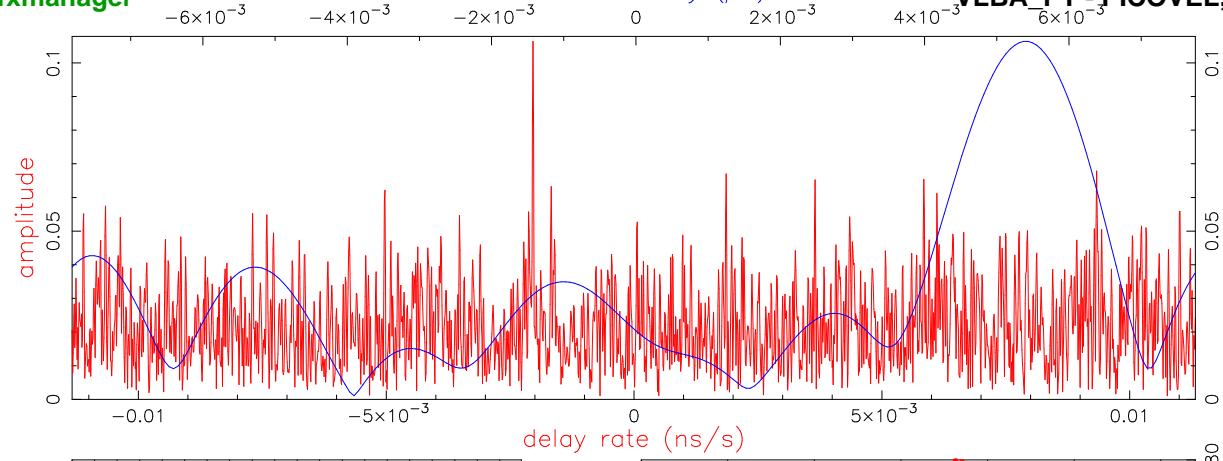
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1ILPVT, No0079, pP

VLBA_PT - PICOVEL, fgroup W, pol RL

multiband delay (μ s)



Fringe quality 0

SNR 6.0

Int time 419.387

Amp 0.108

Phase -8.7

PFD 4.8e-01

Delays (us)

SBD -0.664286

MBD 0.005392

Fringe rate (Hz)

-0.175644

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c202b

Exper # 16383

Yr:day 2020:284

Start 084500.00

Stop 085159.84

FRT 084830.00

Corr/FF/build

2021:023:032807

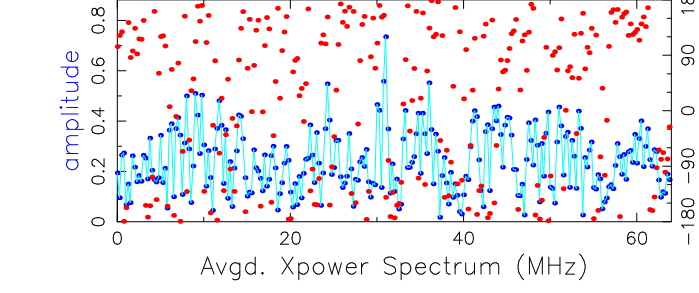
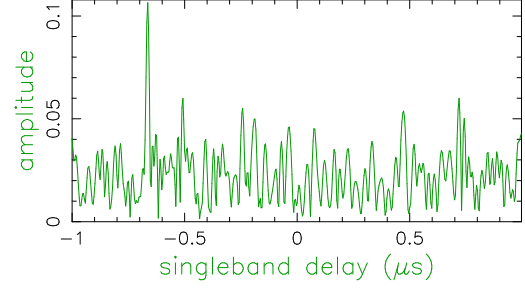
2021:023:131002

2020:247:085004

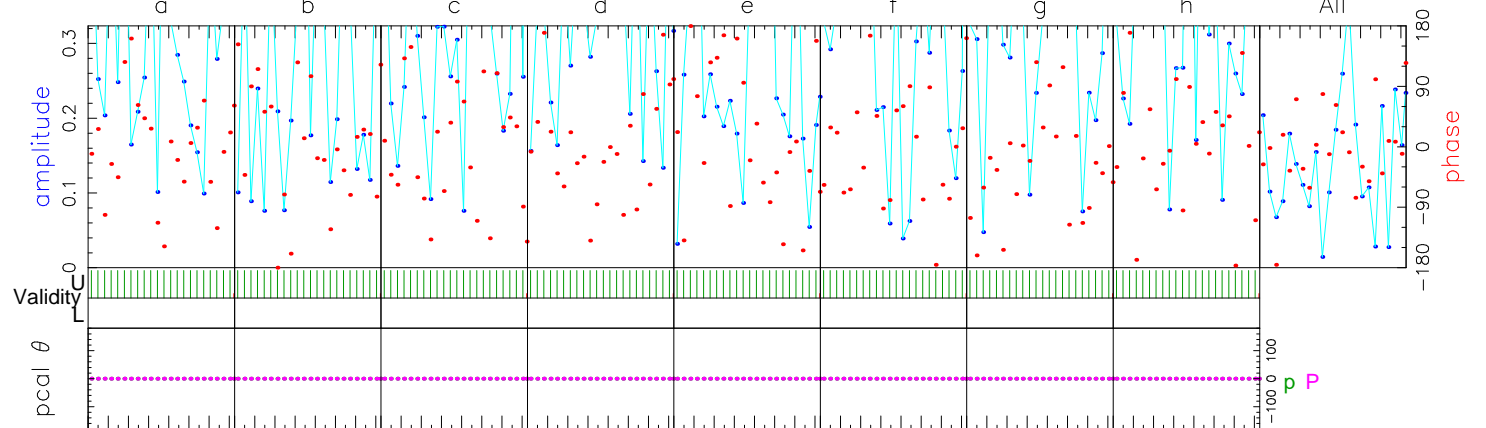
RA & Dec (J2000)

03h19m48.160095s

+41°30'42.104042"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-2.6	-4.5	1.4	-22.8	-20.6	-17.4	-28.0	24.5	Phase	-8.7
	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	Ampl.	0.1
	390.2	121.9	40.9	69.9	299.1	377.8	65.2	35.8	Sbd box	86.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.42550124100E+04		Apriori delay (usec)		1.42556788931E+04		Resid mbdelay (usec)		5.39192E-03	+/- 1.8E-04
Sband delay (usec)	1.42550146071E+04		Apriori clock (usec)		2.8508759E-01		Resid sbdelay (usec)		-6.64286E-01	+/- 1.4E-03
Phase delay (usec)	1.42556788928E+04		Apriori clockrate (us/s)		7.9999999E-07		Resid phdelay (usec)		-2.79599E-07	+/- 6.2E-07
Delay rate (us/s)	1.03368034210E+00		Apriori rate (us/s)		1.03368238115E+00		Resid rate (us/s)		-2.03905E-06	+/- 2.6E-09
Total phase (deg)	296.9		Apriori accel (us/s/s)		-7.87407105035E-05		Resid phase (deg)		-8.7	+/- 19.2

ph/seg (deg) 58.6 46.1 Search (2048X32) 0.104 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

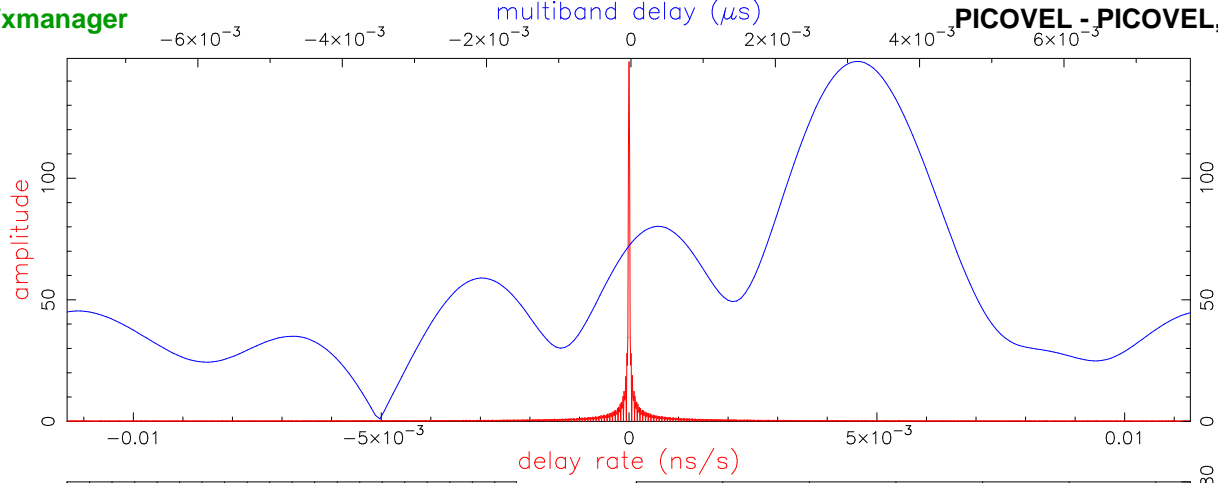
amp/seg (%) 84.4 80.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 18.5 27.2 Inc. seg. avg. 0.109 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

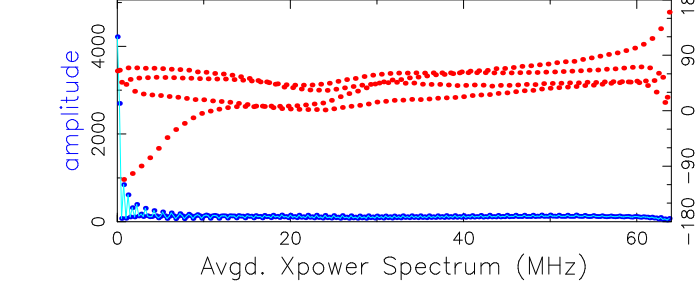
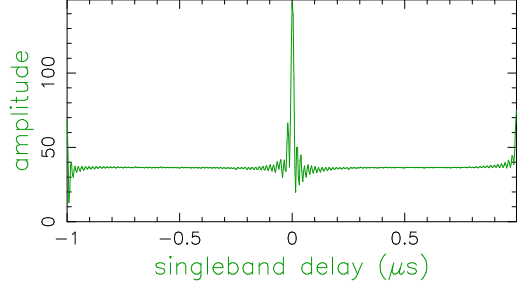
amp/frq (%) 30.5 47.5 Inc. frq. avg. 0.101 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011

p: az 38.5 el 80.4 pa -139.1 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -8062.886 -5660.023 ion window (TEC) 0.00 0.00 simultaneous interpolator

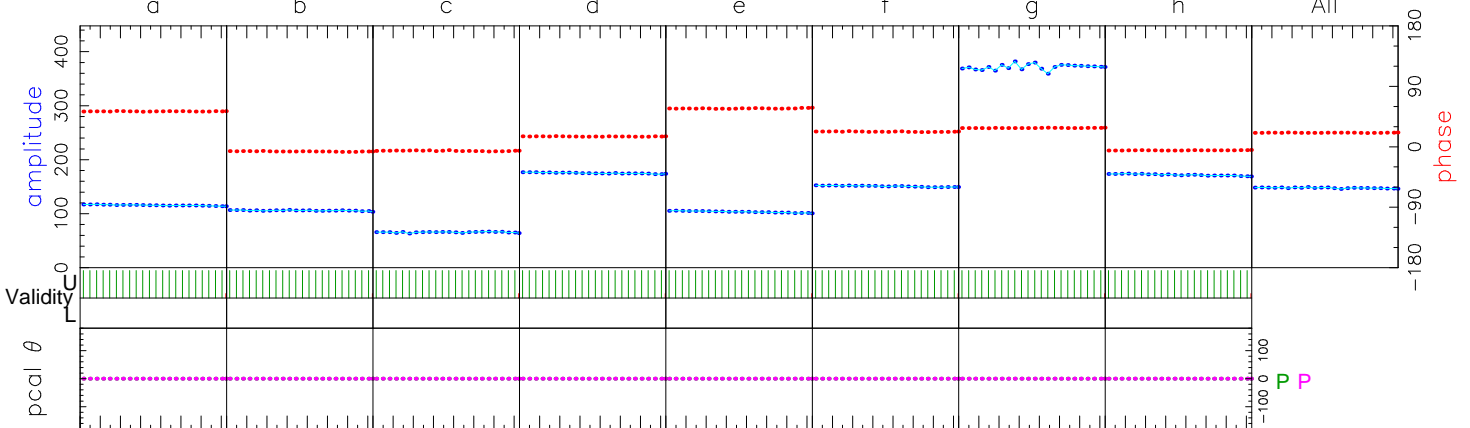
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/pP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/pP.W.300.1ILPVT



Fringe quality 5
SNR 8361.3
Int time 419.401
Amp 149.300
Phase 20.9
PFD 0.0e+00
Delays (us)
SBD 0.001067
MBD 0.003202
Fringe rate (Hz)
-0.000007
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 084500.00
Stop 085159.84
FRT 084830.00
Corr/FF/build
2021:023:032807
2021:023:131002
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"



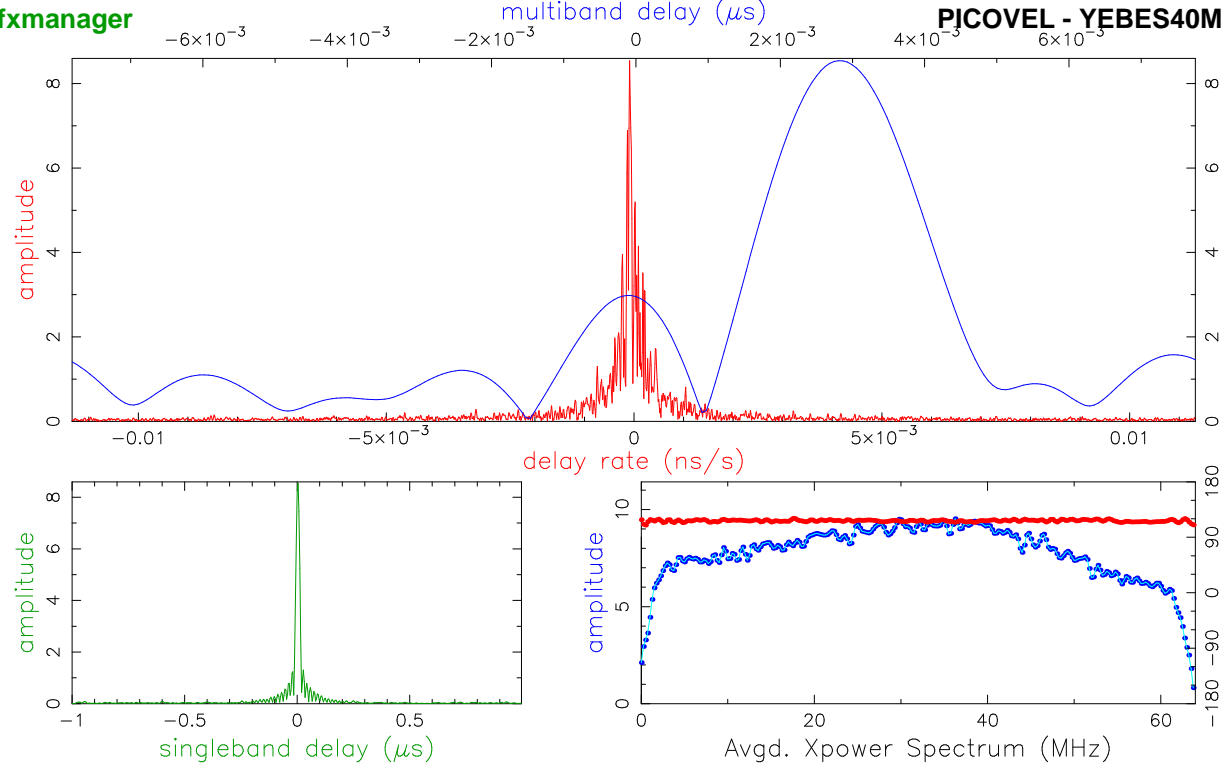
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
P	1000	1000	1000	1000	1000	1000	1000	1000		
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
P	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

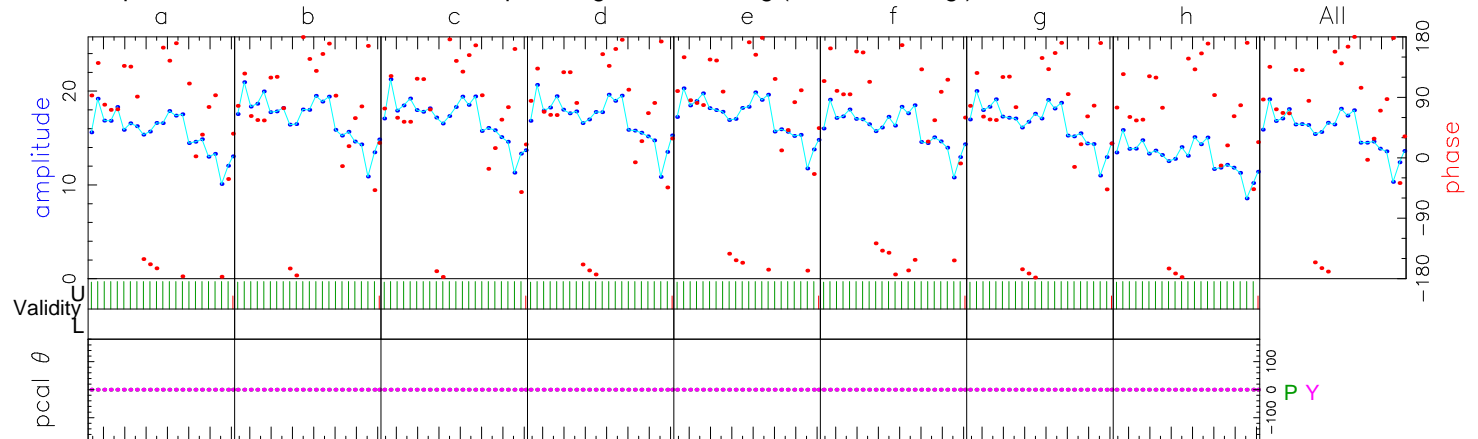
Group delay (usec)(sbd)	3.20237500000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	3.20238E-03	+/-	1.3E-07
Sband delay (usec)	1.06700000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	1.06700E-03	+/-	1.0E-06
Phase delay (usec)	6.73469759580E-07	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	6.73470E-07	+/-	4.4E-10
Delay rate (us/s)	-7.79413381543E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-7.79413E-11	+/-	1.8E-12
Total phase (deg)	20.9	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	20.9	+/-	0.0

ph/seg (deg)	0.2	Theor.	Amplitude	149.300 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	1.1	0.0	Search (2048X32)	145.566	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	27.6	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	59.3	0.0	Inc. seg. avg.	147.857	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011	
			Inc. frq. avg.	157.613	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00



Fringe quality 4
SNR 471.3
Int time 401.965
Amp 8.597
Phase 117.5
PFD 0.0e+00
Delays (us)
SBD 0.002826
MBD 0.002797
Fringe rate (Hz)
-0.007833
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 084516.90
Stop 085159.84
FRT 084830.00
Corr/FF/build
2021:023:032807
2021:023:131003
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec

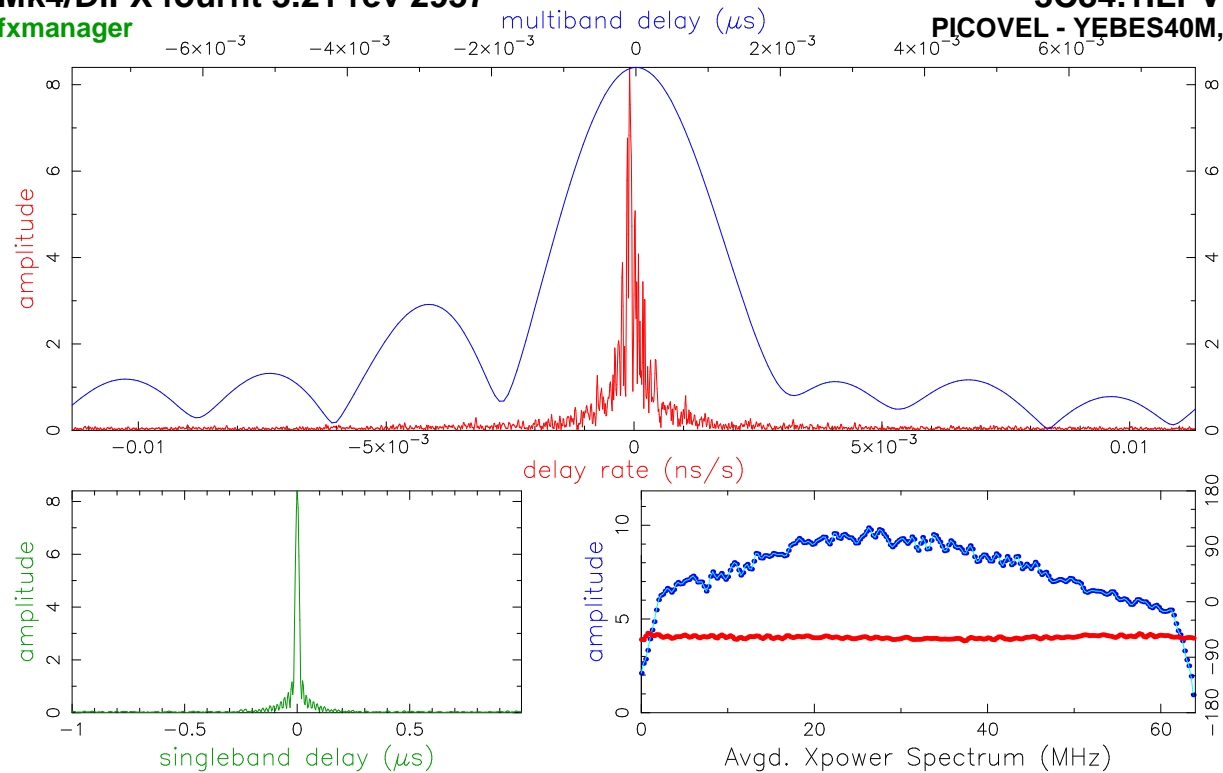


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	123.1	106.6	104.7	114.3	131.2	145.3	107.9	107.3	Phase	117.5
P	8.5	9.3	9.3	9.2	9.3	8.7	8.9	7.0	Ampl.	8.8
Y	257.9	257.7	257.8	257.8	257.9	257.4	257.5	257.1	Sbd box	257.7
P:Y	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
P:Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) -6.92326785554E+02 Apriori delay (usec) -6.92329582942E+02 Resid mbdelay (usec) 2.79739E-03 +/- 2.3E-06
 Sband delay (usec) -6.92326756442E+02 Apriori clock (usec) -1.3893745E+01 Resid sbdelay (usec) 2.82650E-03 +/- 1.8E-05
 Phase delay (usec) -6.92329579152E+02 Apriori clockrate (us/s) -5.2000000E-07 Resid phdelay (usec) 3.79008E-06 +/- 7.8E-09
 Delay rate (us/s) -4.42901619279E-02 Apriori rate (us/s) -4.42900709959E-02 Resid rate (us/s) -9.09320E-08 +/- 3.4E-11
 Total phase (deg) 18.7 Apriori accel (us/s/s) 9.83886384052E-08 Resid phase (deg) 117.5 +/- 0.2

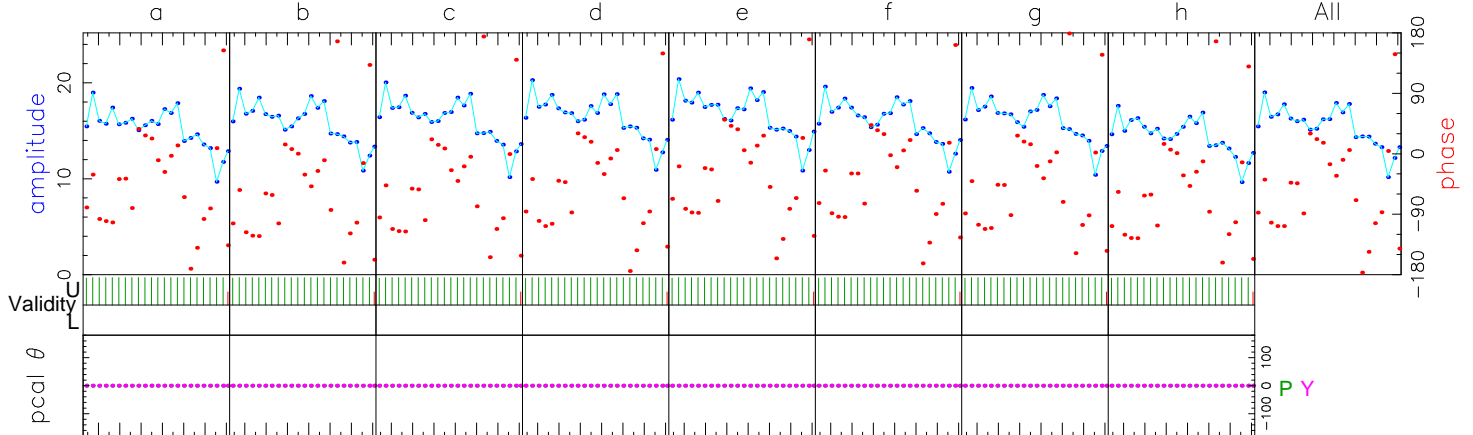
RMS Theor. Amplitude 8.597 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 64.8 0.6 Search (2048X32) 8.448 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 86.6 1.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 15.7 0.3 Inc. seg. avg. 15.761 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 8.9 0.6 Inc. frq. avg. 8.786 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

P: az 308.1 el 19.3 pa 58.6 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) 339.873 -307.403 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/PY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/PY.W.303.1ILPVT



Fringe quality 4
SNR 460.6
Int time 401.965
Amp 8.400
Phase -56.4
PFD 0.0e+00
Delays (us)
SBD 0.000142
MBD 0.000005
Fringe rate (Hz)
-0.007846
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 084516.90
Stop 085159.84
FRT 084830.00
Corr/FF/build
2021:023:032807
2021:023:131007
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0		
P	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
P	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-6.92329577585E+02	Apriori delay (usec)		-6.92329582942E+02	Resid mbdelay (usec)		5.35701E-06	+/-	2.4E-06	
Sband delay (usec)	-6.92329440692E+02	Apriori clock (usec)		-1.3893745E+01	Resid sbdelay (usec)		1.42250E-04	+/-	1.9E-05	
Phase delay (usec)	-6.92329584760E+02	Apriori clockrate (us/s)		-5.2000000E-07	Resid phdelay (usec)		-1.81825E-06	+/-	8.0E-09	
Delay rate (us/s)	-4.42901620810E-02	Apriori rate (us/s)		-4.42900709959E-02	Resid rate (us/s)		-9.10851E-08	+/-	3.4E-11	
Total phase (deg)		-155.3	Apriori accel (us/s/s)		9.83886384052E-08	Resid phase (deg)		-56.4	+/-	0.2

ph/seg (deg)	64.8	0.6	RMS	64.8	0.6	Theor.	64.8	0.6	Search (2048X32)	8.322	Apriori mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	87.5	1.0	Interp.	8.322	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
ph/frq (deg)	14.6	0.4	Inc. seg. avg.	15.476	8.607	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00				
amp/frq (%)	5.1	0.6	Inc. frq. avg.	8.607											

P: az 308.1 el 19.3 pa 58.6 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) 339.873 -307.403 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/PY..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/PY.W.317.1ILPVT

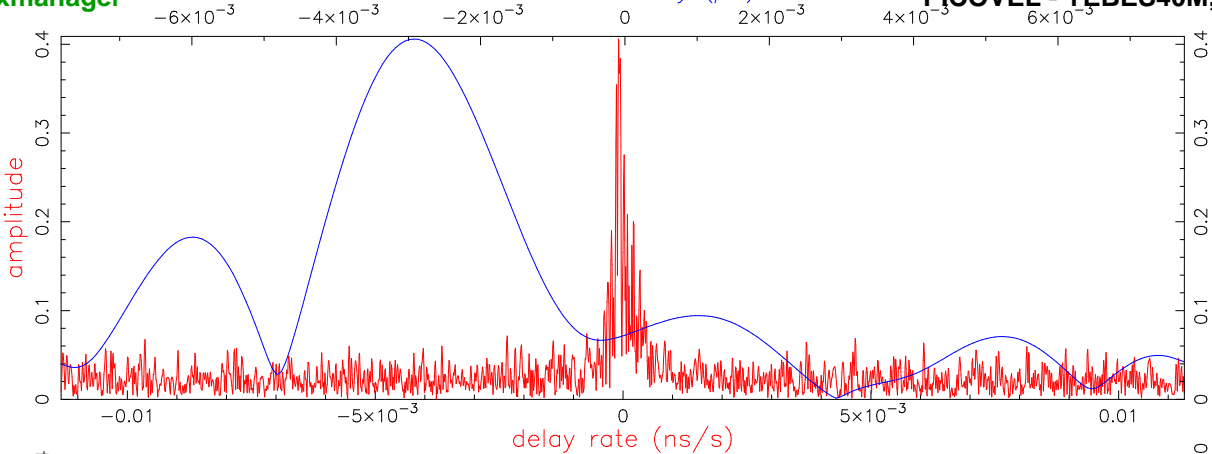
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11LPVT, No0079, PY

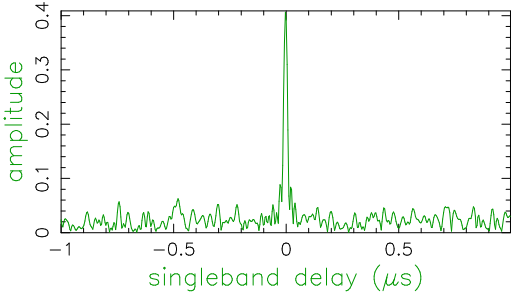
PICOVEL - YEBES40M, fgroup W, pol LR

multiband delay (μs)

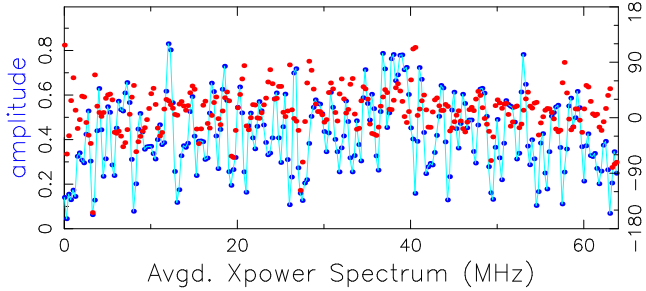


Fringe quality 8

SNR 22.4
 Int time 401.965
 Amp 0.409
 Phase 14.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.002769
 MBD -0.002897
 Fringe rate (Hz)
 -0.008042
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

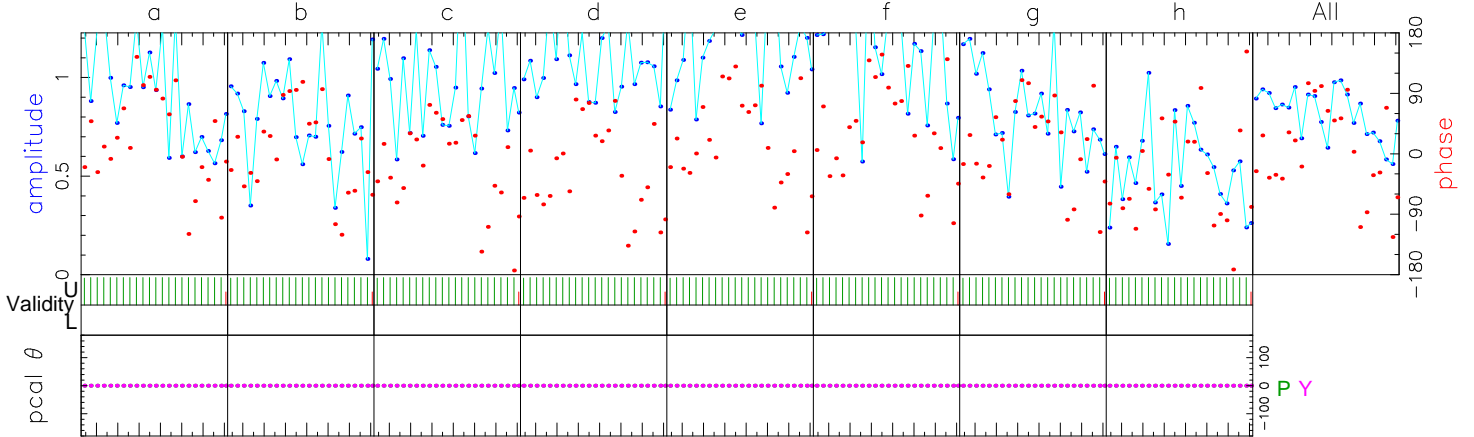


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131010
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



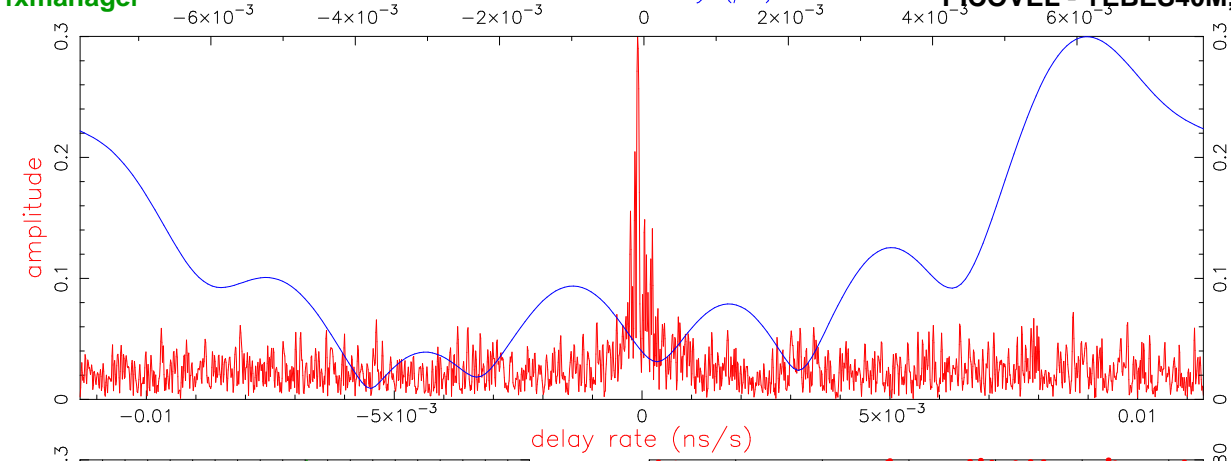
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	35.4	15.9	-2.2	-22.0	26.0	45.7	23.5	-27.5	Phase	14.1
P	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.2	Ampl.	0.4
Y	256.5	255.8	256.4	256.4	256.0	255.4	256.2	256.9	Sbd box	256.3
P	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
P:Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
P	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-6.92332479741E+02	Apriori delay (usec)	-6.92329582942E+02	Resid mbdelay (usec)	-2.89680E-03	+/-	4.8E-05
Sband delay (usec)	-6.92332351442E+02	Apriori clock (usec)	-1.3893745E+01	Resid sbdelay (usec)	-2.76850E-03	+/-	3.8E-04
Phase delay (usec)	-6.92329582487E+02	Apriori clockrate (us/s)	-5.2000000E-07	Resid phdelay (usec)	4.55359E-07	+/-	1.6E-07
Delay rate (us/s)	-4.42901643526E-02	Apriori rate (us/s)	-4.42900709959E-02	Resid rate (us/s)	-9.33567E-08	+/-	7.1E-10
Total phase (deg)	-84.7	Apriori accel (us/s/s)	9.83886384052E-08	Resid phase (deg)	14.1	+/-	5.1

ph/seg (deg)	66.2	RMS	Theor.	Amplitude	0.409 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	104.0	66.2	12.3	Search (2048X32)	0.395	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	28.8	104.0	21.4	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	23.2	28.8	7.2	Inc. seg. avg.	0.797	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
		23.2	12.6	Inc. frq. avg.	0.440	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

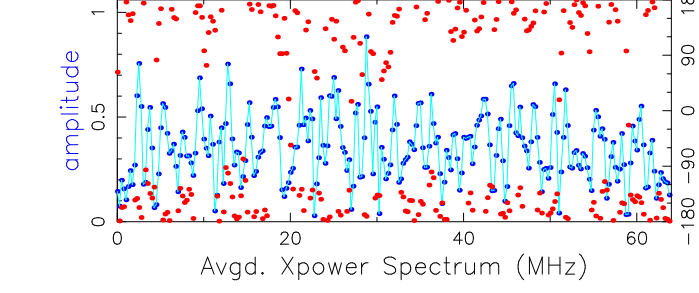
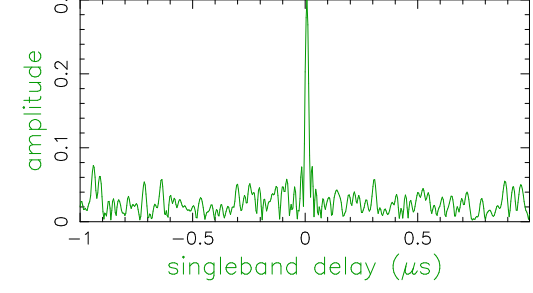
P: az 308.1 el 19.3 pa 58.6 Y: az 307.2 el 21.2 pa 53.6 u,v (fr/asec) 339.873 -307.403 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/PY..11LPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/PY.W.334.11LPVT

multiband delay (μ s)



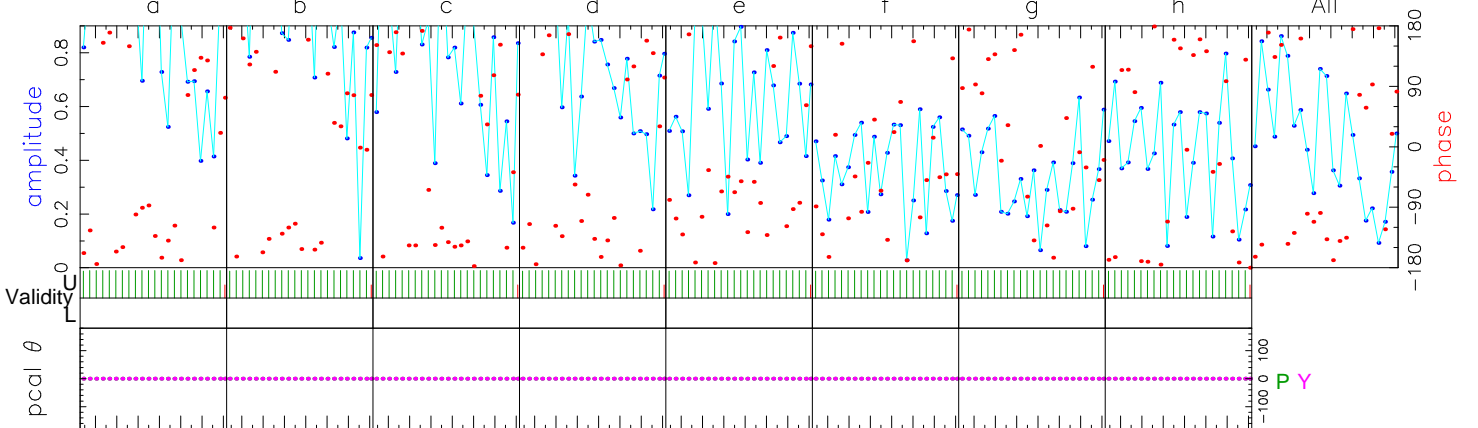
Fringe quality 7

SNR 16.5
 Int time 401.965
 Amp 0.300
 Phase -162.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.007484
 MBD 0.006126
 Fringe rate (Hz)
 -0.007447
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084516.90
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131014
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

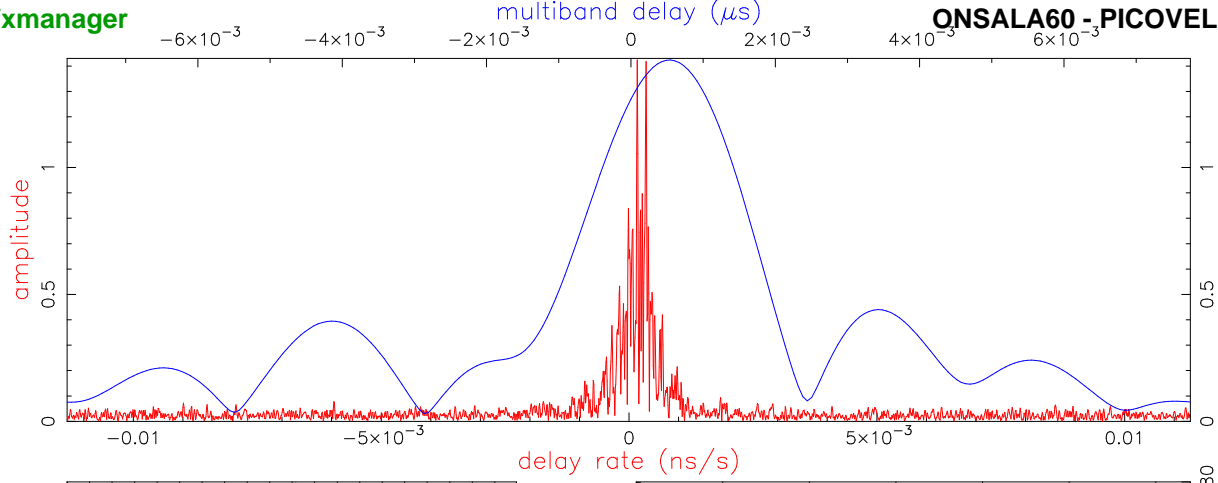
Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



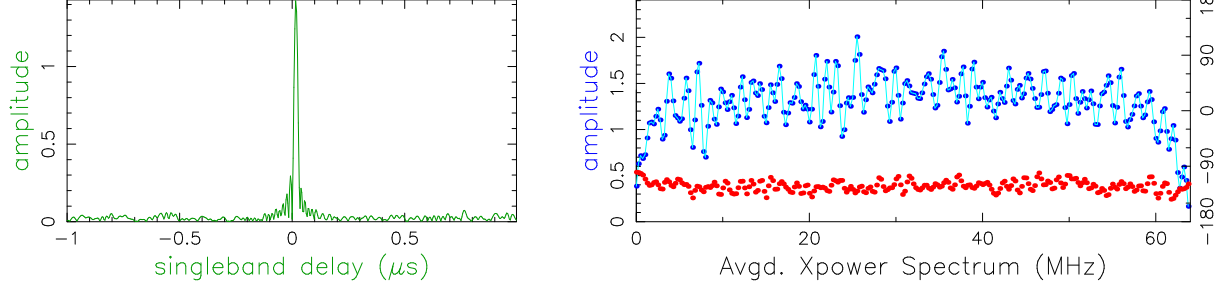
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0		
P	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
P	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-6.92323456460E+02	Apriori delay (usec)	-6.92329582942E+02	Resid mbdelay (usec)	6.12648E-03	+/-	6.6E-05
Sband delay (usec)	-6.92322099442E+02	Apriori clock (usec)	-1.3893745E+01	Resid sbdelay (usec)	7.48350E-03	+/-	5.2E-04
Phase delay (usec)	-6.92329588167E+02	Apriori clockrate (us/s)	-5.2000000E-07	Resid phdelay (usec)	-5.22444E-06	+/-	2.2E-07
Delay rate (us/s)	-4.42901574534E-02	Apriori rate (us/s)	-4.42900709959E-02	Resid rate (us/s)	-8.64575E-08	+/-	9.7E-10
Total phase (deg)	-260.9	Apriori accel (us/s/s)	9.83886384052E-08	Resid phase (deg)	-162.0	+/-	7.0

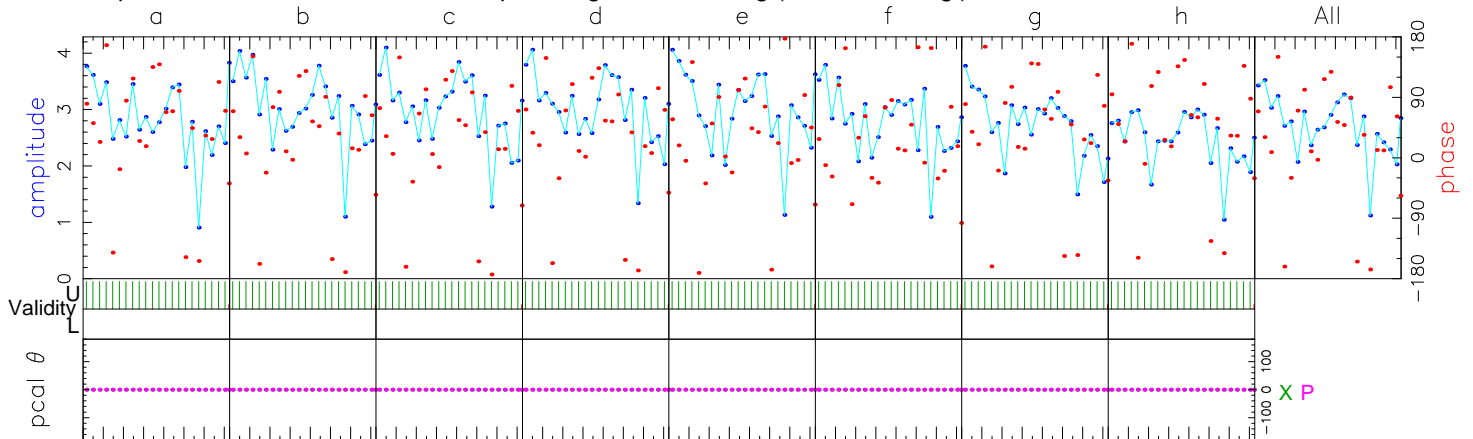
ph/seg (deg)	69.5	RMS	16.7	Theor.	0.300 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	95.0	Search (2048X32)	0.296	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	59.0	Inc. seg. avg.	0.460	Inc. frq. avg.	0.352	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	62.1	Inc. frq. avg.	0.352			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	
						nlags:	256	t_cohere	infinite	



Fringe quality 4
SNR 80.1
Int time 419.373
Amp 1.430
Phase 61.4
PFD 0.0e+00
Delays (us)
SBD 0.016487
MBD 0.000557
Fringe rate (Hz) 0.014317
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 084500.00
Stop 085159.84
FRT 084830.00
Corr/FF/build
2021:023:032807
2021:023:131004
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec

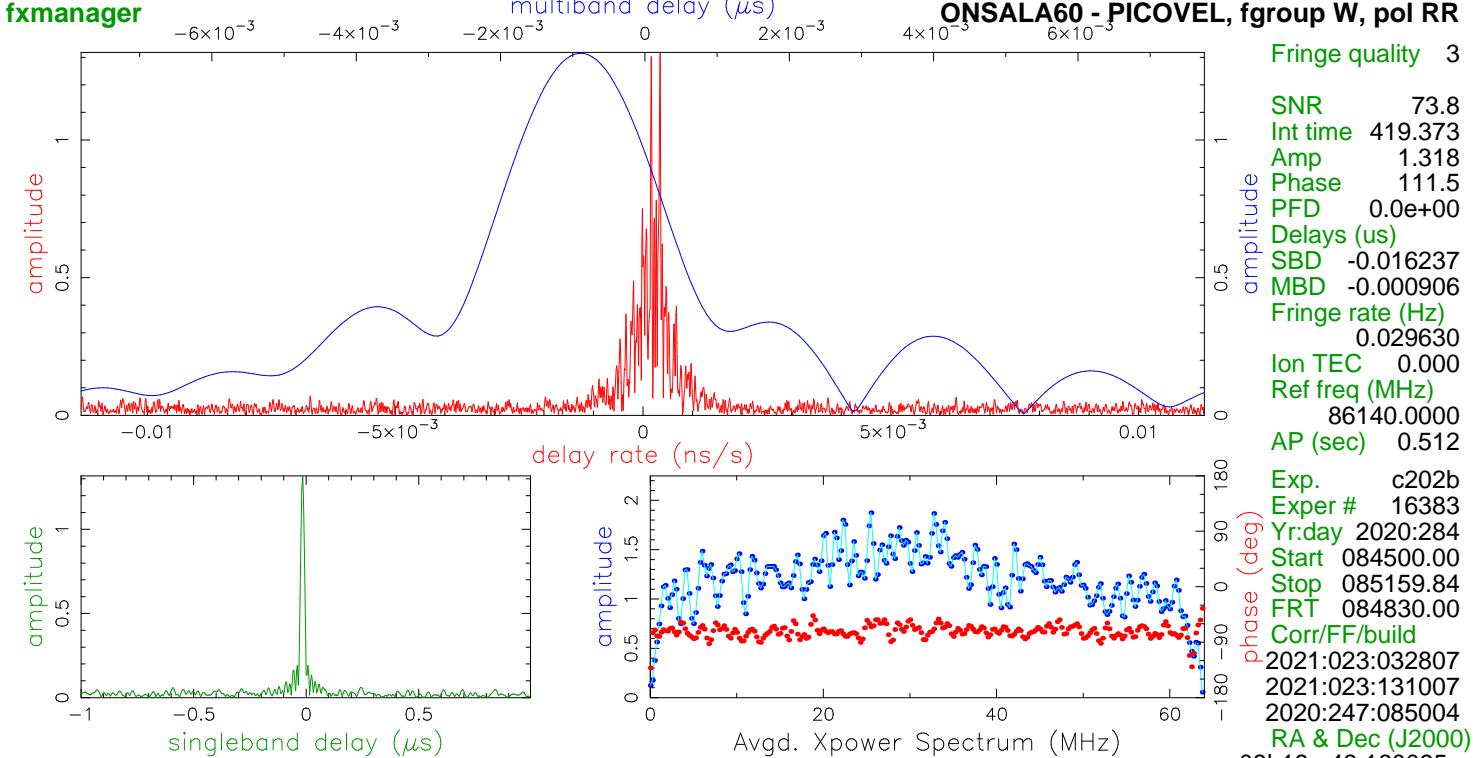


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
X	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
X:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
X:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
X	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	1.78019377725E+03	Apriori delay (usec)	1.78017759548E+03	Resid mbdelay (usec)	5.56769E-04	+/-	1.4E-05
Sband delay (usec)	1.78019408298E+03	Apriori clock (usec)	4.8543762E+01	Resid sbdelay (usec)	1.64875E-02	+/-	1.1E-04
Phase delay (usec)	1.78017759746E+03	Apriori clockrate (us/s)	9.2799997E-07	Resid phdelay (usec)	1.97986E-06	+/-	4.6E-08
Delay rate (us/s)	3.42596863278E-01	Apriori rate (us/s)	3.42596697076E-01	Resid rate (us/s)	1.66202E-07	+/-	1.9E-10
Total phase (deg)		Apriori accel (us/s/s)	8.74365443537E-06	Resid phase (deg)	61.4	+/-	1.4

ph/seg (deg)	68.5	Theor.	3.4	Amplitude	1.430 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	97.1		6.0	Search (2048X32)	1.416	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	20.6		2.0	Inc. seg. avg.	2.707	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	9.7		3.5	Inc. frq. avg.	1.490	Sample rate(MISamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Data rate(Mb/s):	2048	ion window (TEC)	0.00 0.00	

X: az 310.6 el 24.1 pa 32.9 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -2609.136 2226.621 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/XP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/XP.W.306.1ILPVT



Fringe quality 3

SNR 73.8

Int time 419.373

Amp 1.318

Phase 111.5

PFD 0.0e+00

Delays (us)

SBD -0.016237

MBD -0.000906

Fringe rate (Hz)

0.029630

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c202b

Exper # 16383

Yr:day 2020:284

Start 084500.00

Stop 085159.84

FRT 084830.00

Corr/FF/build

2021:023:032807

2021:023:131007

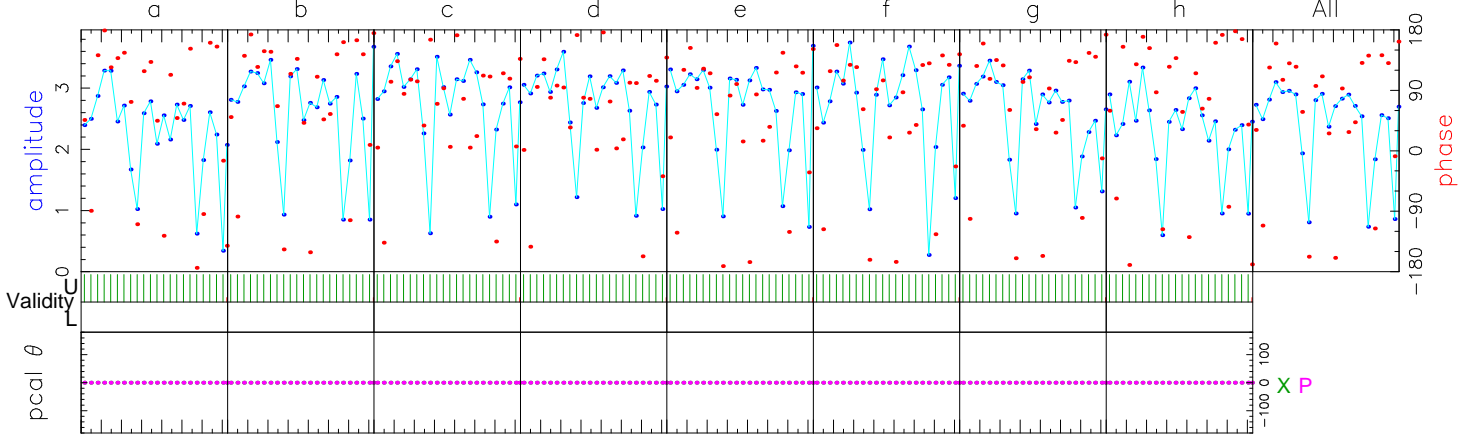
2020:247:085004

RA & Dec (J2000)

03h19m48.160095s

+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	134.9	131.1	88.8	84.8	102.1	106.9	113.2	141.9	Phase	111.5
	1.2	1.5	1.5	1.5	1.4	1.5	1.4	1.2	Ampl.	1.4
	252.7	252.4	252.5	252.8	253.4	252.8	253.1	253.3	Sbd box	252.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	1.78016106487E+03	Apriori delay (usec)	1.78017759548E+03	Resid mbdelay (usec)	-9.05608E-04	+/-	1.5E-05
Sband delay (usec)	1.78016135798E+03	Apriori clock (usec)	4.8543762E+01	Resid sbdelay (usec)	-1.62375E-02	+/-	1.2E-04
Phase delay (usec)	1.78017759908E+03	Apriori clockrate (us/s)	9.2799997E-07	Resid phdelay (usec)	3.59598E-06	+/-	5.0E-08
Delay rate (us/s)	3.42597041046E-01	Apriori rate (us/s)	3.42596697076E-01	Resid rate (us/s)	3.43970E-07	+/-	2.1E-10
Total phase (deg)	138.5	Apriori accel (us/s/s)	8.74365443537E-06	Resid phase (deg)	111.5	+/-	1.6

	RMS	Theor.	Amplitude	1.318 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	67.9	3.7	Search (2048X32)	1.304	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	98.5	6.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	23.1	2.2	Inc. seg. avg.	2.404	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	11.0	3.8	Inc. frq. avg.	1.396	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

X: az 310.6 el 24.1 pa 32.9 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -2609.136 2226.621 simultaneous interpolator

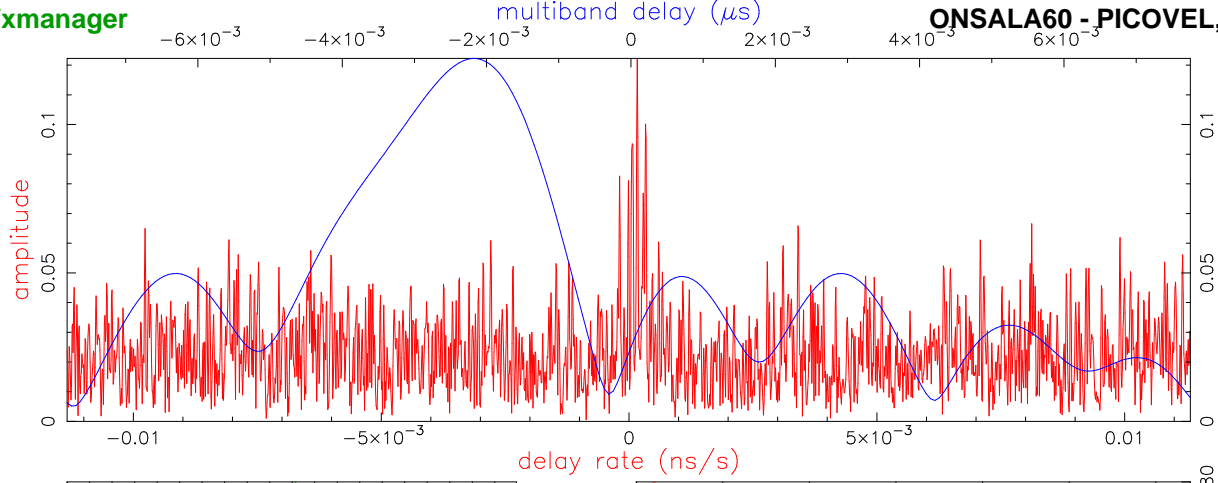
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/XP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/XP.W.320.1ILPVT

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11LPVT, No0079, XP

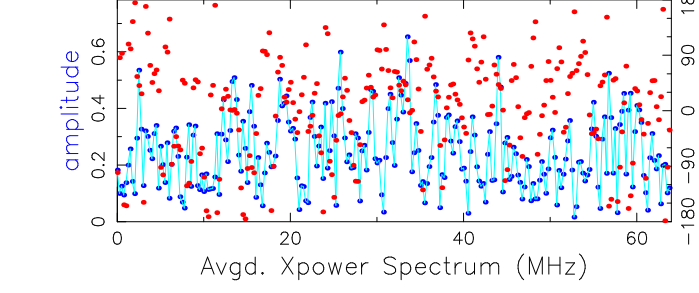
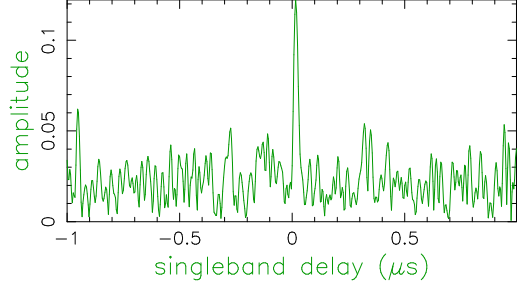
ONSALA60 - PICOVEL, fgroup W, pol LR



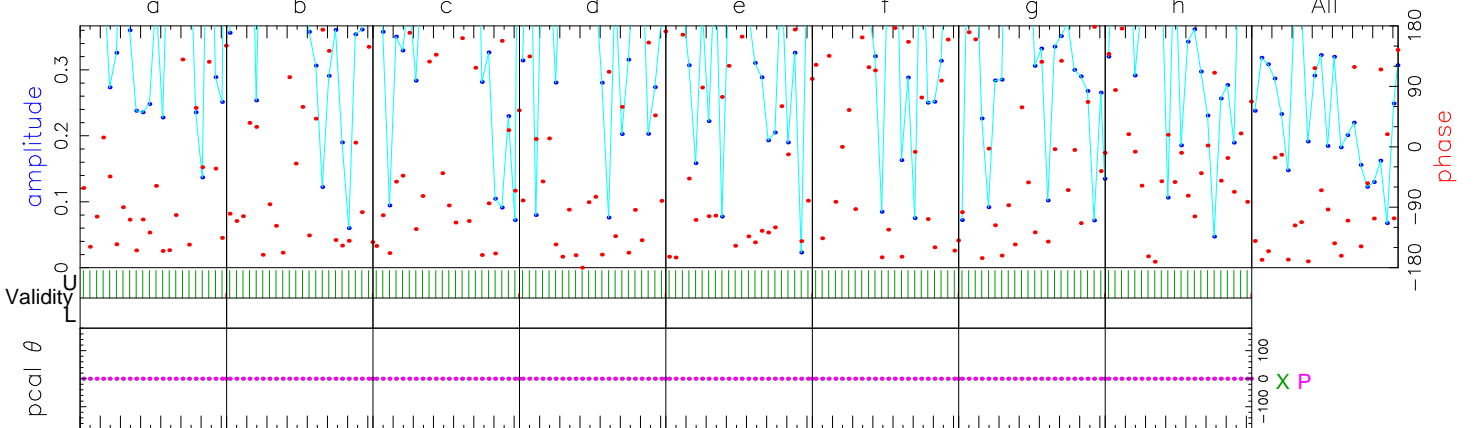
Fringe quality 0

SNR 6.8
 Int time 419.373
 Amp 0.122
 Phase -130.4
 PFD 2.2e-03
 Delays (us)
 SBD 0.015689
 MBD -0.002175
 Fringe rate (Hz)
 0.014258
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.00
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131011
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-118.0	-122.5	-129.5	-125.0	-154.2	168.9	-122.9	-46.6		Phase -130.4
	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1		Ampl. 0.1
	261.6	141.1	219.3	266.8	259.6	262.0	314.5	296.1		Sbd box 261.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used
X	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
P	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
X:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
X:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC
X	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
P	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Chan ids
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks

Group delay (usec)(sbd)	1.78019104569E+03	Apriori delay (usec)	1.78017759548E+03	Resid mbdelay (usec)	-2.17479E-03	+/-	1.6E-04
Sband delay (usec)	1.78019328498E+03	Apriori clock (usec)	4.8543762E+01	Resid sbdelay (usec)	1.56895E-02	+/-	1.3E-03
Phase delay (usec)	1.78017759128E+03	Apriori clockrate (us/s)	9.2799997E-07	Resid phdelay (usec)	-4.20574E-06	+/-	5.4E-07
Delay rate (us/s)	3.42596862592E-01	Apriori rate (us/s)	3.42596697076E-01	Resid rate (us/s)	1.65516E-07	+/-	2.2E-09
Total phase (deg)	-103.5	Apriori accel (us/s/s)	8.74365443537E-06	Resid phase (deg)	-130.4	+/-	16.7

ph/seg (deg)	RMS 70.1	Theor. 40.1	Amplitude	0.122 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	115.2	70.0	Search (2048X32)	0.120	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	43.9	23.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	38.5	41.3	Inc. seg. avg.	0.188	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
			Inc. frq. avg.	0.138	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

X: az 310.6 el 24.1 pa 32.9 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -2609.136 2226.621 simultaneous interpolator

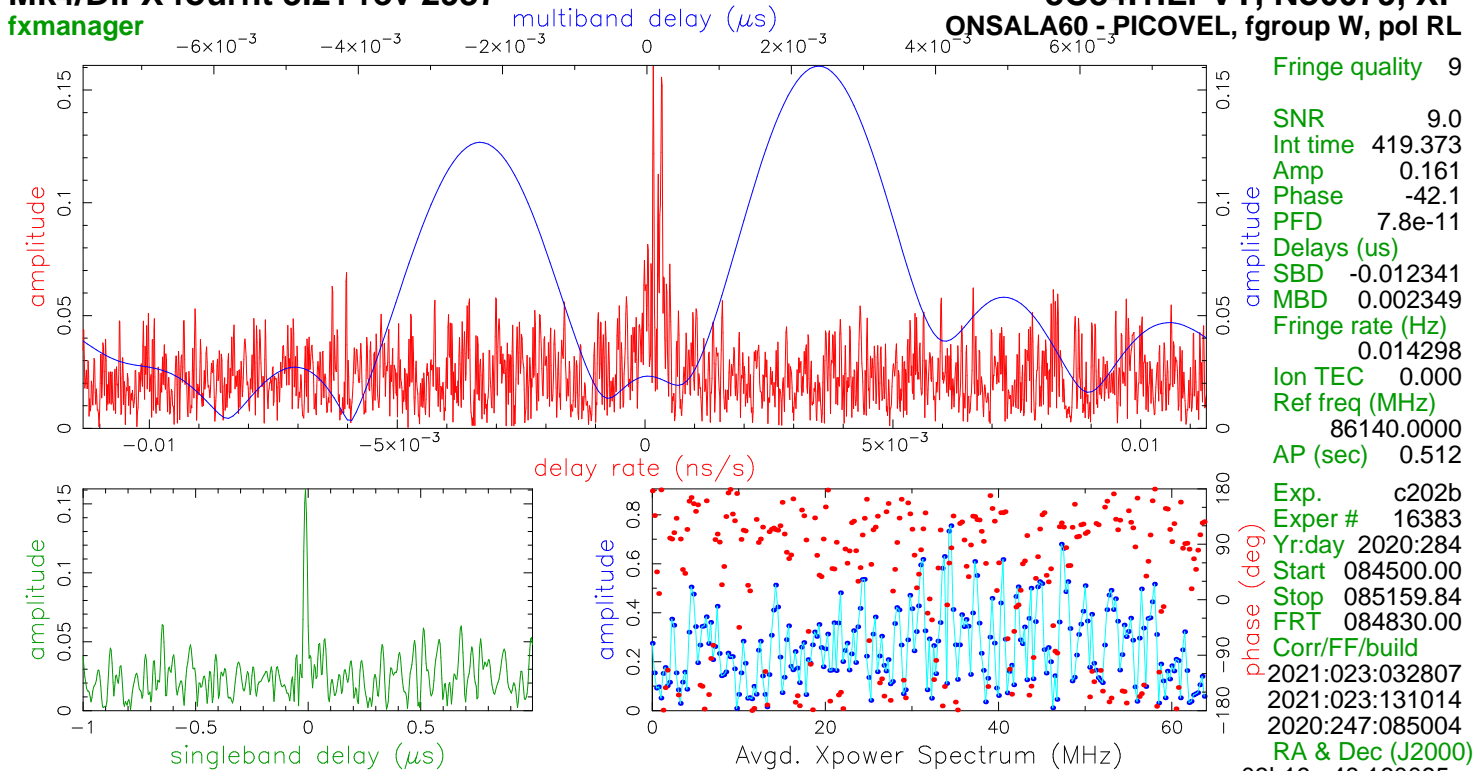
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/XP..11LPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/XP.W.337.11LPVT

Mk4/DiFX fourfit 3.21 rev 2937

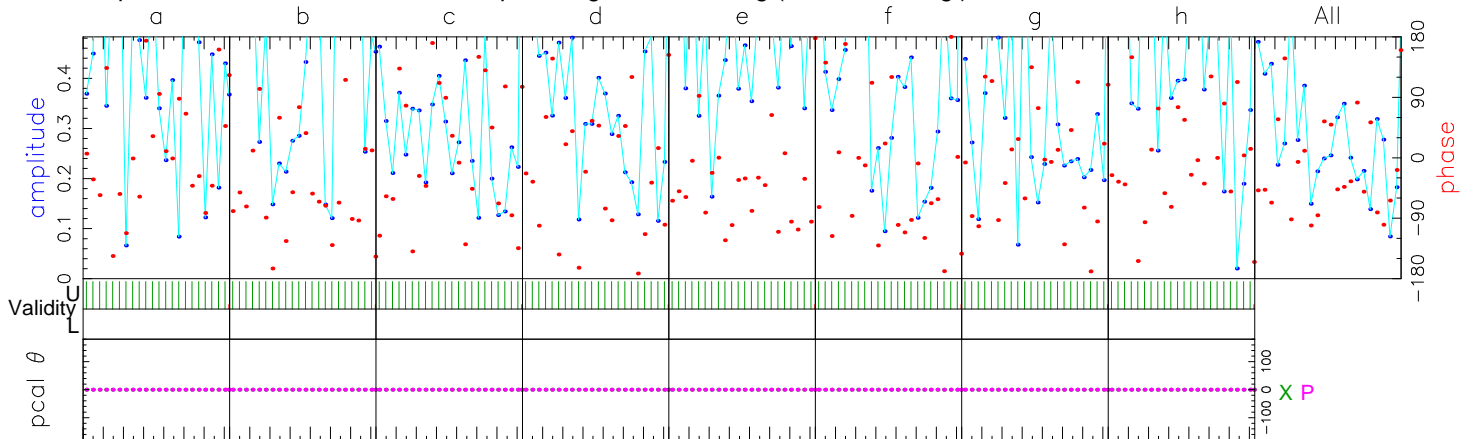
fxmanager

3C84.1ILPVT, No0079, XP

ONSALA60 - PICOVEL, fgroup W, pol RL



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



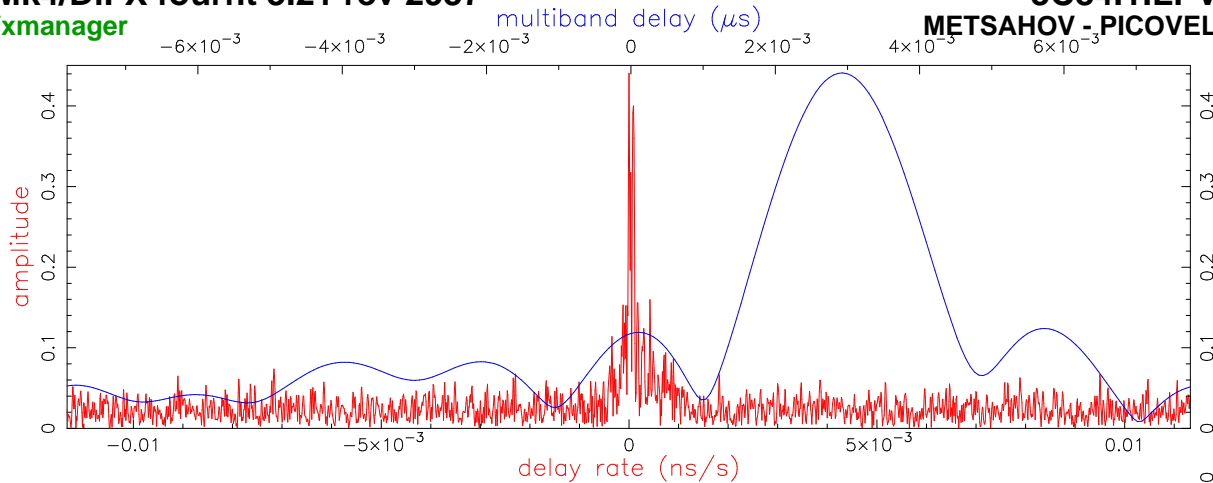
86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
-17.9	-55.5	-159.7	-21.8	-54.4	-85.5	-15.6	-20.7	Phase	-42.1
0.2	0.2	0.0	0.1	0.3	0.2	0.1	0.3	Ampl.	0.2
253.9	253.6	497.0	252.0	253.6	215.8	431.7	253.7	Sbd box	253.8
U/L 820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
X 1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P 1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X:P 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:P 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
X 1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P 1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks

Group delay (usec)(sbd)	1.78016431906E+03	Apriori delay (usec)	1.78017759548E+03	Resid mbdelay (usec)	2.34858E-03	+/-	1.2E-04
Sband delay (usec)	1.78016525423E+03	Apriori clock (usec)	4.8543762E+01	Resid sbdelay (usec)	-1.23412E-02	+/-	9.6E-04
Phase delay (usec)	1.78017759412E+03	Apriori clockrate (us/s)	9.2799997E-07	Resid phdelay (usec)	-1.35746E-06	+/-	4.1E-07
Delay rate (us/s)	3.42596863065E-01	Apriori rate (us/s)	3.42596697076E-01	Resid rate (us/s)	1.65989E-07	+/-	1.7E-09
Total phase (deg)		Apriori accel (us/s/s)	8.74365443537E-06	Resid phase (deg)	-42.1	+/-	12.7

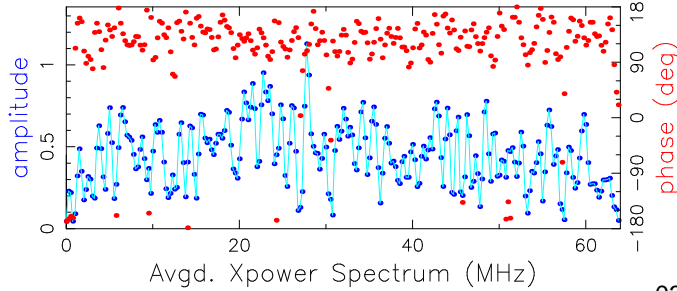
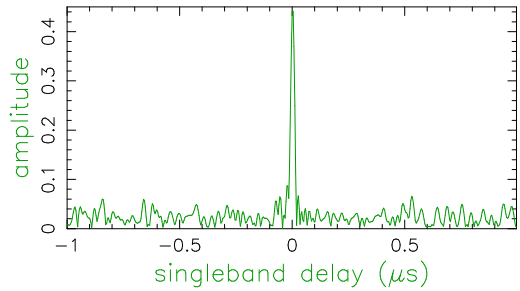
ph/seg (deg)	68.3	Theor.	30.5	Amplitude	0.161 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	104.4		53.2	Search (2048X32)	0.159	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	55.1		18.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	59.1		31.4	Inc. seg. avg.	0.249	Sample rate(MISamp/s):	128		dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.171	Data rate(Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

X: az 310.6 el 24.1 pa 32.9 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -2609.136 2226.621 simultaneous interpolator

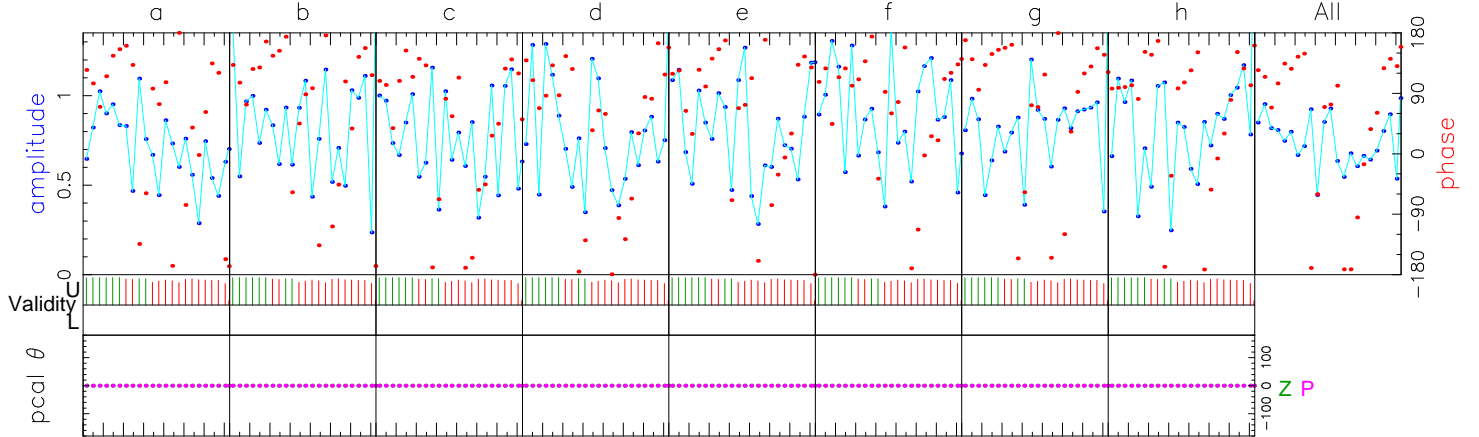
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/XP..1ILPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/XP.W.352.1ILPVT



Fringe quality 7
SNR 24.3
Int time 387.832
Amp 0.450
Phase 118.5
PFD 0.0e+00
Delays (us)
SBD 0.001993
MBD 0.002975
Fringe rate (Hz) 0.000123
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 084500.00
Stop 085159.84
FRT 084830.00
Corr/FF/build
2021:023:032807
2021:023:131006
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	8.57279963900E+02	Apriori delay (usec)	8.57276989056E+02	Resid mbdelay (usec)	2.97484E-03	+/-	4.5E-05
Sband delay (usec)	8.57278981806E+02	Apriori clock (usec)	3.5038853E-01	Resid sbdelay (usec)	1.99275E-03	+/-	3.6E-04
Phase delay (usec)	8.57276992879E+02	Apriori clockrate (us/s)	4.1600000E-07	Resid phdelay (usec)	3.82278E-06	+/-	1.5E-07
Delay rate (us/s)	4.49177708787E-01	Apriori rate (us/s)	4.49177707355E-01	Resid rate (us/s)	1.43270E-09	+/-	6.3E-10
Total phase (deg)	60.0	Apriori accel (us/s/s)	1.53116235261E-05	Resid phase (deg)	118.5	+/-	4.7

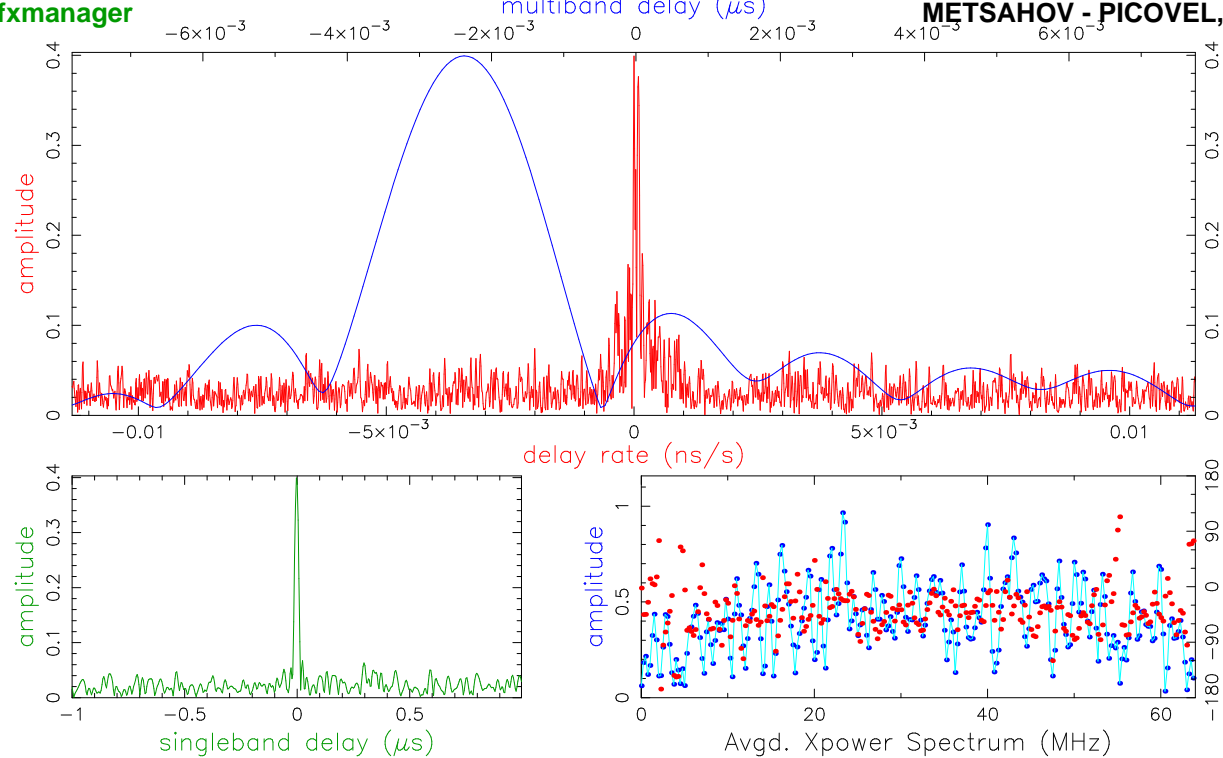
ph/seg (deg)	69.6	RMS	11.3	Theor.	11.3	Amplitude	0.450 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	71.3	Search (2048X32)	0.438	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	15.6	Inc. seg. avg.	0.727	Inc. frq. avg.	0.450	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	11.3	Inc. frq. avg.	0.450	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags:	256	t_cohere	infinite
Z: az 318.5 el 21.4 pa 28.3		P: az 308.1 el 19.3 pa 58.6		u, v (fr/asec)	-3412.796 2862.852	ion window (TEC)	0.00	0.00			simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11LPVT, No0079, ZP

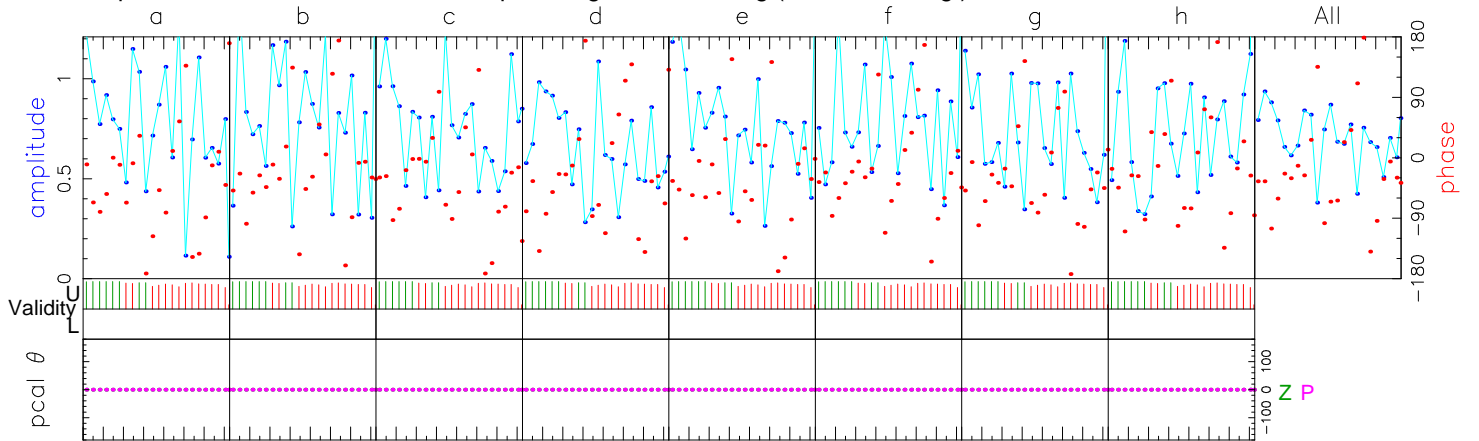
MEṬSAHOV - PICOVEL, fgroup W, pol RR



Fringe quality 9

SNR 21.7
 Int time 387.832
 Amp 0.403
 Phase -41.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.002506
 MBD -0.002344
 Fringe rate (Hz)
 0.000152
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.00
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131010
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-39.3	-33.2	-35.7	-59.3	-44.9	-39.0	-47.8	-35.7		-41.3
	0.4	0.5	0.4	0.3	0.4	0.4	0.4	0.3		0.4
	256.6	256.0	256.2	256.8	256.8	256.2	256.9	256.7		256.4
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
P	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC
Z	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks
										Tracks
Group delay (usec)(sbd)	8.57274645306E+02		Apriori delay (usec)		8.57276989056E+02		Resid mbdelay (usec)		-2.34375E-03	+/- 5.0E-05
Sband delay (usec)	8.57274482806E+02		Apriori clock (usec)		3.5038853E-01		Resid sbdelay (usec)		-2.50625E-03	+/- 4.0E-04
Phase delay (usec)	8.57276987724E+02		Apriori clockrate (us/s)		4.1600000E-07		Resid phdelay (usec)		-1.33174E-06	+/- 1.7E-07
Delay rate (us/s)	4.49177709121E-01		Apriori rate (us/s)		4.49177707355E-01		Resid rate (us/s)		1.76573E-09	+/- 7.0E-10
Total phase (deg)	260.1		Apriori accel (us/s/s)		1.53116235261E-05		Resid phase (deg)		-41.3	+/- 5.3

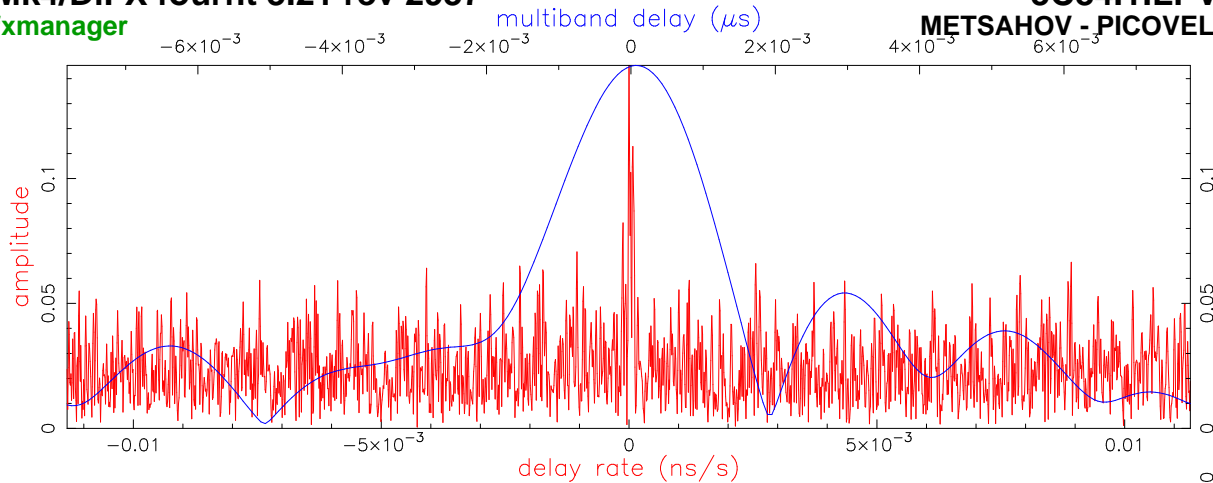
ph/seg (deg) 71.8 12.7 Search (2048X32) 0.396 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 82.5 22.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 9.3 7.5 Inc. seg. avg. 0.689 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 13.3 13.0 Inc. frq. avg. 0.399 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 Z: az 318.5 el 21.4 pa 28.3 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -3412.796 2862.852 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/ZP..11LPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/ZP.W.329.11LPVT

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

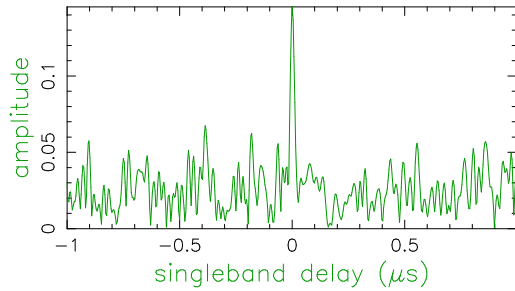
3C84.11LPVT, No0079, ZP

METSAHOV - PICOVEL, fgroup W, pol LR

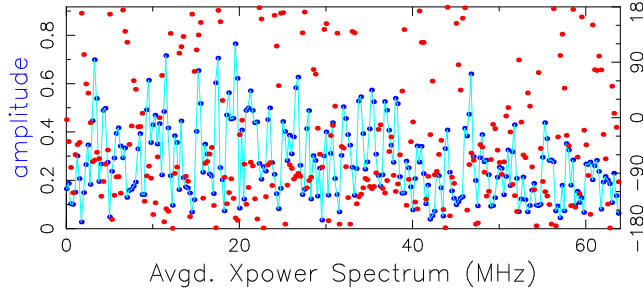


Fringe quality 9

SNR 7.8
 Int time 387.832
 Amp 0.145
 Phase -109.5
 PFD 1.7e-06
 Delays (us)
 SBD 0.000194
 MBD 0.000078
 Fringe rate (Hz)
 -0.000000
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

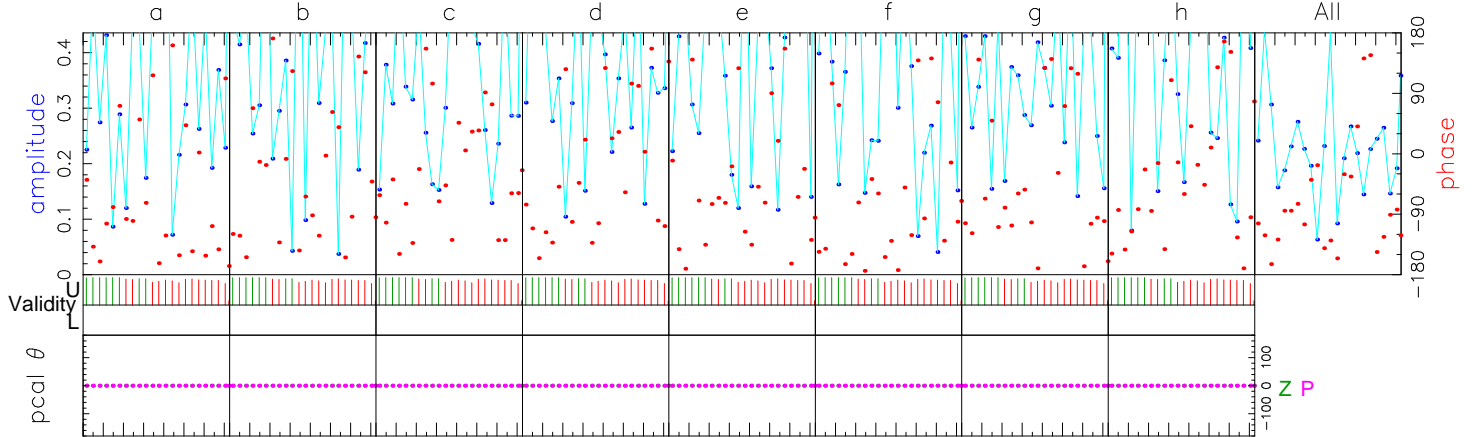


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.00
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131013
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	8.57277066556E+02	Apriori delay (usec)	8.57276989056E+02	Resid mbdelay (usec)	7.75000E-05	+/-	1.4E-04
Sband delay (usec)	8.57277183556E+02	Apriori clock (usec)	3.5038853E-01	Resid sbdelay (usec)	1.94500E-04	+/-	1.1E-03
Phase delay (usec)	8.57276985524E+02	Apriori clockrate (us/s)	4.1600000E-07	Resid phdelay (usec)	-3.53227E-06	+/-	4.7E-07
Delay rate (us/s)	4.49177707352E-01	Apriori rate (us/s)	4.49177707355E-01	Resid rate (us/s)	-2.83423E-12	+/-	1.9E-09
Total phase (deg)	191.9	Apriori accel (us/s/s)	1.53116235261E-05	Resid phase (deg)	-109.5	+/-	14.6

ph/seg (deg)	61.1	Theor.	35.1	Amplitude	0.145 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	83.7		61.3	Search (2048X32)	0.145	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	24.9		20.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	24.8		36.1	Inc. seg. avg.	0.192	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.145	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

Z: az 318.5 el 21.4 pa 28.3 P: az 308.1 el 19.3 pa 58.6 u,v (fr/asec) -3412.796 2862.852 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/ZP..11LPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/ZP.W.344.11LPVT

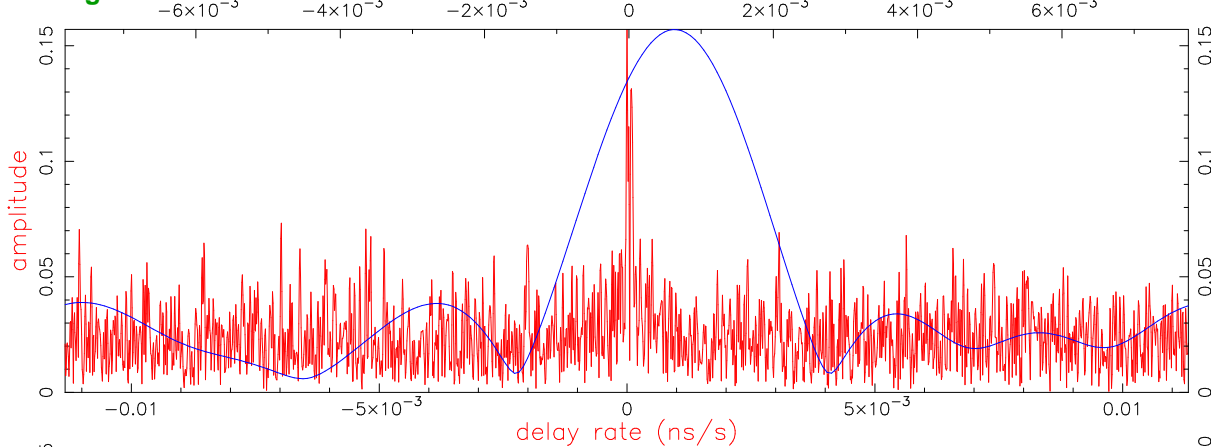
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11LPVT, No0079, ZP

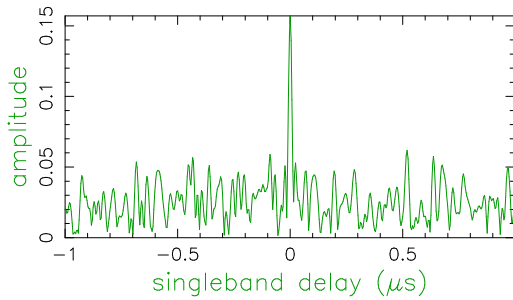
METSAHOV - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

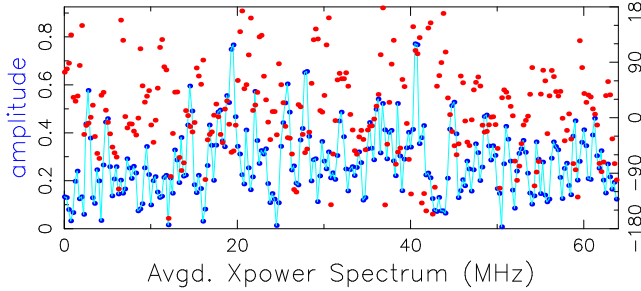


Fringe quality 9

SNR 8.5
 Int time 387.832
 Amp 0.157
 Phase -6.7
 PFD 9.7e-09
 Delays (us)
 SBD -0.000197
 MBD 0.000629
 Fringe rate (Hz)
 -0.000061
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

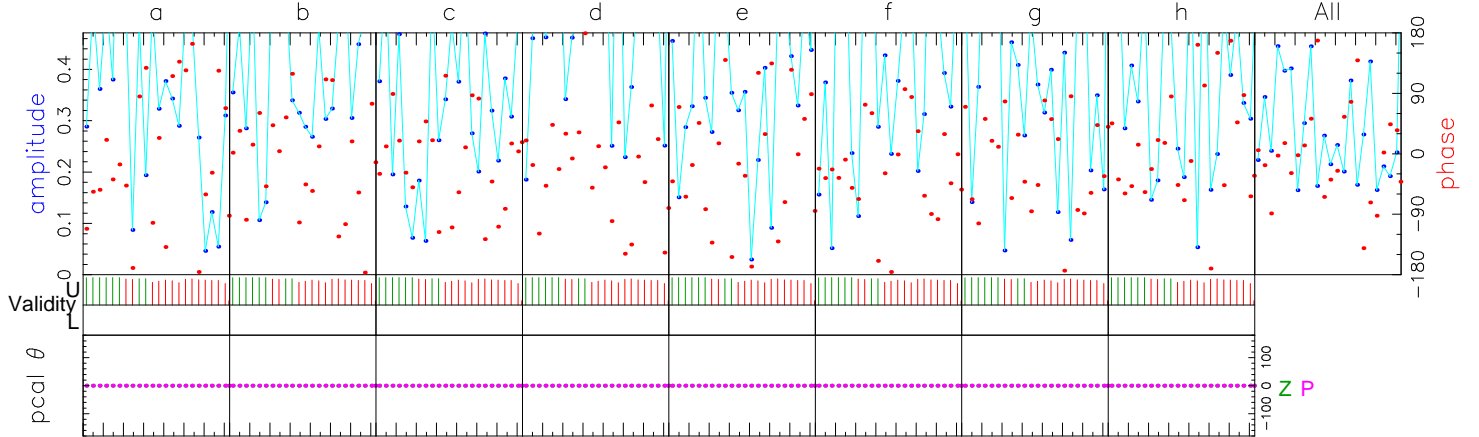


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 084500.00
 Stop 085159.84
 FRT 084830.00
 Corr/FF/build
 2021:023:032807
 2021:023:131016
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-27.4	13.2	-10.5	-13.0	-2.4	-12.0	-7.0	-0.1	Phase	-6.7
	0.1	0.2	0.2	0.3	0.1	0.2	0.2	0.2	Ampl.	0.2
	441.9	128.4	497.3	257.6	288.5	231.8	24.2	256.0	Sbd box	256.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	8.57277618150E+02	Apriori delay (usec)	8.57276989056E+02	Resid mbdelay (usec)	6.29094E-04	+/-	1.3E-04
Sband delay (usec)	8.57276792056E+02	Apriori clock (usec)	3.5038853E-01	Resid sbdelay (usec)	-1.97000E-04	+/-	1.0E-03
Phase delay (usec)	8.57276988841E+02	Apriori clockrate (us/s)	4.1600000E-07	Resid phdelay (usec)	-2.15215E-07	+/-	4.4E-07
Delay rate (us/s)	4.49177706642E-01	Apriori rate (us/s)	4.49177707355E-01	Resid rate (us/s)	-7.12809E-10	+/-	1.8E-09
Total phase (deg)	294.8	Apriori accel (us/s/s)	1.53116235261E-05	Resid phase (deg)	-6.7	+/-	13.5

ph/seg (deg)	71.7	Theor.	32.5	Amplitude	0.157 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	101.6	Search (2048X32)	0.156	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	12.7	Inc. seg. avg.	0.243	Inc. frq. avg.	0.151	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	36.9	Inc. frq. avg.	0.151	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	dr window (ns/s)	-0.011 0.011
Z: az 318.5 el 21.4 pa 28.3		P: az 308.1 el 19.3 pa 58.6		u, v (fr/asec)	-3412.796 2862.852	ion window (TEC)	0.00 0.00			simultaneous interpolator	

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0079/ZP..11LPVT Output file: /Exps/c202b/v1/v1_3mm/1234/No0079/ZP.W.359.11LPVT