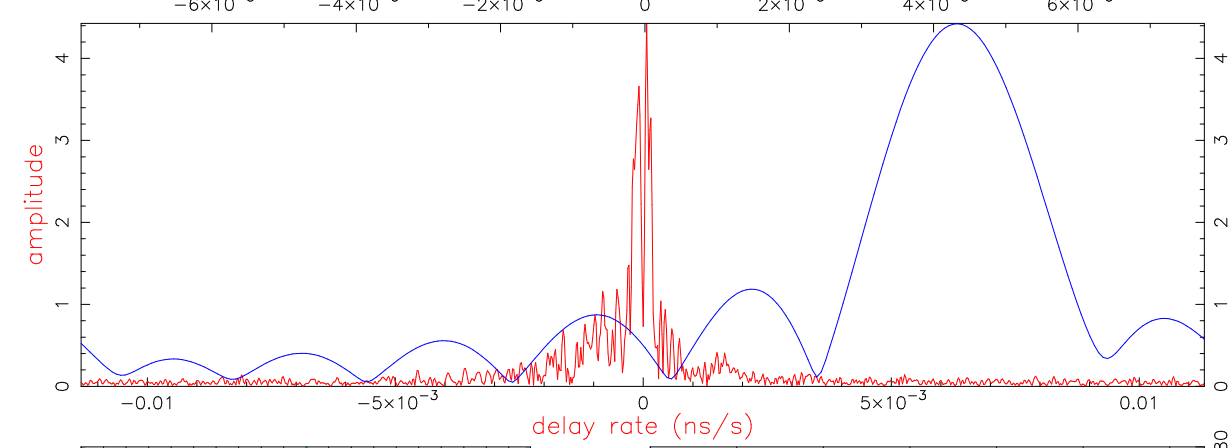


Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

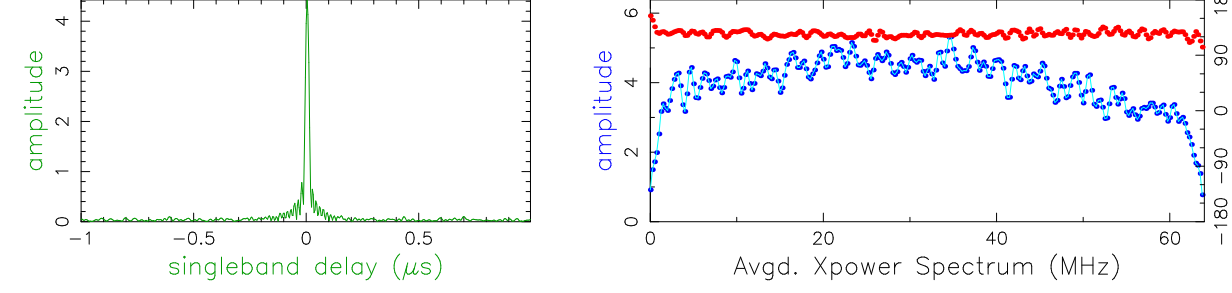
0102+584.1HR1IN, No0100, BP

EFLSBERG - PICOVEL, fgroup W, pol LL

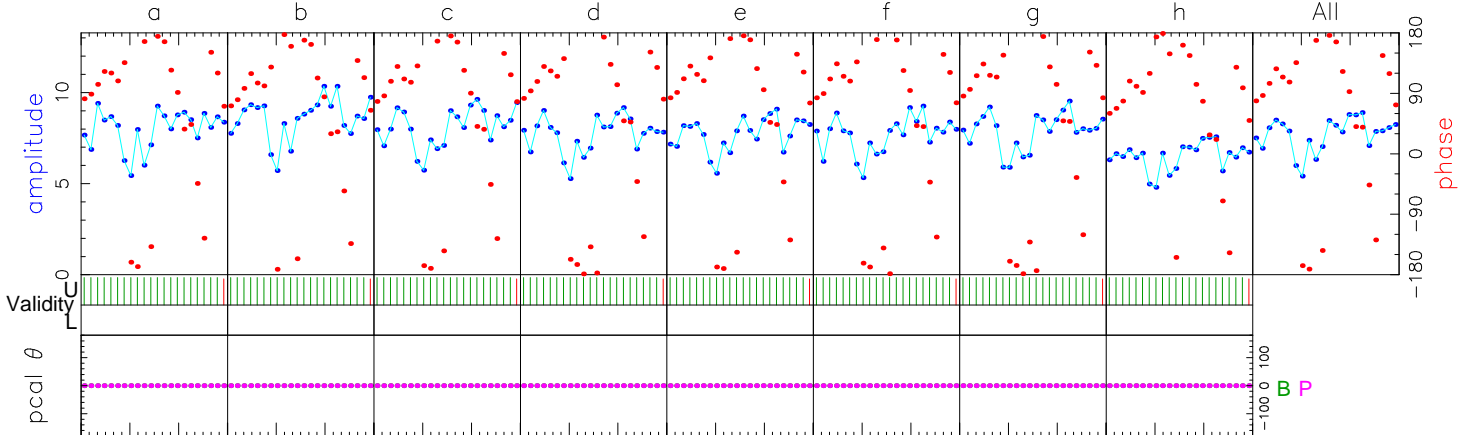


Fringe quality 5

SNR 162.3
 Int time 179.587
 Amp 4.428
 Phase 124.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.004368
 MBD 0.004336
 Fringe rate (Hz) 0.004831
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132643
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	126.4	116.4	124.6	132.3	128.7	127.4	132.1	107.1	Phase	124.7	
	4.5	4.9	4.6	4.5	4.6	4.4	4.5	3.7	Ampl.	4.5	
	258.0	257.9	258.2	258.1	258.2	258.2	258.1	257.0	Sbd box	258.1	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks		
									Chan ids		
									Tracks		
Group delay (usec)(sbd)	2.31997806724E+03		Apriori delay (usec)		2.31997373081E+03		Resid mbdelay (usec)		4.33643E-03 +/- 6.7E-06		
Sband delay (usec)	2.31997809906E+03		Apriori clock (usec)		1.0298697E+01		Resid sbdelay (usec)		4.36825E-03 +/- 5.3E-05		
Phase delay (usec)	2.31997373483E+03		Apriori clockrate (us/s)		2.0000000E-07		Resid phdelay (usec)		4.02154E-06 +/- 2.3E-08		
Delay rate (us/s)	1.58169404119E-01		Apriori rate (us/s)		1.58169348036E-01		Resid rate (us/s)		5.60823E-08 +/- 2.2E-10		
Total phase (deg)	186.5		Apriori accel (us/s/s)		3.98485421708E-06		Resid phase (deg)		124.7 +/- 0.7		
RMS	Theor.		Amplitude		4.428 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		
ph/seg (deg)	63.1	1.7	Search (1024X32)		4.223		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000		
amp/seg (%)	76.8	2.9	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled mb window (us) -0.008 0.008		
ph/frq (deg)	9.3	1.0	Inc. seg. avg.		7.701		Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011		
amp/frq (%)	7.7	1.7	Inc. frq. avg.		4.461		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00		
B: az 326.1 el 31.5 pa 43.6			P: az 326.2 el 24.4 pa 58.8			u,v (fr/asec) -1731.900 1300.985			simultaneous interpolator		
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/BP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/BP.W.23.1HR1IN											

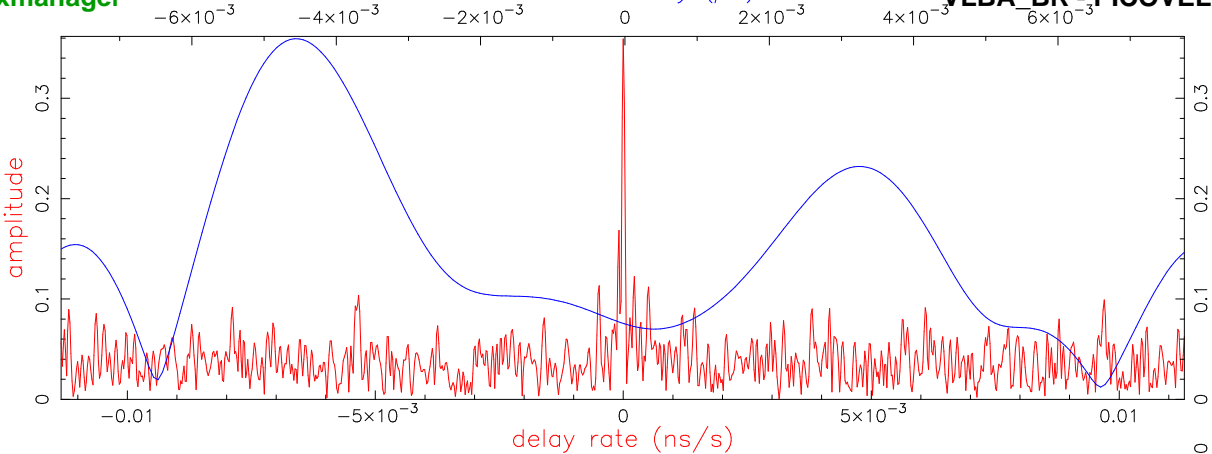
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, bP

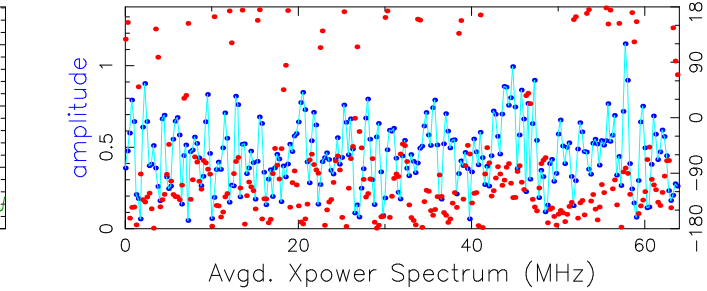
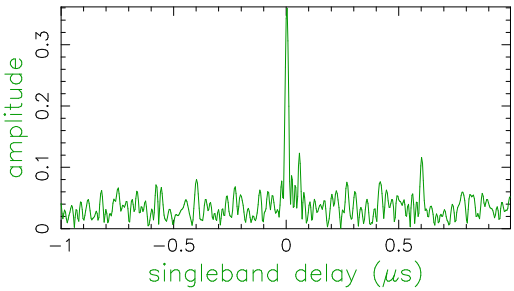
VLBA_BR - PICOVEL, fgroup W, pol LL

multiband delay (μ s)



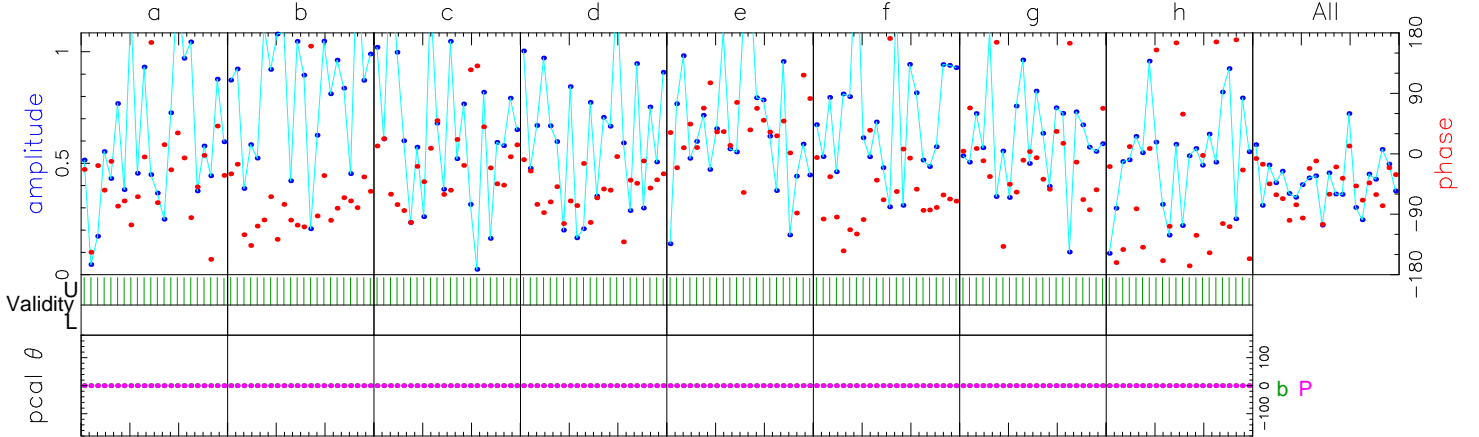
Fringe quality 9

SNR 13.3
 Int time 179.782
 Amp 0.362
 Phase -44.0
 PFD 1.1e-31
 Delays (us)
 SBD 0.002895
 MBD -0.004585
 Fringe rate (Hz)
 0.000782
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132643
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-35.6	-79.3	-19.6	-51.8	33.7	-70.1	-18.2	-124.3	Phase	-44.0
	0.4	0.7	0.5	0.5	0.5	0.5	0.4	0.2	Ampl.	0.5
	257.1	257.9	257.5	256.9	256.8	257.4	256.8	255.9	Sbd box	257.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	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)	1.20306001441E+04		Apriori delay (usec)		1.20306047294E+04		Resid mbdelay (usec)		-4.58534E-03	+/- 8.2E-05
Sband delay (usec)	1.20306076239E+04		Apriori clock (usec)		-1.5349245E+00		Resid sbdelay (usec)		2.89450E-03	+/- 6.5E-04
Phase delay (usec)	1.20306047280E+04		Apriori clockrate (us/s)		3.9999999E-07		Resid phdelay (usec)		-1.41912E-06	+/- 2.8E-07
Delay rate (us/s)	7.39814780243E-01		Apriori rate (us/s)		7.39814771162E-01		Resid rate (us/s)		9.08087E-09	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		-5.03403200077E-05		Resid phase (deg)		-44.0	+/- 8.6

	RMS	Theor.	Amplitude	0.362 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
ph/seg (deg)	31.4	20.3	Search (1024X32)	0.342	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/seg (%)	34.5	35.4	Interp.	0.000	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
ph/frq (deg)	51.3	12.2	Inc. seg. avg.	0.396	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
amp/frq (%)	45.6	21.3	Inc. frq. avg.	0.454						

b: az 30.5 el 77.3 pa -139.4 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -8153.932 -5763.131 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/bP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/bP.W.25.1HR1IN

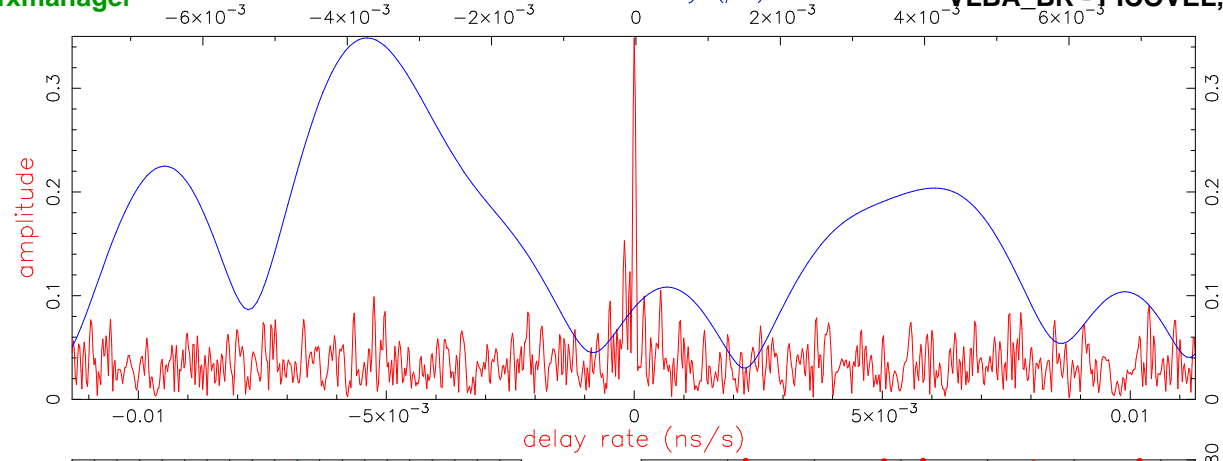
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, bP

VLBA_BR - PICOVEL, fgroup W, pol RR

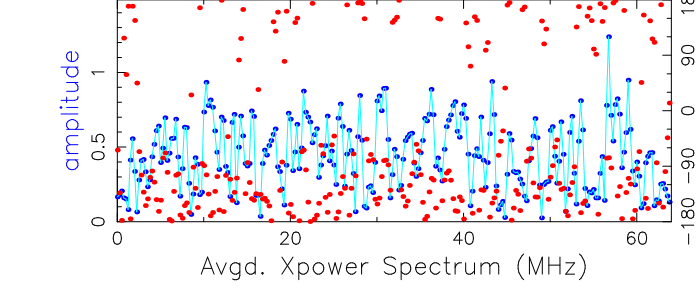
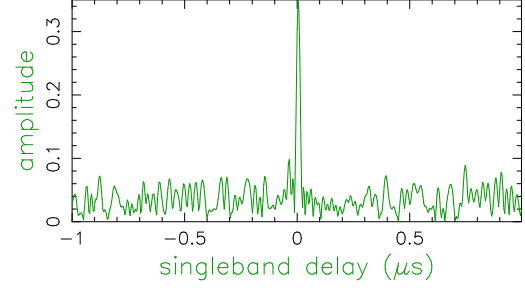
multiband delay (μ s)



Fringe quality 9

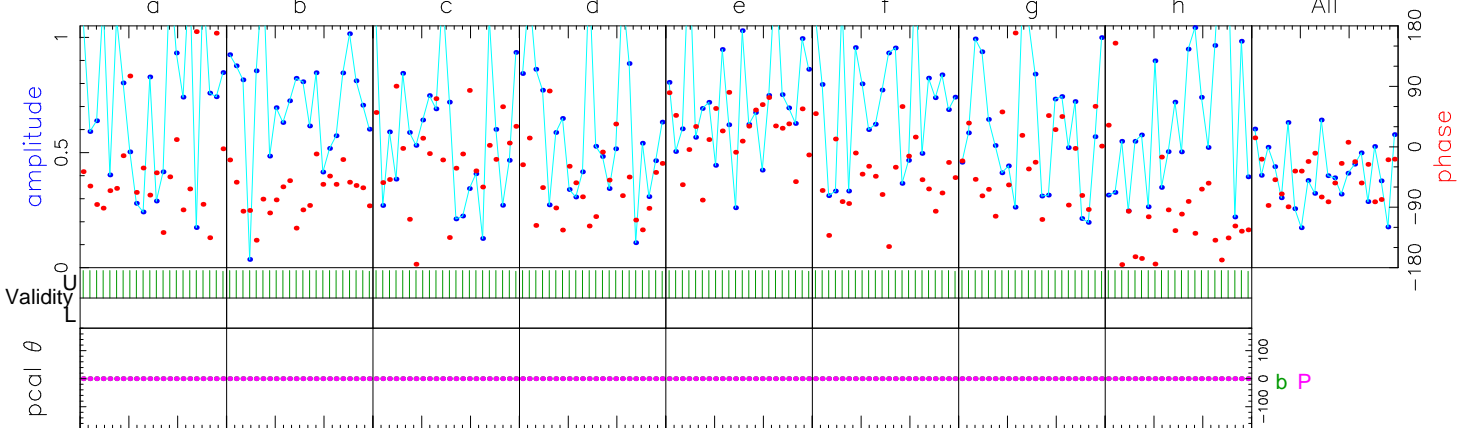
SNR 12.8
 Int time 179.782
 Amp 0.350
 Phase -45.4
 PFD 2.7e-29
 Delays (us)
 SBD 0.004774
 MBD -0.003706
 Fringe rate (Hz) 0.000948
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132645
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-63.7	-66.8	0.6	-62.9	24.9	-42.7	-18.7	-128.7	Phase	-45.4
	0.5	0.6	0.3	0.4	0.6	0.5	0.4	0.5	Ampl.	0.5
	258.4	257.9	258.0	257.2	257.5	257.8	256.8	256.4	Sbd box	258.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	1.20306166484E+04	Apriori delay (usec)	1.20306047294E+04	Resid mbdelay (usec)	-3.70598E-03	+/-	8.5E-05
Sband delay (usec)	1.20306095032E+04	Apriori clock (usec)	-1.5349245E+00	Resid sbdelay (usec)	4.77375E-03	+/-	6.7E-04
Phase delay (usec)	1.20306047280E+04	Apriori clockrate (us/s)	3.9999999E-07	Resid phdelay (usec)	-1.46402E-06	+/-	2.9E-07
Delay rate (us/s)	7.39814782166E-01	Apriori rate (us/s)	7.39814771162E-01	Resid rate (us/s)	1.10039E-08	+/-	2.8E-09
Total phase (deg)		Apriori accel (us/s/s)	-5.03403200077E-05	Resid phase (deg)	-45.4	+/-	8.9

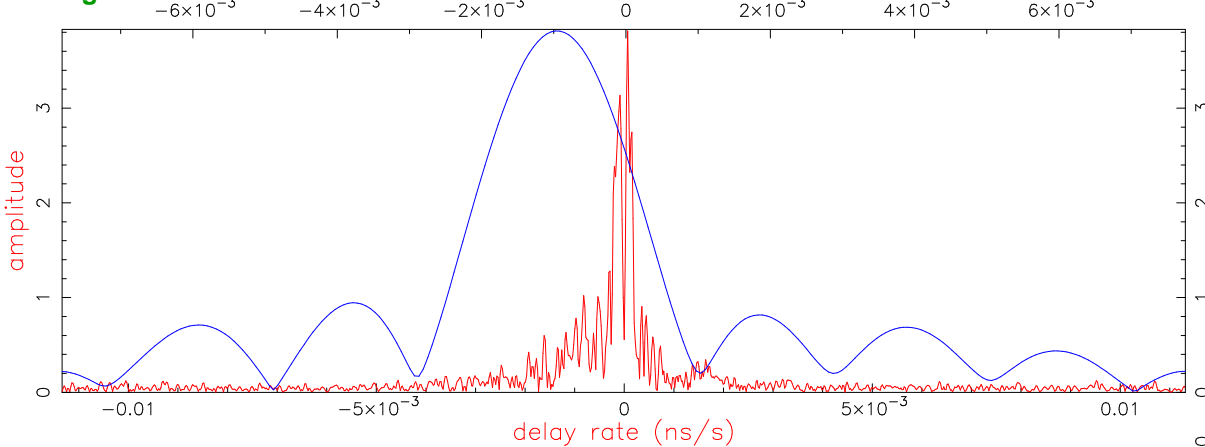
ph/seg (deg)	30.7	Theor.	20.9	Amplitude	0.350 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	41.7	Search (1024X32)	0.329	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	51.3	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	44.2	Inc. seg. avg.	0.387	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011	0.011	
		Inc. frq. avg.	0.467	Data rate (Mb/s):	2048	ion window (TEC)	0.00	0.00	

b: az 30.5 el 77.3 pa -139.4 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -8153.932 -5763.131 simultaneous interpolator

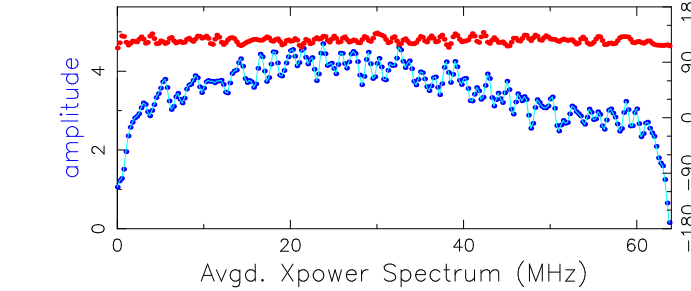
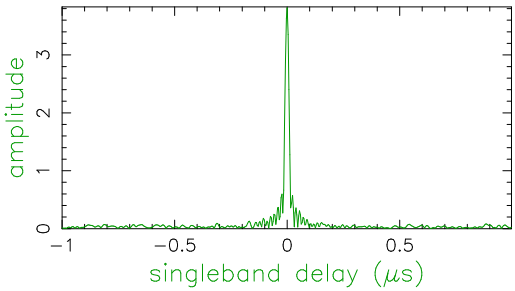
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/bP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/bP.W.44.1HR1IN

multiband delay (μ s)

Fringe quality 5

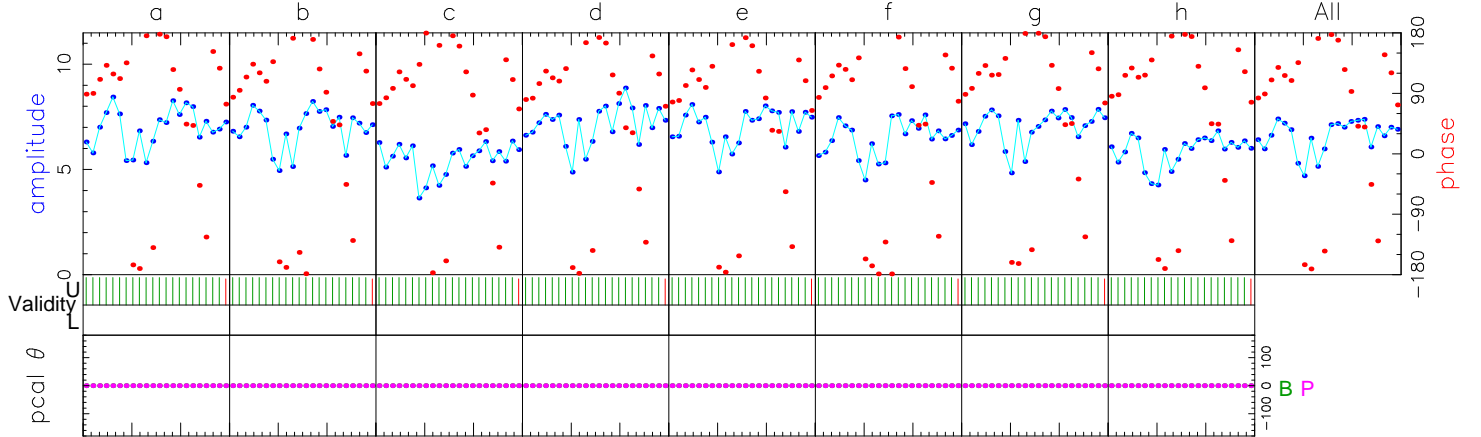


SNR 140.4
 Int time 179.587
 Amp 3.831
 Phase 127.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.000883
 MBD -0.000977
 Fringe rate (Hz)
 0.004899
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132645
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	2.31997275346E+03					2.31997373081E+03				
Sband delay (usec)	2.31997284781E+03					1.0298697E+01				
Phase delay (usec)	2.31997373492E+03					2.0000000E-07				
Delay rate (us/s)	1.58169404904E-01					1.58169348036E-01				
Total phase (deg)			189.3			3.98485421708E-06				
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)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal period (AP's) 5, 5										
SampCntNorm: enabled										
simultaneous interpolator										

B: az 326.1 el 31.5 pa 43.6 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -1731.900 1300.985 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/BP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/BP.W.46.1HR1IN

Mk4/DiFX fourfit 3.21 rev 2937

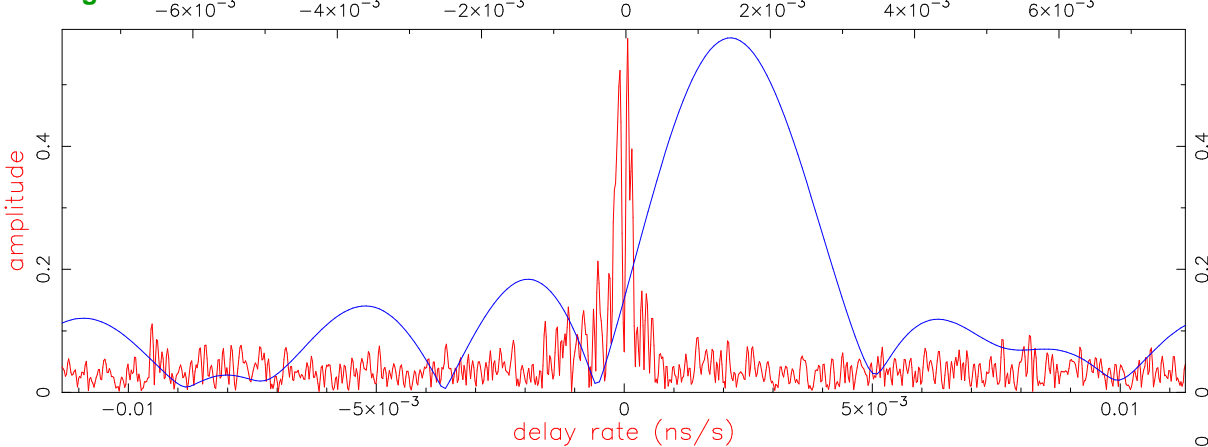
fxmanager

0102+584.1HR1IN, No0100, BP

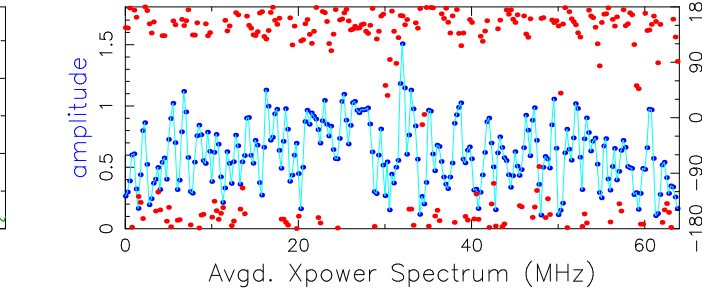
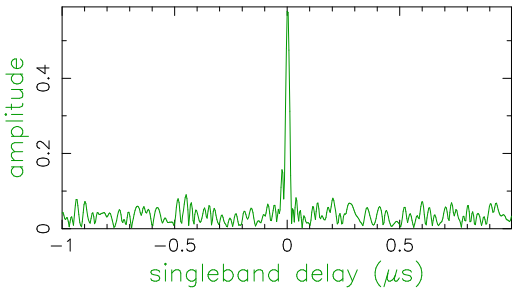
EFLSBERG - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 9

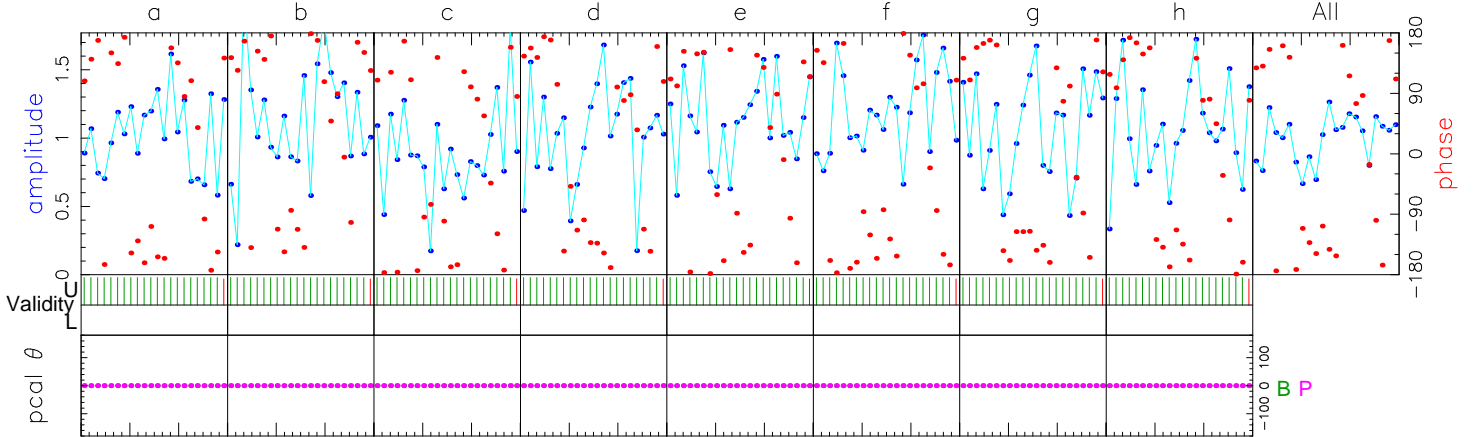


SNR 21.6
 Int time 179.587
 Amp 0.590
 Phase 172.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.001834
 MBD 0.001383
 Fringe rate (Hz) 0.005188
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132647
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	171.0	168.2	157.8	175.4	156.6	-169.2	-175.0	163.0	Phase	172.0
B	0.7	0.6	0.5	0.6	0.6	0.7	0.6	0.5	Ampl.	0.6
P	257.6	257.5	257.2	257.2	258.0	257.3	257.5	256.2	Sbd box	257.5
B	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
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	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

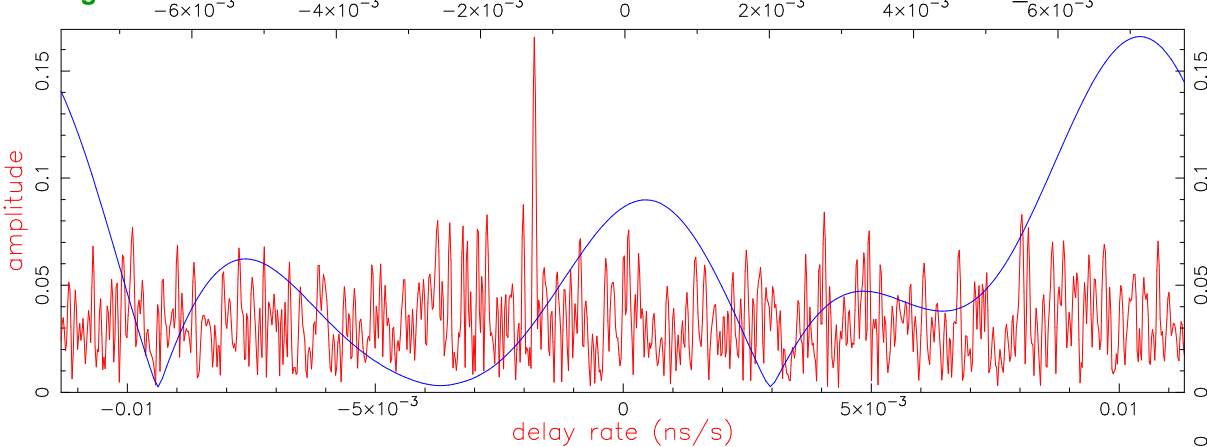
Group delay (usec)(sbd)	2.31997511349E+03	Apriori delay (usec)	2.31997373081E+03	Resid mbdelay (usec)	1.38268E-03	+/-	5.0E-05
Sband delay (usec)	2.31997556506E+03	Apriori clock (usec)	1.0298697E+01	Resid sbdelay (usec)	1.83425E-03	+/-	4.0E-04
Phase delay (usec)	2.31997373635E+03	Apriori clockrate (us/s)	2.0000000E-07	Resid phdelay (usec)	5.54708E-06	+/-	1.7E-07
Delay rate (us/s)	1.58169408259E-01	Apriori rate (us/s)	1.58169348036E-01	Resid rate (us/s)	6.02231E-08	+/-	1.6E-09
Total phase (deg)	233.8	Apriori accel (us/s/s)	3.98485421708E-06	Resid phase (deg)	172.0	+/-	5.3

ph/seg (deg)	RMS 63.1	Theor. 12.4	Amplitude Search (1024X32)	0.590 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	75.2	21.7	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)	13.4	7.5	Inc. seg. avg.	0.978	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	13.3	13.1	Inc. frq. avg.	0.582	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 326.1 el 31.5 pa 43.6 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -1731.900 1300.985 simultaneous interpolator

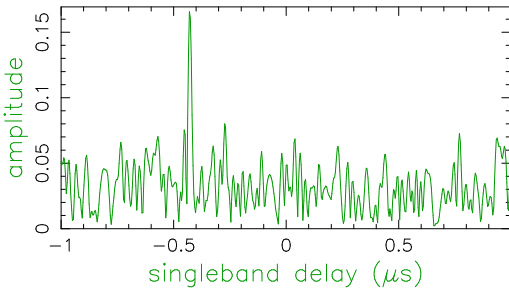
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/BP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/BP.W.62.1HR1IN

multiband delay (μ s)

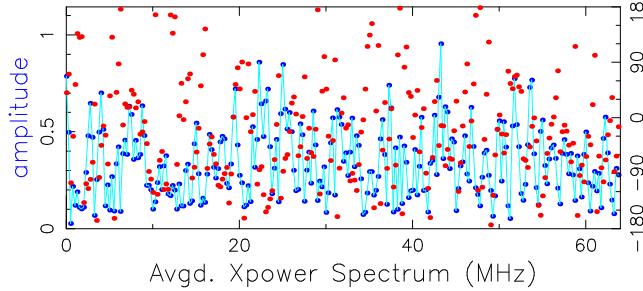


Fringe quality 0

SNR 6.1
 Int time 179.782
 Amp 0.169
 Phase -14.6
 PFD 9.9e-02
 Delays (us)
 SBD -0.428352
 MBD 0.007212
 Fringe rate (Hz)
 -0.155627
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

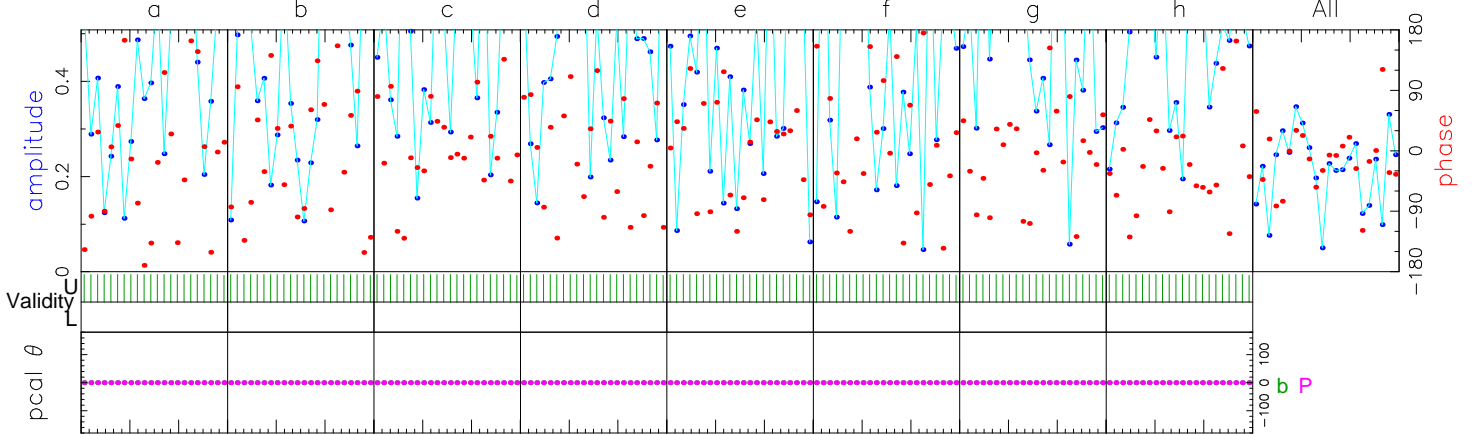


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132647
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
b:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

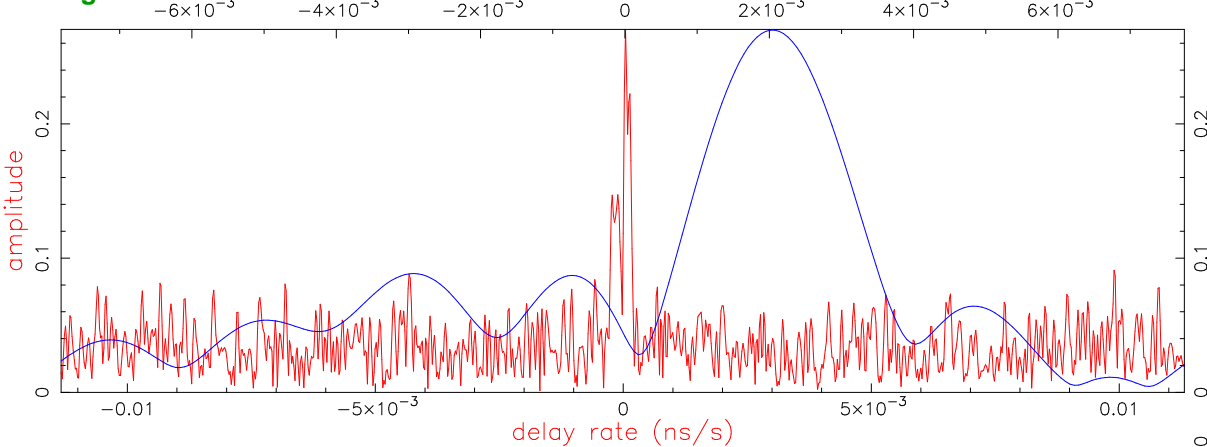
Group delay (usec)(sbd)	1.20301744419E+04	Apriori delay (usec)	1.20306047294E+04	Resid mbdelay (usec)	7.21249E-03	+/-	1.8E-04
Sband delay (usec)	1.20301763772E+04	Apriori clock (usec)	-1.5349245E+00	Resid sbdelay (usec)	-4.28352E-01	+/-	1.4E-03
Phase delay (usec)	1.20306047290E+04	Apriori clockrate (us/s)	3.9999999E-07	Resid phdelay (usec)	-4.70125E-07	+/-	6.0E-07
Delay rate (us/s)	7.39812964489E-01	Apriori rate (us/s)	7.39814771162E-01	Resid rate (us/s)	-1.80667E-06	+/-	5.8E-09
Total phase (deg)	126.9	Apriori accel (us/s/s)	-5.03403200077E-05	Resid phase (deg)	-14.6	+/-	18.6

ph/seg (deg)	49.0	Theor.	43.7	Amplitude	0.169 +/- 0.028	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	54.8		76.3	Search (1024X32)	0.161	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	32.1		26.4	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	56.7		46.0	Inc. seg. avg.	0.168	Sample rate(MISamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.167	Data rate(Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

b: az 30.5 el 77.3 pa -139.4 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -8153.932 -5763.131 simultaneous interpolator

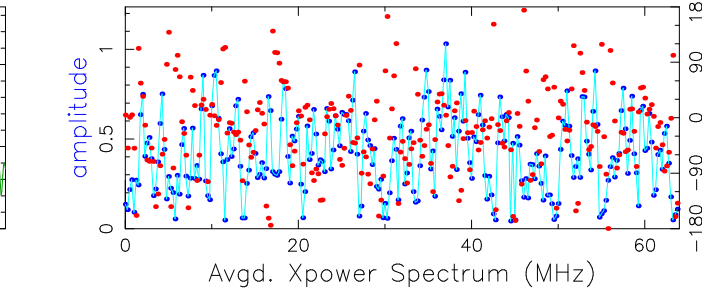
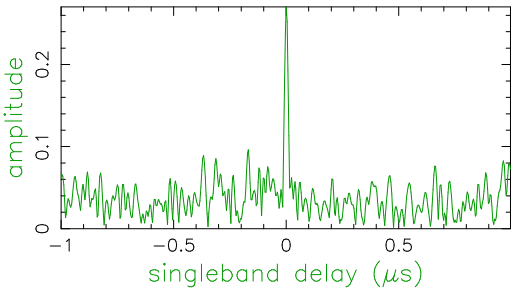
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/bP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/bP.W.64.1HR1IN

multiband delay (μ s)



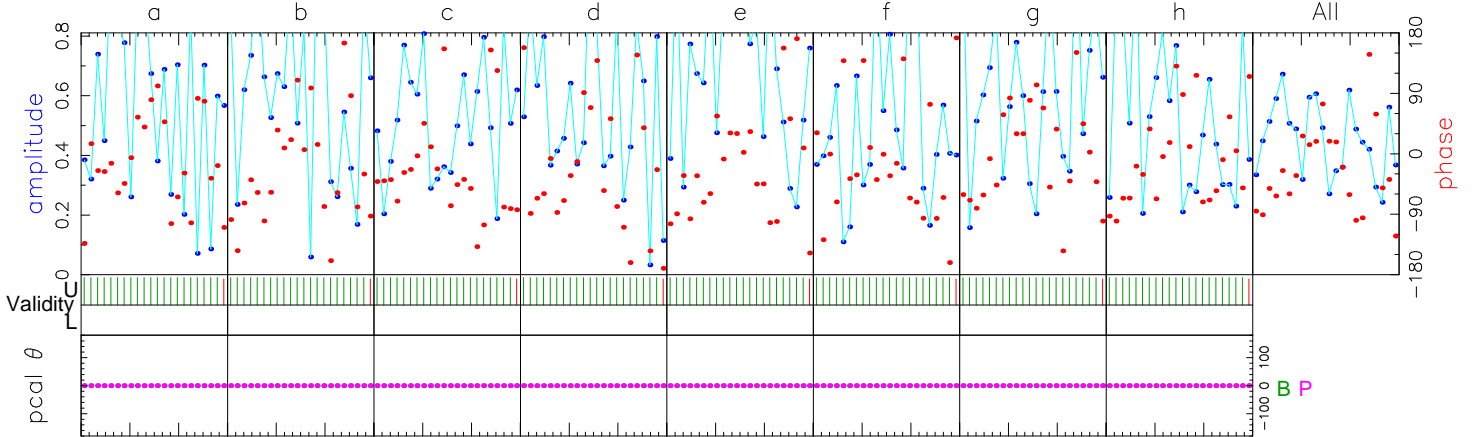
Fringe quality 9

SNR 9.9
 Int time 179.587
 Amp 0.270
 Phase -36.2
 PFD 8.2e-15
 Delays (us)
 SBD 0.000547
 MBD 0.002066
 Fringe rate (Hz)
 0.004241
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132649
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-10.5	-39.0	-53.3	-44.3	-40.1	-51.9	-13.9	-34.8	Phase	-36.2
	0.3	0.3	0.3	0.1	0.4	0.3	0.3	0.3	Ampl.	0.3
	258.6	257.4	257.5	43.0	257.2	257.4	255.9	254.9	Sbd box	257.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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)	2.31997579719E+03	Apriori delay (usec)	2.31997373081E+03	Resid mbdelay (usec)	2.06638E-03	+/-	1.1E-04
Sband delay (usec)	2.31997427781E+03	Apriori clock (usec)	1.0298697E+01	Resid sbdelay (usec)	5.47000E-04	+/-	8.7E-04
Phase delay (usec)	2.31997372964E+03	Apriori clockrate (us/s)	2.0000000E-07	Resid phdelay (usec)	-1.16628E-06	+/-	3.7E-07
Delay rate (us/s)	1.58169397272E-01	Apriori rate (us/s)	1.58169348036E-01	Resid rate (us/s)	4.92363E-08	+/-	3.6E-09
Total phase (deg)	25.6	Apriori accel (us/s/s)	3.98485421708E-06	Resid phase (deg)	-36.2	+/-	11.6

ph/seg (deg)	RMS 64.1	Theor. 27.1	Amplitude Search (1024X32)	0.270 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
amp/seg (%)	81.5	47.3	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	17.2	16.4	Inc. seg. avg.	0.409	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	24.0	28.6	Inc. frq. avg.	0.268	Sample rate(MISamp/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

B: az 326.1 el 31.5 pa 43.6 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -1731.900 1300.985 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/BP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/BP.W.78.1HR1IN

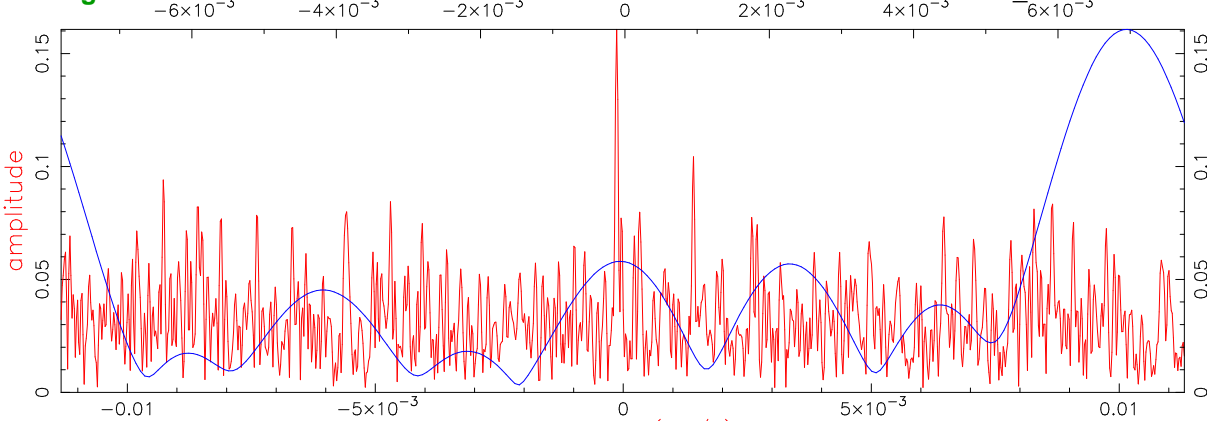
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

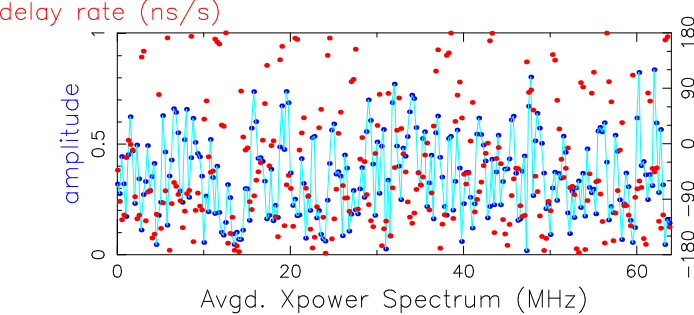
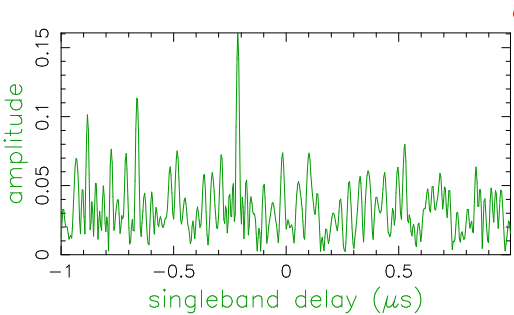
0102+584.1HR1IN, No0100, bP

VLBA_BR - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

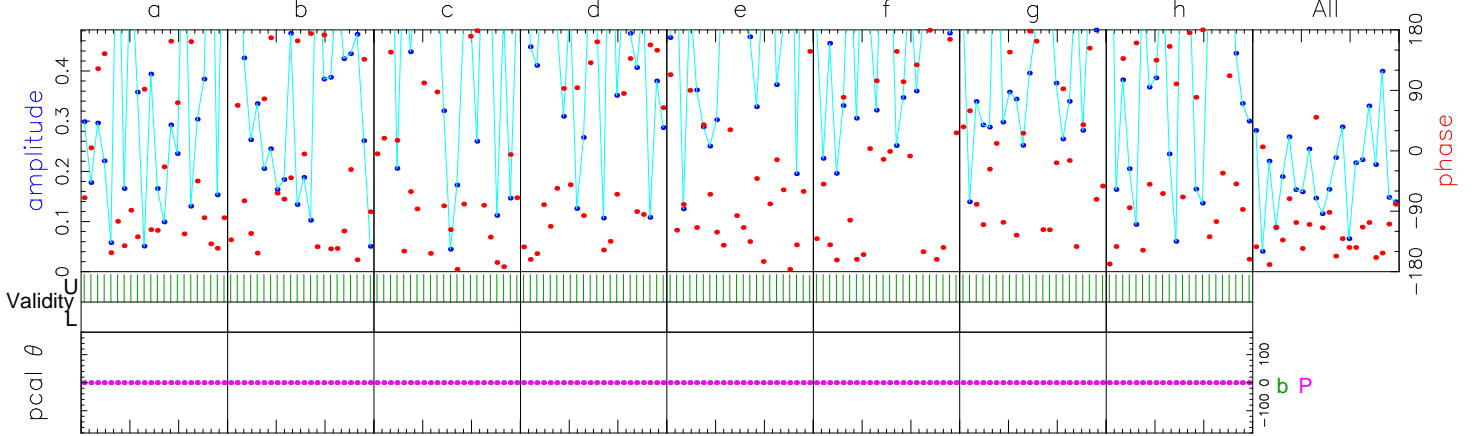


Fringe quality 0
 SNR 5.9
 Int time 179.782
 Amp 0.161
 Phase -126.1
 PFD 3.8e-01
 Delays (us)
 SBD -0.214907
 MBD 0.006944
 Fringe rate (Hz)
 -0.010881
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132649
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-117.4	-135.0	-129.0	-140.1	-114.4	-146.2	-85.4	-132.3	Phase	-126.1
	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	Ampl.	0.1
	200.9	337.4	58.1	140.1	286.0	210.3	376.8	286.5	Sbd box	202.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.20303929237E+04		Apriori delay (usec)		1.20306047294E+04		Resid mbdelay (usec)		6.94423E-03	+/- 1.8E-04
Sband delay (usec)	1.20303898222E+04		Apriori clock (usec)		-1.5349245E+00		Resid sbdelay (usec)		-2.14907E-01	+/- 1.5E-03
Phase delay (usec)	1.20306047254E+04		Apriori clockrate (us/s)		3.9999999E-07		Resid phdelay (usec)		-4.06788E-06	+/- 6.3E-07
Delay rate (us/s)	7.39814644845E-01		Apriori rate (us/s)		7.39814771162E-01		Resid rate (us/s)		-1.26317E-07	+/- 6.0E-09
Total phase (deg)	15.4		Apriori accel (us/s/s)		-5.03403200077E-05		Resid phase (deg)		-126.1	+/- 19.4

	RMS	Theor.	Amplitude	0.161 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	53.3	45.6	Search (1024X32)	0.157	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/seg (%)	57.2	79.6	Interp.	0.000	Sample rate(MISamp/s): 128	nlags: 256	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	20.8	27.5	Inc. seg. avg.	0.150	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00
amp/frq (%)	28.6	48.0	Inc. frq. avg.	0.149					

b: az 30.5 el 77.3 pa -139.4 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -8153.932 -5763.131 simultaneous interpolator

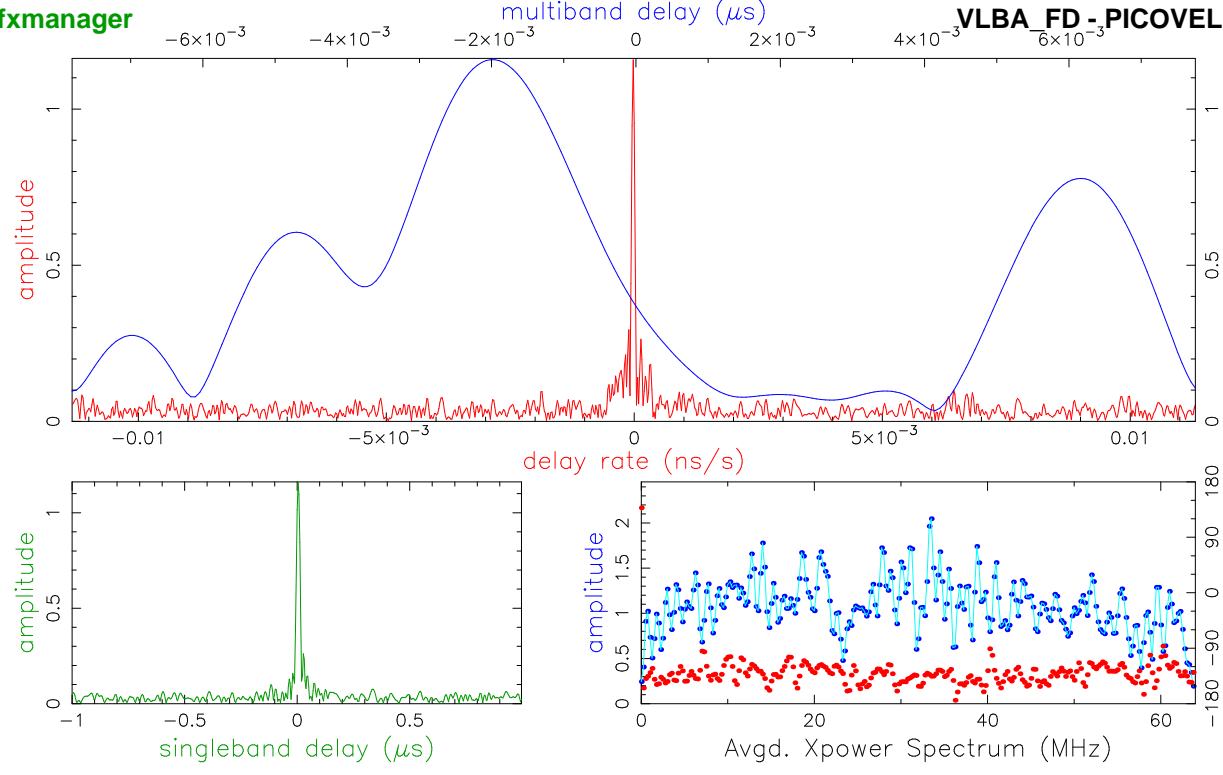
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/bP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/bP.W.81.1HR1IN

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, fP

VLBA_FD - PICOVEL, fgroup W, pol LL

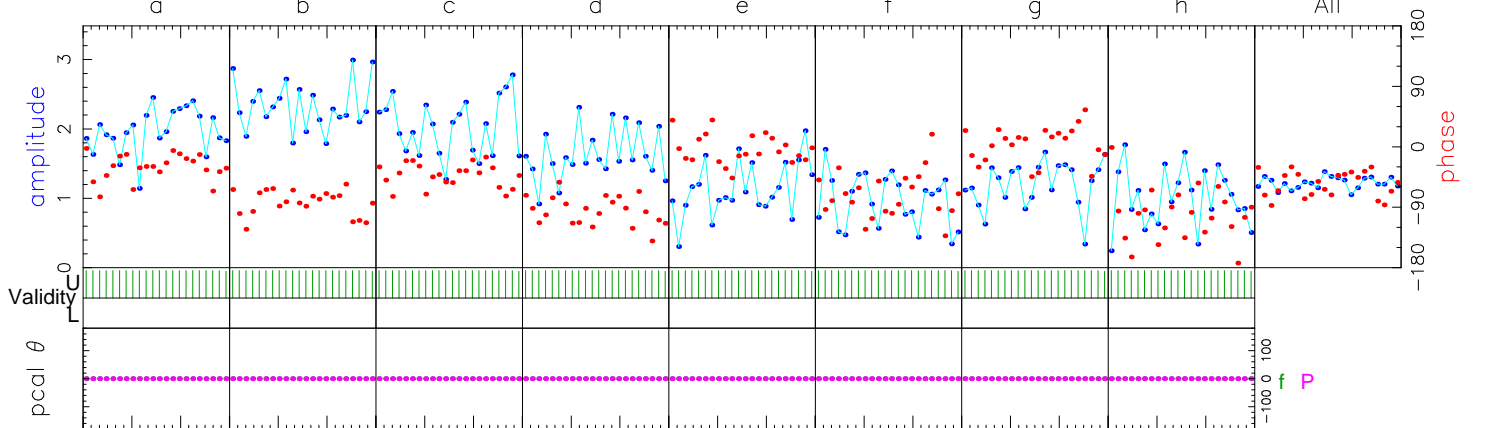


Fringe quality 5

SNR 42.6
 Int time 179.784
 Amp 1.162
 Phase -55.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.004688
 MBD -0.001960
 Fringe rate (Hz)
 -0.001162
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132653
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-30.1	-82.8	-44.6	-95.2	-4.2	-78.2	3.0	-106.9		-55.8
	1.9	2.2	1.9	1.5	1.1	0.8	1.1	0.9	Ampl.	1.4
	257.9	257.7	257.9	257.6	258.0	257.9	257.6	256.0	Sbd box	258.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.00698865972E+04		Apriori delay (usec)		1.0069888568E+04		Resid mbdelay (usec)		-1.95961E-03	+/- 2.5E-05
Sband delay (usec)	1.00698932443E+04		Apriori clock (usec)		8.0078316E+00		Resid sbdelay (usec)		4.68750E-03	+/- 2.0E-04
Phase delay (usec)	1.00698885550E+04		Apriori clockrate (us/s)		7.9999999E-07		Resid phdelay (usec)		-1.80042E-06	+/- 8.7E-08
Delay rate (us/s)	5.81543421995E-01		Apriori rate (us/s)		5.81543435484E-01		Resid rate (us/s)		-1.34895E-08	+/- 8.3E-10
Total phase (deg)			Apriori accel (us/s/s)		-6.24741700287E-05		Resid phase (deg)		-55.8	+/- 2.7

ph/seg (deg) 18.6 6.3 Search (1024X32) 1.124 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 8.8 11.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 45.3 3.8 Inc. seg. avg. 1.214 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 48.7 6.6 Inc. frq. avg. 1.422 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 356.2 el 62.0 pa 174.0 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -6427.248 -8414.191 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/fP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/fP.W.107.1HR1IN

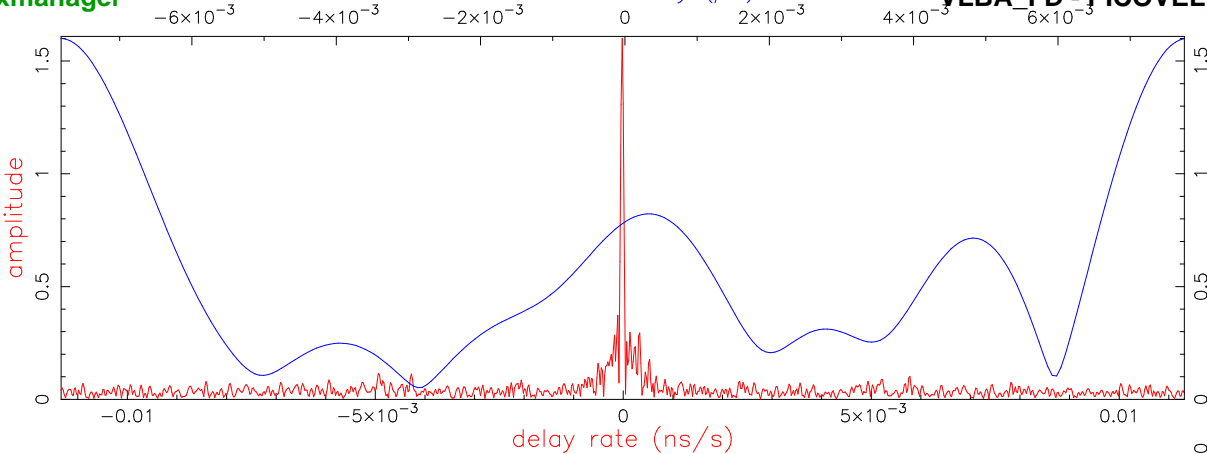
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, fP

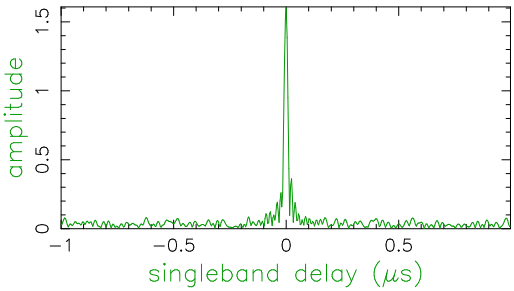
VLBA_FD - PICOVEL, fgroup W, pol RR

multiband delay (μ s)

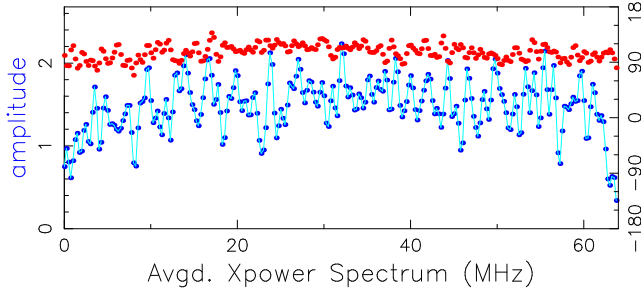


Fringe quality 5

SNR 59.0
 Int time 179.784
 Amp 1.609
 Phase -173.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.000940
 MBD -0.007852
 Fringe rate (Hz)
 -0.001248
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

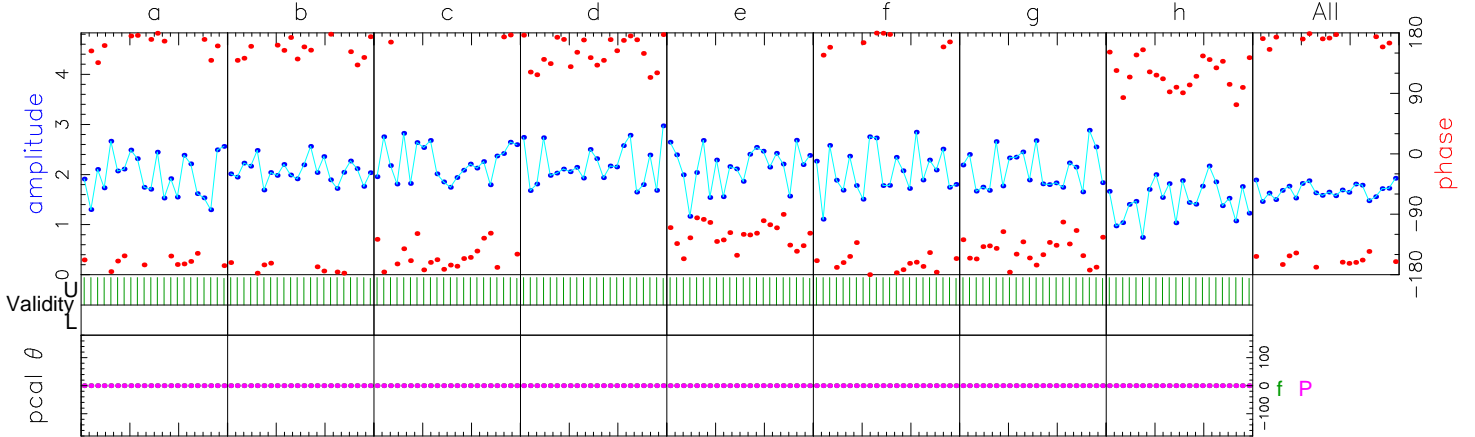


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132655
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	1.00698807050E+04	Apriori delay (usec)	1.00698885568E+04	Resid mbdelay (usec)	-7.85184E-03	+/-	1.8E-05
Sband delay (usec)	1.00698876168E+04	Apriori clock (usec)	8.0078316E+00	Resid sbdelay (usec)	-9.40000E-04	+/-	1.5E-04
Phase delay (usec)	1.00698885512E+04	Apriori clockrate (us/s)	7.9999999E-07	Resid phdelay (usec)	-5.60270E-06	+/-	6.3E-08
Delay rate (us/s)	5.81543420997E-01	Apriori rate (us/s)	5.81543435484E-01	Resid rate (us/s)	-1.44872E-08	+/-	6.0E-10
Total phase (deg)	-70.4	Apriori accel (us/s/s)	-6.24741700287E-05	Resid phase (deg)	-173.7	+/-	1.9

ph/seg (deg)	17.7	Theor.	4.6	Amplitude	1.609 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	9.3		7.9	Search (1024X32)	1.564	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	41.4		2.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	23.2		4.8	Inc. seg. avg.	1.673	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	1.915	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

f: az 356.2 el 62.0 pa 174.0 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -6427.248 -8414.191 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/fP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/fP.W.130.1HR1IN

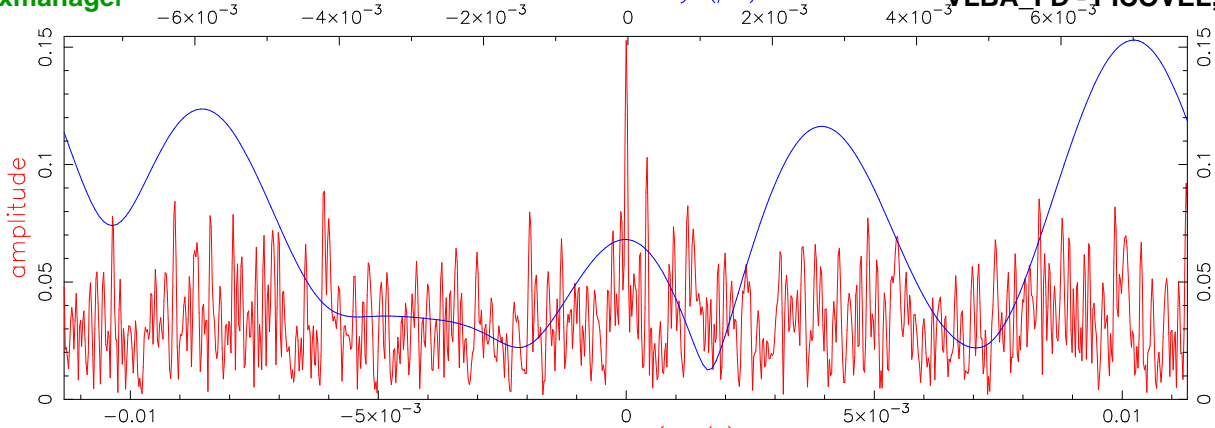
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

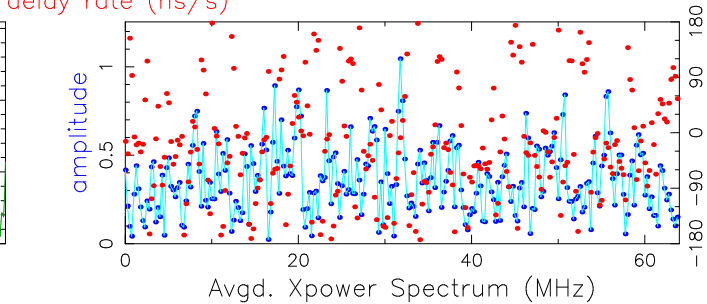
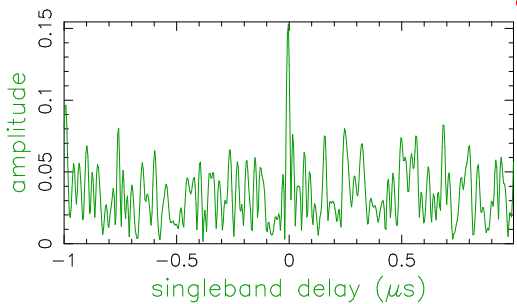
0102+584.1HR1IN, No0100, fP

VLBA_FD - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

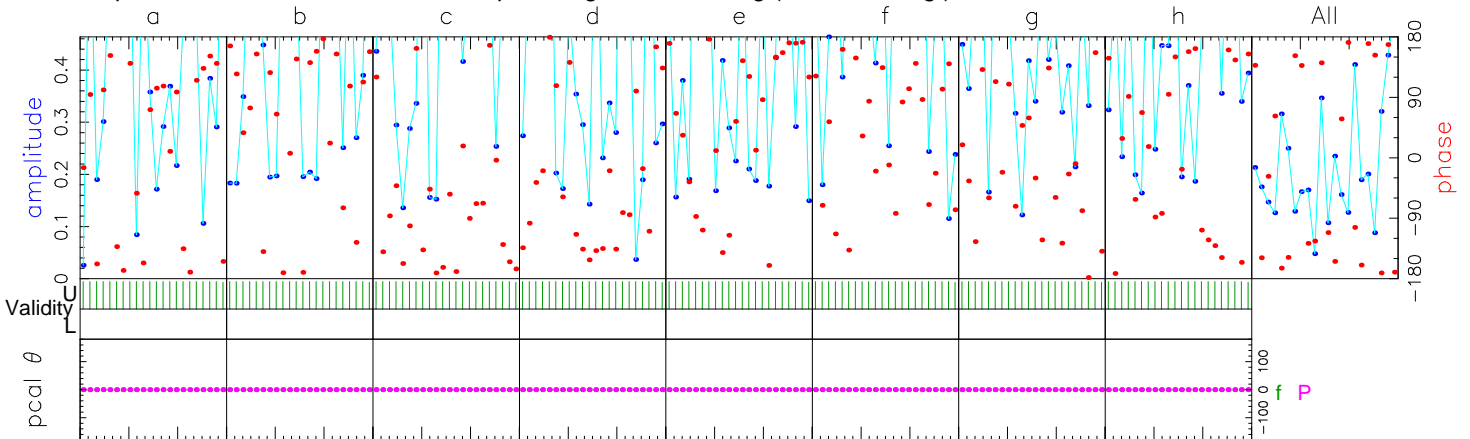


Fringe quality 0
 SNR 5.7
 Int time 179.784
 Amp 0.155
 Phase -173.3
 PFD 8.3e-01
 Delays (us)
 SBD -0.005130
 MBD 0.006946
 Fringe rate (Hz) -0.000433
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132657
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
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)		1.00698798777E+04			1.00698885568E+04				6.94588E-03	+/- 1.9E-04
Sband delay (usec)		1.00698834271E+04			8.0078316E+00				-5.12975E-03	+/- 1.5E-03
Phase delay (usec)		1.00698885513E+04			7.9999999E-07				-5.58959E-06	+/- 6.5E-07
Delay rate (us/s)		5.81543430454E-01			5.81543435484E-01				-5.03076E-09	+/- 6.3E-09
Total phase (deg)			-70.0		-6.24741700287E-05				-173.3	+/- 20.2
pcal mode:					MANUAL				MANUAL	
PCal rate:					0.000E+00				0.000E+00	(us/s)
Bits/sample:					2x2				SampCntNorm: enabled	
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

ph/seg (deg) 59.8 47.4 Search (1024X32) 0.150 PCal period (AP's) 5, 5
 amp/seg (%) 86.7 82.8 Interp. 0.000 sb window (us) -1.000 1.000
 ph/frq (deg) 53.6 28.6 Inc. seg. avg. 0.164 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 62.1 49.9 Inc. frq. avg. 0.192 Sample rate (MSamp/s): 128 Data rate (Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 356.2 el 62.0 pa 174.0 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -6427.248 -8414.191 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/fP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/fP.W.145.1HR1IN

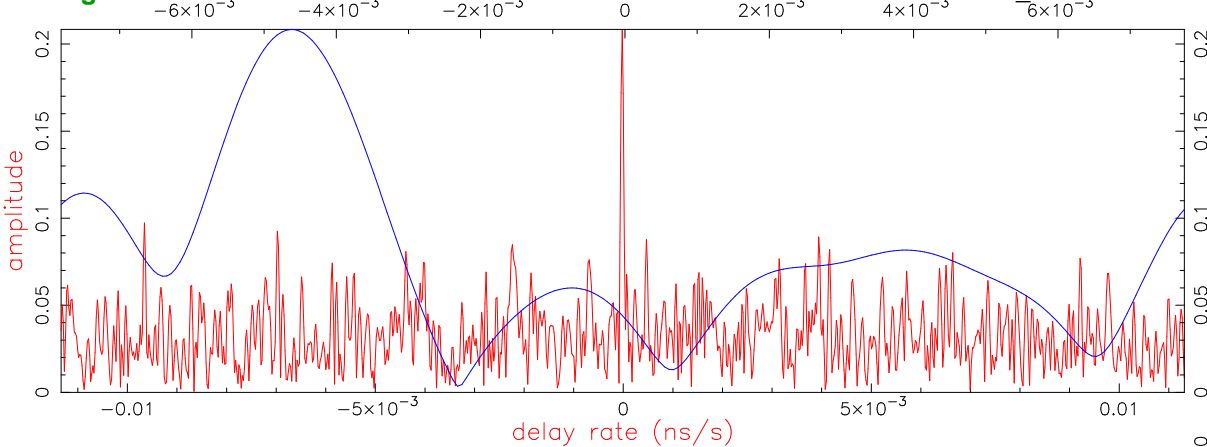
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, fP

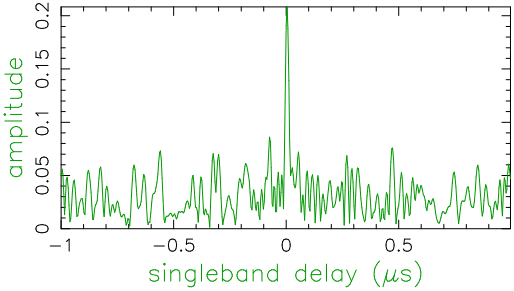
VLBA_FD - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

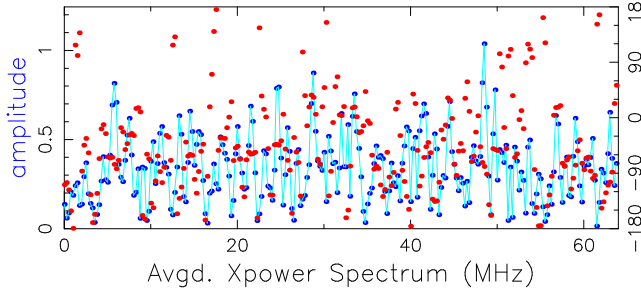


Fringe quality 9

SNR 7.6
 Int time 179.784
 Amp 0.208
 Phase 39.1
 PFD 3.5e-06
 Delays (us)
 SBD 0.003732
 MBD -0.004627
 Fringe rate (Hz)
 -0.001026
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

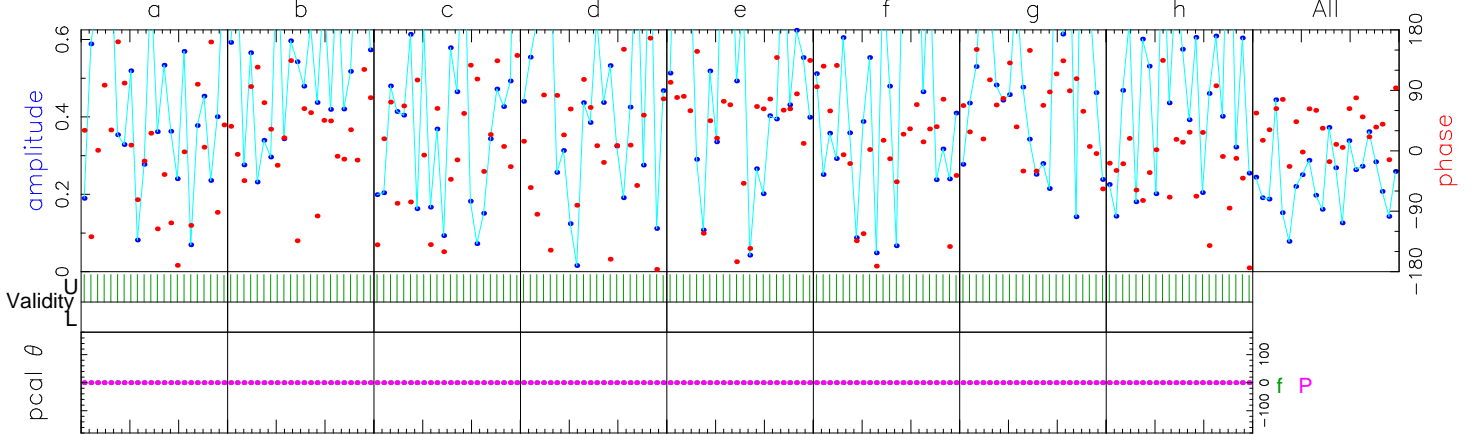


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132659
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
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)	1.0069899551E+04	Apriori delay (usec)	1.00698885568E+04	Resid mbdelay (usec)	-4.62680E-03	+/-	1.4E-04
Sband delay (usec)	1.00698922891E+04	Apriori clock (usec)	8.0078316E+00	Resid sbdelay (usec)	3.73225E-03	+/-	1.1E-03
Phase delay (usec)	1.00698885581E+04	Apriori clockrate (us/s)	7.9999999E-07	Resid phdelay (usec)	1.26166E-06	+/-	4.8E-07
Delay rate (us/s)	5.81543423572E-01	Apriori rate (us/s)	5.81543435484E-01	Resid rate (us/s)	-1.19123E-08	+/-	4.6E-09
Total phase (deg)	142.5	Apriori accel (us/s/s)	-6.24741700287E-05	Resid phase (deg)	39.1	+/-	15.0

ph/seg (deg)	32.2	Theor.	35.2	Amplitude	0.208 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	44.1		61.4	Search (1024X32)	0.196	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	34.2		21.2	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	51.5		37.0	Inc. seg. avg.	0.203	Sample rate(MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.225	Data rate(Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

f: az 356.2 el 62.0 pa 174.0 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -6427.248 -8414.191 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/fP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/fP.W.159.1HR1IN

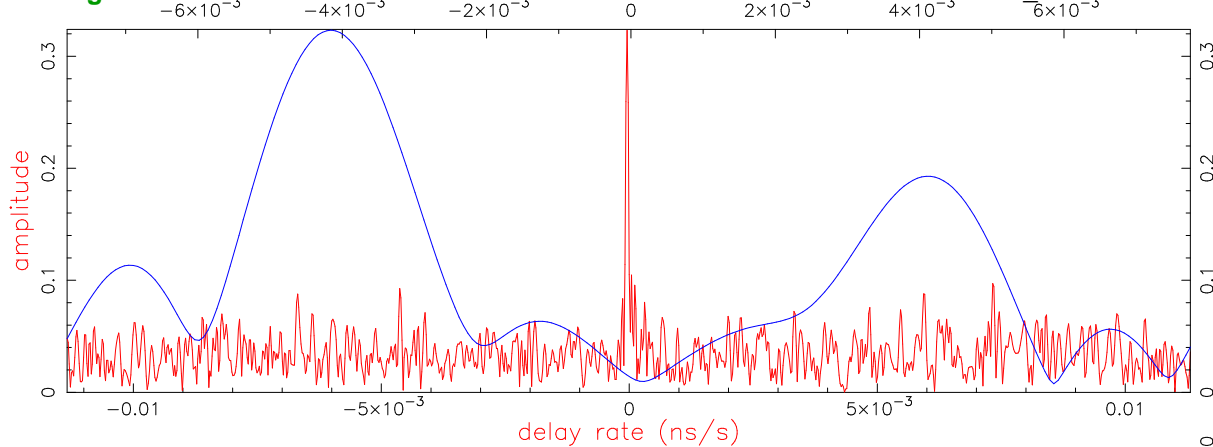
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, kP

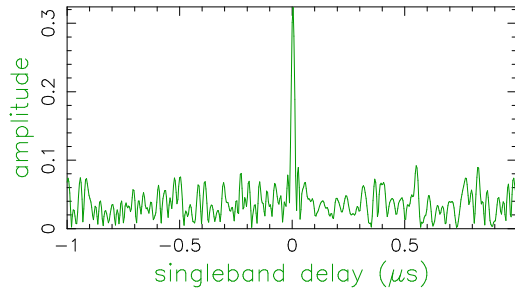
VLBA_KP - PICOVEL, fgroup W, pol LL

multiband delay (μ s)

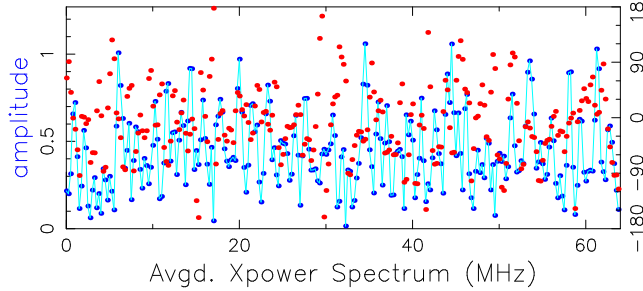


Fringe quality 9

SNR 11.9
 Int time 179.636
 Amp 0.324
 Phase 75.8
 PFD 4.0e-24
 Delays (us)
 SBD 0.003297
 MBD -0.004176
 Fringe rate (Hz)
 -0.003365
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

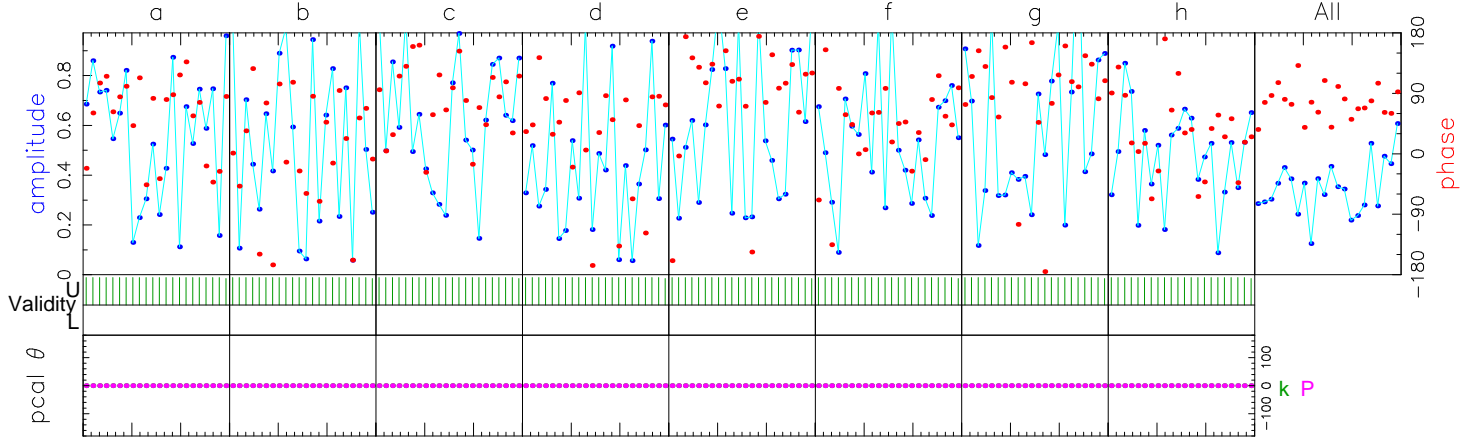


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132702
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
k	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.02858136848E+04	Apriori delay (usec)	1.02858178609E+04	Resid mbdelay (usec)	-4.17607E-03	+/-	9.1E-05
Sband delay (usec)	1.02858211582E+04	Apriori clock (usec)	5.0276470E-01	Resid sbdelay (usec)	3.29725E-03	+/-	7.3E-04
Phase delay (usec)	1.02858178634E+04	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	2.44523E-06	+/-	3.1E-07
Delay rate (us/s)	6.74226246944E-01	Apriori rate (us/s)	6.74226286008E-01	Resid rate (us/s)	-3.90642E-08	+/-	3.0E-09
Total phase (deg)	270.0	Apriori accel (us/s/s)	-6.17660370467E-05	Resid phase (deg)	75.8	+/-	9.7

ph/seg (deg)	23.9	RMS	22.6	Theor.	Amplitude	0.324 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	33.9	23.9	39.5	Search (1024X32)	0.312	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	35.4	33.9	13.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	26.6	26.6	23.8	Inc. seg. avg.	0.325	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.366	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 5.0 el 63.3 pa -172.6 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -7443.007 -8227.691 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/kP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/kP.W.175.1HR1IN

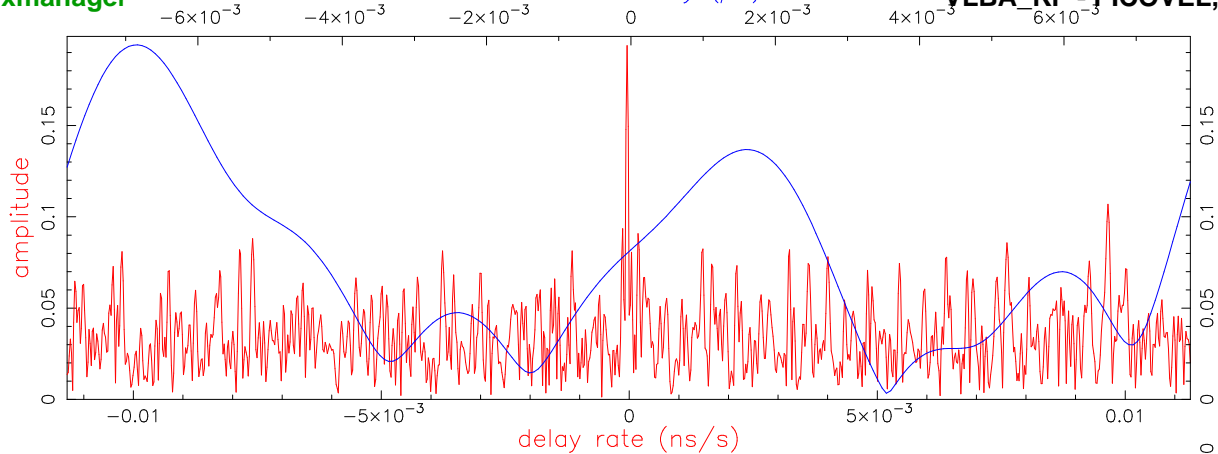
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, kP

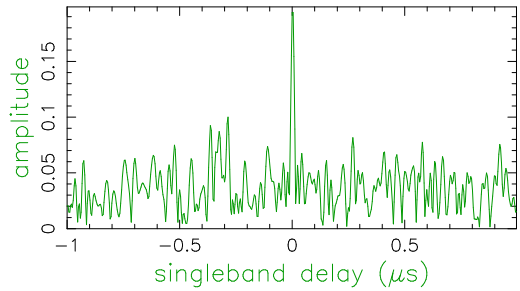
VLBA_KP - PICOVEL, fgroup W, pol RR

multiband delay (μ s)

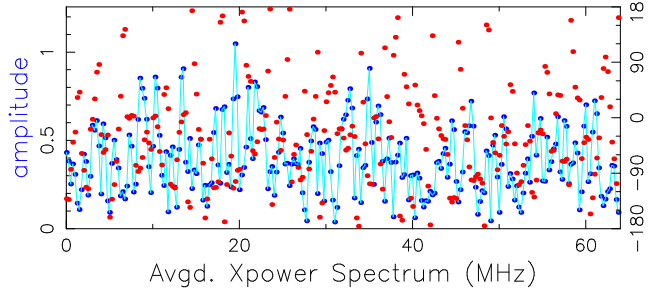


Fringe quality 9

SNR 7.3
 Int time 179.635
 Amp 0.199
 Phase 51.9
 PFD 4.9e-05
 Delays (us)
 SBD 0.001943
 MBD -0.006775
 Fringe rate (Hz)
 -0.003280
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

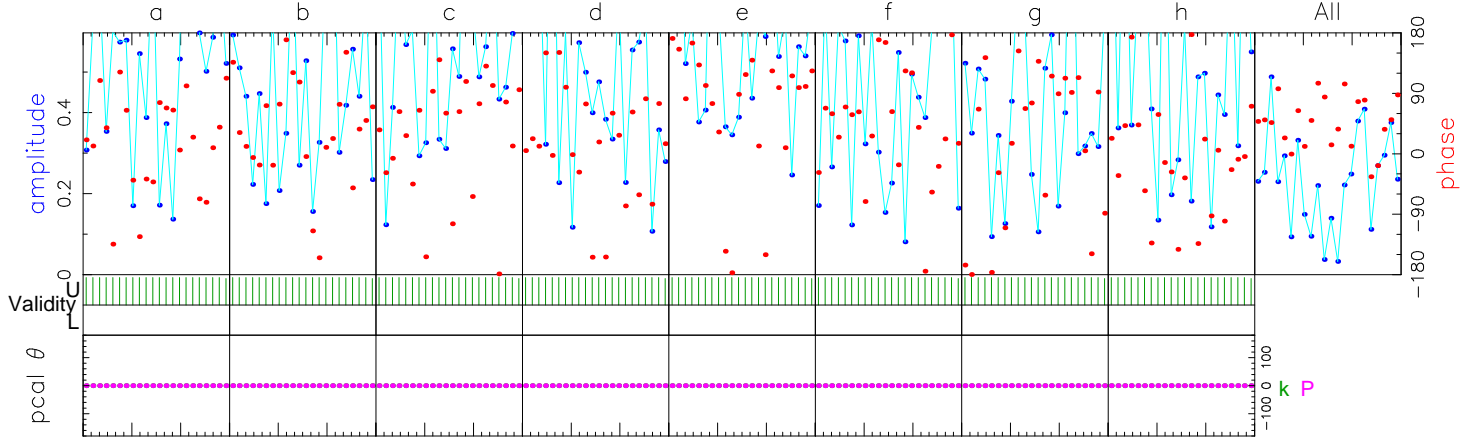


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132703
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	1.02858267106E+04	Apriori delay (usec)	1.02858178609E+04	Resid mbdelay (usec)	-6.77535E-03	+/-	1.5E-04
Sband delay (usec)	1.02858198042E+04	Apriori clock (usec)	5.0276470E-01	Resid sbdelay (usec)	1.94325E-03	+/-	1.2E-03
Phase delay (usec)	1.02858178626E+04	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	1.67449E-06	+/-	5.1E-07
Delay rate (us/s)	6.74226247929E-01	Apriori rate (us/s)	6.74226286008E-01	Resid rate (us/s)	-3.80793E-08	+/-	4.9E-09
Total phase (deg)	246.1	Apriori accel (us/s/s)	-6.17660370467E-05	Resid phase (deg)	51.9	+/-	15.7

ph/seg (deg)	RMS 38.5	Theor. 36.9	Amplitude Search (1024X32)	0.190	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	61.7	64.4	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)	45.8	22.2	Inc. seg. avg.	0.193	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	42.9	38.8	Inc. frq. avg.	0.238	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 5.0 el 63.3 pa -172.6 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -7443.007 -8227.691 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/kP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/kP.W.189.1HR1IN

Mk4/DiFX fourfit 3.21 rev 2937

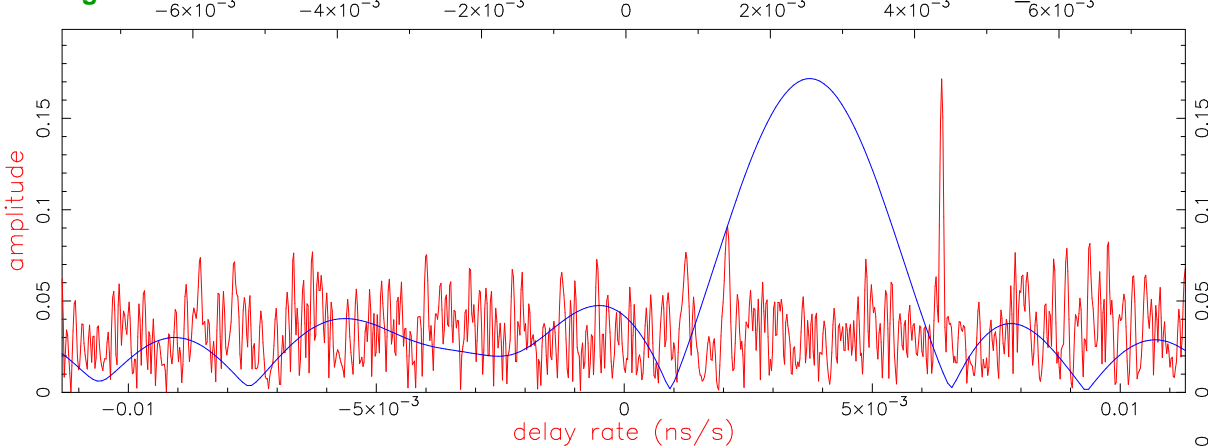
fxmanager

0102+584.1HR1IN, No0100, kP

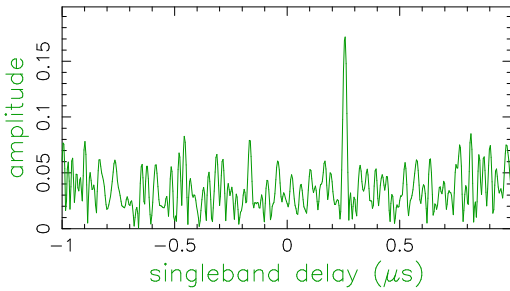
VLBA_KP - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

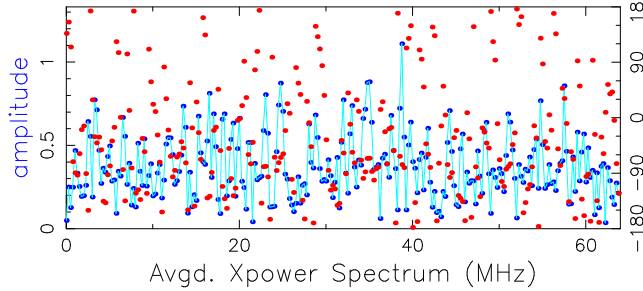
Fringe quality 0



SNR 6.4
Int time 179.636
Amp 0.199
Phase -23.9
PFD 2.6e-02
Delays (us)
SBD 0.256324
MBD 0.002498
Fringe rate (Hz) 0.551505
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

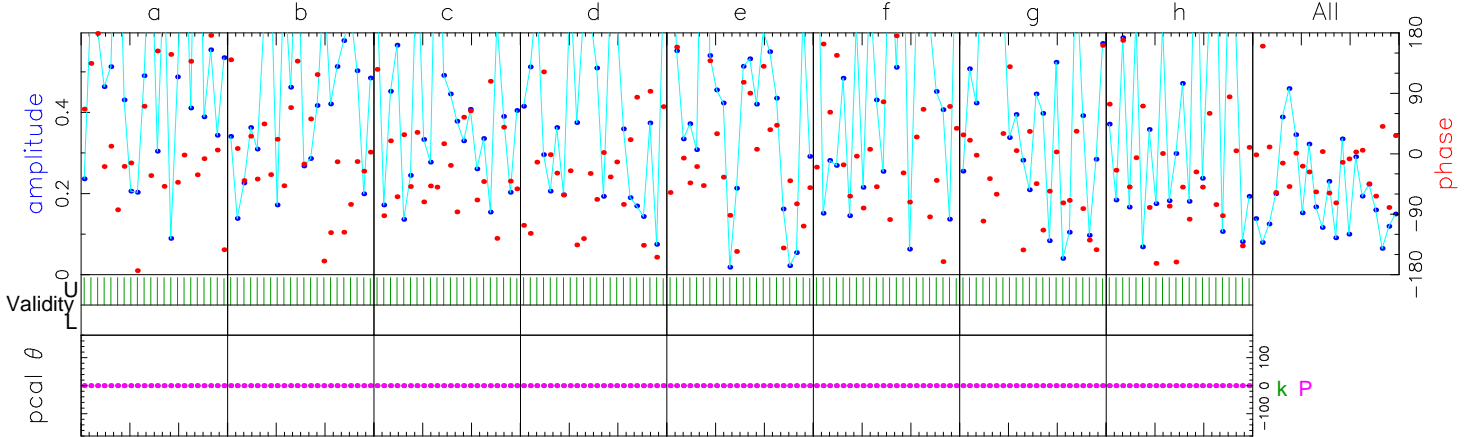


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 070000.00
Stop 070300.22
FRT 070130.00
Corr/FF/build
2021:006:135349
2021:010:132705
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-31.1	-17.7	-22.9	-40.3	-12.3	-12.9	-31.2	-18.2	Phase	-23.9
	0.2	0.2	0.2	0.2	0.1	0.3	0.2	0.2	Ampl.	0.2
	157.9	373.8	65.0	343.6	175.0	134.0	4.2	31.3	Sbd box	322.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	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)		1.02860703592E+04		Apriori delay (usec)	1.02858178609E+04		Resid mbdelay (usec)	2.49826E-03	+/-	1.7E-04
Sband delay (usec)		1.02860741852E+04		Apriori clock (usec)	5.0276470E-01		Resid sbdelay (usec)	2.56324E-01	+/-	1.4E-03
Phase delay (usec)		1.02858178601E+04		Apriori clockrate (us/s)	5.0000000E-07		Resid phdelay (usec)	-7.71244E-07	+/-	5.8E-07
Delay rate (us/s)		6.74232688437E-01		Apriori rate (us/s)	6.74226286008E-01		Resid rate (us/s)	6.40243E-06	+/-	5.6E-09
Total phase (deg)		170.2		Apriori accel (us/s/s)	-6.17660370467E-05		Resid phase (deg)	-23.9	+/-	18.0

	RMS	Theor.	Amplitude	0.199 +/- 0.031	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	49.7	42.2	Search (1024X32)	0.170	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	63.8	73.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	10.8	25.5	Inc. seg. avg.	0.182	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	19.3	44.4	Inc. frq. avg.	0.181	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

k: az 5.0 el 63.3 pa -172.6 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -7443.007 -8227.691 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/kP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/kP.W.206.1HR1IN

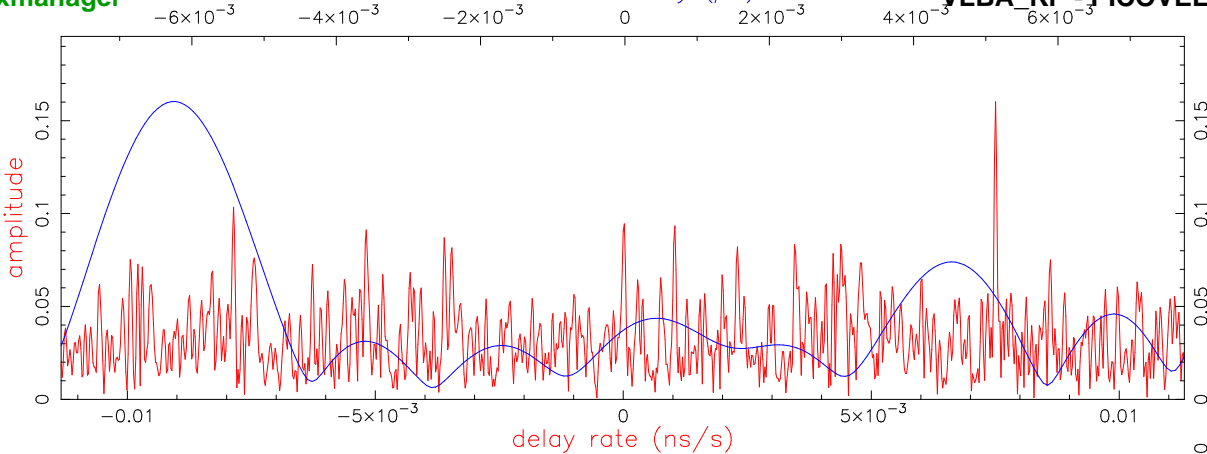
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, kP

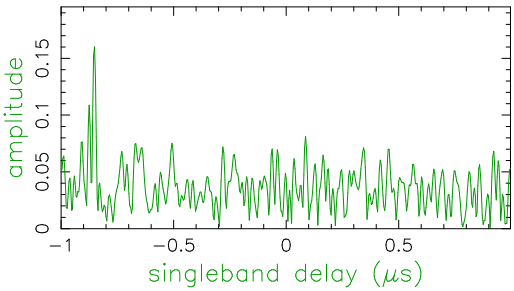
VLBA_KP - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

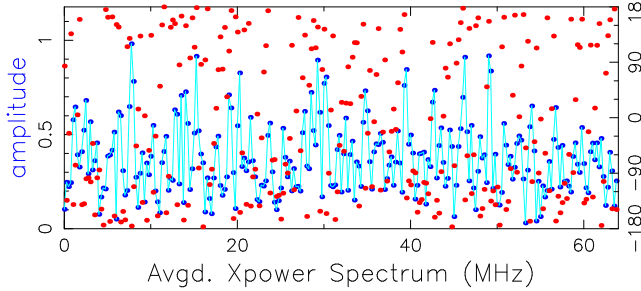


Fringe quality 0

SNR 5.9
 Int time 179.635
 Amp 0.195
 Phase 165.3
 PFD 3.2e-01
 Delays (us)
 SBD -0.852736
 MBD -0.006293
 Fringe rate (Hz)
 0.647647
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

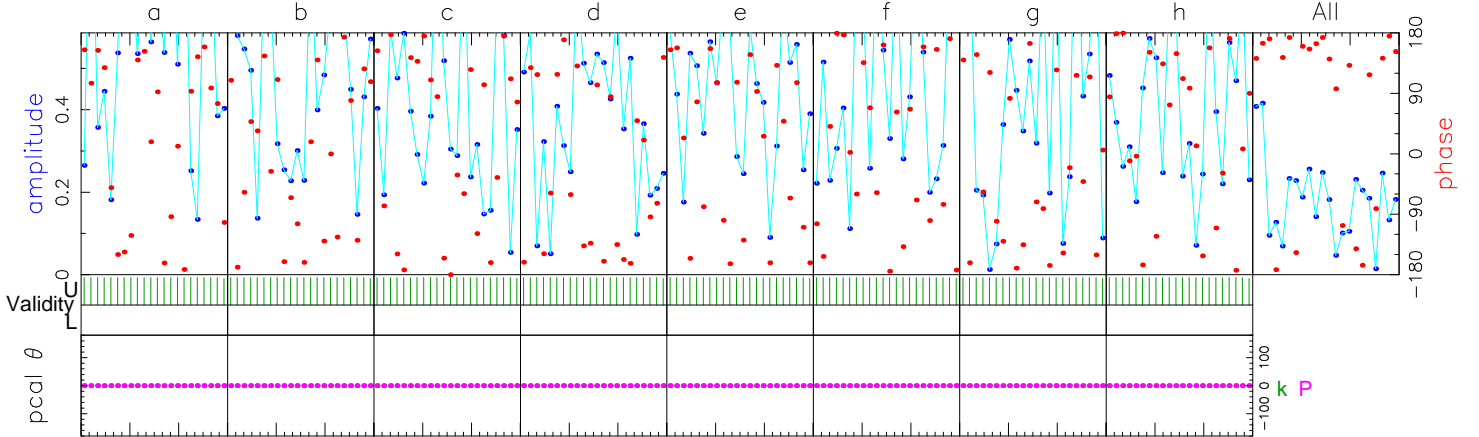


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132708
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	1.02849678181E+04	Apriori delay (usec)	1.02858178609E+04	Resid mbdelay (usec)	-6.29278E-03	+/-	1.8E-04
Sband delay (usec)	1.02849651247E+04	Apriori clock (usec)	5.0276470E-01	Resid sbdelay (usec)	-8.52736E-01	+/-	1.5E-03
Phase delay (usec)	1.02858178662E+04	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	5.33186E-06	+/-	6.2E-07
Delay rate (us/s)	6.74233804546E-01	Apriori rate (us/s)	6.74226286008E-01	Resid rate (us/s)	7.51854E-06	+/-	6.0E-09
Total phase (deg)	359.5	Apriori accel (us/s/s)	-6.17660370467E-05	Resid phase (deg)	165.3	+/-	19.3

ph/seg (deg)	41.5	RMS	45.3	Theor.	45.3	Amplitude	0.195 +/- 0.033	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	62.3	Search (1024X32)	0.152	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	0.152	SampCntNorm: enabled	mb window (us)	-1.000 1.000	
ph/frq (deg)	20.5	Inc. seg. avg.	0.169	Inc. frq. avg.	0.180	Bits/sample: 2x2	0.169	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011	
amp/frq (%)	29.8	Inc. frq. avg.	0.180	Inc. frq. avg.	0.180	Data rate(Mb/s): 2048	0.180	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 5.0 el 63.3 pa -172.6 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -7443.007 -8227.691 simultaneous interpolator

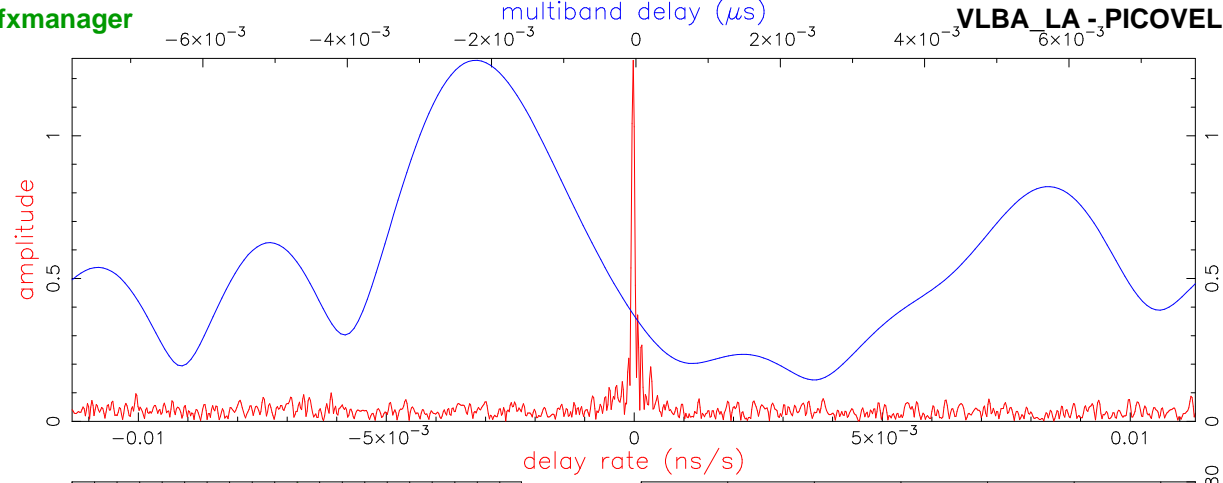
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/kP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/kP.W.228.1HR1IN

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, IP

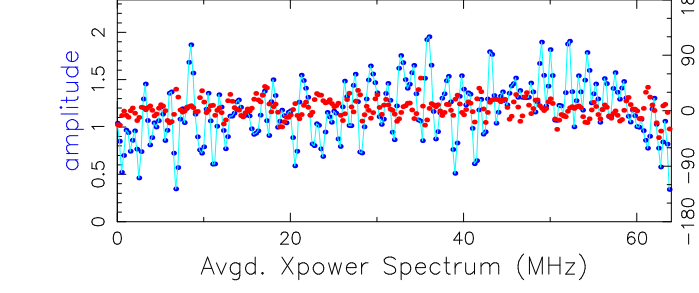
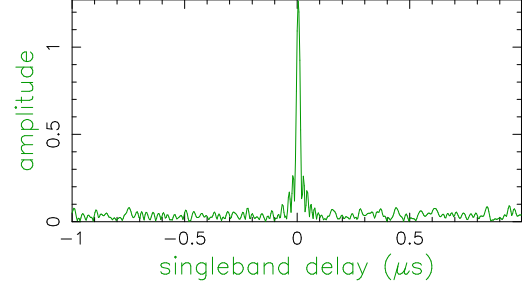
VLBA_LA - PICOVEL, fgroup W, pol LL



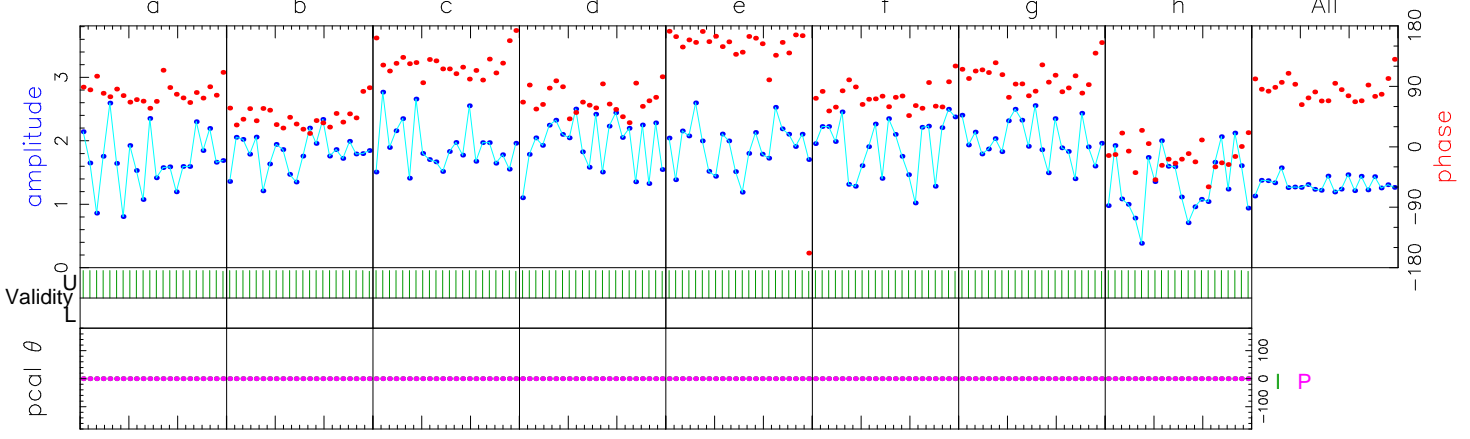
Fringe quality 6

SNR 46.6
 Int time 179.783
 Amp 1.271
 Phase 84.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.004845
 MBD -0.002189
 Fringe rate (Hz) -0.002394
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132709
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
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) 1.08933842619E+04 Apriori delay (usec) 1.08933864506E+04 Resid mbdelay (usec) -2.18874E-03 +/- 2.3E-05
 Sband delay (usec) 1.08933912956E+04 Apriori clock (usec) -2.1161366E-01 Resid sbdelay (usec) 4.84500E-03 +/- 1.8E-04
 Phase delay (usec) 1.08933864534E+04 Apriori clockrate (us/s) 2.9999999E-07 Resid phdelay (usec) 2.73582E-06 +/- 7.9E-08
 Delay rate (us/s) 6.10559625984E-01 Apriori rate (us/s) 6.10559653775E-01 Resid rate (us/s) -2.77910E-08 +/- 7.6E-10
 Total phase (deg) 33.4 Apriori accel (us/s/s) -5.96793998649E-05 Resid phase (deg) 84.8 +/- 2.5

ph/seg (deg) 15.8 5.8 Search (1024X32) 1.225 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 8.9 10.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 56.3 3.5 Inc. seg. avg. 1.305 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 39.3 6.1 Inc. frq. avg. 1.726 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 I: az 358.5 el 67.2 pa 177.9 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -6743.513 -7707.288 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/IP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/IP.W.246.1HR1IN

Mk4/DiFX fourfit 3.21 rev 2937

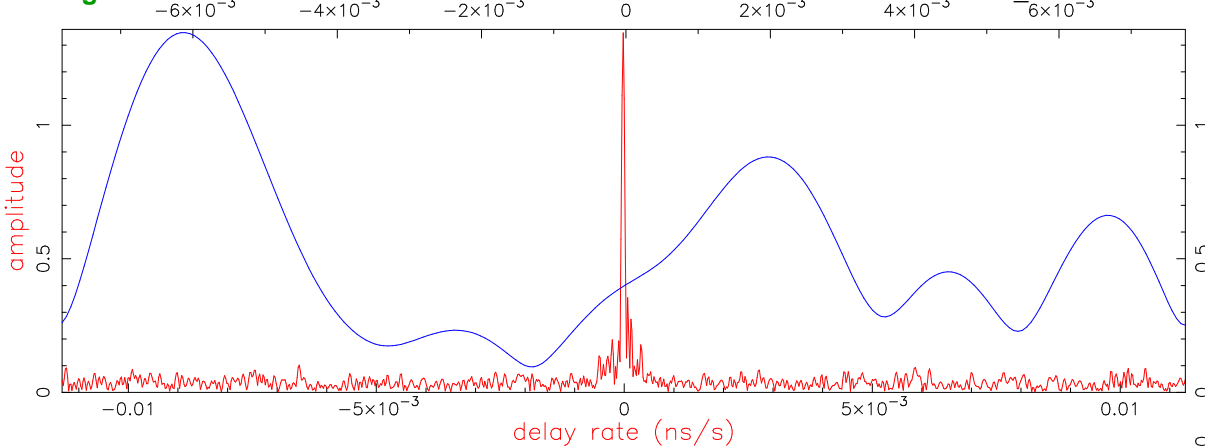
fxmanager

0102+584.1HR1IN, No0100, IP

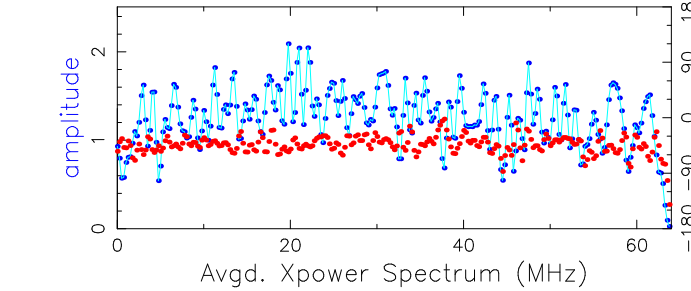
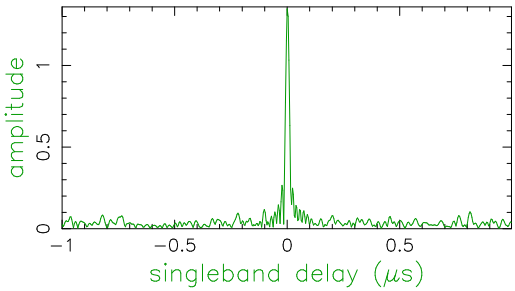
VLBA_LA - PICOVEL, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 5

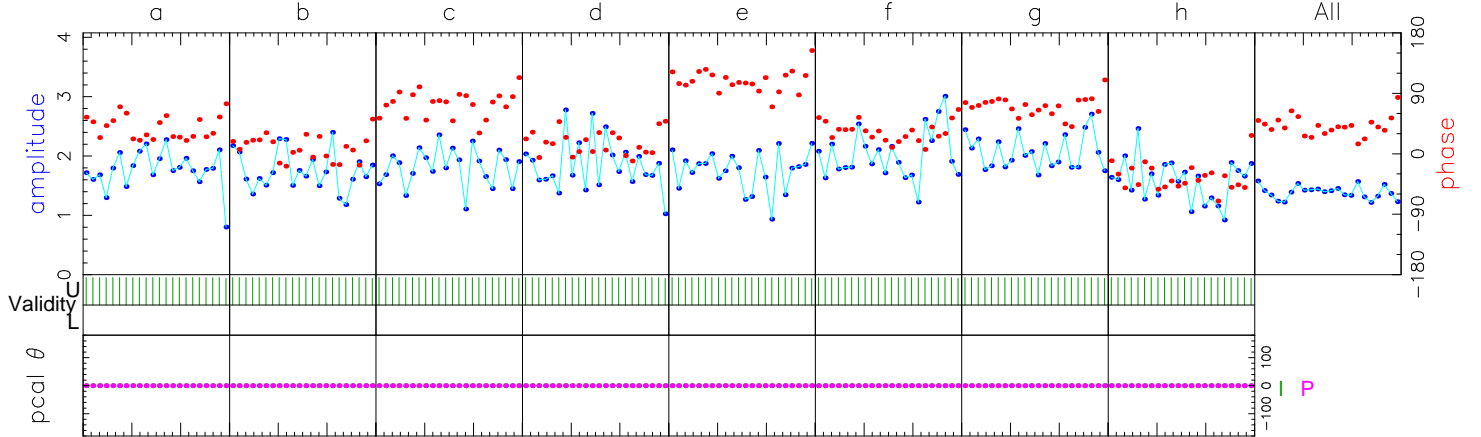


SNR 49.8
 Int time 179.783
 Amp 1.359
 Phase 41.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.001241
 MBD -0.006094
 Fringe rate (Hz)
 -0.002249
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132711
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0			
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)		1.08933803568E+04			1.08933864506E+04						
Sband delay (usec)		1.08933876911E+04			-2.1161366E-01						
Phase delay (usec)		1.08933864520E+04			2.9999999E-07						
Delay rate (us/s)		6.10559627670E-01			6.10559653775E-01						
Total phase (deg)			349.6		-5.96793998649E-05						
				Apriori delay (usec)					Resid mbdelay (usec)	-6.09380E-03	+/- 2.2E-05
				Apriori clock (usec)					Resid sbdelay (usec)	1.24050E-03	+/- 1.7E-04
				Apriori clockrate (us/s)					Resid phdelay (usec)	1.32322E-06	+/- 7.4E-08
									Resid rate (us/s)	-2.61047E-08	+/- 7.1E-10
				Apriori accel (us/s/s)					Resid phase (deg)	41.0	+/- 2.3
ph/seg (deg)	14.5	5.4		Search (1024X32)	1.312				PCal mode: MANUAL, MANUAL		
amp/seg (%)	8.0	9.4		Interp.	0.000				PCal rate: 0.000E+00, 0.000E+00 (us/s)		
ph/frq (deg)	49.1	3.3		Inc. seg. avg.	1.383				SampCntNorm: enabled		
amp/frq (%)	31.2	5.7		Inc. frq. avg.	1.750				Bits/sample: 2x2		
									Sample rate(MISamp/s): 128		
									Data rate(Mb/s): 2048		
									nlags: 256		
									t_cohere infinite		
I: az 358.5 el 67.2 pa 177.9				P: az 326.2 el 24.4 pa 58.8					ion window (TEC)	0.00	0.00
				u,v (fr/asec)	-6743.513 -7707.288						
Control file: cf_1234_gmva				Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/IP..1HR1IN							simultaneous interpolator
				Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/IP.W.253.1HR1IN							

Mk4/DiFX fourfit 3.21 rev 2937

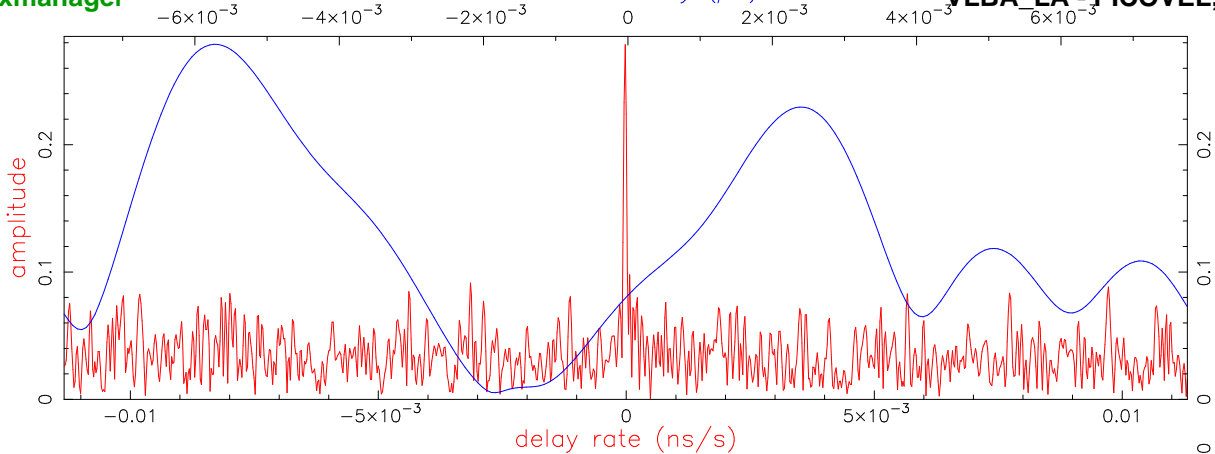
fxmanager

0102+584.1HR1IN, No0100, IP

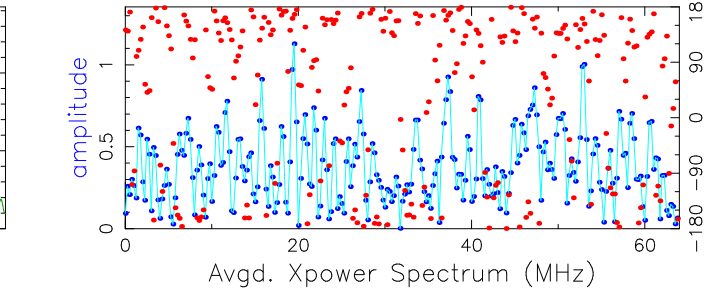
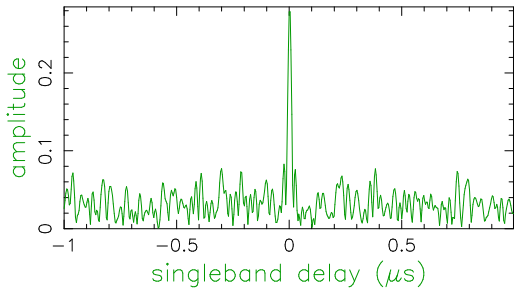
VLBA_LA - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 9

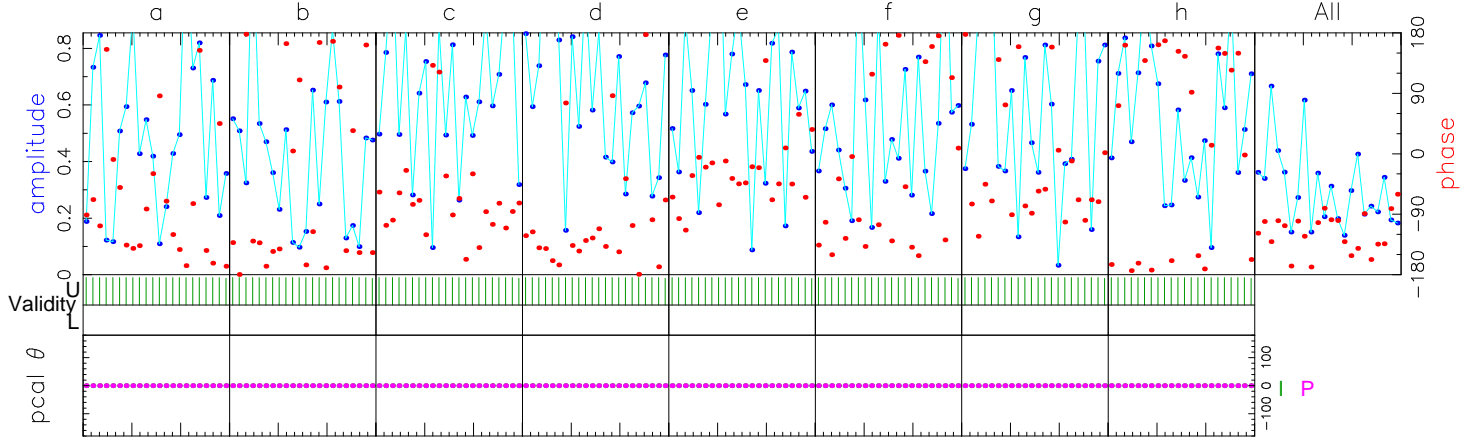


SNR 10.4
 Int time 179.783
 Amp 0.285
 Phase -117.5
 PFD 3.3e-17
 Delays (us)
 SBD 0.001955
 MBD -0.005663
 Fringe rate (Hz)
 -0.001957
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132714
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-124.6	-163.9	-89.4	-137.4	-43.1	-129.8	-76.4	158.4	Phase	-117.5
	0.3	0.3	0.5	0.5	0.5	0.3	0.4	0.4	Ampl.	0.4
	257.2	256.6	256.7	256.7	256.7	257.4	256.0	255.5	Sbd box	257.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	Mani PC	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	1.08933807880E+04	Apriori delay (usec)	1.08933864506E+04	Resid mbdelay (usec)	-5.66264E-03	+/-	1.0E-04
Sband delay (usec)	1.08933884056E+04	Apriori clock (usec)	-2.1161366E-01	Resid sbdelay (usec)	1.95500E-03	+/-	8.2E-04
Phase delay (usec)	1.08933864468E+04	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	-3.78884E-06	+/-	3.5E-07
Delay rate (us/s)	6.10559631057E-01	Apriori rate (us/s)	6.10559653775E-01	Resid rate (us/s)	-2.27178E-08	+/-	3.4E-09
Total phase (deg)	191.0	Apriori accel (us/s/s)	-5.96793998649E-05	Resid phase (deg)	-117.5	+/-	11.0

ph/seg (deg)	28.5	Theor.	25.7	Amplitude	0.285 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	48.8		44.9	Search (1024X32)	0.277	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	54.5		15.5	Inc. seg. avg.	0.277	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	51.0		27.1	Inc. frq. avg.	0.391	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

I: az 358.5 el 67.2 pa 177.9 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -6743.513 -7707.288 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/IP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/IP.W.276.1HR1IN

Mk4/DiFX fourfit 3.21 rev 2937

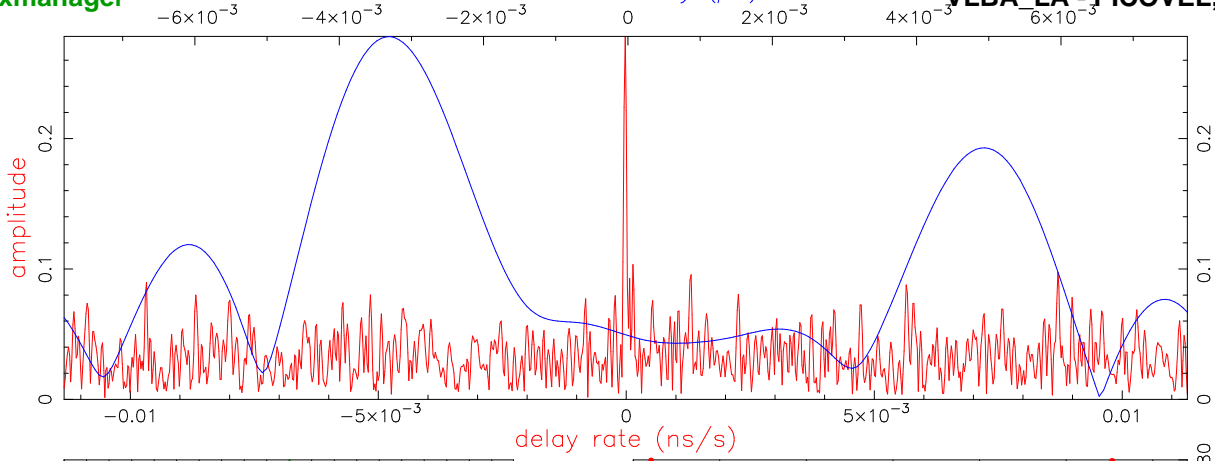
fxmanager

0102+584.1HR1IN, No0100, IP

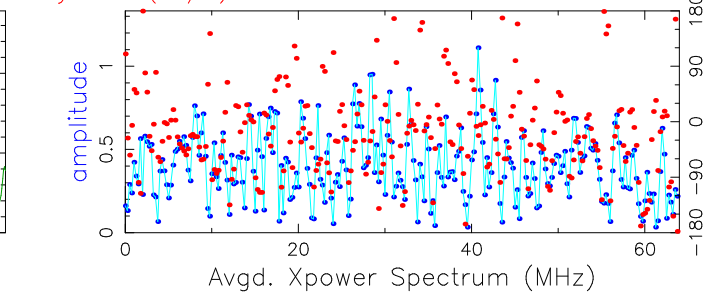
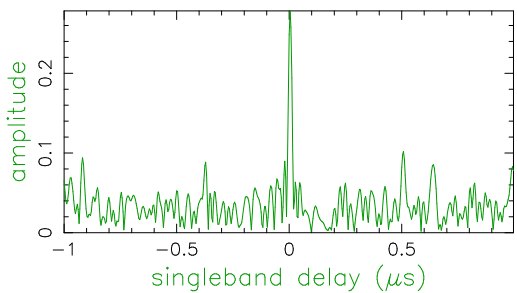
VLBA_LA - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 9

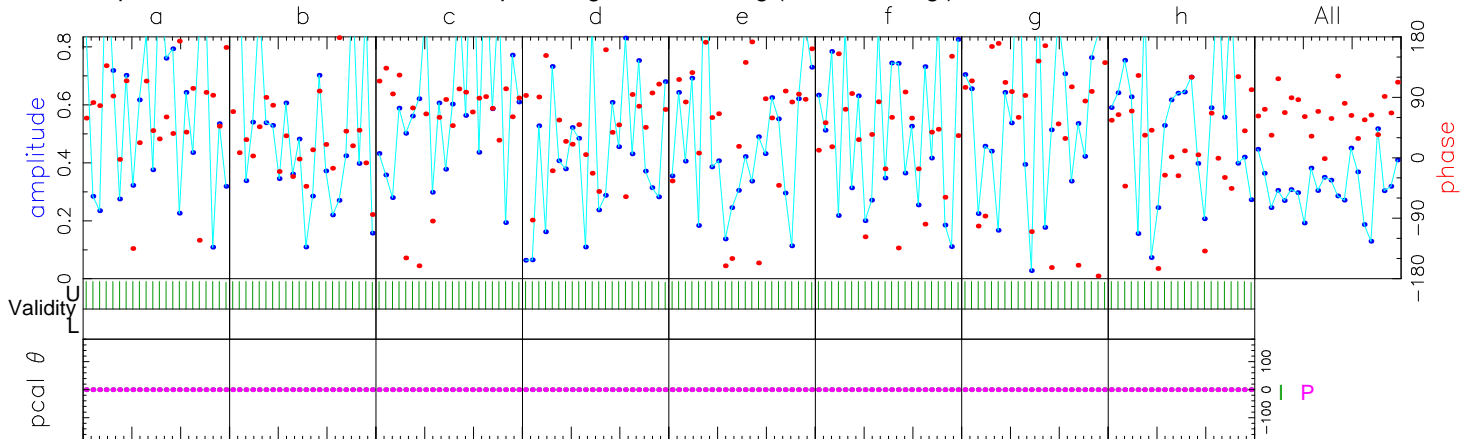


SNR 10.2
 Int time 179.783
 Amp 0.278
 Phase 65.5
 PFD 4.1e-16
 Delays (us)
 SBD 0.004236
 MBD -0.003308
 Fringe rate (Hz)
 -0.001841
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132716
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		1.08933831431E+04				1.08933864506E+04			Resid mbdelay (usec)	-3.30752E-03 +/- 1.1E-04
Sband delay (usec)		1.08933906864E+04				-2.1161366E-01			Resid sbdelay (usec)	4.23575E-03 +/- 8.4E-04
Phase delay (usec)		1.08933864527E+04				2.9999999E-07			Resid phdelay (usec)	2.11162E-06 +/- 3.6E-07
Delay rate (us/s)		6.10559632400E-01				6.10559653775E-01			Resid rate (us/s)	-2.13743E-08 +/- 3.5E-09
Total phase (deg)			14.0			-5.96793998649E-05			Resid phase (deg)	65.5 +/- 11.2
	RMS	Theor.	Amplitude	0.278 +/- 0.027		Pcal mode: MANUAL, MANUAL			PC period (AP's) 5, 5	
ph/seg (deg)	29.5	26.3	Search (1024X32)	0.277		Pcal rate: 0.000E+00, 0.000E+00 (us/s)			sb window (us)	-1.000 1.000
amp/seg (%)	35.3	46.0	Interp.	0.000		Bits/sample: 2x2			SampCntNorm: enabled	mb window (us) -0.008 0.008
ph/frq (deg)	41.3	15.9	Inc. seg. avg.	0.290		Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011 0.011
amp/frq (%)	33.1	27.7	Inc. frq. avg.	0.326		Data rate(Mb/s): 2048			nlags: 256	t_cohere infinite
									ion window (TEC)	0.00 0.00

I: az 358.5 el 67.2 pa 177.9 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -6743.513 -7707.288 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/IP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/IP.W.296.1HR1IN

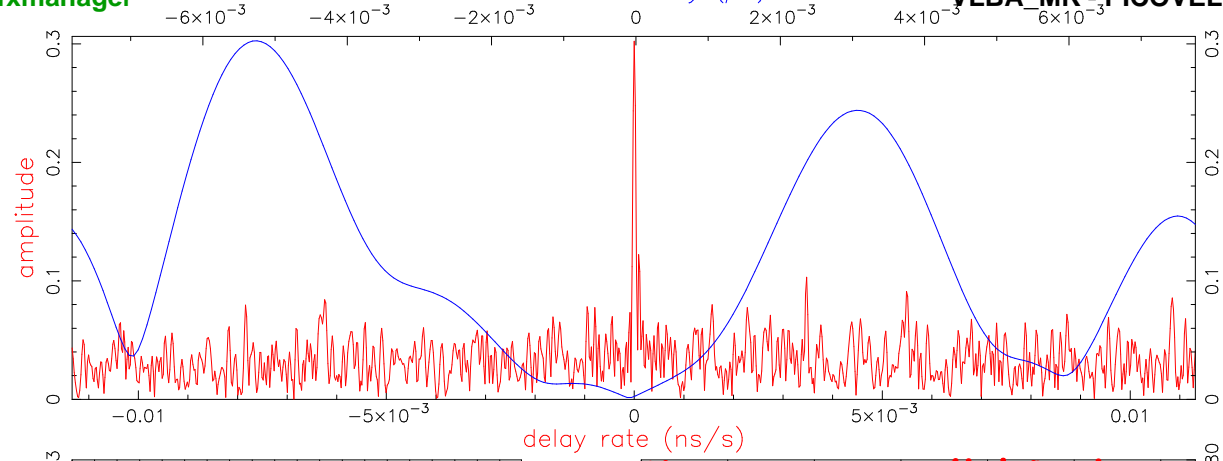
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

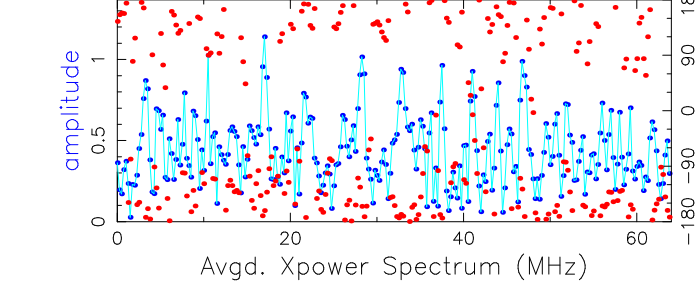
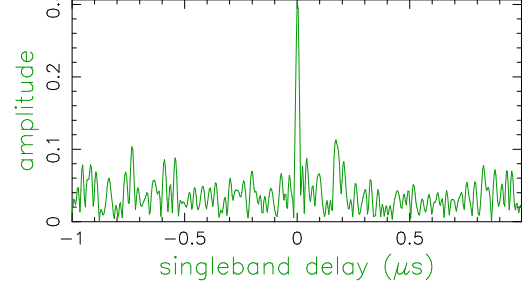
0102+584.1HR1IN, No0100, mP

VLBA_MK - PICOVEL, fgroup W, pol LL

multiband delay (μ s)

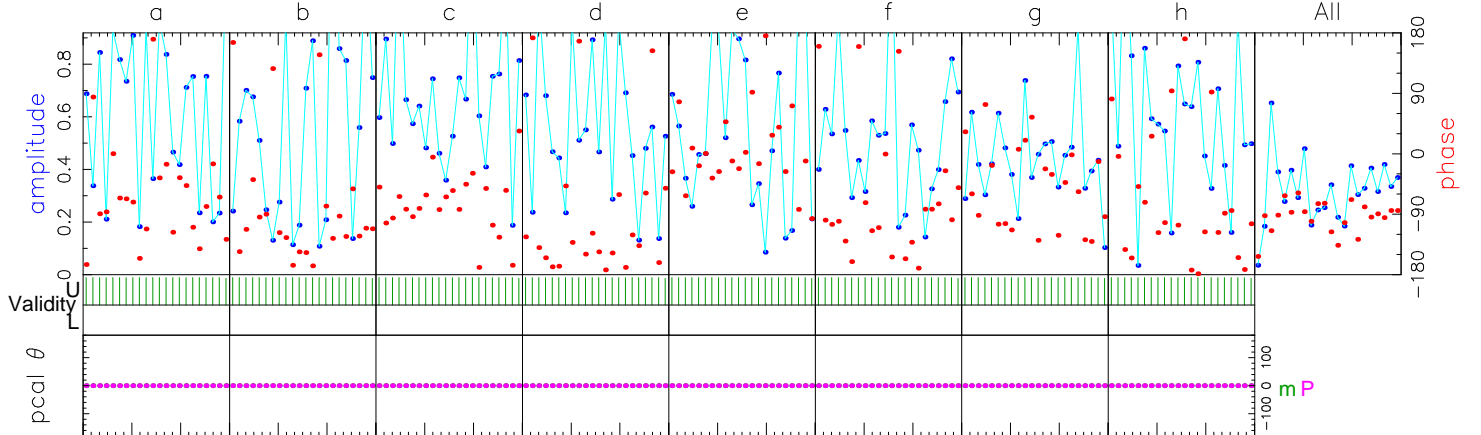


Fringe quality 9
 SNR 11.2
 Int time 179.790
 Amp 0.306
 Phase -91.6
 PFD 6.7e-21
 Delays (us)
 SBD 0.001440
 MBD -0.005214
 Fringe rate (Hz) 0.000301
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132712
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-78.1	-120.4	-68.2	-138.6	-10.7	-112.0	-51.8	-137.4	Phase	-91.6
	0.4	0.5	0.5	0.4	0.4	0.4	0.3	0.3	Ampl.	0.4
	256.9	257.6	257.1	256.3	256.7	256.6	256.0	255.4	Sbd box	257.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.48028073794E+03		Apriori delay (usec)		4.48028595219E+03		Resid mbdelay (usec)		-5.21425E-03	+/- 9.7E-05
Sband delay (usec)	4.48028739244E+03		Apriori clock (usec)		1.3532764E+01		Resid sbdelay (usec)		1.44025E-03	+/- 7.7E-04
Phase delay (usec)	4.48028594923E+03		Apriori clockrate (us/s)		5.0000000E-07		Resid phdelay (usec)		-2.95375E-06	+/- 3.3E-07
Delay rate (us/s)	1.19224631038E+00		Apriori rate (us/s)		1.19224630688E+00		Resid rate (us/s)		3.49886E-09	+/- 3.2E-09
Total phase (deg)	240.2		Apriori accel (us/s/s)		-4.91134882149E-05		Resid phase (deg)		-91.6	+/- 10.2

ph/seg (deg) 23.2 23.9 Search (1024X32) 0.299 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 40.4 41.8 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 14.4 Inc. seg. avg. 0.294 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 41.3 25.2 Inc. frq. avg. 0.388 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 29.6 el 38.1 pa -116.9 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -13111.461 -7459.691 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/mP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/mP.W.257.1HR1IN

Mk4/DiFX fourfit 3.21 rev 2937

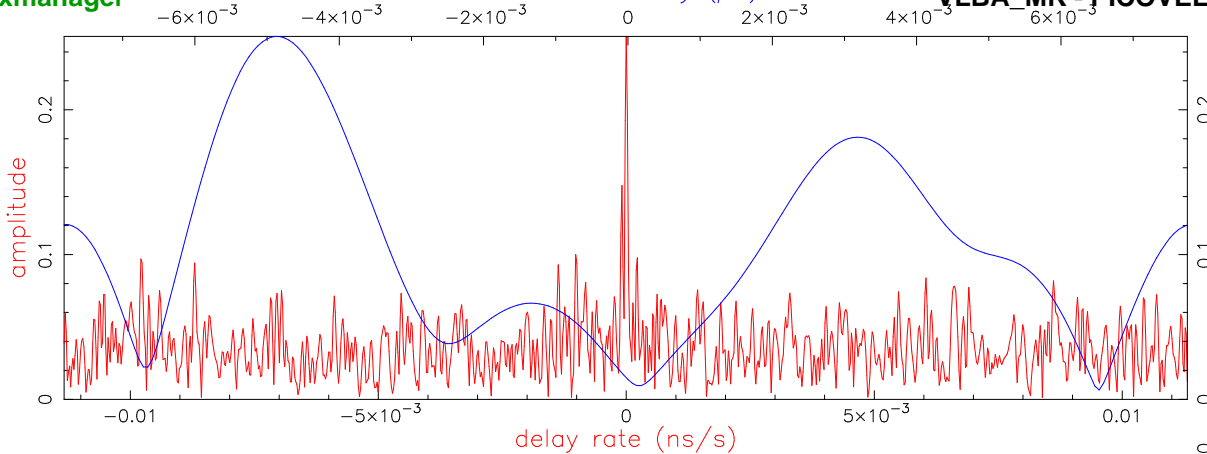
fxmanager

0102+584.1HR1IN, No0100, mP

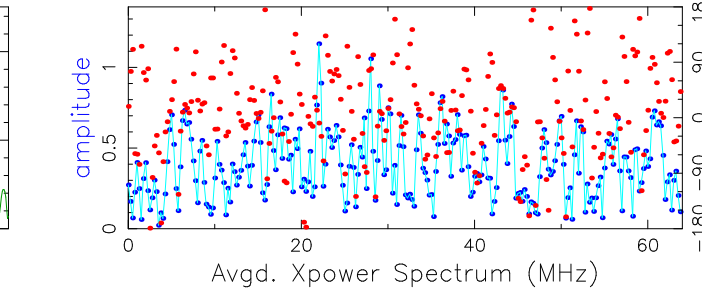
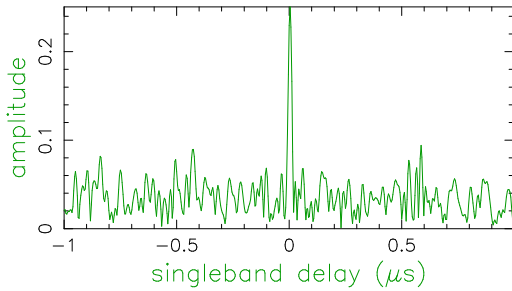
VLBA_MK - PICOVEL, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 9

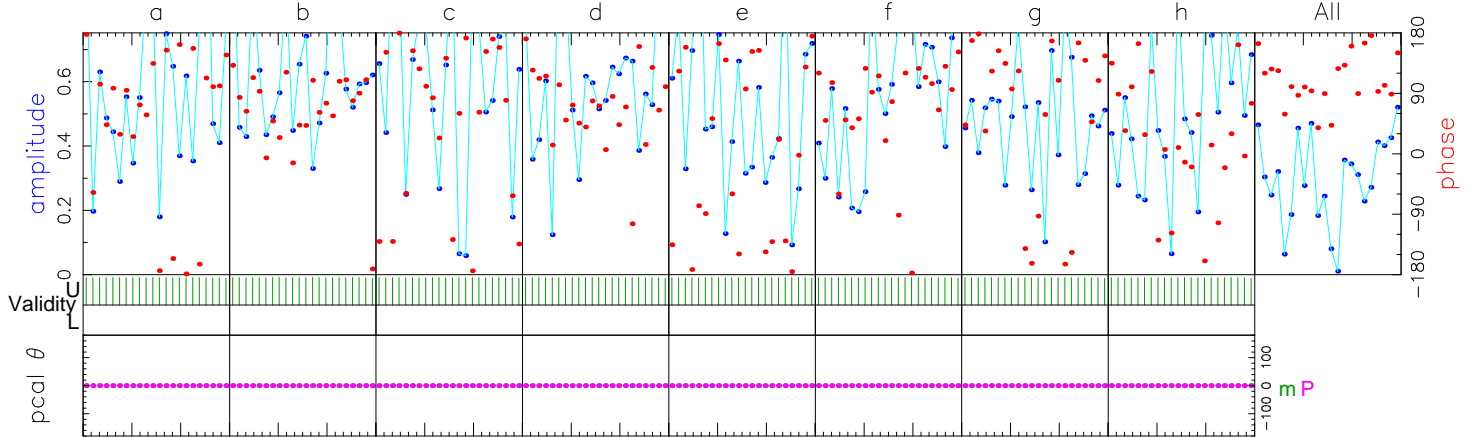


SNR 9.2
 Int time 179.790
 Amp 0.251
 Phase 115.4
 PFD 7.5e-12
 Delays (us)
 SBD 0.003857
 MBD -0.004866
 Fringe rate (Hz)
 0.000400
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132714
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	127.0	83.6	162.6	80.5	-164.4	106.5	148.4	37.3	Phase	115.4
m	0.4	0.5	0.3	0.4	0.2	0.4	0.3	0.2	Ampl.	0.3
P	257.9	257.8	258.3	256.9	19.6	257.3	256.7	92.5	Sbd box	258.0
m:P	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
m: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	
									Tracks	
Group delay (usec)(sbd)	4.48029671072E+03		Apriori delay (usec)		4.48028595219E+03		Resid mbdelay (usec)		-4.86647E-03	+/- 1.2E-04
Sband delay (usec)	4.48028980944E+03		Apriori clock (usec)		1.3532764E+01		Resid sbdelay (usec)		3.85725E-03	+/- 9.4E-04
Phase delay (usec)	4.48028595591E+03		Apriori clockrate (us/s)		5.0000000E-07		Resid phdelay (usec)		3.71982E-06	+/- 4.0E-07
Delay rate (us/s)	1.19224631153E+00		Apriori rate (us/s)		1.19224630688E+00		Resid rate (us/s)		4.64247E-09	+/- 3.9E-09
Total phase (deg)			Apriori accel (us/s/s)		-4.91134882149E-05		Resid phase (deg)		115.4	+/- 12.5

ph/seg (deg) 37.6 29.2 Amplitude 0.251 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 57.1 51.0 Search (1024X32) 0.248 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 55.2 17.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 49.9 30.8 Inc. seg. avg. 0.265 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 29.6 el 38.1 pa -116.9 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -13111.461 -7459.691 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/mP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/mP.W.278.1HR1IN

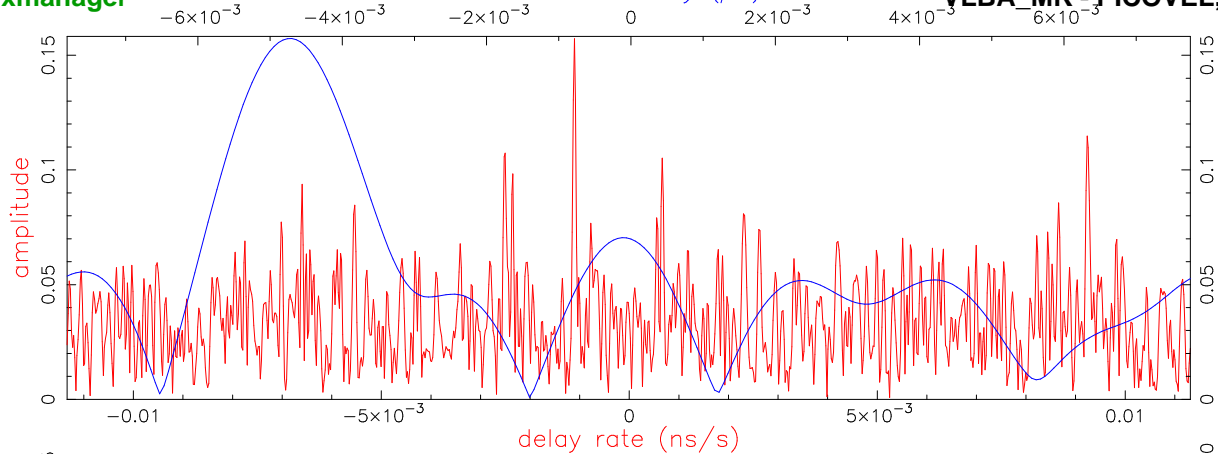
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, mP

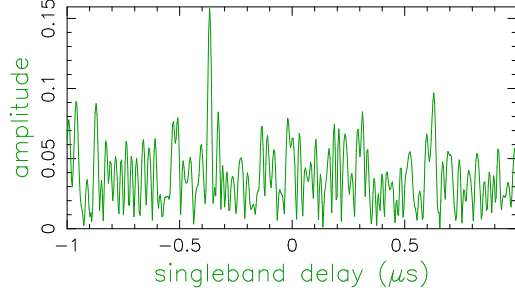
VLBA_MK - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

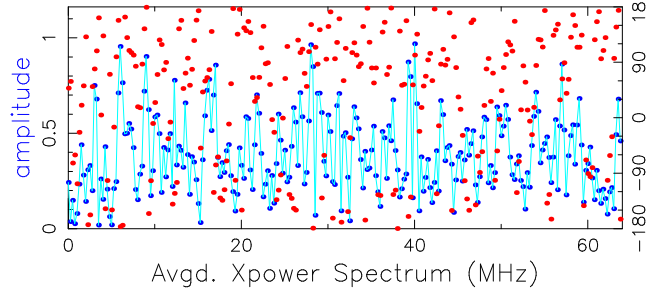


Fringe quality 0

SNR 5.8
Int time 179.790
Amp 0.158
Phase -83.6
PFD 6.1e-01
Delays (us)
SBD -0.366550
MBD -0.004692
Fringe rate (Hz)
-0.095440
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

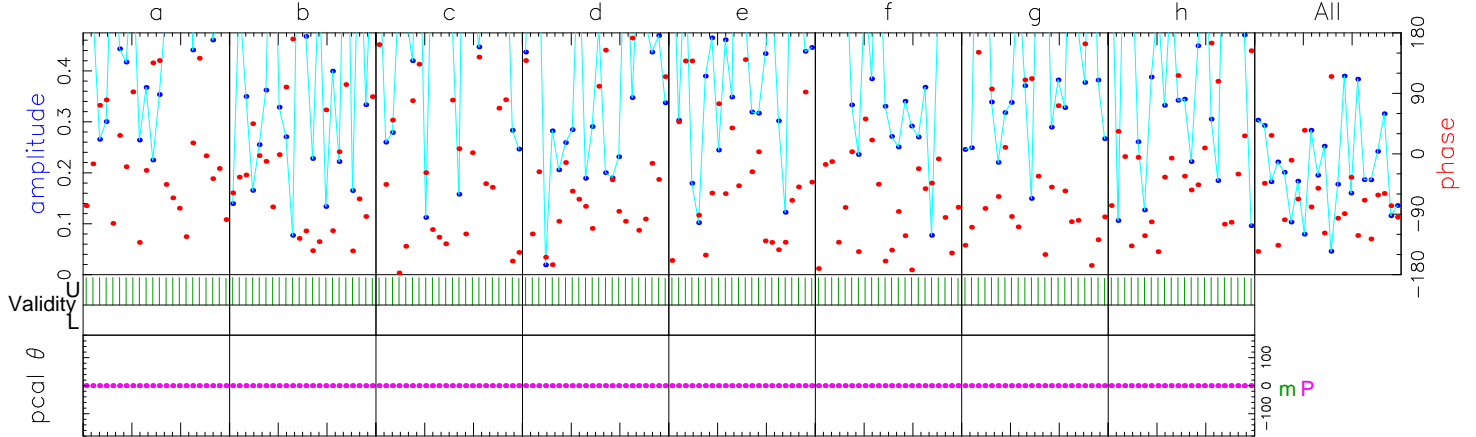


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 070000.00
Stop 070300.22
FRT 070130.00
Corr/FF/build
2021:006:135349
2021:010:132716
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-57.6	-74.9	-148.9	-92.0	-82.1	-70.7	-119.7	-59.4	Phase	-83.6
	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.2	Ampl.	0.2
	197.1	304.2	418.1	422.2	286.1	164.2	317.6	164.4	Sbd box	163.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	PC amp	
m	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)	4.47992188567E+03		Apriori delay (usec)		4.48028595219E+03		Resid mbdelay (usec)		-4.69151E-03	+/- 1.9E-04
Sband delay (usec)	4.47991940244E+03		Apriori clock (usec)		1.3532764E+01		Resid sbdelay (usec)		-3.66550E-01	+/- 1.5E-03
Phase delay (usec)	4.48028594949E+03		Apriori clockrate (us/s)		5.0000000E-07		Resid phdelay (usec)		-2.69745E-06	+/- 6.4E-07
Delay rate (us/s)	1.19224519892E+00		Apriori rate (us/s)		1.19224630688E+00		Resid rate (us/s)		-1.10796E-06	+/- 6.1E-09
Total phase (deg)	248.1		Apriori accel (us/s/s)		-4.91134882149E-05		Resid phase (deg)		-83.6	+/- 19.8

	RMS	Theor.	Amplitude	0.158 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	58.9	46.5	Search (1024X32)	0.152	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/seg (%)	65.8	81.2	Inc. seg. avg.	0.159	Sample rate(MISamp/s): 128	nlags: 256	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	34.5	28.0	Inc. frq. avg.	0.158	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00
amp/frq (%)	29.6	48.9							

m: az 29.6 el 38.1 pa -116.9 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -13111.461 -7459.691 simultaneous interpolator

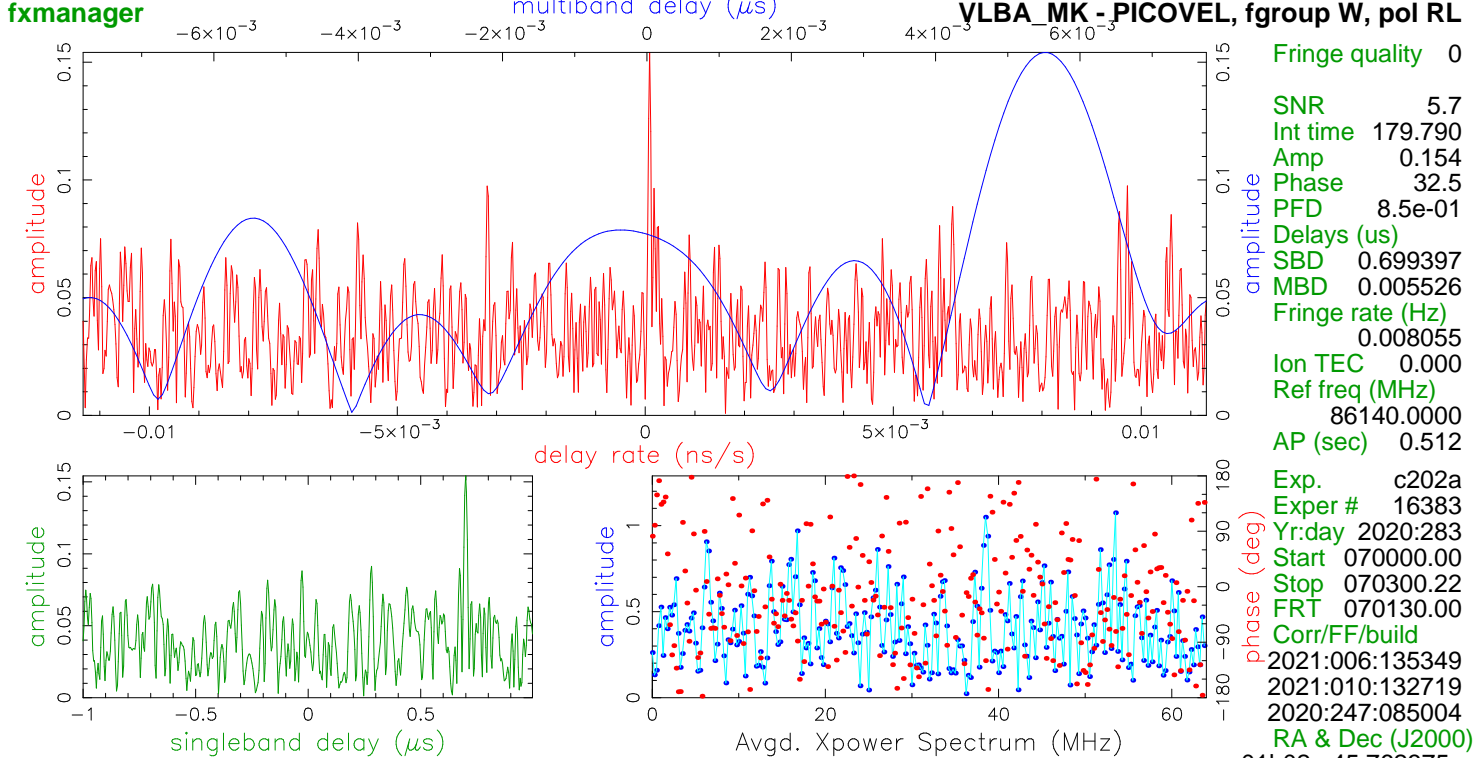
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/mP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/mP.W.297.1HR1IN

Mk4/DiFX fourfit 3.21 rev 2937

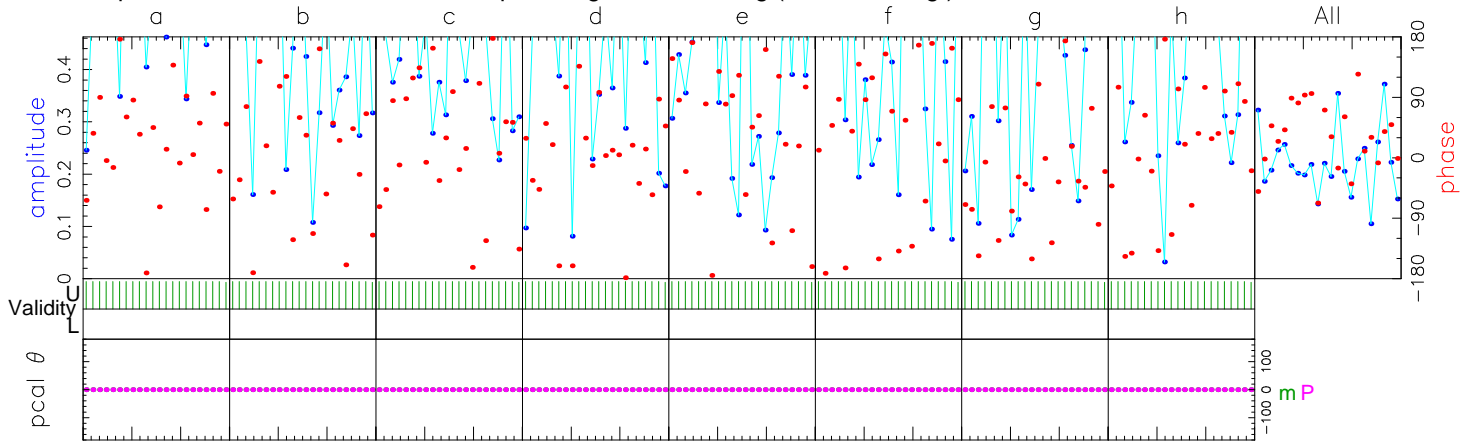
fxmanager

0102+584.1HR1IN, No0100, mP

VLBA_MK - PICOVEL, fgroup W, pol RL



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
28.6	22.5	58.3	17.0	87.9	86.1	-10.0	30.3		Phase	32.5
0.3	0.1	0.1	0.2	0.1	0.2	0.2	0.2		Ampl.	0.2
435.8	113.2	428.4	393.7	264.0	456.9	432.0	265.9		Sbd box	436.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0		APs used	
m	1000	1000	1000	1000	1000	1000	1000		PC freqs	
P	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		PC phase	
m:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC	
m	1000	1000	1000	1000	1000	1000	1000		PC amp	
P	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	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	4.48097897786E+03		Apriori delay (usec)	4.48028595219E+03	Resid mbdelay (usec)	5.52567E-03	+/-	1.9E-04		
Sband delay (usec)	4.48098534944E+03		Apriori clock (usec)	1.3532764E+01	Resid sbdelay (usec)	6.99397E-01	+/-	1.5E-03		
Phase delay (usec)	4.48028595324E+03		Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	1.04945E-06	+/-	6.5E-07		
Delay rate (us/s)	1.19224640039E+00		Apriori rate (us/s)	1.19224630688E+00	Resid rate (us/s)	9.35083E-08	+/-	6.3E-09		
Total phase (deg)		4.3	Apriori accel (us/s/s)	-4.91134882149E-05	Resid phase (deg)	32.5	+/-	20.3		

ph/seg (deg) 49.2 47.5 Search (1024X32) 0.150 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 60.8 83.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 38.2 28.7 Inc. seg. avg. 0.167 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 48.2 50.0 Inc. frq. avg. 0.156 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 29.6 el 38.1 pa -116.9 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -13111.461 -7459.691 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/mP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/mP.W.319.1HR1IN

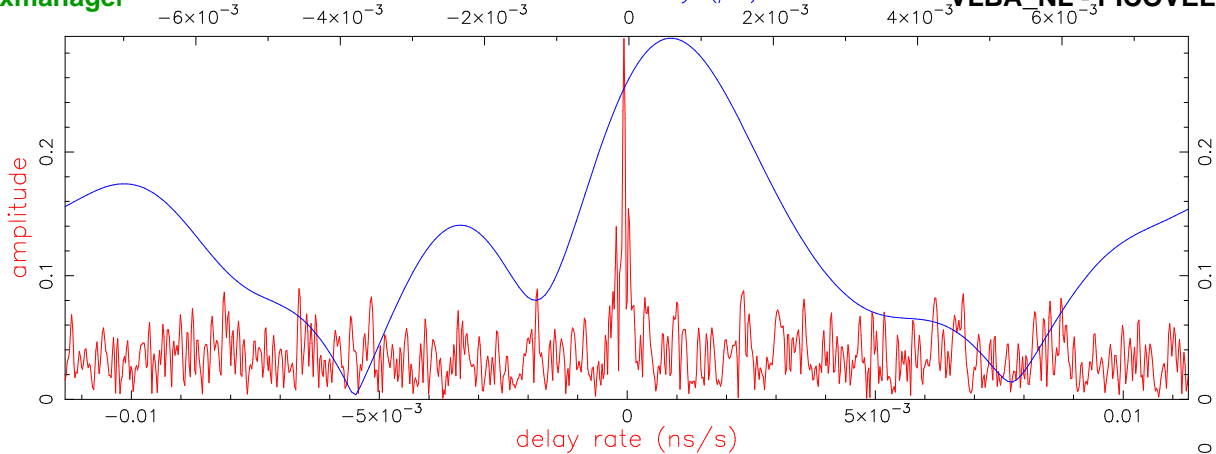
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, nP

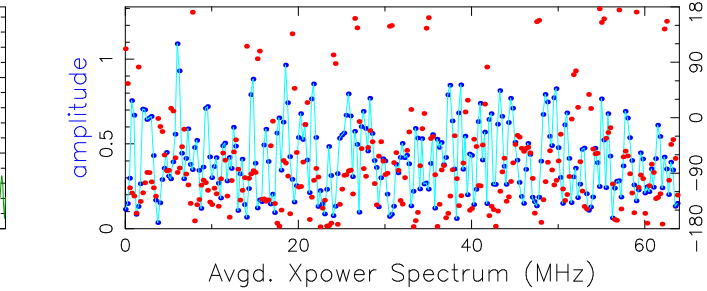
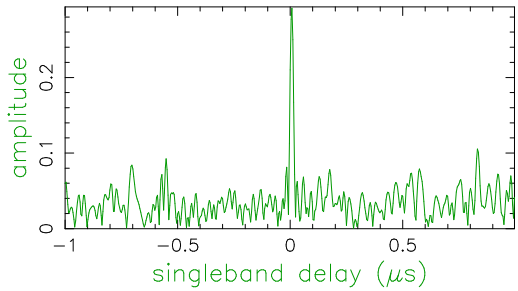
VLBA_NL - PICOVEL, fgroup W, pol LL

multiband delay (μ s)



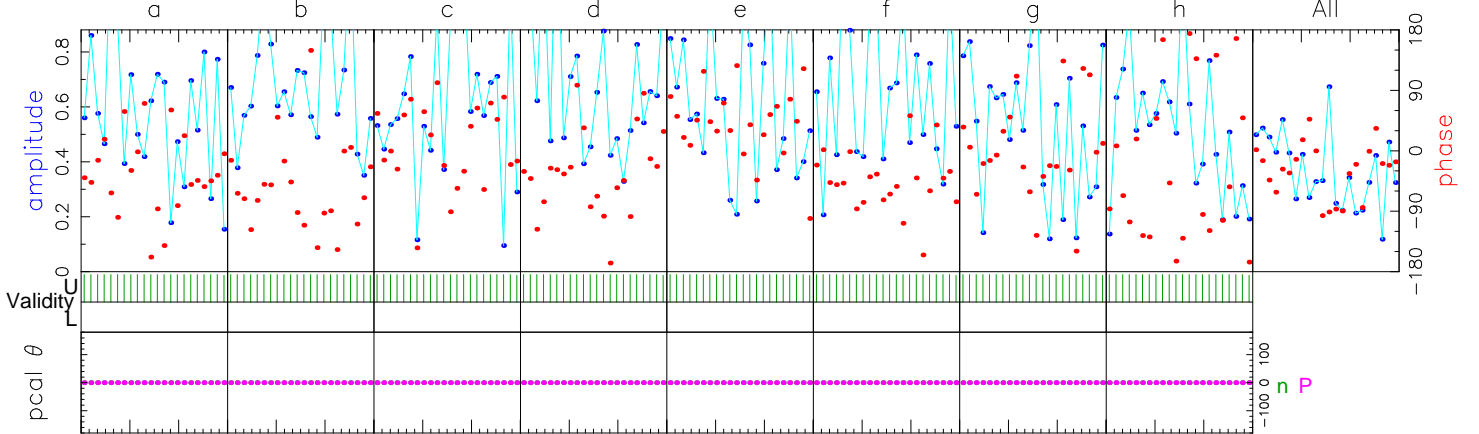
Fringe quality 9

SNR 10.8
 Int time 179.783
 Amp 0.293
 Phase -28.9
 PFD 1.2e-18
 Delays (us)
 SBD 0.006847
 MBD 0.000519
 Fringe rate (Hz)
 -0.006548
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132713
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-49.1	-63.1	12.8	-35.0	43.5	-47.1	-6.8	-117.0	Phase	-28.9
	0.4	0.4	0.4	0.4	0.5	0.5	0.3	0.2	Ampl.	0.4
	259.1	258.4	258.2	258.3	259.0	258.5	258.1	256.6	Sbd box	258.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 1.13137819391E+04 Apriori delay (usec) 1.13137814203E+04 Resid mbdelay (usec) 5.18851E-04 +/- 1.0E-04
 Sband delay (usec) 1.13137882673E+04 Apriori clock (usec) 3.0252075E-01 Resid sbdelay (usec) 6.84700E-03 +/- 8.0E-04
 Phase delay (usec) 1.13137814193E+04 Apriori clockrate (us/s) 9.0000002E-07 Resid phdelay (usec) -9.32968E-07 +/- 3.4E-07
 Delay rate (us/s) 4.59192956737E-01 Apriori rate (us/s) 4.59193032759E-01 Resid rate (us/s) -7.60211E-08 +/- 3.3E-09
 Total phase (deg) 165.7 Apriori accel (us/s/s) -5.40811274520E-05 Resid phase (deg) -28.9 +/- 10.6

RMS Theor. Amplitude 0.293 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 39.9 25.0 Search (1024X32) 0.278 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 51.8 43.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 53.5 15.1 Inc. seg. avg. 0.338 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 47.1 26.3 Inc. frq. avg. 0.376 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

n: az 334.8 el 70.6 pa 142.8 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -5079.668 -6620.134 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/nP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/nP.W.264.1HR1IN

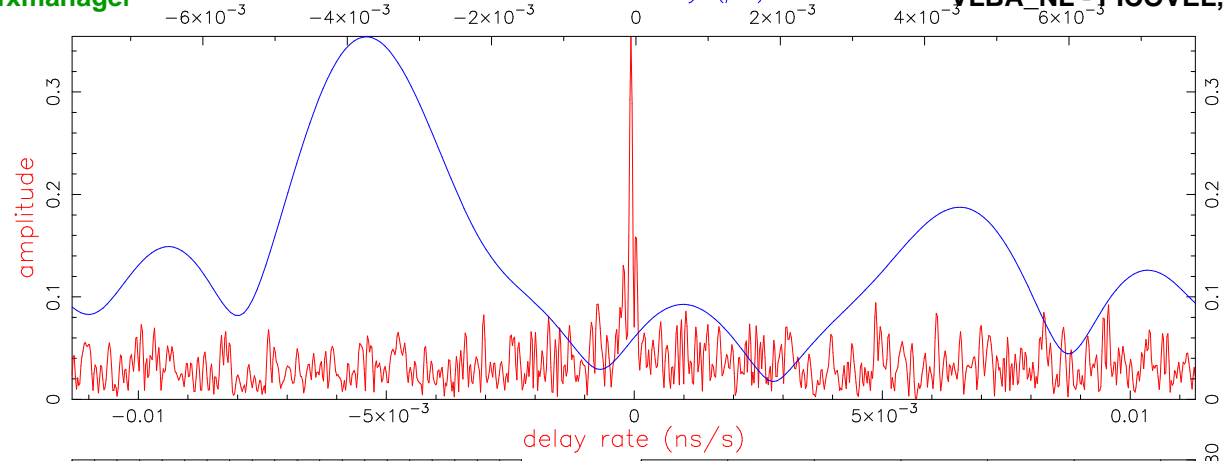
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, nP

VLBA_NL - PICOVEL, fgroup W, pol RR

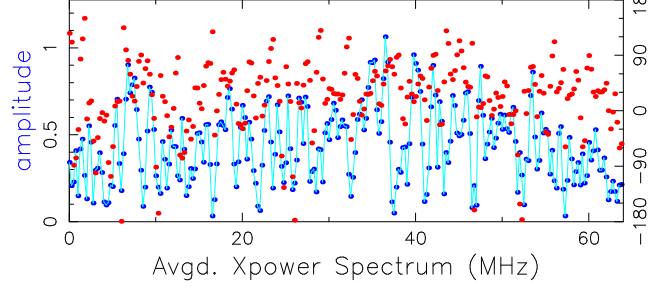
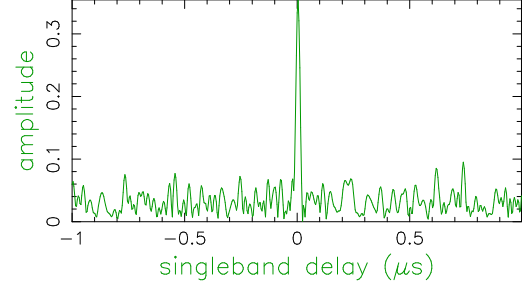
multiband delay (μ s)



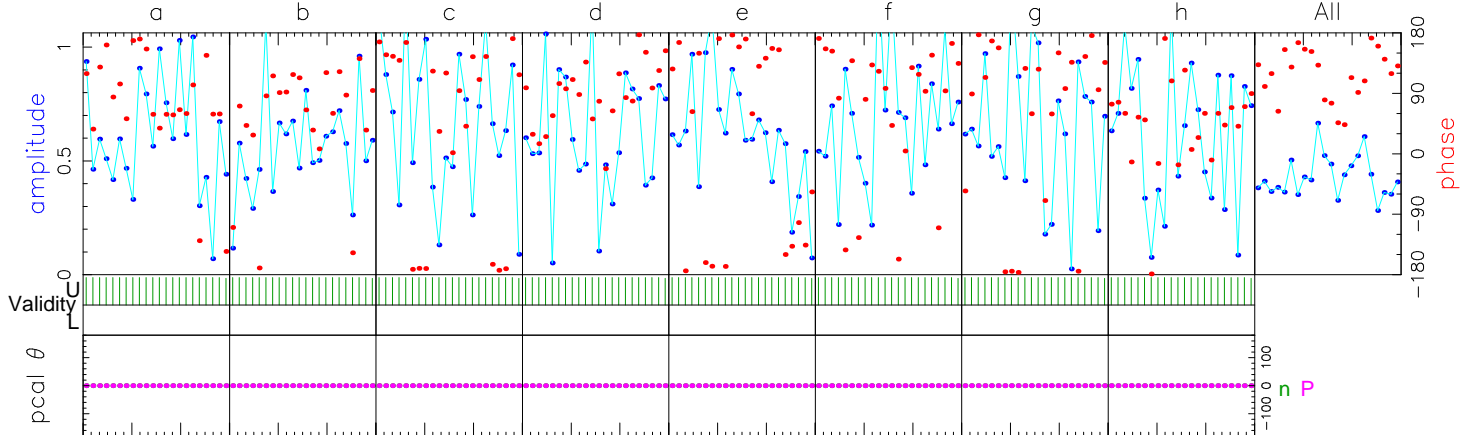
Fringe quality 9

SNR 13.0
Int time 179.783
Amp 0.354
Phase 117.4
PFD 3.8e-30
Delays (us)
SBD 0.003428
MBD -0.003746
Fringe rate (Hz) -0.006679
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 070000.00
Stop 070300.22
FRT 070130.00
Corr/FF/build
2021:006:135349
2021:010:132715
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)		1.13137776740E+04		Apriori delay (usec)	1.13137814203E+04		Resid mbdelay (usec)	-3.74627E-03	+/-	8.4E-05
Sband delay (usec)		1.13137848485E+04		Apriori clock (usec)	3.0252075E-01		Resid sbdelay (usec)	3.42825E-03	+/-	6.6E-04
Phase delay (usec)		1.13137814240E+04		Apriori clockrate (us/s)	9.0000002E-07		Resid phdelay (usec)	3.78501E-06	+/-	2.8E-07
Delay rate (us/s)		4.59192955227E-01		Apriori rate (us/s)	4.59193032759E-01		Resid rate (us/s)	-7.75318E-08	+/-	2.7E-09
Total phase (deg)			312.0	Apriori accel (us/s/s)	-5.40811274520E-05		Resid phase (deg)	117.4	+/-	8.8

ph/seg (deg) 37.1 20.7 Amplitude 0.354 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 33.6 36.1 Search (1024X32) 0.334 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 41.6 12.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 25.5 21.8 Inc. seg. avg. 0.406 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 n: az 334.8 el 70.6 pa 142.8 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -5079.668 -6620.134 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/nP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/nP.W.283.1HR1IN simultaneous interpolator

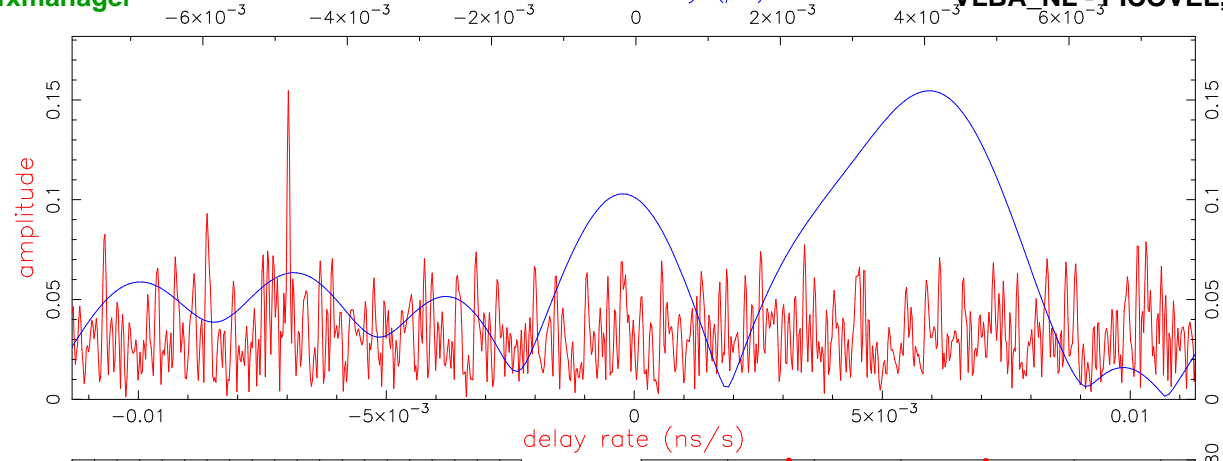
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, nP

VLBA_NL - PICOVEL, fgroup W, pol LR

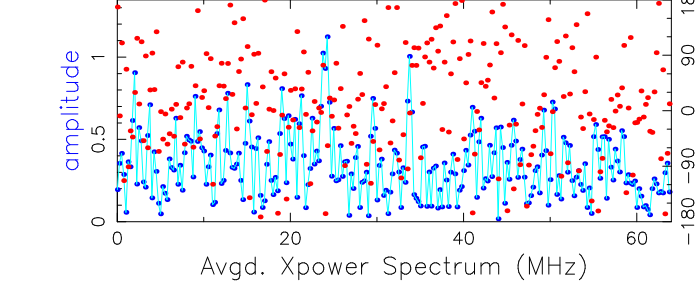
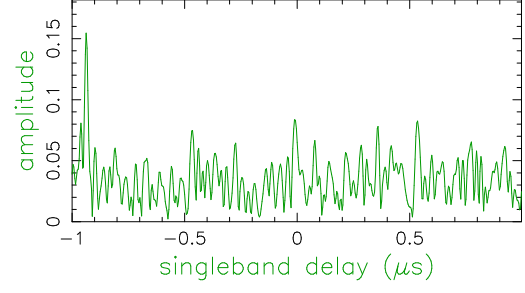
multiband delay (μ s)



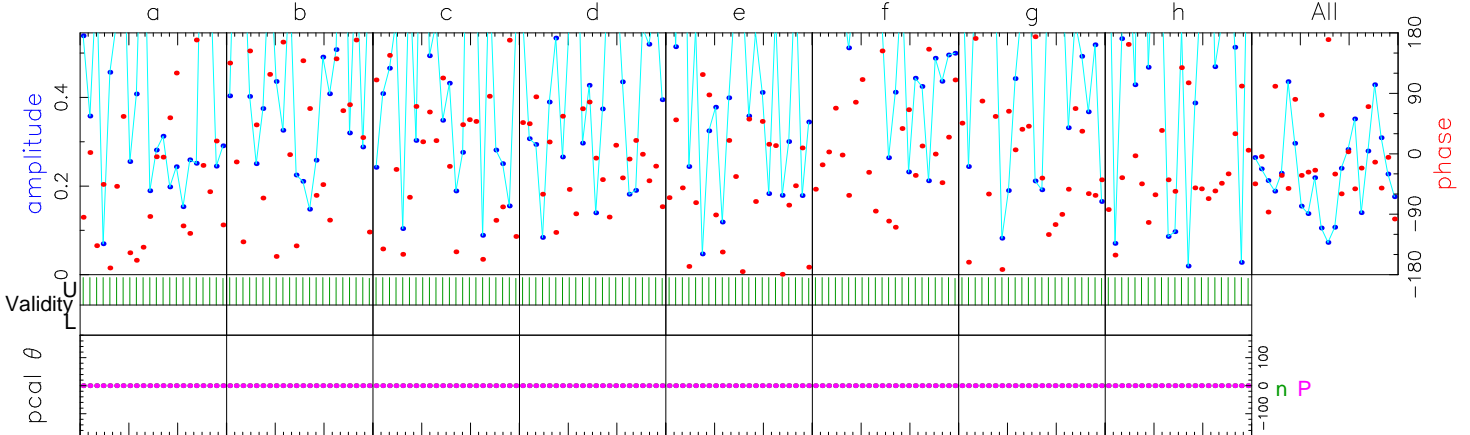
Fringe quality 0

SNR 5.7
 Int time 179.783
 Amp 0.182
 Phase -23.8
 PFD 8.2e-01
 Delays (us)
 SBD -0.937182
 MBD 0.004068
 Fringe rate (Hz)
 -0.602332
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132717
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-77.4	145.7	34.4	-21.6	-42.7	0.2	-4.7	-43.0	Phase	-23.8
	0.2	0.0	0.2	0.3	0.2	0.3	0.1	0.4	Ampl.	0.2
	82.0	485.9	220.5	17.0	418.7	138.4	507.5	17.2	Sbd box	17.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	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)	1.13128479885E+04		Apriori delay (usec)		1.13137814203E+04		Resid mbdelay (usec)		4.06828E-03	+/- 1.9E-04
Sband delay (usec)	1.13128442378E+04		Apriori clock (usec)		3.0252075E-01		Resid sbdelay (usec)		-9.37182E-01	+/- 1.5E-03
Phase delay (usec)	1.13137814195E+04		Apriori clockrate (us/s)		9.0000002E-07		Resid phdelay (usec)		-7.66568E-07	+/- 6.5E-07
Delay rate (us/s)	4.59186040281E-01		Apriori rate (us/s)		4.59193032759E-01		Resid rate (us/s)		-6.99248E-06	+/- 6.3E-09
Total phase (deg)			Apriori accel (us/s/s)		-5.40811274520E-05		Resid phase (deg)		-23.8	+/- 20.2

ph/seg (deg) 62.0 47.4 Search (1024X32) 0.150 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 78.7 82.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 78.2 28.6 Inc. seg. avg. 0.203 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 60.1 49.9 Inc. frq. avg. 0.197 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 n: az 334.8 el 70.6 pa 142.8 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -5079.668 -6620.134 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/nP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/nP.W.302.1HR1IN

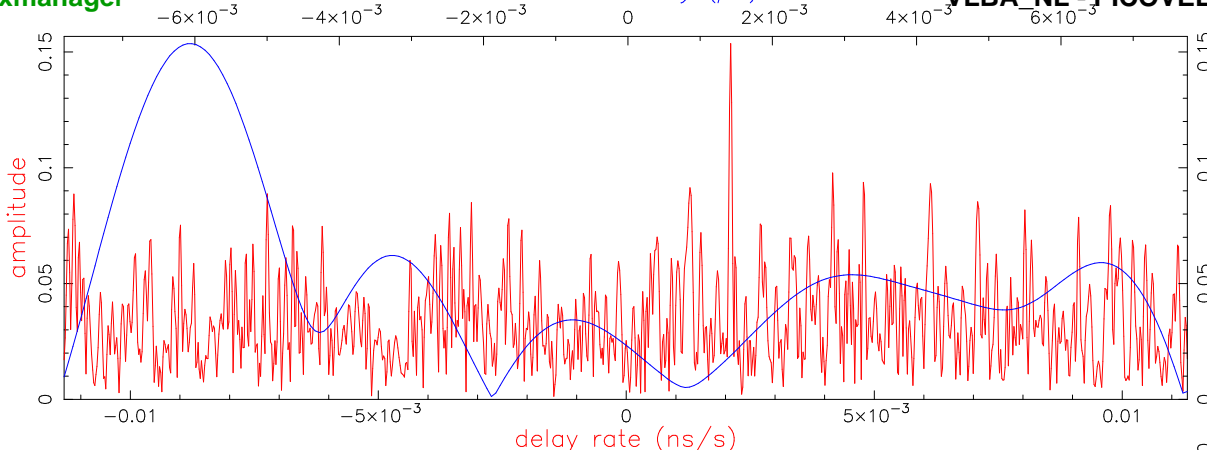
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

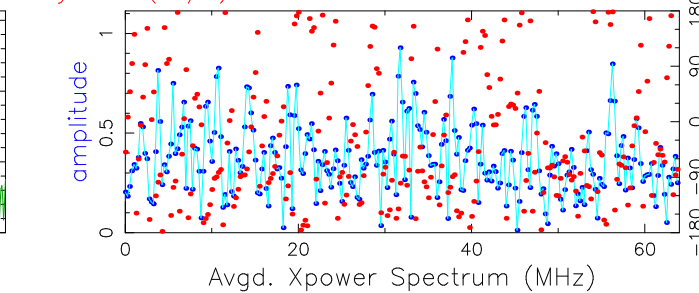
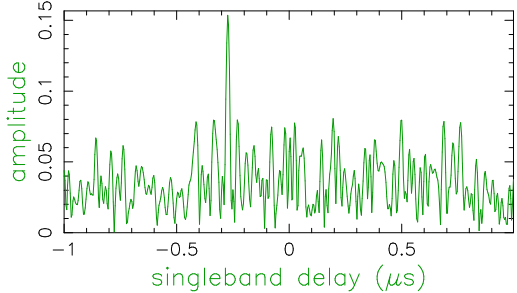
0102+584.1HR1IN, No0100, nP

VLBA_NL - PICOVEL, fgroup W, pol RL

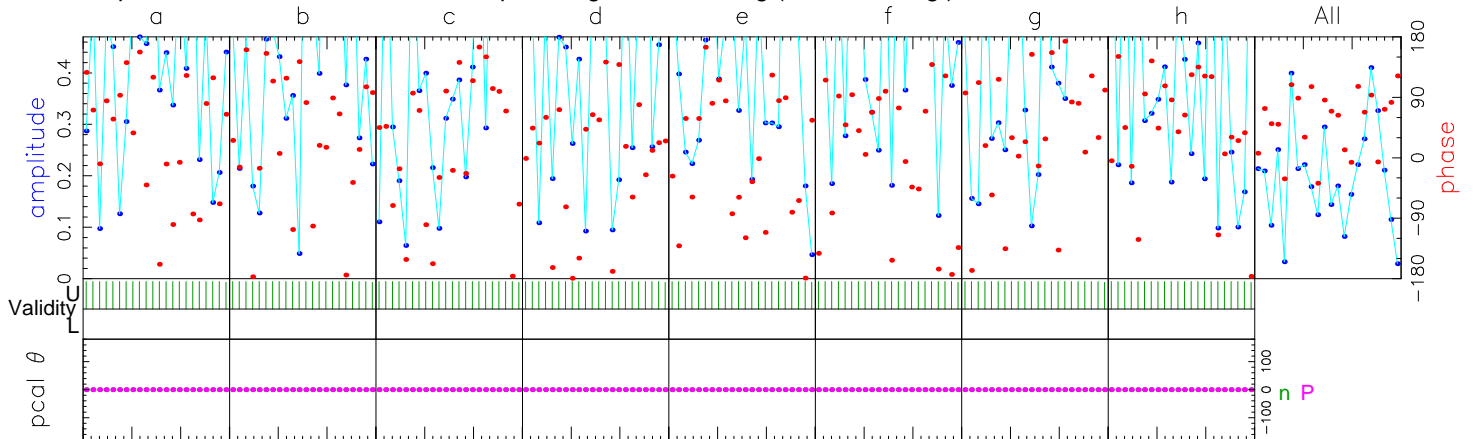
multiband delay (μ s)



Fringe quality 0
 SNR 5.7
 Int time 179.783
 Amp 0.157
 Phase 64.6
 PFD 8.4e-01
 Delays (us)
 SBD -0.272449
 MBD -0.006075
 Fringe rate (Hz) 0.181729
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132719
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
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)		1.13135097198E+04				1.13137814203E+04			Resid mbdelay (usec)	-6.07541E-03 +/- 1.9E-04
Sband delay (usec)		1.13135089715E+04				3.0252075E-01			Resid sbdelay (usec)	-2.72449E-01 +/- 1.5E-03
Phase delay (usec)		1.13137814223E+04				9.0000002E-07			Resid phdelay (usec)	2.08205E-06 +/- 6.5E-07
Delay rate (us/s)		4.59195142455E-01				4.59193032759E-01			Resid rate (us/s)	2.10970E-06 +/- 6.3E-09
Total phase (deg)			259.2			-5.40811274520E-05			Resid phase (deg)	64.6 +/- 20.2

ph/seg (deg) 46.9 70.7
 amp/seg (%) 46.9 82.8
 ph/frq (deg) 29.8 28.6
 amp/frq (%) 40.6 49.9

RMS Theor. Amplitude 0.157 +/- 0.028
 Search (1024X32) 0.149
 Interp. 0.000
 Inc. seg. avg. 0.151
 Inc. frq. avg. 0.149

Group delay (usec)(sbd) 1.13135097198E+04
 Sband delay (usec) 1.13135089715E+04
 Phase delay (usec) 1.13137814223E+04
 Delay rate (us/s) 4.59195142455E-01
 Total phase (deg) 259.2

Apriori delay (usec) 1.13137814203E+04
 Apriori clock (usec) 3.0252075E-01
 Apriori clockrate (us/s) 9.0000002E-07
 Apriori rate (us/s) 4.59193032759E-01
 Apriori accel (us/s/s) -5.40811274520E-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 334.8 el 70.6 pa 142.8 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -5079.668 -6620.134 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/nP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/nP.W.320.1HR1IN

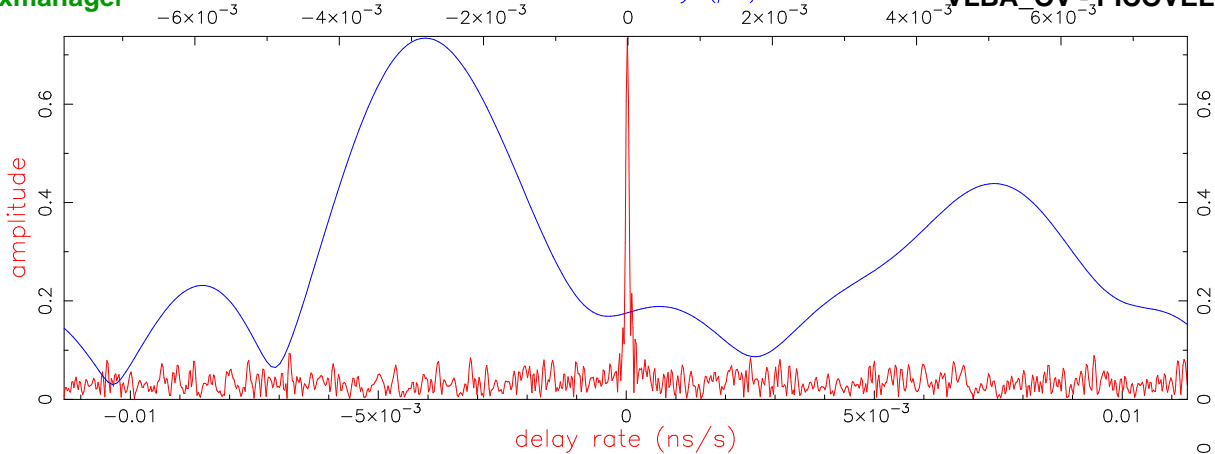
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, oP

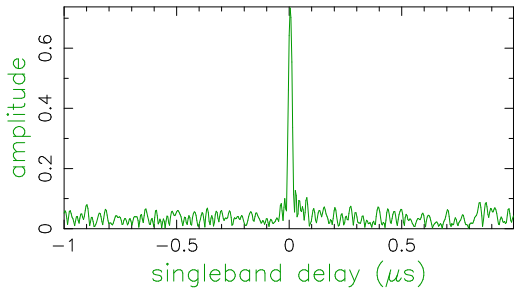
VLBA_OV - PICOVEL, fgroup W, pol LL

multiband delay (μ s)

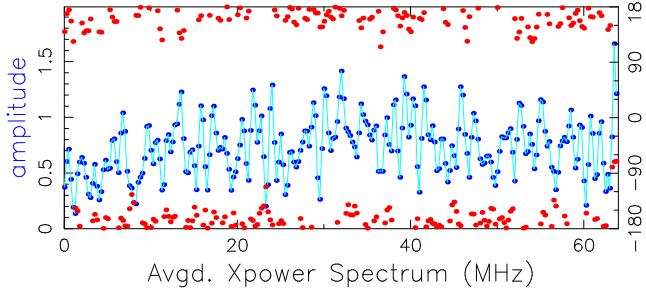


Fringe quality 7

SNR 27.0
 Int time 179.783
 Amp 0.738
 Phase -92.9
 PFD 0.0e+00
 Delays (us)
 SBD 0.004869
 MBD -0.002768
 Fringe rate (Hz)
 0.001576
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

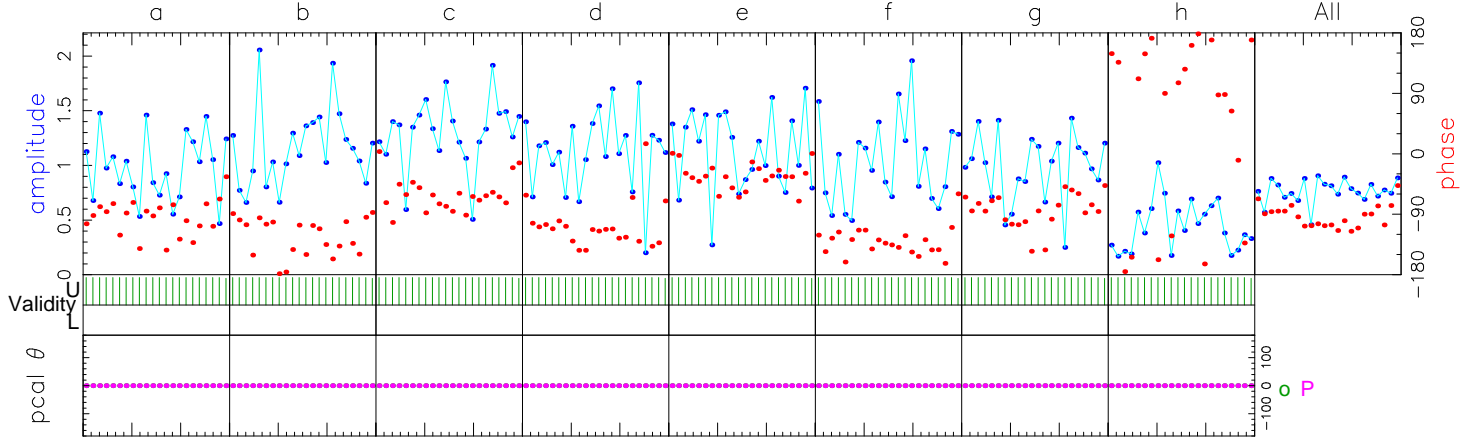


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132718
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-93.4	-122.5	-61.5	-112.9	-33.9	-128.7	-82.2	150.7	Phase	-92.9
	0.9	1.0	1.2	1.0	1.1	1.0	0.9	0.3	Ampl.	0.9
	258.0	258.0	257.7	257.6	257.3	257.5	258.0	255.9	Sbd box	258.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
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	
									Tracks	
Group delay (usec)(sbd)	1.09679308290E+04		Apriori delay (usec)		1.09679335971E+04		Resid mbdelay (usec)		-2.76804E-03	+/- 4.0E-05
Sband delay (usec)	1.09679384661E+04		Apriori clock (usec)		2.1581387E+01		Resid sbdelay (usec)		4.86900E-03	+/- 3.2E-04
Phase delay (usec)	1.09679335941E+04		Apriori clockrate (us/s)		2.9999999E-07		Resid phdelay (usec)		-2.99564E-06	+/- 1.4E-07
Delay rate (us/s)	7.45867435905E-01		Apriori rate (us/s)		7.45867417613E-01		Resid rate (us/s)		1.82921E-08	+/- 1.3E-09
Total phase (deg)			Apriori accel (us/s/s)		-5.80012586497E-05		Resid phase (deg)		-92.9	+/- 4.2

	RMS	Theor.	Amplitude	0.738 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	16.5	9.9	Search (1024X32)	0.727	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	14.8	17.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	58.7	6.0	Inc. seg. avg.	0.755	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	42.7	10.5	Inc. frq. avg.	0.921	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

o: az 15.0 el 67.6 pa -156.3 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -8225.841 -7391.335 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/oP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/oP.W.308.1HR1IN

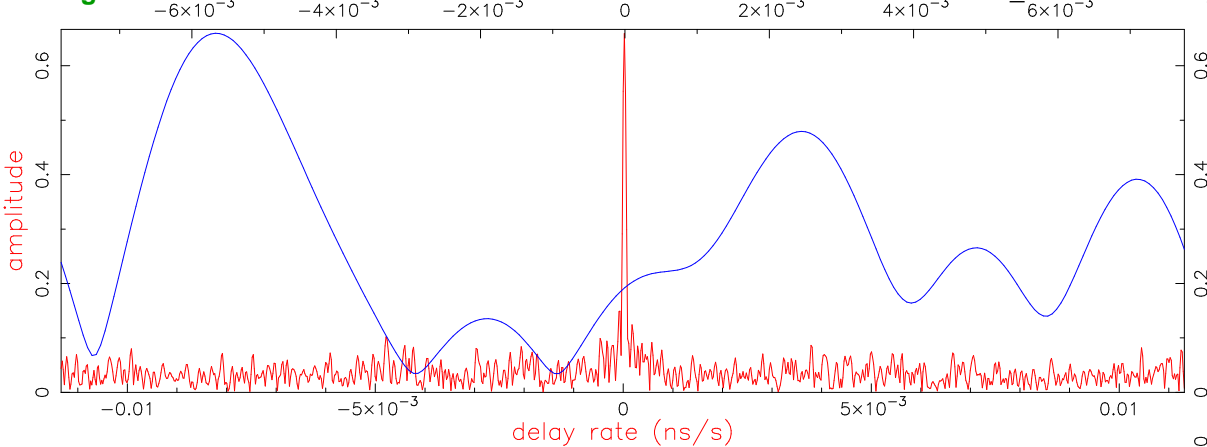
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, oP

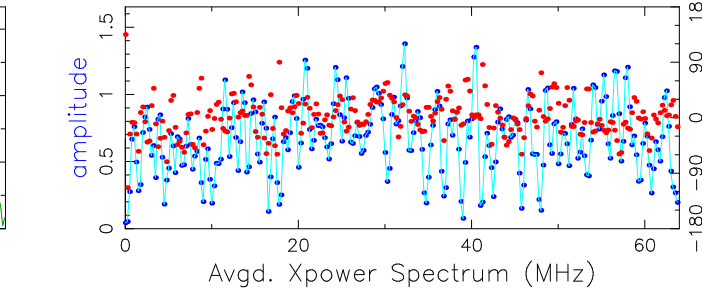
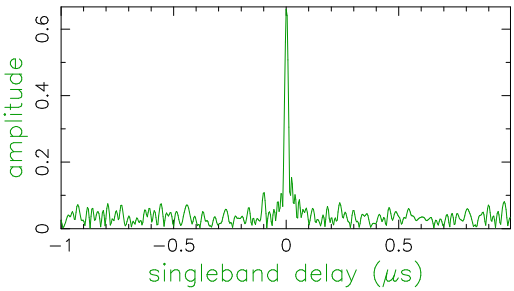
VLBA_OV - PICOVEL, fgroup W, pol RR

multiband delay (μ s)



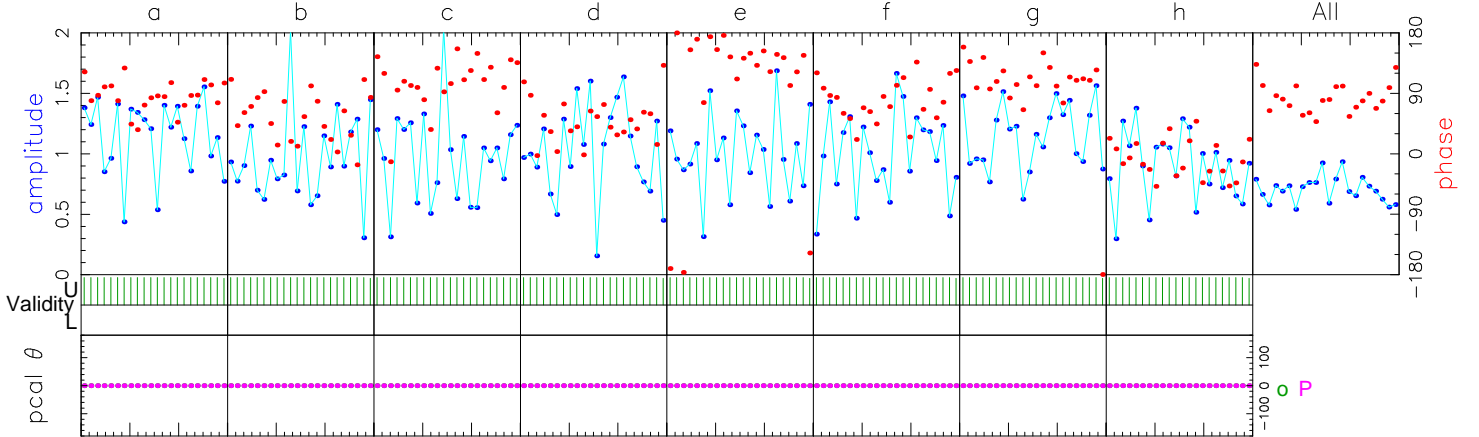
Fringe quality 8

SNR 24.5
Int time 179.783
Amp 0.667
Phase 82.8
PFD 0.0e+00
Delays (us)
SBD 0.001339
MBD -0.005641
Fringe rate (Hz)
0.001917
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202a
Yr:day 16383
Yr:day 2020:283
Start 070000.00
Stop 070300.22
FRT 070130.00
Corr/FF/build
2021:006:135349
2021:010:132719
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
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) 1.09679279561E+04 Apriori delay (usec) 1.09679335971E+04 Resid mbdelay (usec) -5.64095E-03 +/- 4.4E-05
 Sband delay (usec) 1.09679349366E+04 Apriori clock (usec) 2.1581387E+01 Resid sbdelay (usec) 1.33950E-03 +/- 3.5E-04
 Phase delay (usec) 1.09679335998E+04 Apriori clockrate (us/s) 2.9999999E-07 Resid phdelay (usec) 2.66881E-06 +/- 1.5E-07
 Delay rate (us/s) 7.45867439867E-01 Apriori rate (us/s) 7.45867417613E-01 Resid rate (us/s) 2.22544E-08 +/- 1.5E-09
 Total phase (deg) 102.0 Apriori accel (us/s/s) -5.80012586497E-05 Resid phase (deg) 82.8 +/- 4.7

ph/seg (deg) 21.5 11.0 Search (1024X32) 0.650 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 16.8 19.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 54.0 6.6 Inc. seg. avg. 0.695 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 38.5 11.6 Inc. frq. avg. 0.901 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 15.0 el 67.6 pa -156.3 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -8225.841 -7391.335 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/oP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/oP.W.322.1HR1IN

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

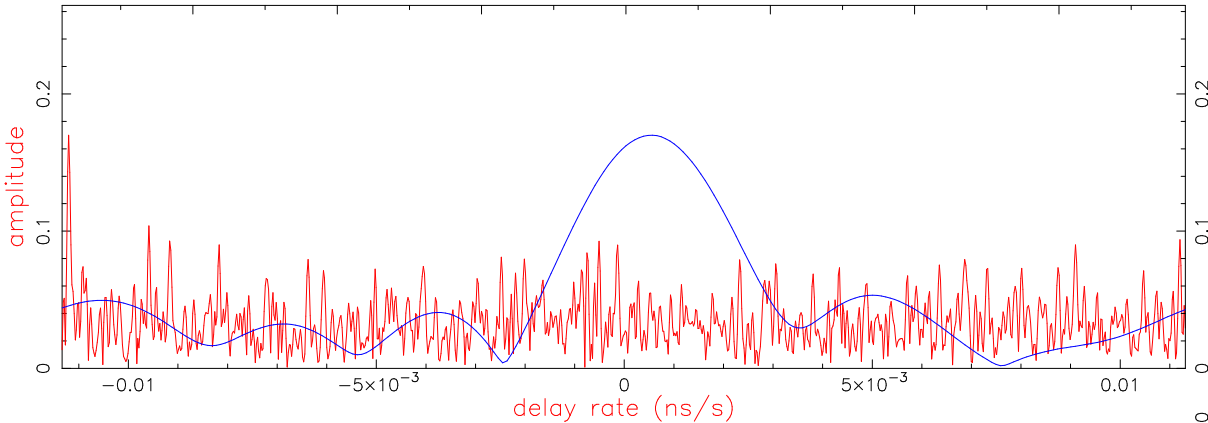
0102+584.1HR1IN, No0100, oP

VLBA_OV - PICOVEL, fgroup W, pol LR

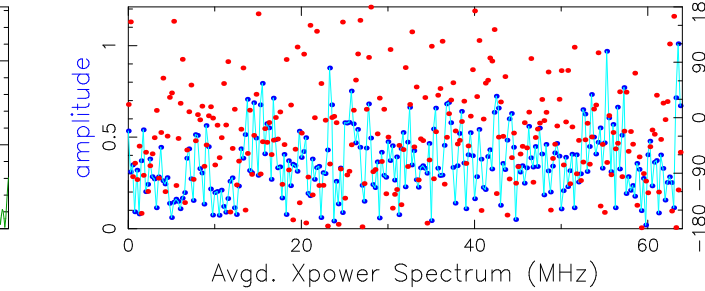
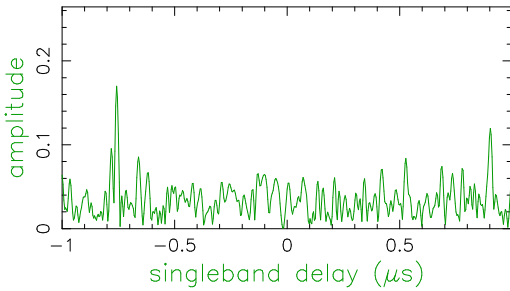
multiband delay (μ s)

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

Fringe quality 0

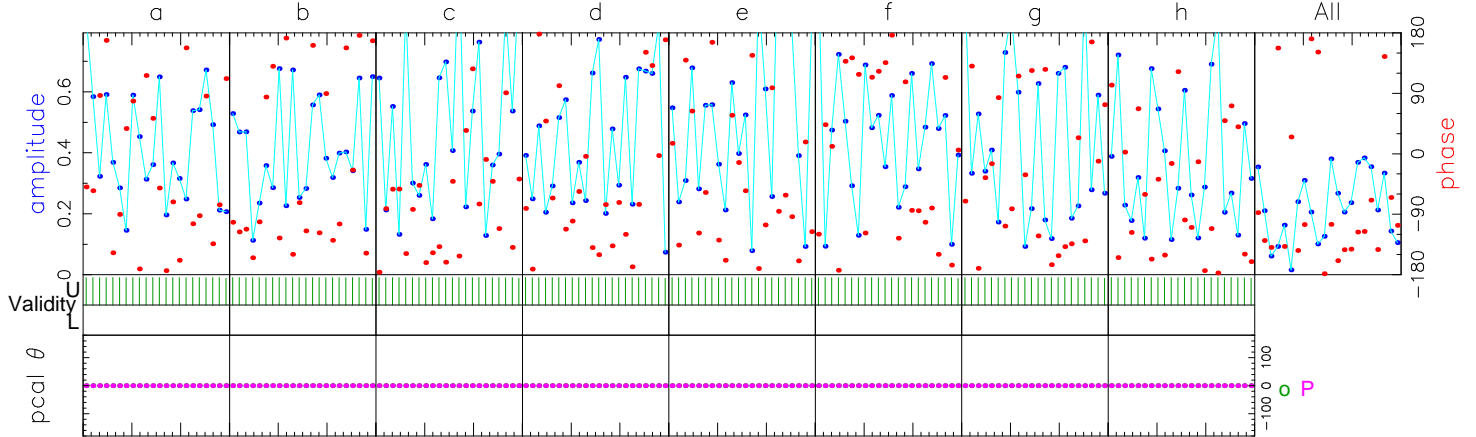


SNR 6.2
 Int time 179.783
 Amp 0.265
 Phase -129.2
 PFD 5.7e-02
 Delays (us)
 SBD -0.757275
 MBD 0.000383
 Fringe rate (Hz)
 -0.966016
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132721
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-115.2	-147.4	-119.3	-126.6	-98.0	-157.3	-118.9	-145.7	Phase	-129.2
	0.1	0.4	0.3	0.3	0.3	0.3	0.3	0.2	Ampl.	0.3
	228.3	124.9	364.8	205.4	247.6	390.2	344.7	473.8	Sbd box	63.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
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	Manl 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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	1.09671839797E+04	Apriori delay (usec)	1.09679335971E+04	Resid mbdelay (usec)	3.82578E-04	+/-	1.7E-04
Sband delay (usec)	1.09671763226E+04	Apriori clock (usec)	2.1581387E+01	Resid sbdelay (usec)	-7.57275E-01	+/-	1.4E-03
Phase delay (usec)	1.09679335929E+04	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	-4.16624E-06	+/-	5.9E-07
Delay rate (us/s)	7.45856203127E-01	Apriori rate (us/s)	7.45867417613E-01	Resid rate (us/s)	-1.12145E-05	+/-	5.7E-09
Total phase (deg)	-109.9	Apriori accel (us/s/s)	-5.80012586497E-05	Resid phase (deg)	-129.2	+/-	18.4

ph/seg (deg)	53.2	Theor.	43.1	Amplitude	0.265 +/- 0.042	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	70.9		75.2	Search (1024X32)	0.161	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	21.5		26.0	Inc. seg. avg.	0.268	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	27.2		45.3	Inc. frq. avg.	0.253	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	

o: az 15.0 el 67.6 pa -156.3 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -8225.841 -7391.335 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/oP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/oP.W.331.1HR1IN

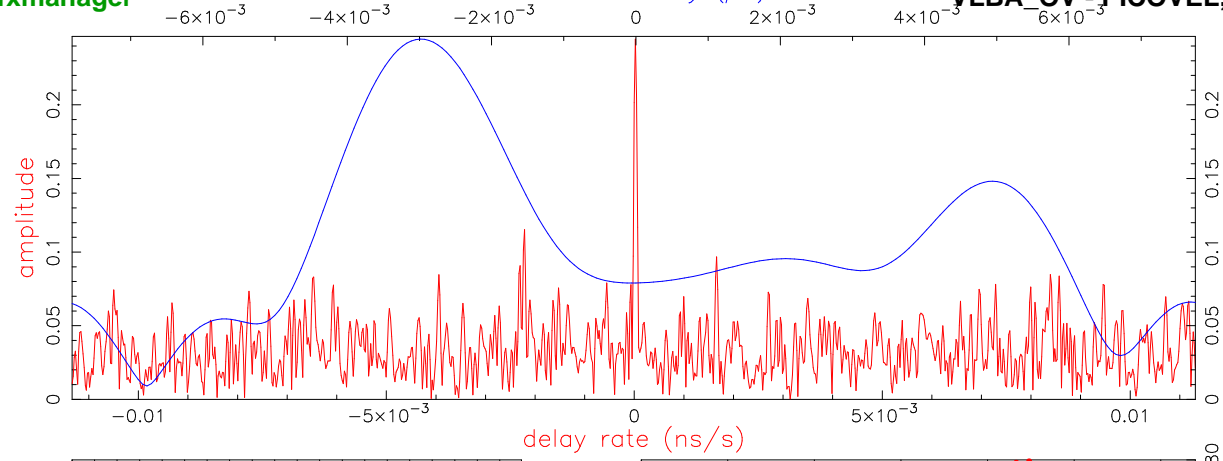
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, oP

VLBA_OV - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

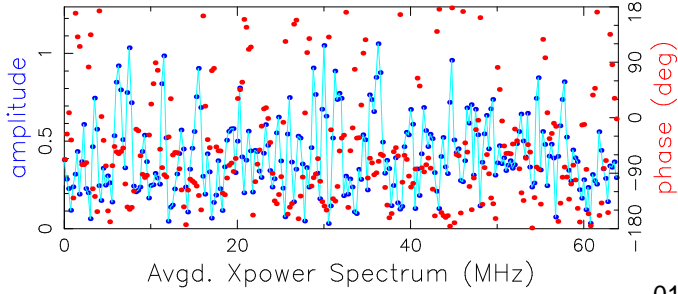
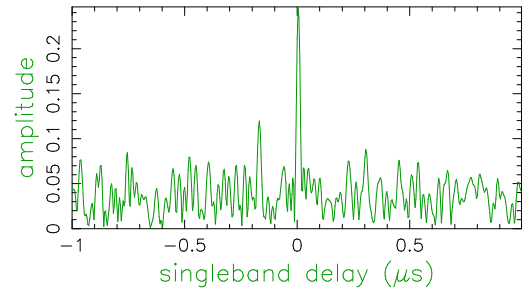


Fringe quality 9

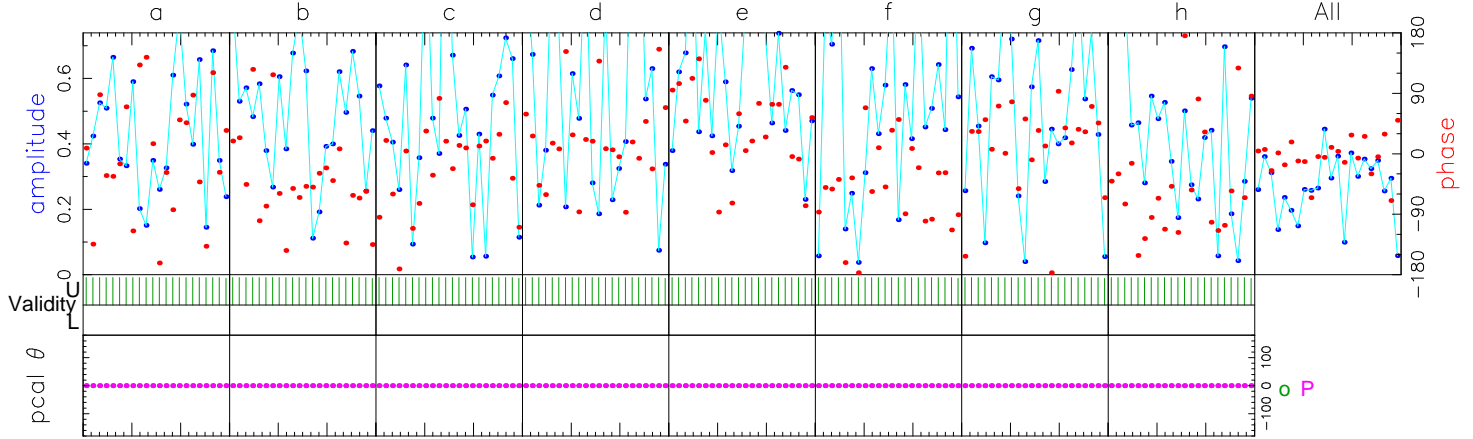
SNR 9.0
 Int time 179.783
 Amp 0.247
 Phase -4.3
 PFD 3.1e-11
 Delays (us)
 SBD 0.005035
 MBD -0.002948
 Fringe rate (Hz) 0.001921
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132723
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

delay rate (ns/s)



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	4.4	-52.3	3.4	11.5	50.3	-47.9	36.2	-72.5	Phase	-4.3
	0.1	0.3	0.4	0.4	0.3	0.4	0.4	0.2	Ampl.	0.3
	426.5	258.3	258.6	257.2	256.7	258.5	257.7	255.7	Sbd box	258.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
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	PC amp	
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)	1.09679462737E+04	Apriori delay (usec)	1.09679335971E+04	Resid mbdelay (usec)	-2.94842E-03	+/-	1.2E-04
Sband delay (usec)	1.09679386318E+04	Apriori clock (usec)	2.1581387E+01	Resid sbdelay (usec)	5.03475E-03	+/-	9.5E-04
Phase delay (usec)	1.09679335970E+04	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	-1.38529E-07	+/-	4.1E-07
Delay rate (us/s)	7.45867439912E-01	Apriori rate (us/s)	7.45867417613E-01	Resid rate (us/s)	2.22997E-08	+/-	3.9E-09
Total phase (deg)		Apriori accel (us/s/s)	-5.80012586497E-05	Resid phase (deg)	-4.3	+/-	12.7

ph/seg (deg)	27.2	Theor.	29.7	Amplitude	0.247 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	39.0		51.9	Search (1024X32)	0.244	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	48.1		17.9	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	47.8		31.3	Inc. seg. avg.	0.239	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.306	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

o: az 15.0 el 67.6 pa -156.3 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -8225.841 -7391.335 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/oP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/oP.W.340.1HR1IN

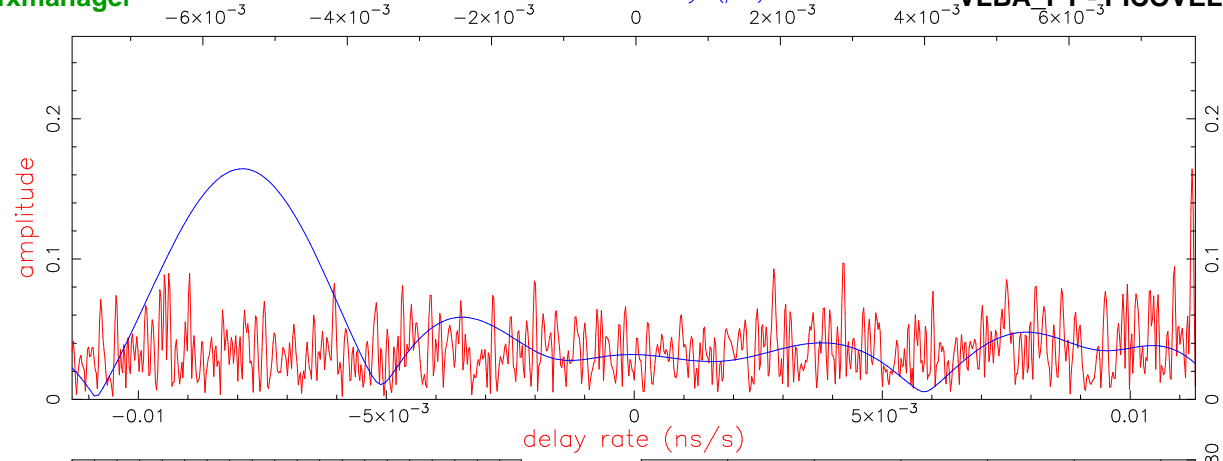
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, pP

VLBA_PT - PICOVEL, fgroup W, pol LL

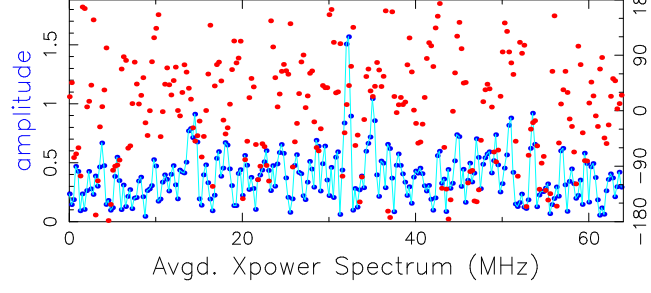
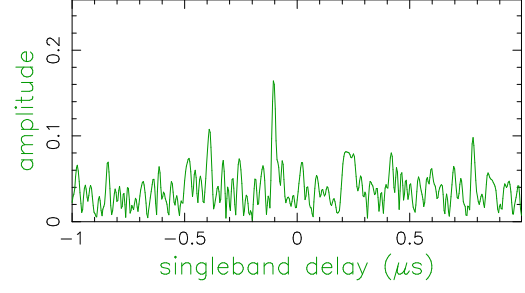
multiband delay (μ s)



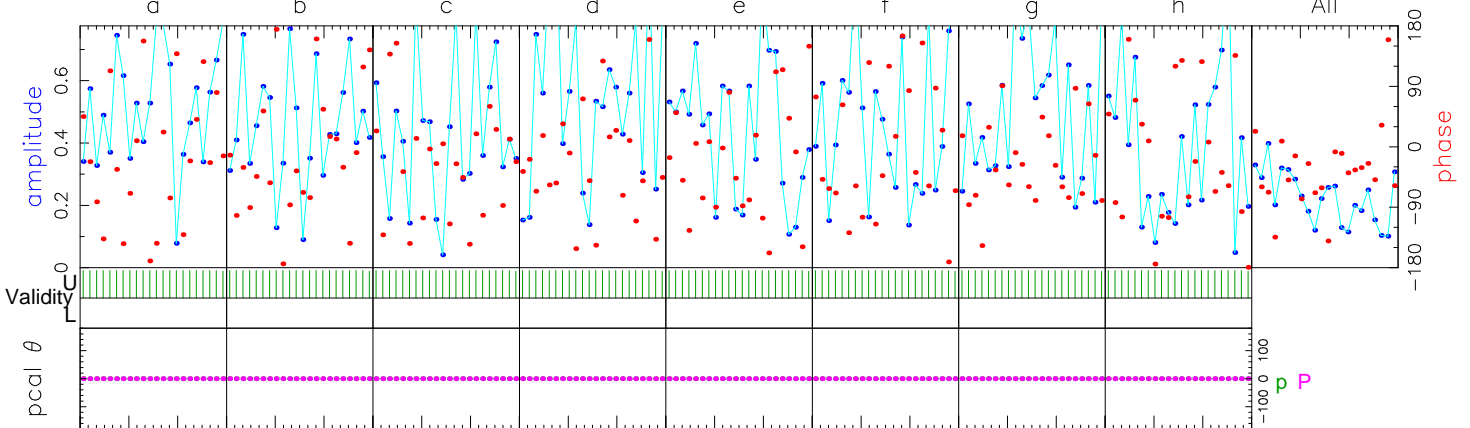
Fringe quality 0

SNR 6.1
 Int time 179.783
 Amp 0.259
 Phase -41.4
 PFD 1.4e-01
 Delays (us)
 SBD -0.104093
 MBD -0.005387
 Fringe rate (Hz)
 0.969594
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132720
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	1.06803388474E+04	Apriori delay (usec)	1.06804379842E+04	Resid mbdelay (usec)	-5.38684E-03	+/-	1.8E-04
Sband delay (usec)	1.06803338917E+04	Apriori clock (usec)	2.1883106E-01	Resid sbdelay (usec)	-1.04093E-01	+/-	1.4E-03
Phase delay (usec)	1.06804379829E+04	Apriori clockrate (us/s)	7.9999999E-07	Resid phdelay (usec)	-1.33647E-06	+/-	6.1E-07
Delay rate (us/s)	6.32181344443E-01	Apriori rate (us/s)	6.32170088423E-01	Resid rate (us/s)	1.12560E-05	+/-	5.8E-09
Total phase (deg)	303.9	Apriori accel (us/s/s)	-6.05672513403E-05	Resid phase (deg)	-41.4	+/-	18.8

ph/seg (deg)	53.6	Theor.	44.2	Amplitude	0.259 +/- 0.043	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	61.0		77.1	Search (1024X32)	0.160	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	19.0		26.6	Inc. seg. avg.	0.271	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	36.2		46.5	Inc. frq. avg.	0.240	Sample rate(MISamp/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

p: az 1.0 el 65.8 pa -179.2 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -6981.074 -7917.361 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/pP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/pP.W.329.1HR1IN

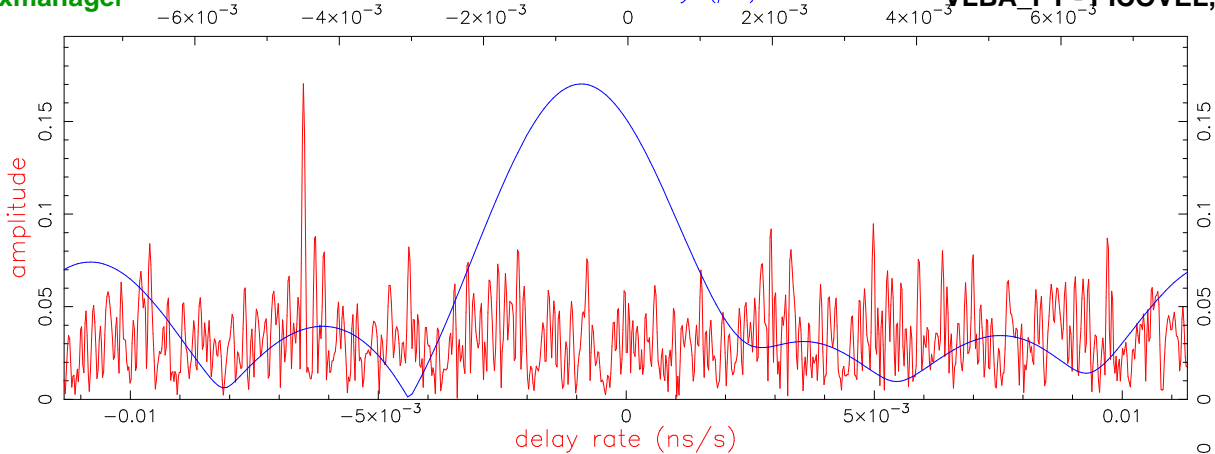
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, pP

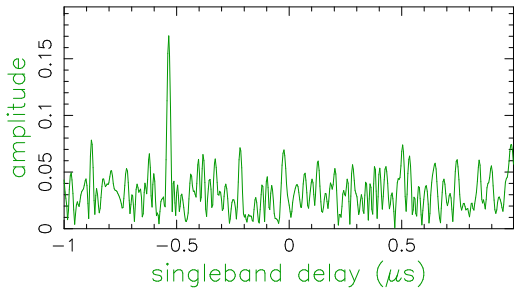
VLBA_PT - PICOVEL, fgroup W, pol RR

multiband delay (μ s)

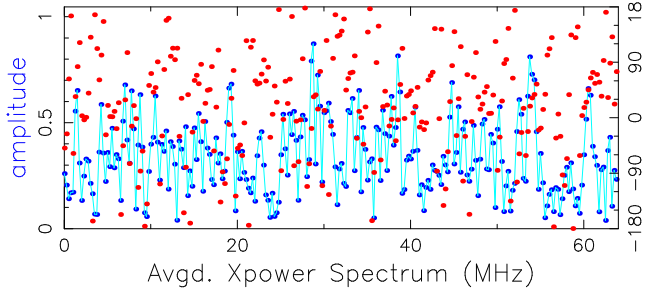


Fringe quality 0

SNR 6.2
 Int time 179.783
 Amp 0.196
 Phase -8.6
 PFD 5.6e-02
 Delays (us)
 SBD -0.535264
 MBD -0.000648
 Fringe rate (Hz)
 -0.562225
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

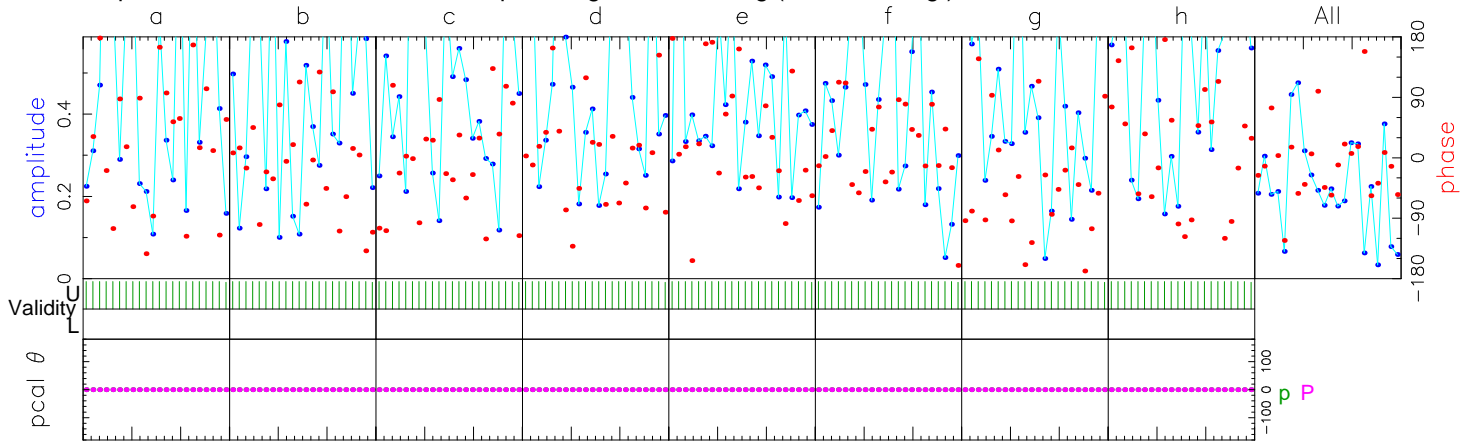


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132722
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec

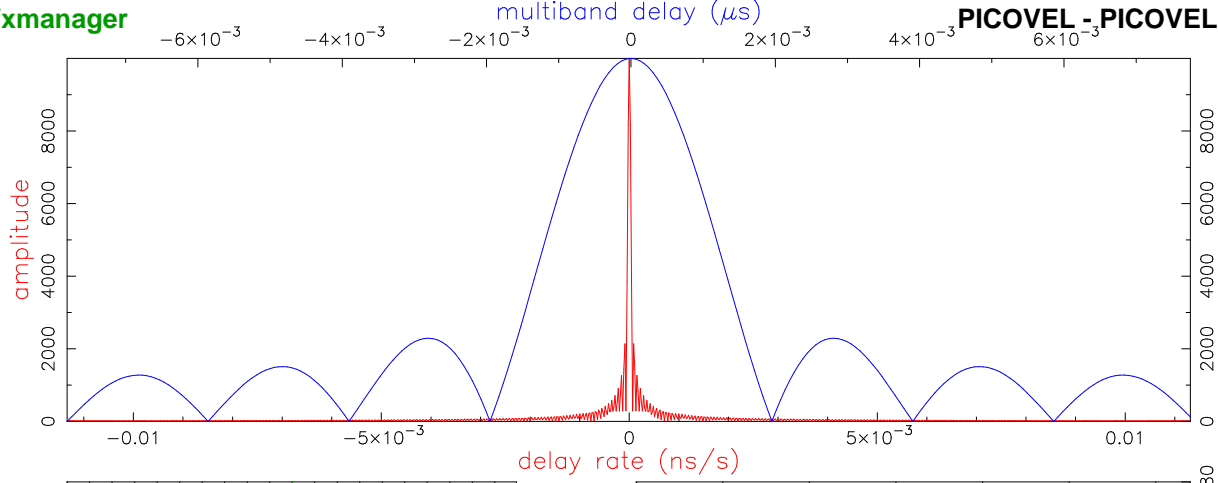


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
p	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
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		

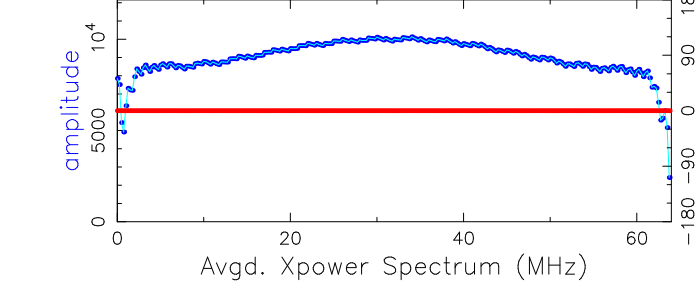
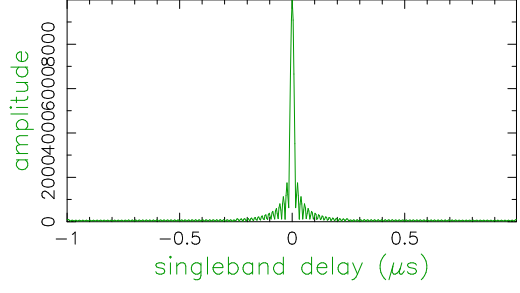
Group delay (usec)(sbd)	1.06799060866E+04	Apriori delay (usec)	1.06804379842E+04	Resid mbdelay (usec)	-6.47647E-04	+/-	1.7E-04
Sband delay (usec)	1.06799027197E+04	Apriori clock (usec)	2.1883106E-01	Resid sbdelay (usec)	-5.35264E-01	+/-	1.4E-03
Phase delay (usec)	1.06804379839E+04	Apriori clockrate (us/s)	7.9999999E-07	Resid phdelay (usec)	-2.76521E-07	+/-	5.9E-07
Delay rate (us/s)	6.32163561543E-01	Apriori rate (us/s)	6.32170088423E-01	Resid rate (us/s)	-6.52688E-06	+/-	5.7E-09
Total phase (deg)	336.8	Apriori accel (us/s/s)	-6.05672513403E-05	Resid phase (deg)	-8.6	+/-	18.4

ph/seg (deg)	58.1	Theor.	43.0	Amplitude	0.196 +/- 0.031	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	77.2	Search (1024X32)	0.168	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	31.5	Inc. seg. avg.	0.202	Inc. frq. avg.	0.195	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	41.3	Inc. frq. avg.	0.195			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
p: az 1.0 el 65.8 pa -179.2		P: az 326.2 el 24.4 pa 58.8		u,v (fr/asec)	-6981.074 -7917.361	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

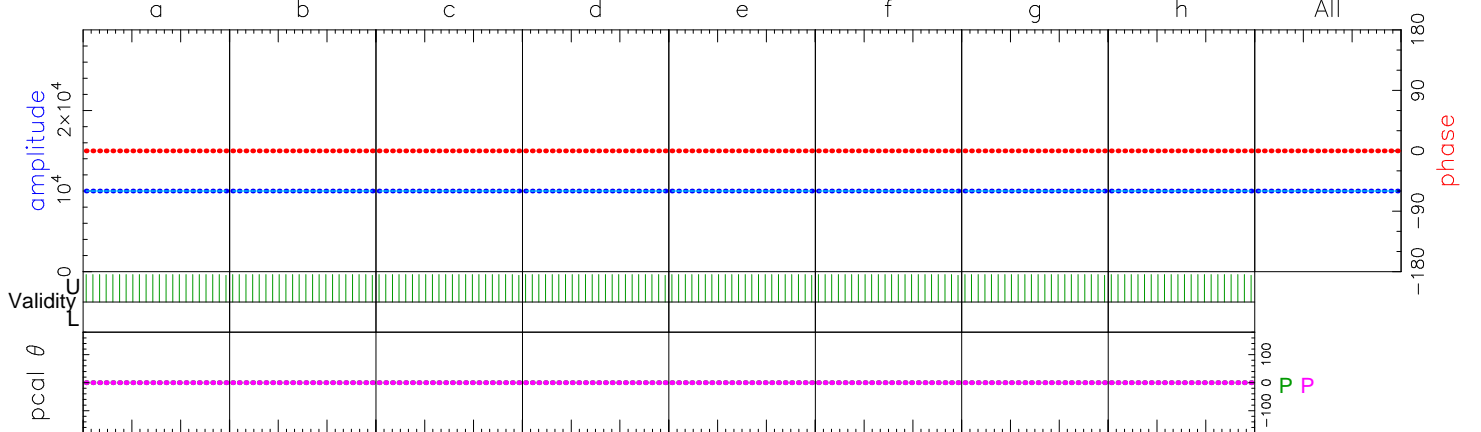
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/pP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/pP.W.335.1HR1IN simultaneous interpolator



Fringe quality 9
SNR 366677.3
Int time 179.794
Amp 9999.970
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. c202a
Yr:day 16383
Yr:day 2020:283
Start 070000.00
Stop 070300.22
FRT 070130.00
Corr/FF/build
2021:006:135349
2021:010:132724
2020:247:085004
RA & Dec (J2000) 01h02m45.762375s +58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 3.0E-09
Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 2.3E-08
Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 1.0E-11
Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 9.7E-14
Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

RMS Theor. Amplitude 9999.970 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
ph/seg (deg) 0.0 0.0 Search (1024X32) 9999.970 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. 9999.971 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

P: az 326.2 el 24.4 pa 58.8 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/PP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/PP.W.346.1HR1IN

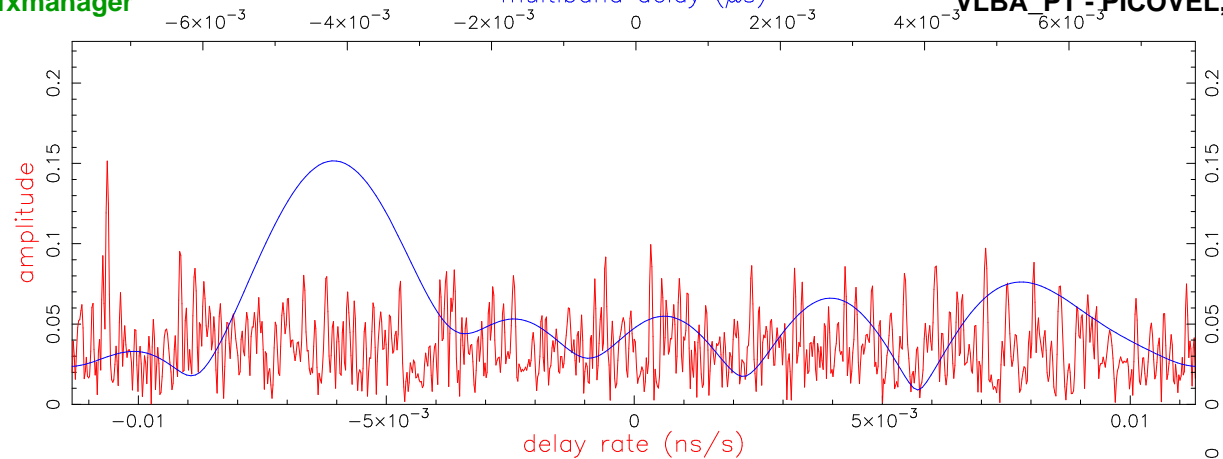
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, pP

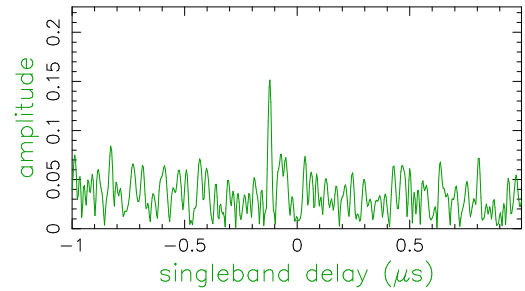
VLBA_PT - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

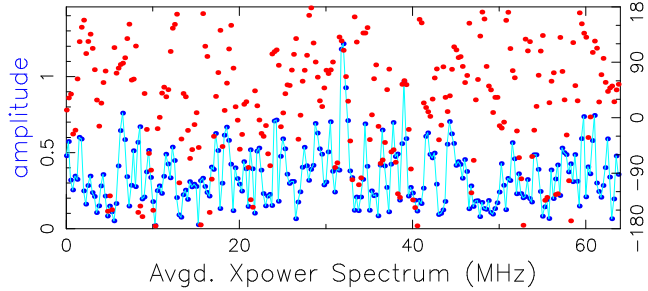


Fringe quality 0

SNR 5.6
 Int time 179.783
 Amp 0.226
 Phase 143.7
 PFD 9.4e-01
 Delays (us)
 SBD -0.122085
 MBD -0.004243
 Fringe rate (Hz)
 -0.917483
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

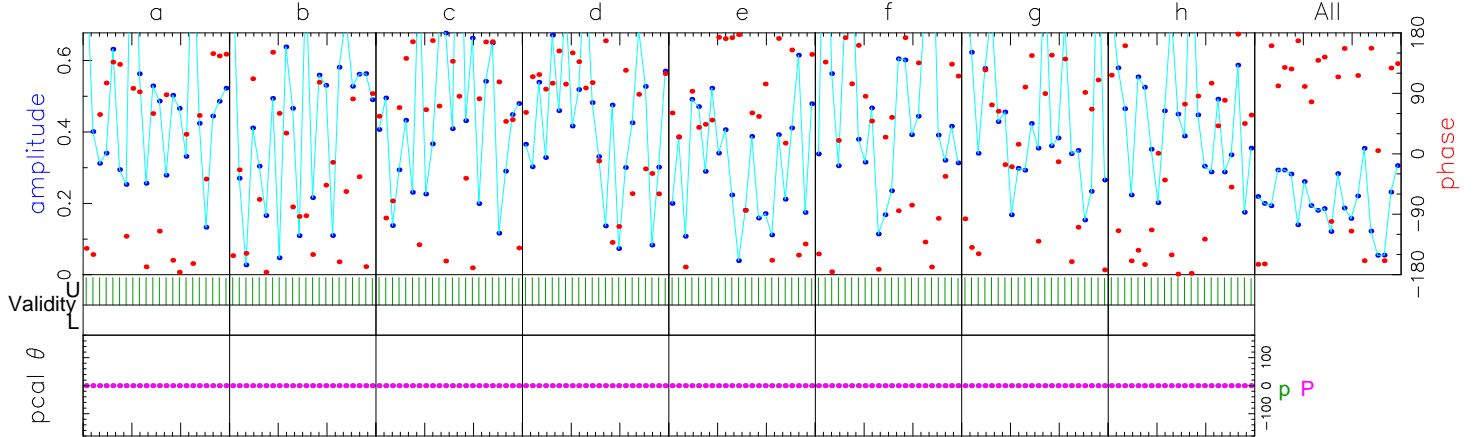


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132724
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec

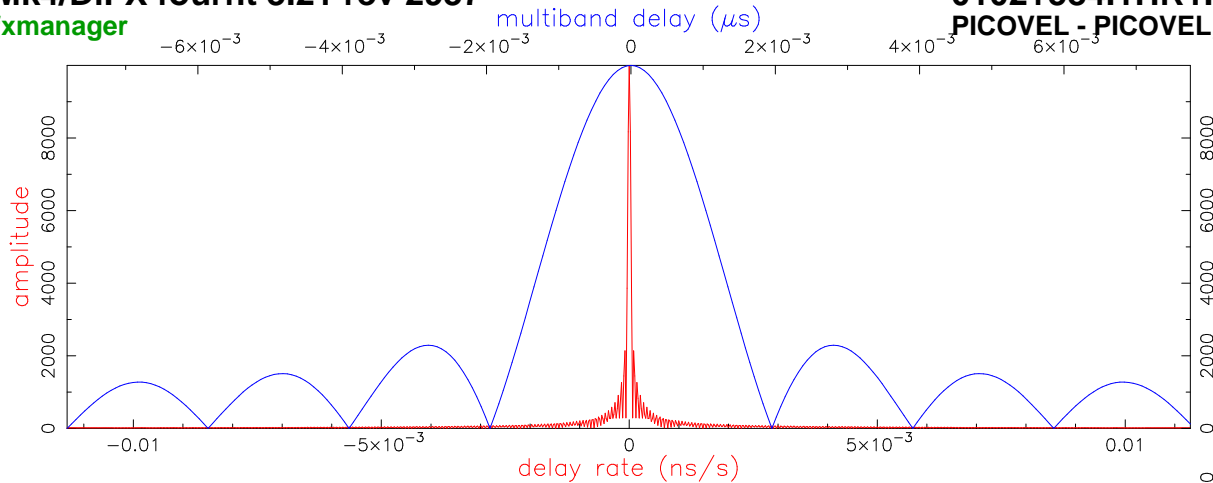


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	146.1	-111.8	142.0	108.1	117.5	163.8	126.7	174.0	Phase	143.7
p	0.4	0.1	0.3	0.4	0.2	0.3	0.2	0.2	Ampl.	0.2
P	211.3	252.8	366.6	498.5	71.7	146.0	264.3	457.5	Sbd box	225.7
p:P	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	

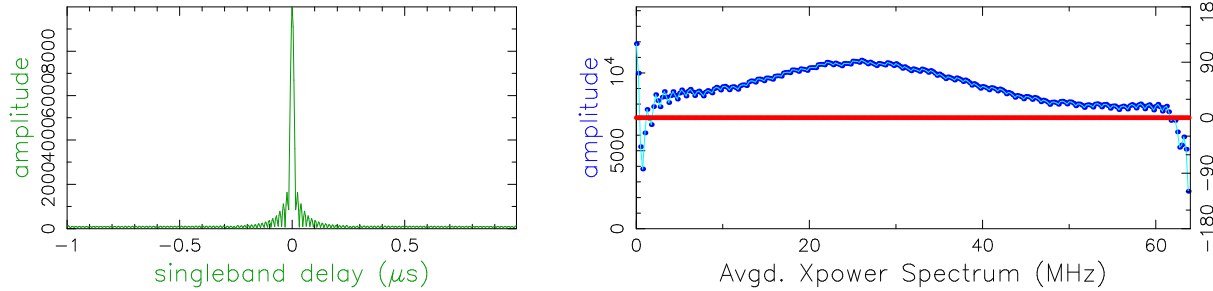
Group delay (usec)(sbd)	1.06803087416E+04	Apriori delay (usec)	1.06804379842E+04	Resid mbdelay (usec)	-4.24263E-03	+/-	1.9E-04
Sband delay (usec)	1.06803158990E+04	Apriori clock (usec)	2.1883106E-01	Resid sbdelay (usec)	-1.22085E-01	+/-	1.5E-03
Phase delay (usec)	1.06804379888E+04	Apriori clockrate (us/s)	7.9999999E-07	Resid phdelay (usec)	4.63355E-06	+/-	6.6E-07
Delay rate (us/s)	6.32159437354E-01	Apriori rate (us/s)	6.32170088423E-01	Resid rate (us/s)	-1.06511E-05	+/-	6.4E-09
Total phase (deg)	129.0	Apriori accel (us/s/s)	-6.05672513403E-05	Resid phase (deg)	143.7	+/-	20.5

ph/seg (deg)	55.2	Theor.	48.1	Amplitude	0.226 +/- 0.040	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	61.7	Search (1024X32)	0.149	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	49.1	Inc. seg. avg.	0.226	Inc. frq. avg.	0.230	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	41.1	Inc. frq. avg.	0.230	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	dr window (ns/s)	-0.011 0.011
p: az 1.0 el 65.8 pa -179.2		P: az 326.2 el 24.4 pa 58.8		u,v (fr/asec)	-6981.074 -7917.361	ion window (TEC)	0.00	0.00		simultaneous interpolator	

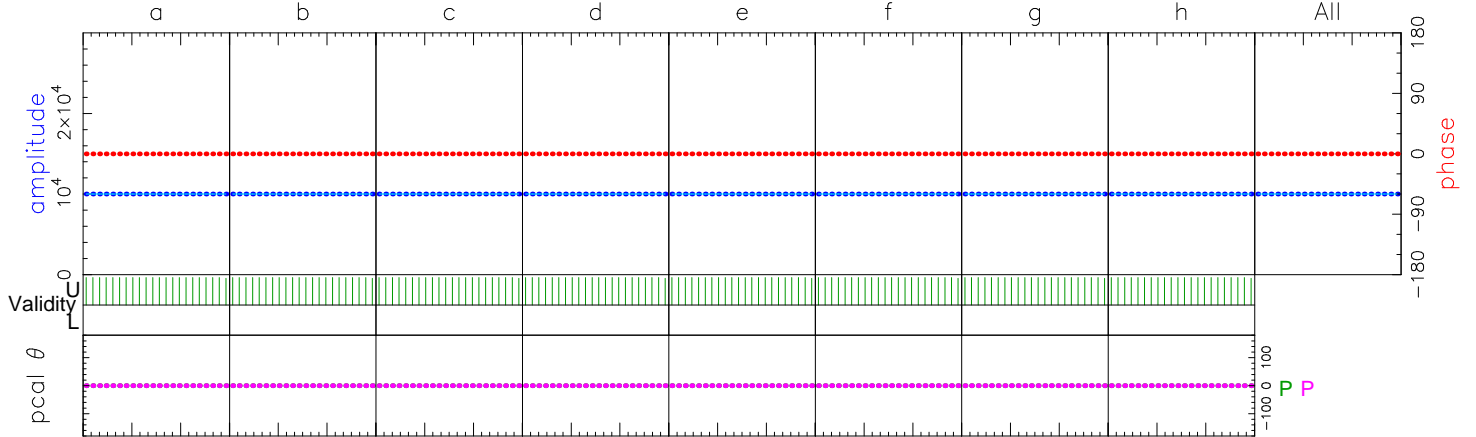
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/pP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/pP.W.351.1HR1IN



Fringe quality 9
SNR 366677.3
Int time 179.794
Amp 9999.970
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. c202a
Yr:day 16383
Start 2020:283
Stop 2021:006:135349
FRT 070130.00
2021:010:132726
2020:247:085004
RA & Dec (J2000) 01h02m45.762375s +58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	10000.0	10000.0
P	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
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	10000.0	10000.0
P	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
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 +/- 3.0E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 2.3E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 1.0E-11
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 9.7E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

RMS Theor. Amplitude 9999.970 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (1024X32) 9999.970 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. 9999.971 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

P: az 326.2 el 24.4 pa 58.8 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/PP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/PP.W.368.1HR1IN

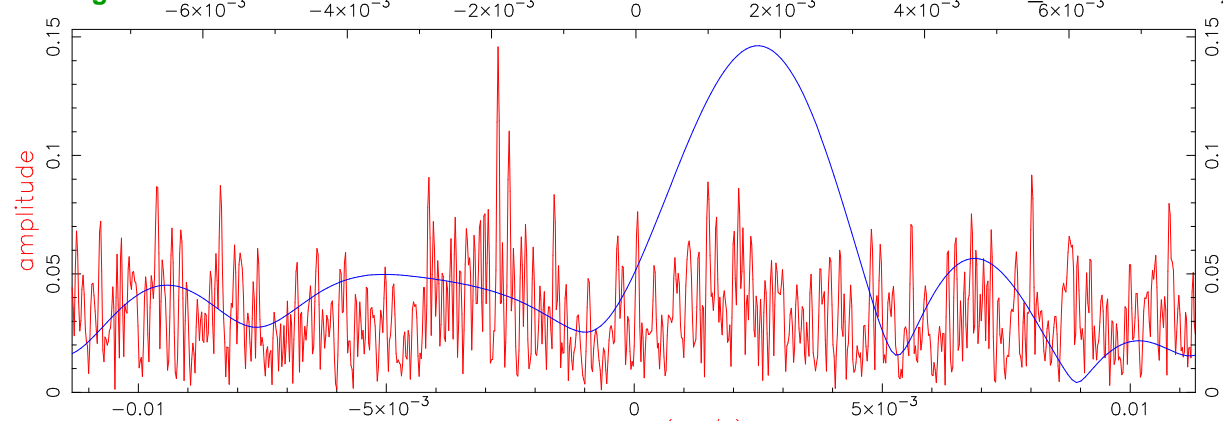
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, pP

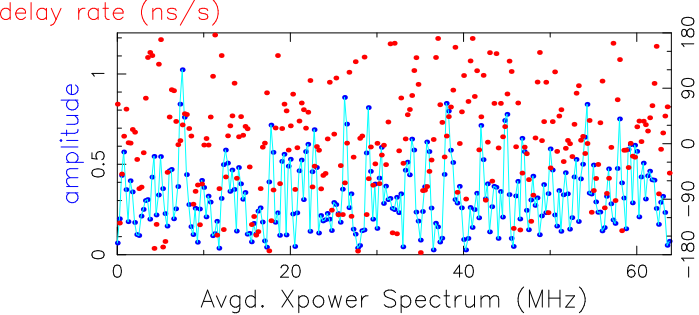
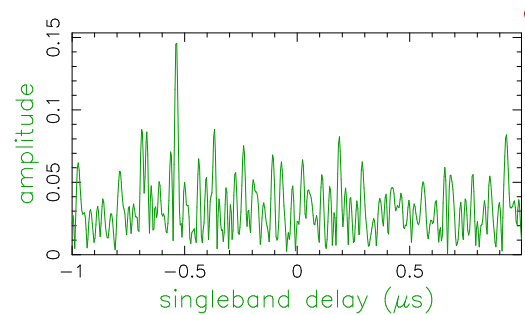
VLBA_PT - PICOVEL, fgroup W, pol RL

multiband delay (μ s)



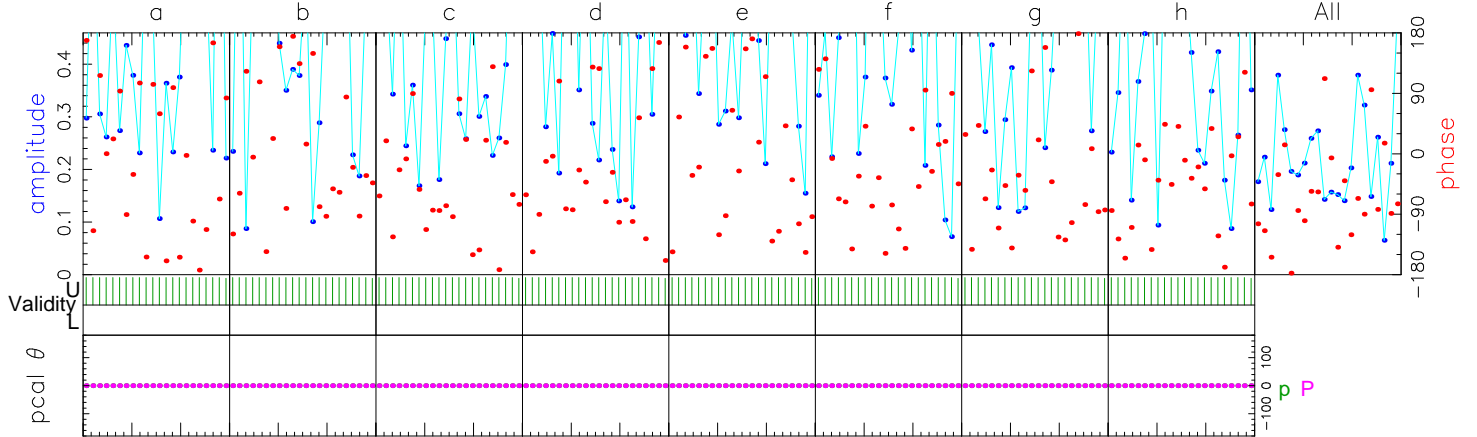
Fringe quality 0

SNR 5.5
 Int time 179.783
 Amp 0.153
 Phase -75.7
 PFD 9.9e-01
 Delays (us)
 SBD -0.537050
 MBD 0.001596
 Fringe rate (Hz)
 -0.237061
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132726
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-114.7	-42.0	-63.1	-87.0	-141.6	-66.8	-86.3	-33.0	Phase	-75.7
	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	Ampl.	0.1
	493.4	353.4	464.7	206.1	83.2	120.7	9.6	366.3	Sbd box	119.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	PC amp	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 1.06799083305E+04 Apriori delay (usec) 1.06804379842E+04 Resid mbdelay (usec) 1.59631E-03 +/- 2.0E-04
 Sband delay (usec) 1.06799009345E+04 Apriori clock (usec) 2.1883106E-01 Resid sbdelay (usec) -5.37050E-01 +/- 1.6E-03
 Phase delay (usec) 1.06804379818E+04 Apriori clockrate (us/s) 7.9999999E-07 Resid phdelay (usec) -2.44021E-06 +/- 6.7E-07
 Delay rate (us/s) 6.32167336380E-01 Apriori rate (us/s) 6.32170088423E-01 Resid rate (us/s) -2.75204E-06 +/- 6.5E-09
 Total phase (deg) 269.7 Apriori accel (us/s/s) -6.05672513403E-05 Resid phase (deg) -75.7 +/- 20.9

RMS Theor. Amplitude 0.153 +/- 0.028 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 70.8 49.0 Search (1024X32) 0.143 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 83.3 85.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 39.3 29.6 Inc. seg. avg. 0.170 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 34.4 51.6 Inc. frq. avg. 0.150 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

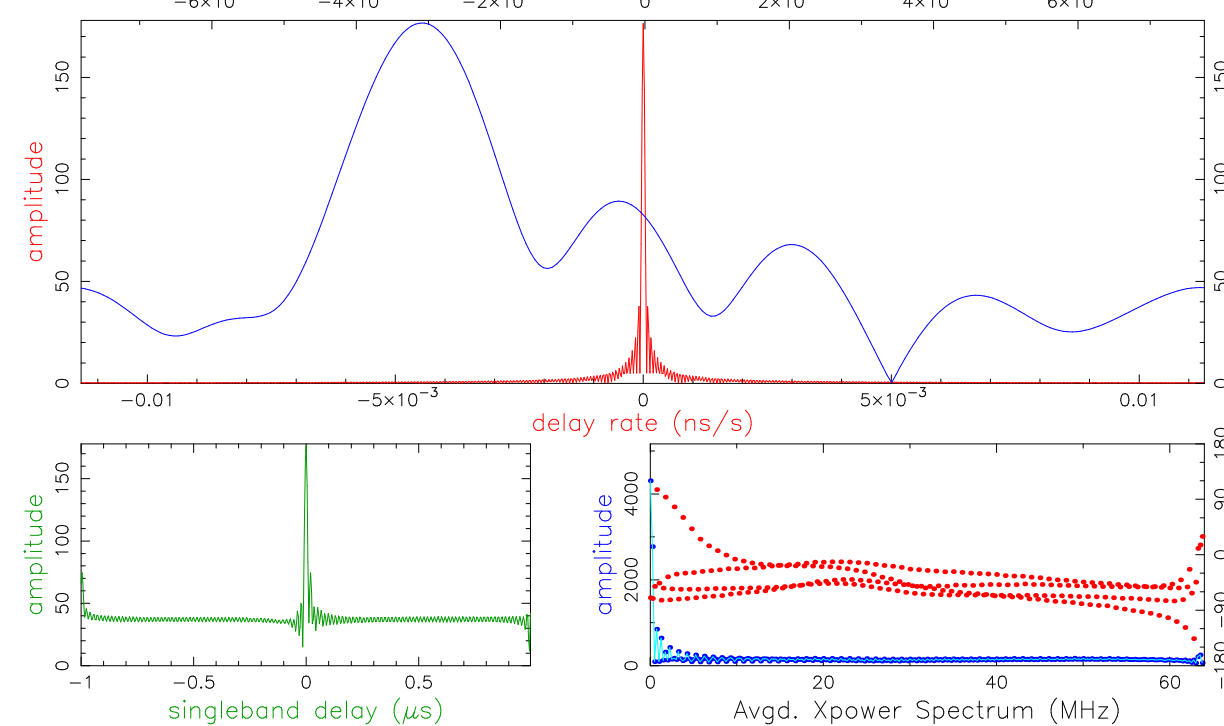
p: az 1.0 el 65.8 pa -179.2 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -6981.074 -7917.361 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/pP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/pP.W.371.1HR1IN

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, PP

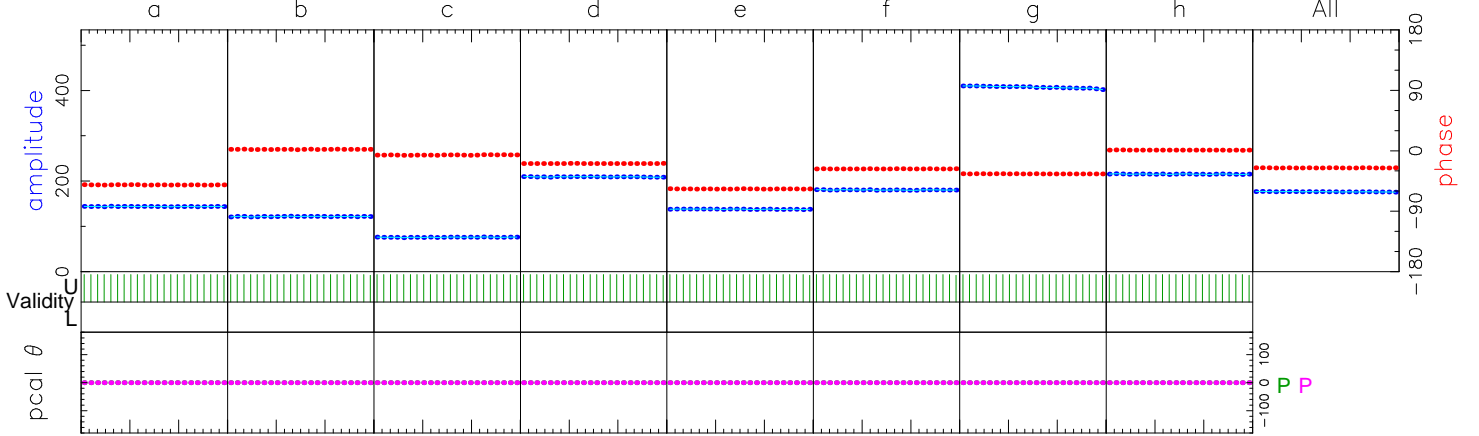
PICOVEL - PICOVEL, fgroup W, pol LR



Fringe quality 5

SNR 6525.5
 Int time 179.794
 Amp 177.962
 Phase -25.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.001000
 MBD -0.003144
 Fringe rate (Hz) 0.000005
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132727
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
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		

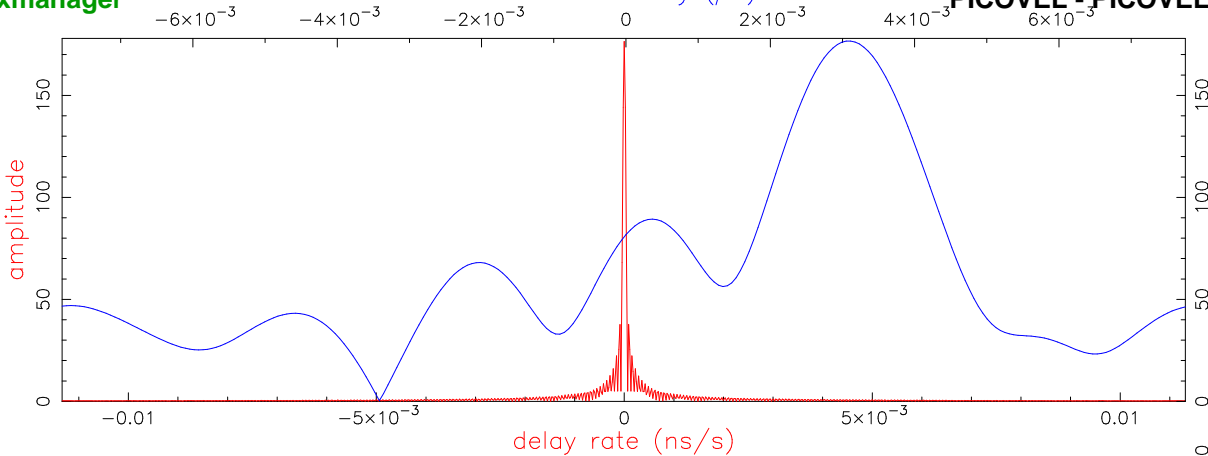
Group delay (usec)(sbd) -3.14443750000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) -3.14444E-03 +/- 1.7E-07
 Sband delay (usec) -1.00025000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) -1.00025E-03 +/- 1.3E-06
 Phase delay (usec) -8.20245754384E-07 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) -8.20246E-07 +/- 5.7E-10
 Delay rate (us/s) 5.66846095667E-11 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 5.66846E-11 +/- 5.4E-12
 Total phase (deg) -25.4 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) -25.4 +/- 0.0

RMS Theor. Amplitude 177.962 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.1 0.0 Search (1024X32) 174.933 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.9 0.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 24.4 0.0 Inc. seg. avg. 176.486 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 53.0 0.0 Inc. frq. avg. 186.580 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

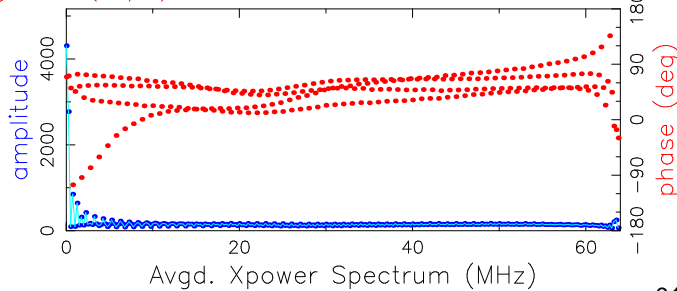
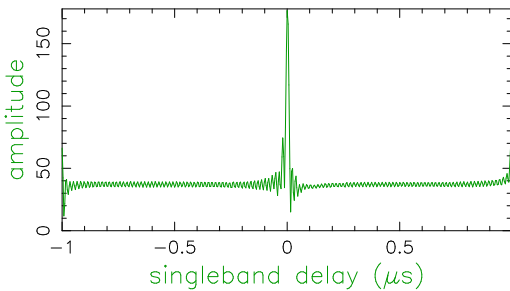
P: az 326.2 el 24.4 pa 58.8 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/PP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/PP.W.382.1HR1IN

multiband delay (μ s)

Fringe quality 5

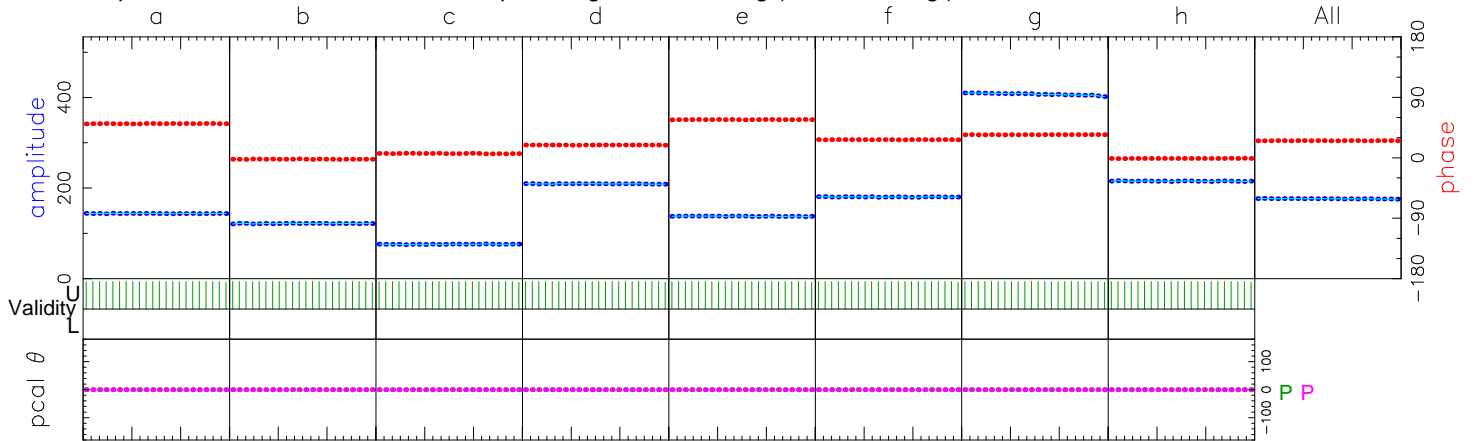


SNR 6525.5
Int time 179.794
Amp 177.962
Phase 25.4
PFD 0.0e+00
Delays (us)
SBD 0.001000
MBD 0.003144
Fringe rate (Hz)
-0.000005
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 070000.00
Stop 070300.22
FRT 070130.00
Corr/FF/build
2021:006:135349
2021:010:132729
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
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)	3.14443750000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	3.14444E-03	+/-	1.7E-07
Sband delay (usec)	1.00025000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	1.00025E-03	+/-	1.3E-06
Phase delay (usec)	8.20245754295E-07	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	8.20246E-07	+/-	5.7E-10
Delay rate (us/s)	-5.66846095667E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-5.66846E-11	+/-	5.4E-12
Total phase (deg)	25.4	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	25.4	+/-	0.0

ph/seg (deg)	0.1	RMS	0.1	Theor.	0.0	Amplitude	177.962 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	0.9		0.1			Search (1024X32)	174.933	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	24.4		0.0			Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	53.0		0.0			Inc. seg. avg.	176.486	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
						Inc. frq. avg.	186.580	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

P: az 326.2 el 24.4 pa 58.8 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/PP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/PP.W.397.1HR1IN

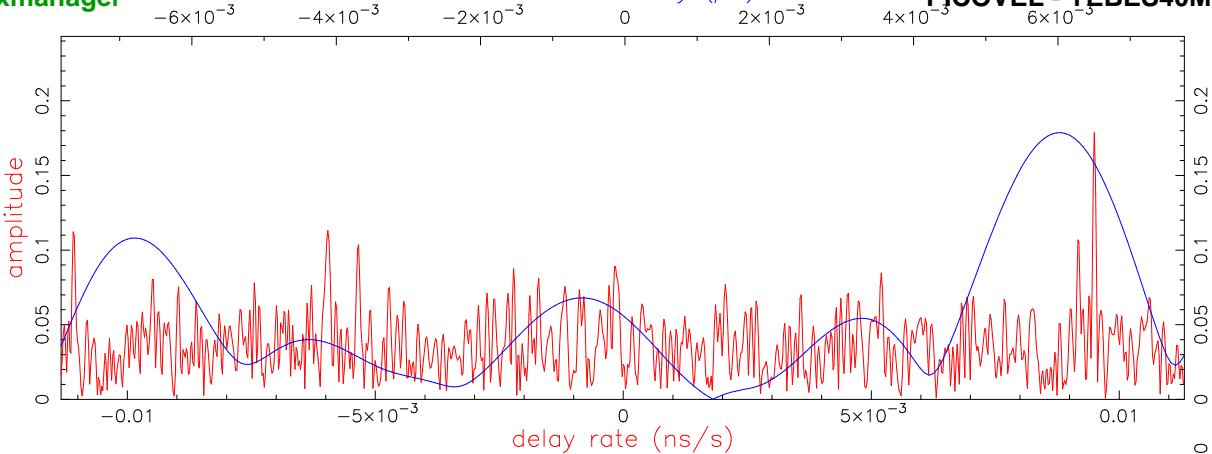
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR11N, No0100, PY

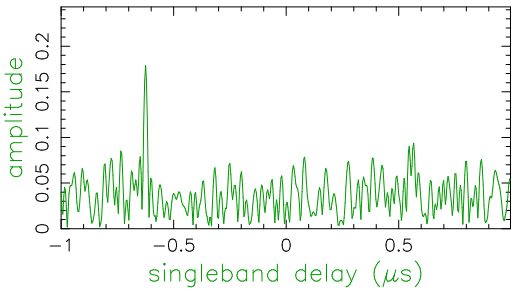
PICOVEL - YEBES40M, fgroup W, pol LL

multiband delay (μ s)

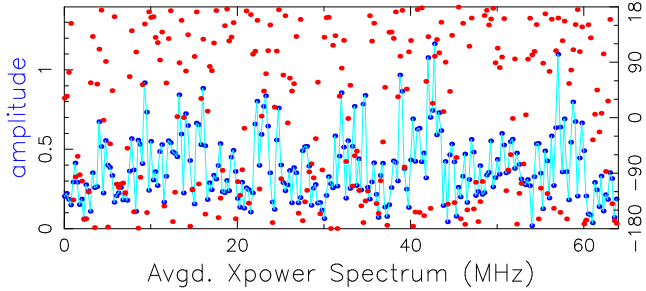


Fringe quality 0

SNR 6.2
 Int time 162.160
 Amp 0.243
 Phase 87.9
 PFD 6.3e-02
 Delays (us)
 SBD -0.624910
 MBD 0.006023
 Fringe rate (Hz)
 0.818859
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

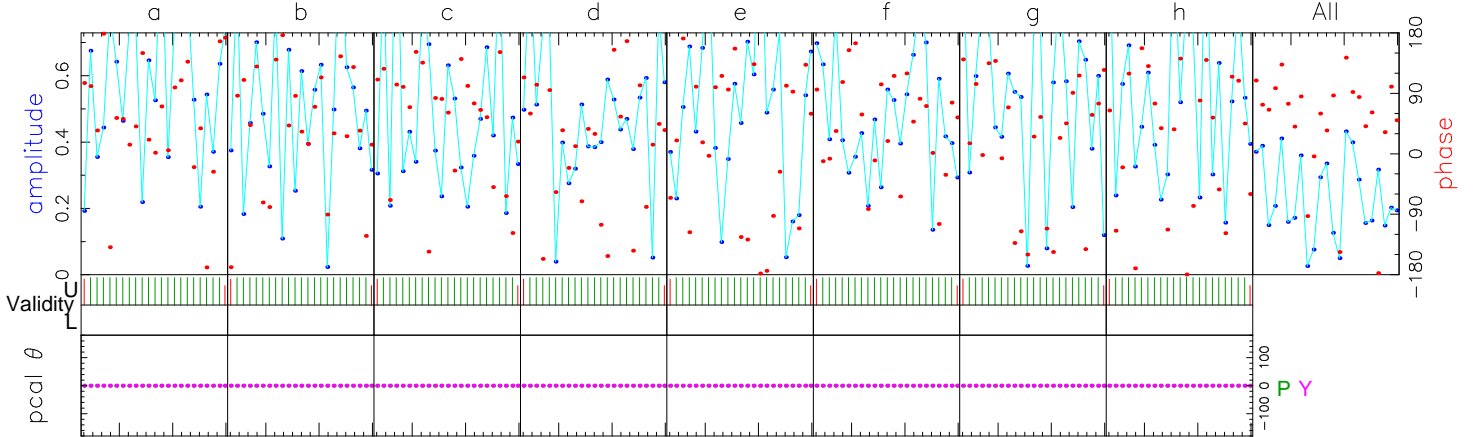


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070016.90
 Stop 070259.71
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132723
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0		
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-9.21014708806E+02	Apriori delay (usec)	-9.20395731797E+02	Resid mbdelay (usec)	6.02299E-03	+/-	1.7E-04
Sband delay (usec)	-9.21020642297E+02	Apriori clock (usec)	-1.1851479E+01	Resid sbdelay (usec)	-6.24910E-01	+/-	1.4E-03
Phase delay (usec)	-9.20395728962E+02	Apriori clockrate (us/s)	-5.2000000E-07	Resid phdelay (usec)	2.83454E-06	+/-	5.9E-07
Delay rate (us/s)	-3.06137876730E-02	Apriori rate (us/s)	-3.06232938096E-02	Resid rate (us/s)	9.50614E-06	+/-	6.3E-09
Total phase (deg)	-33.4	Apriori accel (us/s/s)	3.22585745104E-07	Resid phase (deg)	87.9	+/-	18.4

ph/seg (deg)	61.2	Theor.	44.2	Amplitude	0.243 +/- 0.039	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5			
amp/seg (%)	74.8		77.1	Search (1024X32)	0.175	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000			
ph/frq (deg)	39.0		26.0	Inc. seg. avg.	0.248	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008		
amp/frq (%)	33.5		45.5	Inc. frq. avg.	0.242	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

P: az 326.2 el 24.4 pa 58.8 Y: az 325.3 el 27.2 pa 55.8 u,v (fr/asec) 336.286 -176.963 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/PY..1HR11N Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/PY.W.338.1HR11N

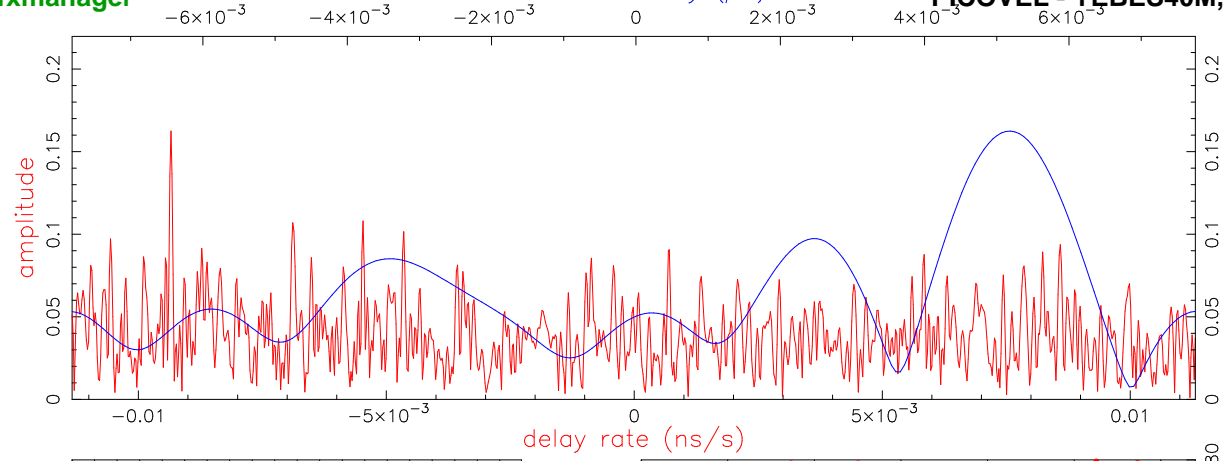
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

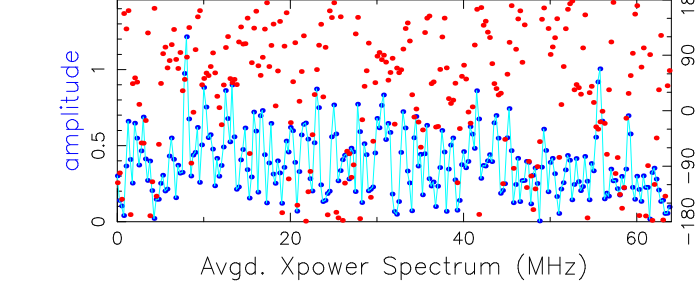
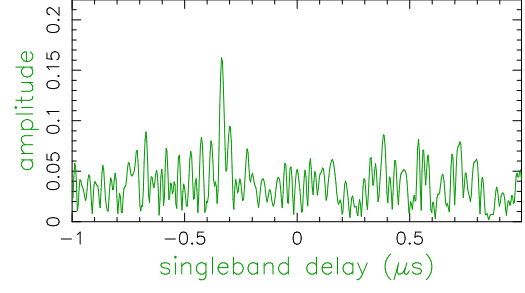
0102+584.1HR11N, No0100, PY

PICOVEL - YEBES40M, fgroup W, pol RR

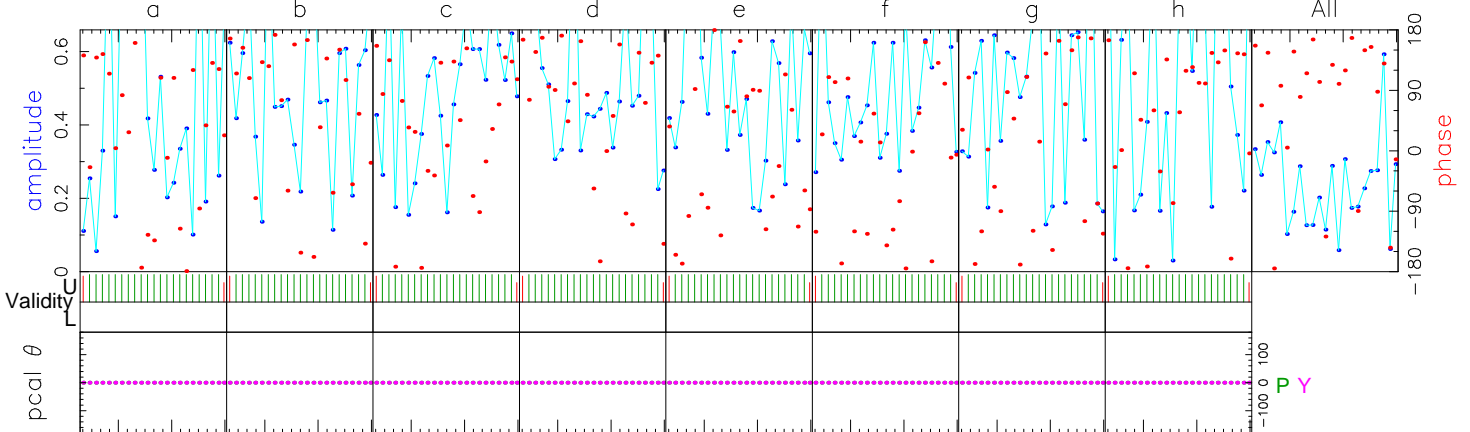
multiband delay (μ s)



Fringe quality 0
 SNR 5.7
 Int time 162.160
 Amp 0.220
 Phase 128.7
 PFD 8.0e-01
 Delays (us)
 SBD -0.334805
 MBD 0.005178
 Fringe rate (Hz)
 -0.805291
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070016.90
 Stop 070259.71
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132726
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 23 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	133.4	143.6	90.5	123.6	-101.1	111.4	172.3	120.1	Phase	128.7
	0.2	0.3	0.2	0.4	0.1	0.2	0.2	0.5	Ampl.	0.2
	376.8	172.3	144.2	215.6	66.9	275.2	394.4	172.3	Sbd box	171.3
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-9.20734303527E+02	Apriori delay (usec)	-9.20395731797E+02	Resid mbdelay (usec)	5.17827E-03	+/-	1.9E-04
Sband delay (usec)	-9.20730536297E+02	Apriori clock (usec)	-1.1851479E+01	Resid sbdelay (usec)	-3.34805E-01	+/-	1.5E-03
Phase delay (usec)	-9.20395727647E+02	Apriori clockrate (us/s)	-5.2000000E-07	Resid phdelay (usec)	4.14976E-06	+/-	6.5E-07
Delay rate (us/s)	-3.06326424409E-02	Apriori rate (us/s)	-3.06232938096E-02	Resid rate (us/s)	-9.34863E-06	+/-	6.9E-09
Total phase (deg)		Apriori accel (us/s/s)	3.22585745104E-07	Resid phase (deg)	128.7	+/-	20.2

ph/seg (deg)	62.0	Theor.	48.3	Amplitude	0.220 +/- 0.039	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	88.1		84.3	Search (1024X32)	0.160	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	59.1		28.5	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	54.9		49.7	Inc. seg. avg.	0.238	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.219	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

P: az 326.2 el 24.4 pa 58.8 Y: az 325.3 el 27.2 pa 55.8 u,v (fr/asec) 336.286 -176.963 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/PY..1HR11N Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/PY.W.369.1HR11N

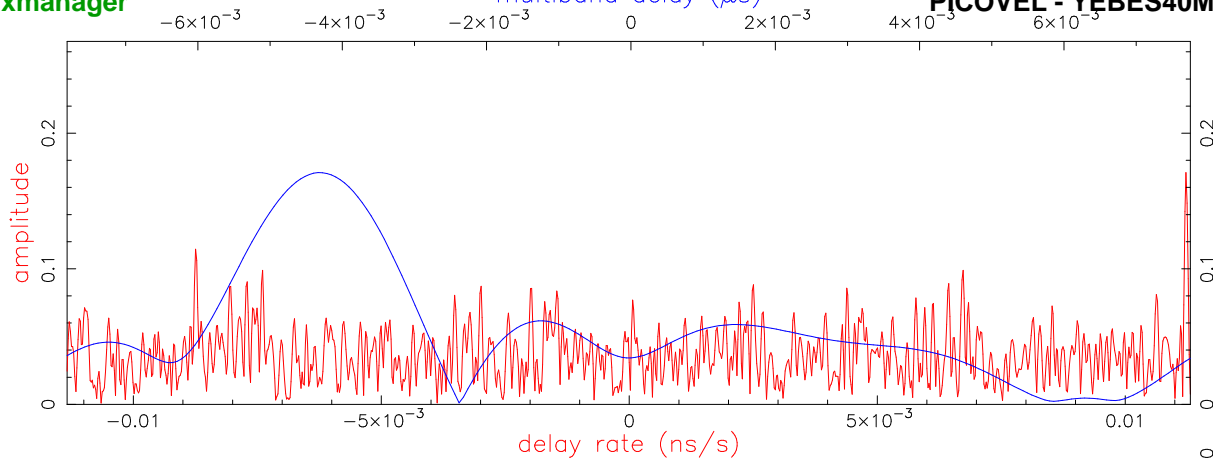
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, PY

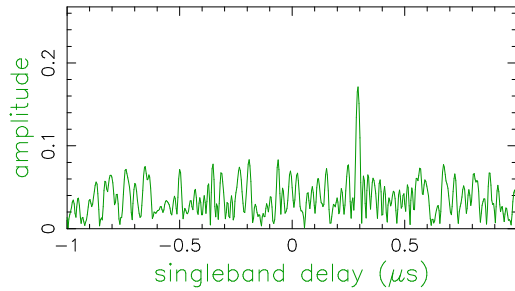
PICOVEL - YEBES40M, fgroup W, pol LR

multiband delay (μ s)

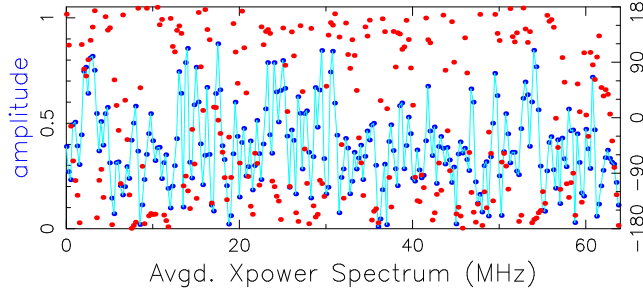


Fringe quality 0

SNR 6.0
 Int time 162.160
 Amp 0.268
 Phase -6.1
 PFD 2.4e-01
 Delays (us)
 SBD 0.291911
 MBD -0.004321
 Fringe rate (Hz)
 0.968072
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

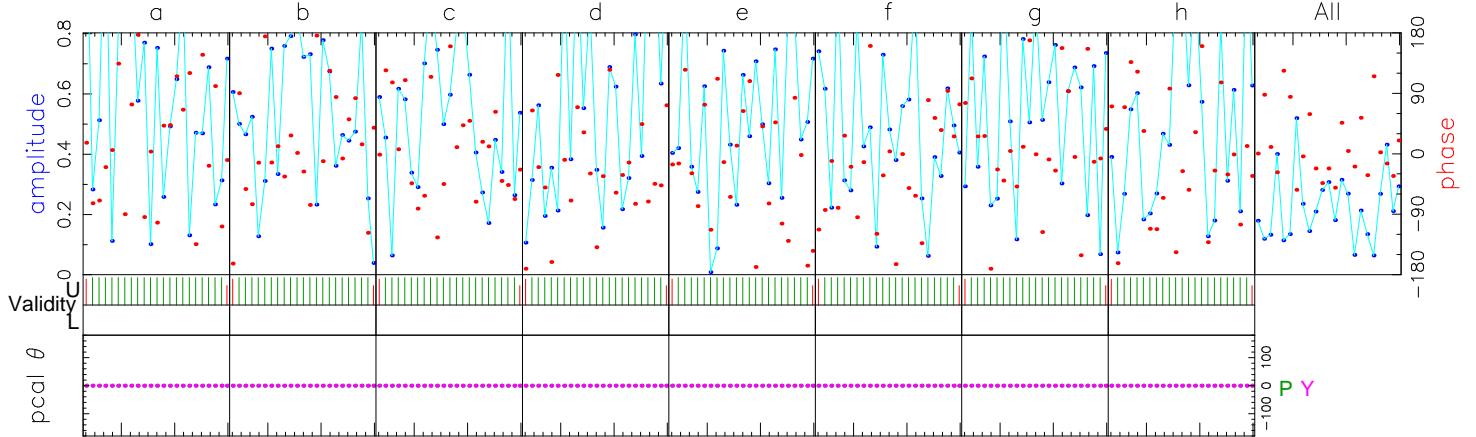


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070016.90
 Stop 070259.71
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132728
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



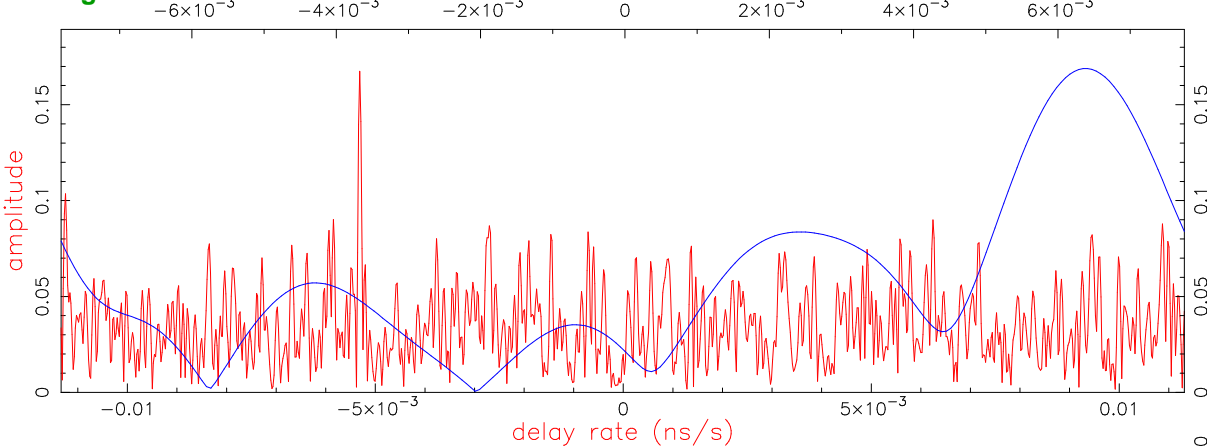
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-2.0	-1.7	-0.3	-21.1	44.6	-43.9	7.3	13.6	Phase	-6.1
	0.2	0.4	0.3	0.4	0.1	0.3	0.4	0.2	Ampl.	0.3
	379.5	434.5	129.7	330.6	428.0	461.9	249.8	490.4	Sbd box	331.7
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
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	Mani 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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-9.20103177877E+02	Apriori delay (usec)	-9.20395731797E+02	Resid mbdelay (usec)	-4.32108E-03	+/-	1.8E-04
Sband delay (usec)	-9.20103821047E+02	Apriori clock (usec)	-1.1851479E+01	Resid sbdelay (usec)	2.91911E-01	+/-	1.4E-03
Phase delay (usec)	-9.20395731992E+02	Apriori clockrate (us/s)	-5.2000000E-07	Resid phdelay (usec)	-1.95453E-07	+/-	6.2E-07
Delay rate (us/s)	-3.06120554495E-02	Apriori rate (us/s)	-3.06232938096E-02	Resid rate (us/s)	1.12384E-05	+/-	6.6E-09
Total phase (deg)		Apriori accel (us/s/s)	3.22585745104E-07	Resid phase (deg)	-6.1	+/-	19.1

ph/seg (deg)	54.9	Theor.	45.9	Amplitude	0.268 +/- 0.045	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	73.8		80.1	Search (1024X32)	0.164	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	28.4		27.1	Inc. seg. avg.	0.267	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	38.3		47.2	Inc. frq. avg.	0.257	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

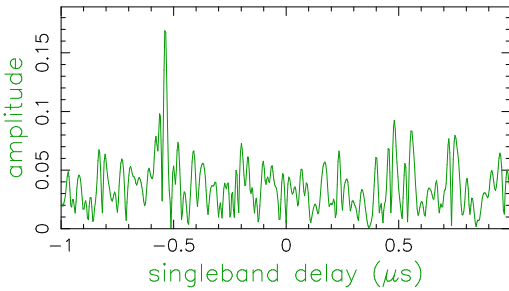
P: az 326.2 el 24.4 pa 58.8 Y: az 325.3 el 27.2 pa 55.8 u,v (fr/asec) 336.286 -176.963 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/PY..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/PY.W.390.1HR1IN

multiband delay (μ s)

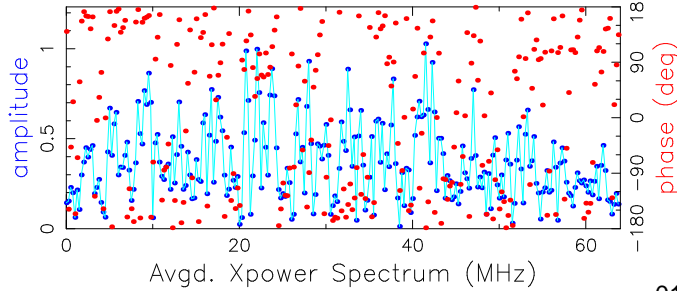


Fringe quality 0

SNR 6.0
 Int time 162.160
 Amp 0.189
 Phase 21.9
 PFD 2.1e-01
 Delays (us)
 SBD -0.537301
 MBD 0.006231
 Fringe rate (Hz)
 -0.457871
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

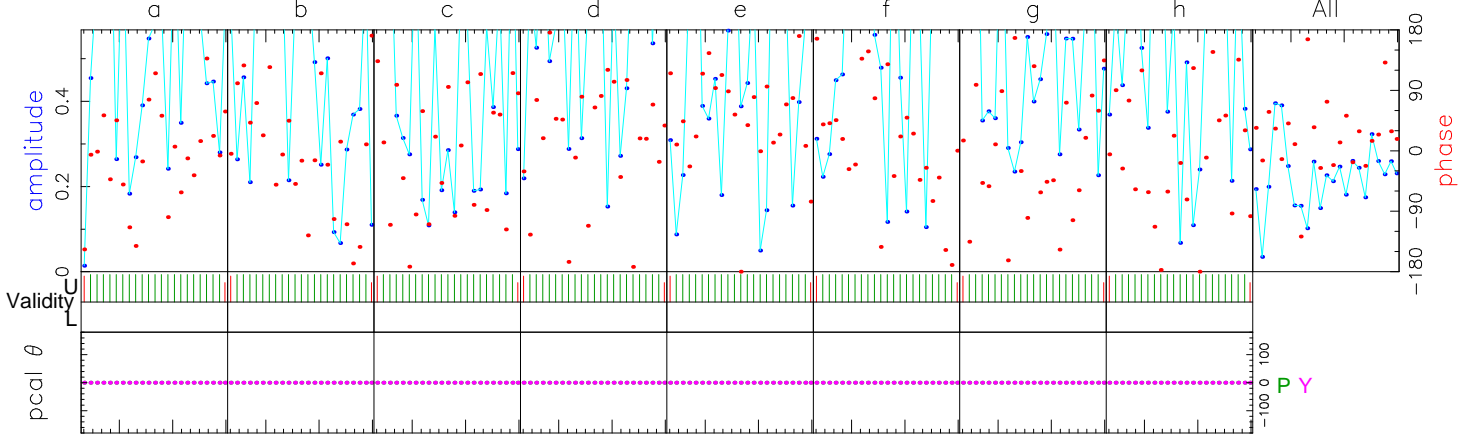


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070016.90
 Stop 070259.71
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132730
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 23 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	3.3	-5.9	43.8	45.4	48.2	-9.7	14.0	23.7	Phase	21.9
	0.3	0.2	0.1	0.3	0.3	0.2	0.1	0.1	Ampl.	0.2
	119.1	242.2	241.3	450.1	118.8	355.8	448.9	268.1	Sbd box	119.5
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
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	Mani PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-9.20936375362E+02	Apriori delay (usec)	-9.20395731797E+02	Resid mbdelay (usec)	6.23144E-03	+/-	1.8E-04
Sband delay (usec)	-9.20933033047E+02	Apriori clock (usec)	-1.1851479E+01	Resid sbdelay (usec)	-5.37301E-01	+/-	1.4E-03
Phase delay (usec)	-9.20395731091E+02	Apriori clockrate (us/s)	-5.2000000E-07	Resid phdelay (usec)	7.05513E-07	+/-	6.1E-07
Delay rate (us/s)	-3.06286092346E-02	Apriori rate (us/s)	-3.06232938096E-02	Resid rate (us/s)	-5.31542E-06	+/-	6.5E-09
Total phase (deg)	-99.4	Apriori accel (us/s/s)	3.22585745104E-07	Resid phase (deg)	21.9	+/-	19.1

ph/seg (deg)	56.0	Theor.	45.7	Amplitude	0.189 +/- 0.031	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	54.8	Search (1024X32)	0.167	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	25.5	Inc. seg. avg.	0.186	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	53.4	Inc. frq. avg.	0.180	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

P: az 326.2 el 24.4 pa 58.8 Y: az 325.3 el 27.2 pa 55.8 u,v (fr/asec) 336.286 -176.963 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/PY..1HR11N Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/PY.W.407.1HR11N

Mk4/DiFX fourfit 3.21 rev 2937

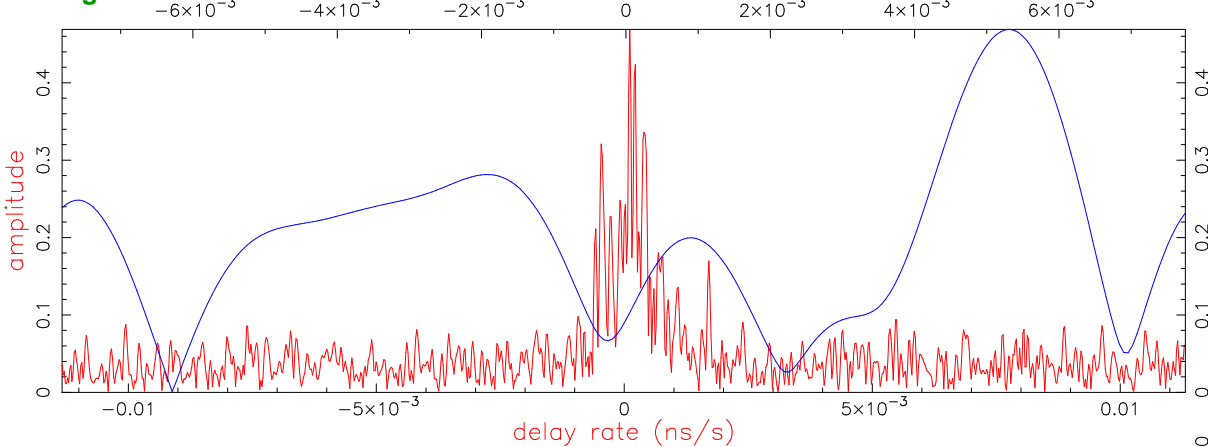
fxmanager

0102+584.1HR1IN, No0100, tP

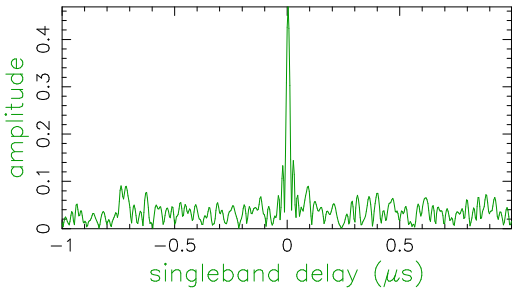
KVNTN - PICOVEL, fgroup W, pol LL

multiband delay (μ s)

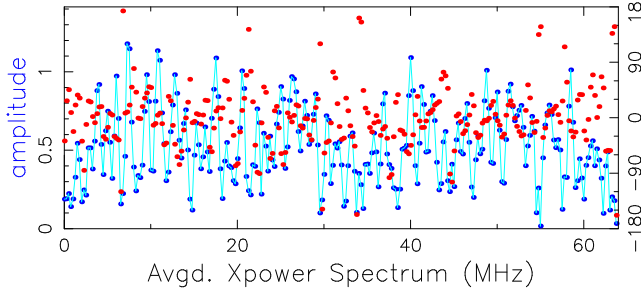
Fringe quality 8



SNR 17.2
 Int time 179.794
 Amp 0.469
 Phase -19.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.003856
 MBD 0.005304
 Fringe rate (Hz)
 0.010410
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

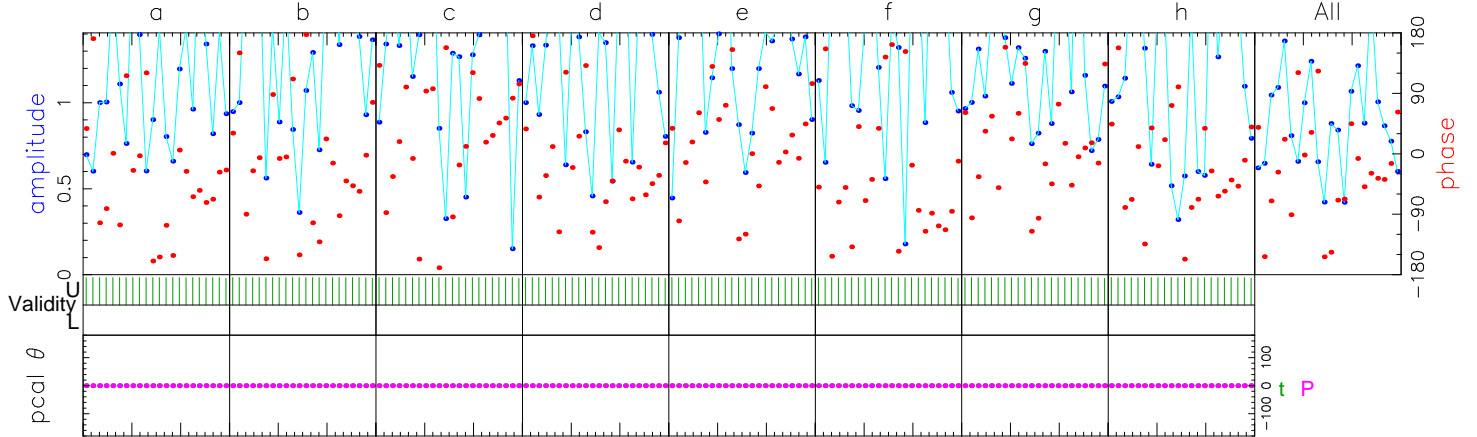


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132724
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

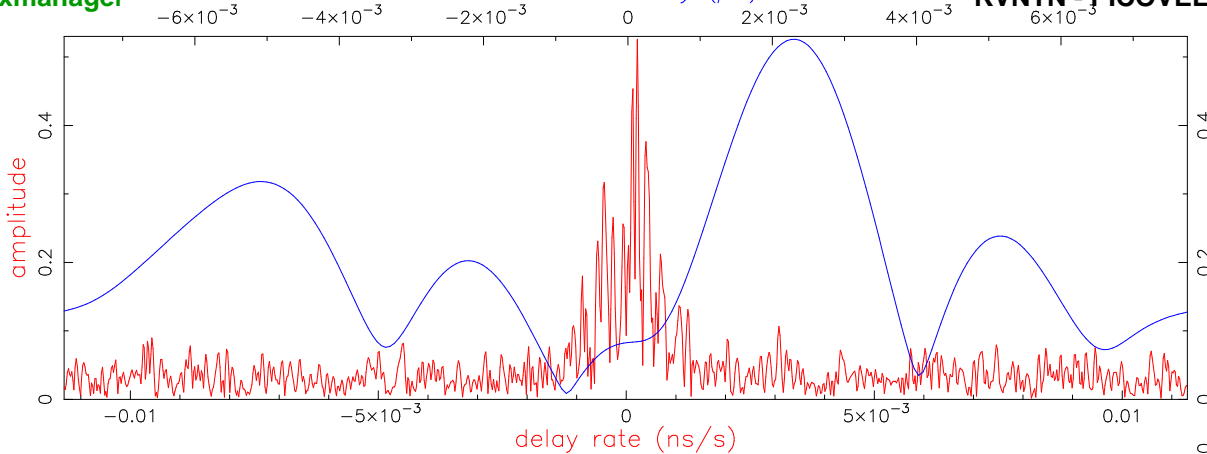
Group delay (usec)(sbd) -4.22097808727E+03 Apriori delay (usec) -4.22098339143E+03 Resid mbdelay (usec) 5.30415E-03 +/- 6.3E-05
 Sband delay (usec) -4.22097953568E+03 Apriori clock (usec) 1.5477648E+00 Resid sbdelay (usec) 3.85575E-03 +/- 5.0E-04
 Phase delay (usec) -4.22098339207E+03 Apriori clockrate (us/s) 5.0000000E-07 Resid phdelay (usec) -6.36965E-07 +/- 2.1E-07
 Delay rate (us/s) 1.17731964756E+00 Apriori rate (us/s) 1.17731952671E+00 Resid rate (us/s) 1.20850E-07 +/- 2.1E-09
 Total phase (deg) -141.3 Apriori accel (us/s/s) 1.72493618124E-05 Resid phase (deg) -19.8 +/- 6.7

ph/seg (deg) RMS Theor. Amplitude 0.469 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 75.3 15.6 Search (1024X32) 0.447 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 111.4 27.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 49.9 9.4 Inc. seg. avg. 0.867 Sample rate(MISamp/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

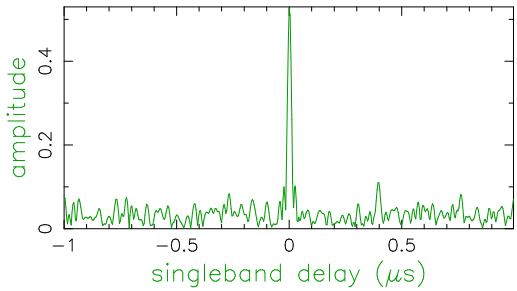
t: az 25.5 el 12.1 pa -43.4 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -12894.319 2018.823 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/tP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/tP.W.352.1HR1IN

multiband delay (μ s)

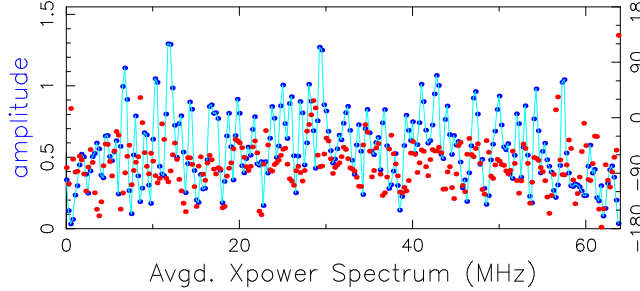
Fringe quality 8



SNR 19.4
Int time 179.794
Amp 0.530
Phase -89.4
PFD 0.0e+00
Delays (us)
SBD 0.001180
MBD 0.002325
Fringe rate (Hz)
0.019227
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

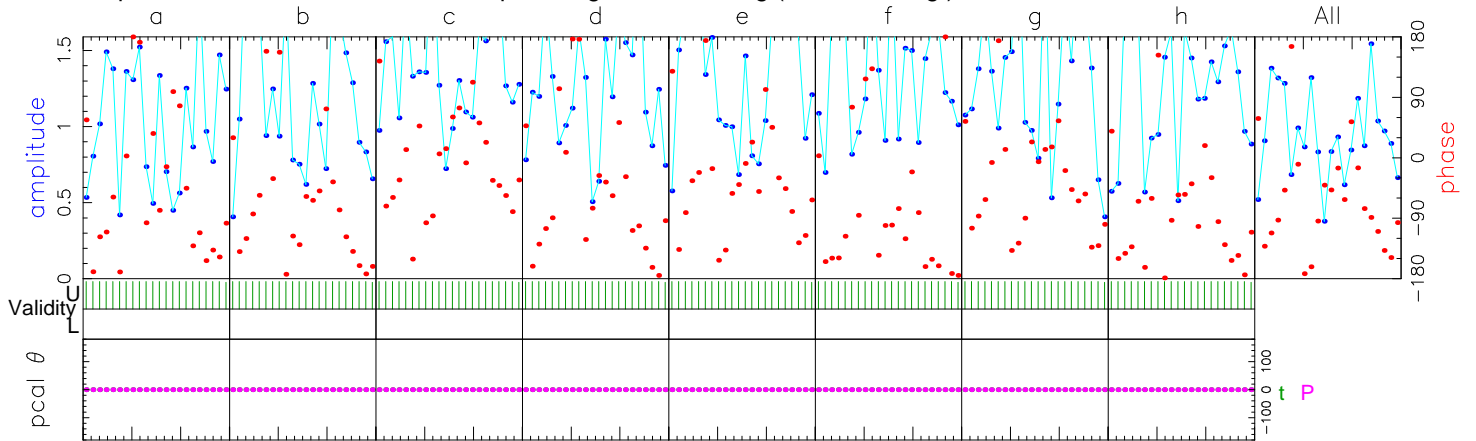


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 070000.00
Stop 070300.22
FRT 070130.00
Corr/FF/build
2021:006:135349
2021:010:132727
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-114.0	-105.4	-22.9	-105.7	-56.8	-142.3	-53.4	-107.9	Phase	-89.4
	0.5	0.7	0.7	0.5	0.7	0.8	0.7	0.7	Ampl.	0.7
	258.2	257.4	256.9	256.5	256.8	256.6	256.8	257.5	Sbd box	257.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-4.22098106690E+03	Apriori delay (usec)	-4.22098339143E+03	Resid mbdelay (usec)	2.32453E-03	+/-	5.6E-05
Sband delay (usec)	-4.22098221118E+03	Apriori clock (usec)	1.5477648E+00	Resid sbdelay (usec)	1.18025E-03	+/-	4.4E-04
Phase delay (usec)	-4.22098339431E+03	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	-2.88134E-06	+/-	1.9E-07
Delay rate (us/s)	1.17731974991E+00	Apriori rate (us/s)	1.17731952671E+00	Resid rate (us/s)	2.23201E-07	+/-	1.8E-09
Total phase (deg)	-210.9	Apriori accel (us/s/s)	1.72493618124E-05	Resid phase (deg)	-89.4	+/-	5.9

ph/seg (deg)	66.8	Theor.	13.8	Amplitude	0.530 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	96.1		24.1	Search (1024X32)	0.517	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	42.9		8.3	Inc. seg. avg.	0.923	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	30.1		14.6	Inc. frq. avg.	0.657	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

t: az 25.5 el 12.1 pa -43.4 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -12894.319 2018.823 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/tP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/tP.W.376.1HR1IN

Mk4/DiFX fourfit 3.21 rev 2937

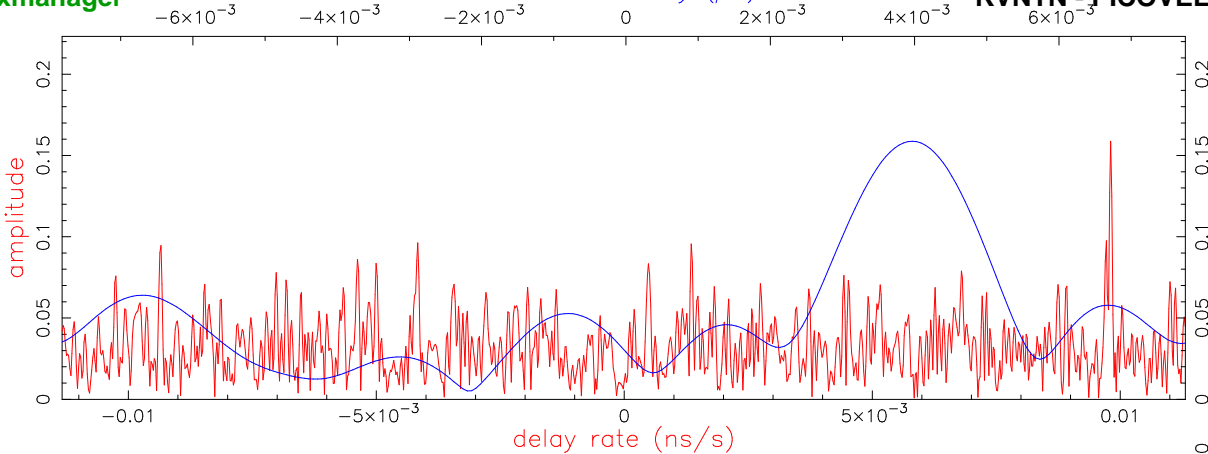
fxmanager

0102+584.1HR1IN, No0100, tP

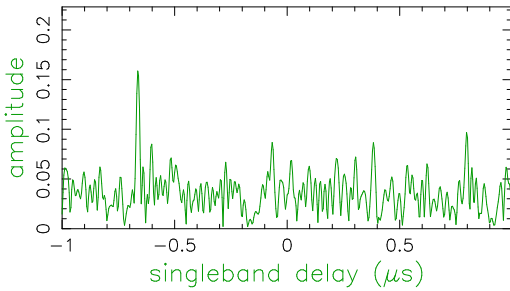
KVNTN - PICOVEL, fgroup W, pol LR

multiband delay (μs)

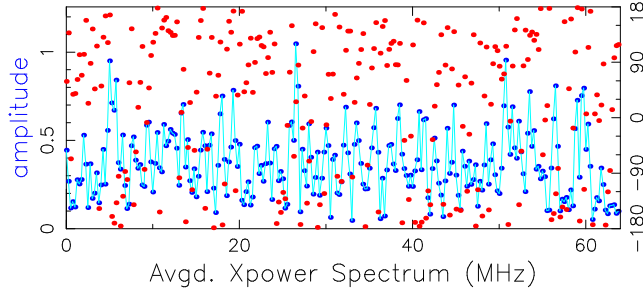
Fringe quality 0



SNR 5.9
Int time 179.794
Amp 0.223
Phase 9.4
PFD 4.1e-01
Delays (us)
SBD -0.662764
MBD 0.003990
Fringe rate (Hz)
0.846931
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

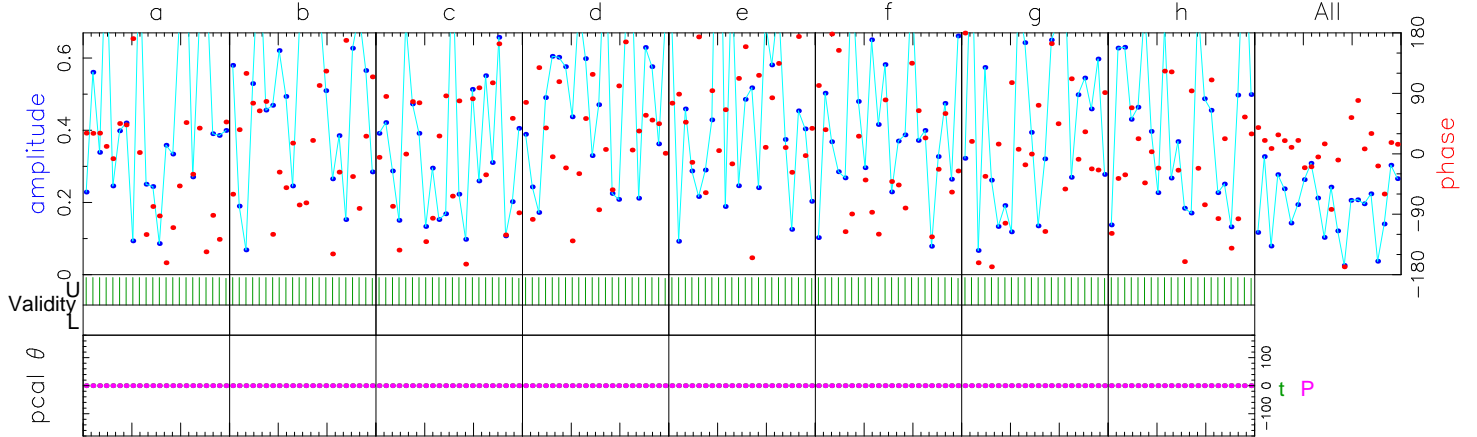


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 070000.00
Stop 070300.22
FRT 070130.00
Corr/FF/build
2021:006:135349
2021:010:132728
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-4.22165127660E+03	Apriori delay (usec)		-4.22098339143E+03	Resid mbdelay (usec)		3.98983E-03	+/-	1.8E-04
Sband delay (usec)	-4.22164615593E+03	Apriori clock (usec)		1.5477648E+00	Resid sbdelay (usec)		-6.62764E-01	+/-	1.5E-03
Phase delay (usec)	-4.22098339112E+03	Apriori clockrate (us/s)		5.0000000E-07	Resid phdelay (usec)		3.03936E-07	+/-	6.3E-07
Delay rate (us/s)	1.17732935873E+00	Apriori rate (us/s)		1.17731952671E+00	Resid rate (us/s)		9.83203E-06	+/-	6.0E-09
Total phase (deg)	-112.1	Apriori accel (us/s/s)		1.72493618124E-05	Resid phase (deg)		9.4	+/-	19.5

ph/seg (deg)	50.8	Theor.	45.7	Amplitude	0.223 +/- 0.038	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	56.3		79.8	Search (1024X32)	0.156	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	25.4		27.6	Inc. seg. avg.	0.203	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	33.7		48.1	Inc. frq. avg.	0.212	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

t: az 25.5 el 12.1 pa -43.4 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -12894.319 2018.823 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/tP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/tP.W.391.1HR1IN

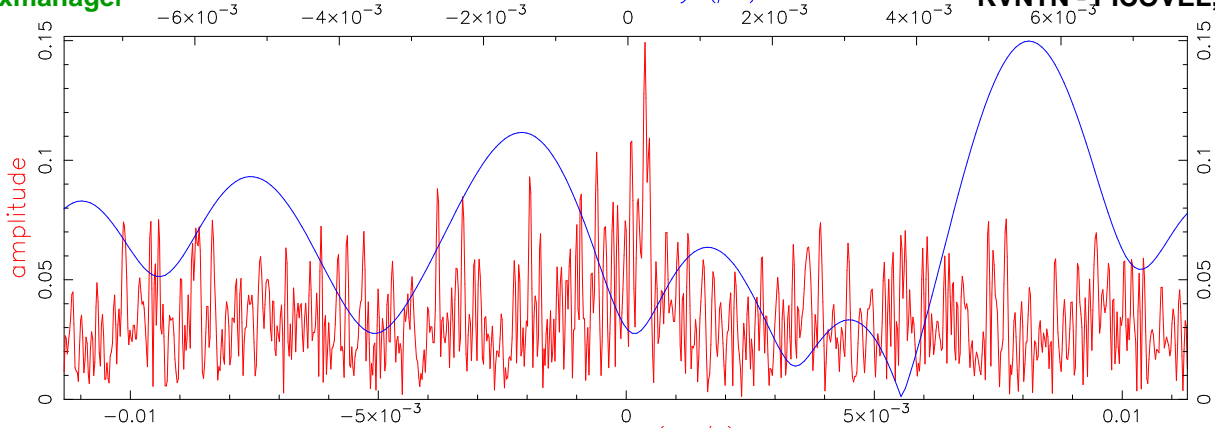
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

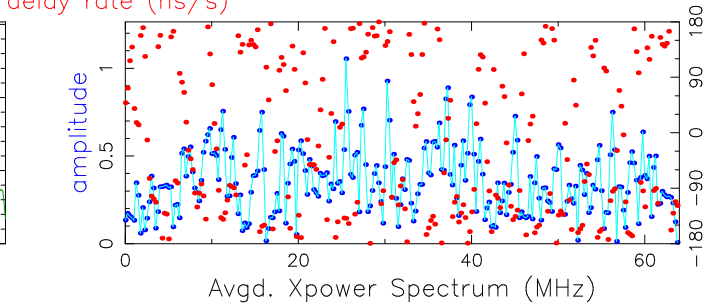
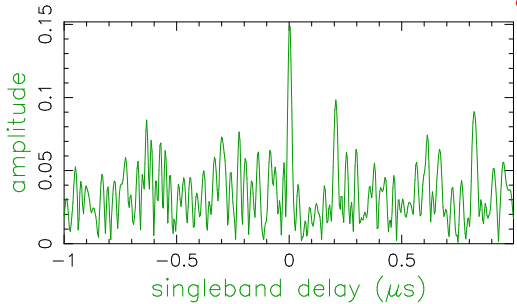
0102+584.1HR1IN, No0100, tP

KVNTN - PICOVEL, fgroup W, pol RL

multiband delay (μs)

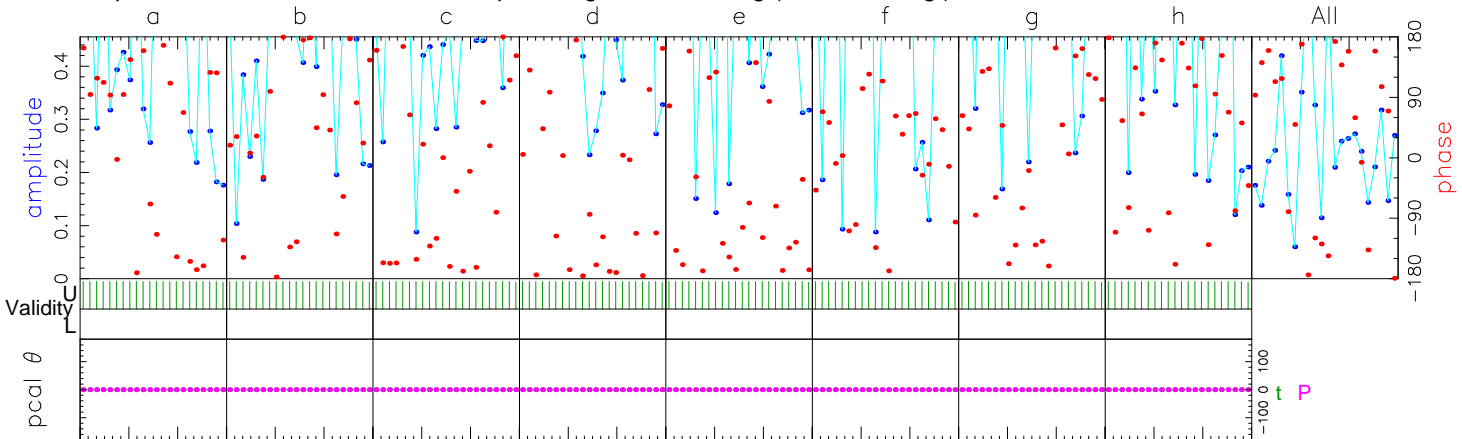


Fringe quality 0
 SNR 5.6
 Int time 179.794
 Amp 0.152
 Phase 161.3
 PFD 9.6e-01
 Delays (us)
 SBD 0.001790
 MBD 0.005646
 Fringe rate (Hz) 0.032833
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132730
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-4.22097774530E+03	Apriori delay (usec)	-4.22098339143E+03	Resid mbdelay (usec)	5.64613E-03	+/-	2.0E-04
Sband delay (usec)	-4.22098160118E+03	Apriori clock (usec)	1.5477648E+00	Resid sbdelay (usec)	1.79025E-03	+/-	1.5E-03
Phase delay (usec)	-4.22098338623E+03	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	5.20237E-06	+/-	6.6E-07
Delay rate (us/s)	1.17731990787E+00	Apriori rate (us/s)	1.17731952671E+00	Resid rate (us/s)	3.81159E-07	+/-	6.4E-09
Total phase (deg)		Apriori accel (us/s/s)	1.72493618124E-05	Resid phase (deg)	161.3	+/-	20.6

ph/seg (deg)	69.3	Theor.	48.3	Amplitude	0.152 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	115.6	Search (1024X32)	0.146	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
ph/frq (deg)	54.8	Interp.	0.000	Bits/sample: 2x2		mb window (us)	-0.008 0.008
amp/frq (%)	55.9	Inc. seg. avg.	0.193	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011
		Inc. frq. avg.	0.180	Data rate(Mb/s): 2048		ion window (TEC)	0.00 0.00

t: az 25.5 el 12.1 pa -43.4 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -12894.319 2018.823 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/tP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/tP.W.405.1HR1IN

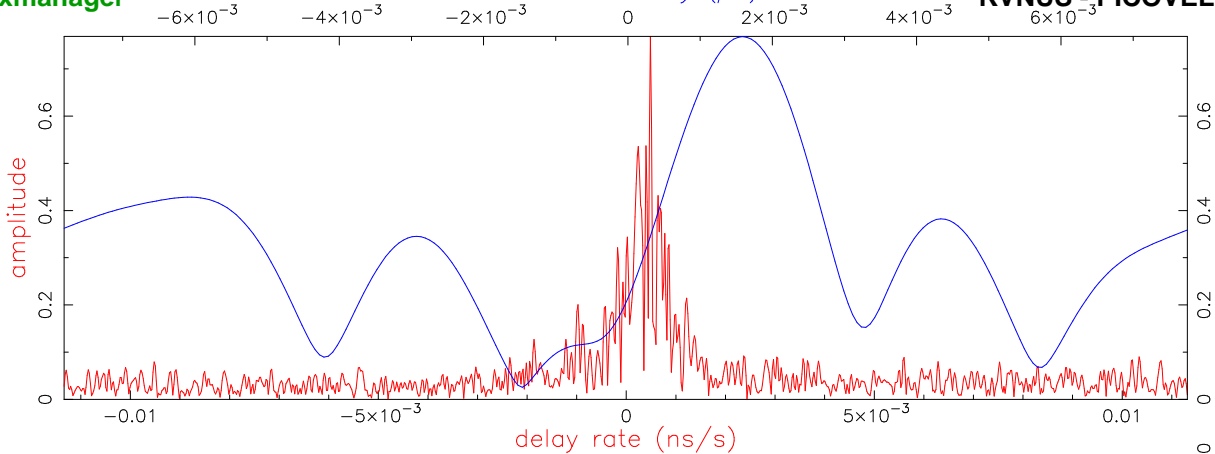
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, uP

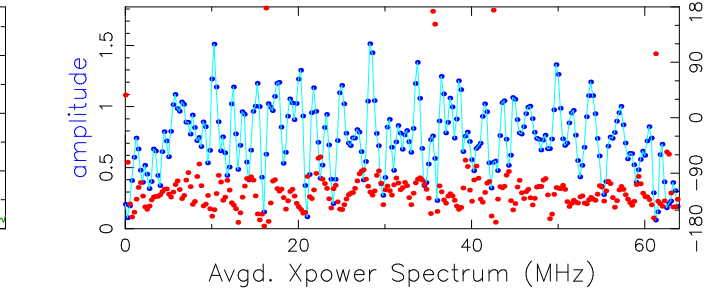
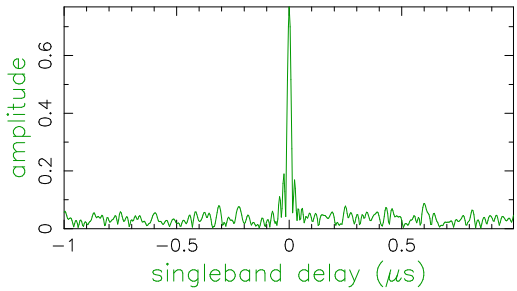
KVNUS - PICOVEL, fgroup W, pol LL

multiband delay (μ s)



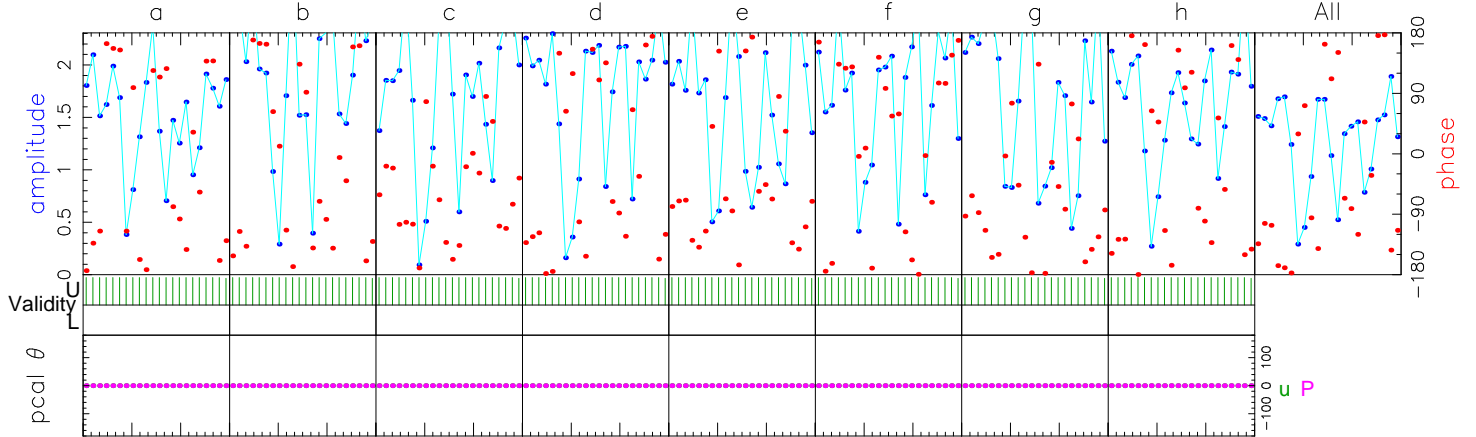
Fringe quality 6

SNR 28.2
 Int time 179.785
 Amp 0.769
 Phase -142.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.000008
 MBD 0.001587
 Fringe rate (Hz)
 0.042558
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132731
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-176.1	-155.7	-70.9	-152.1	-103.1	147.2	-112.7	-162.9	Phase	-142.7
	0.9	1.1	1.0	1.0	1.1	1.0	1.0	1.0	Ampl.	1.0
	258.1	256.9	256.6	256.2	256.5	256.8	257.1	257.1	Sbd box	257.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-3.12483285807E+03	Apriori delay (usec)	-3.12483444548E+03	Resid mbdelay (usec)	1.58740E-03	+/-	3.9E-05
Sband delay (usec)	-3.12483445348E+03	Apriori clock (usec)	2.6938319E+00	Resid sbdelay (usec)	-8.00000E-06	+/-	3.1E-04
Phase delay (usec)	-3.12483445008E+03	Apriori clockrate (us/s)	7.9999999E-07	Resid phdelay (usec)	-4.60023E-06	+/-	1.3E-07
Delay rate (us/s)	1.18089017146E+00	Apriori rate (us/s)	1.18088967740E+00	Resid rate (us/s)	4.94055E-07	+/-	1.3E-09
Total phase (deg)	-190.7	Apriori accel (us/s/s)	1.45481010799E-05	Resid phase (deg)	-142.7	+/-	4.1

ph/seg (deg)	77.6	Theor.	9.5	Amplitude	0.769 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	85.6		16.7	Search (1024X32)	0.741	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	48.9		5.8	Inc. seg. avg.	1.253	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	33.4		10.0	Inc. frq. avg.	1.012	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
u: az 26.9 el 15.2 pa -45.2		P: az 326.2 el 24.4 pa 58.8		u, v (fr/asec)	-12935.872 1822.687	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/uP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/uP.W.410.1HR1IN simultaneous interpolator

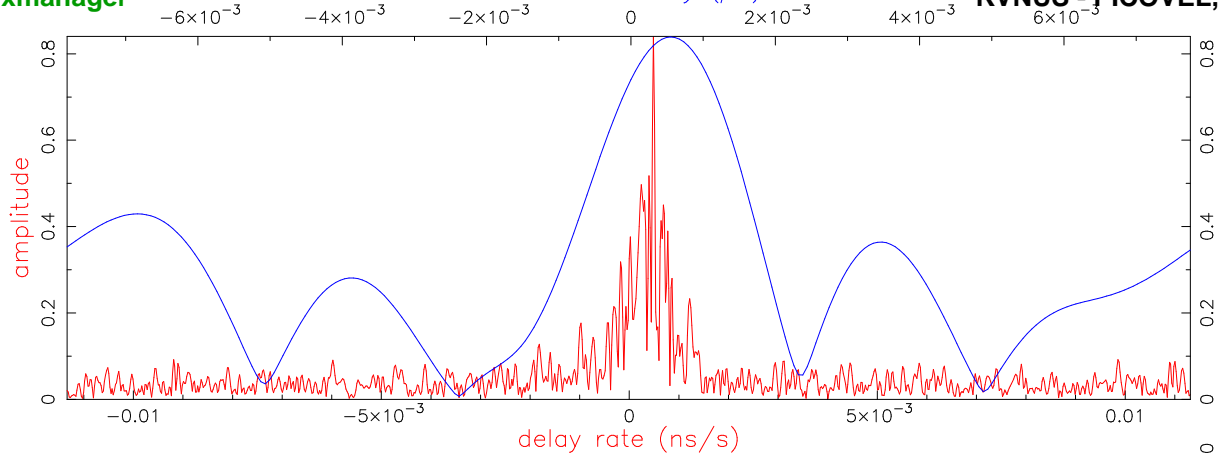
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, uP

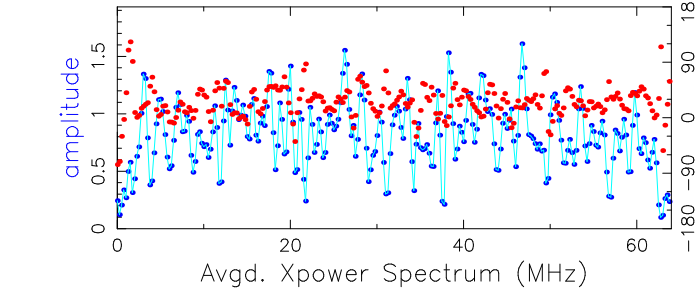
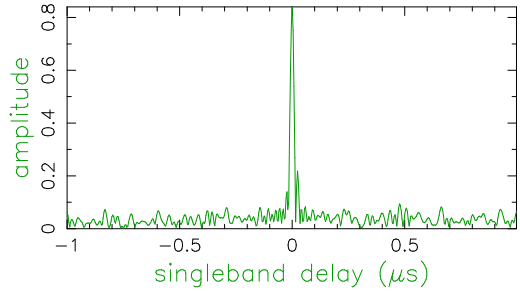
KVNUS - PICOVEL, fgroup W, pol RR

multiband delay (μ s)



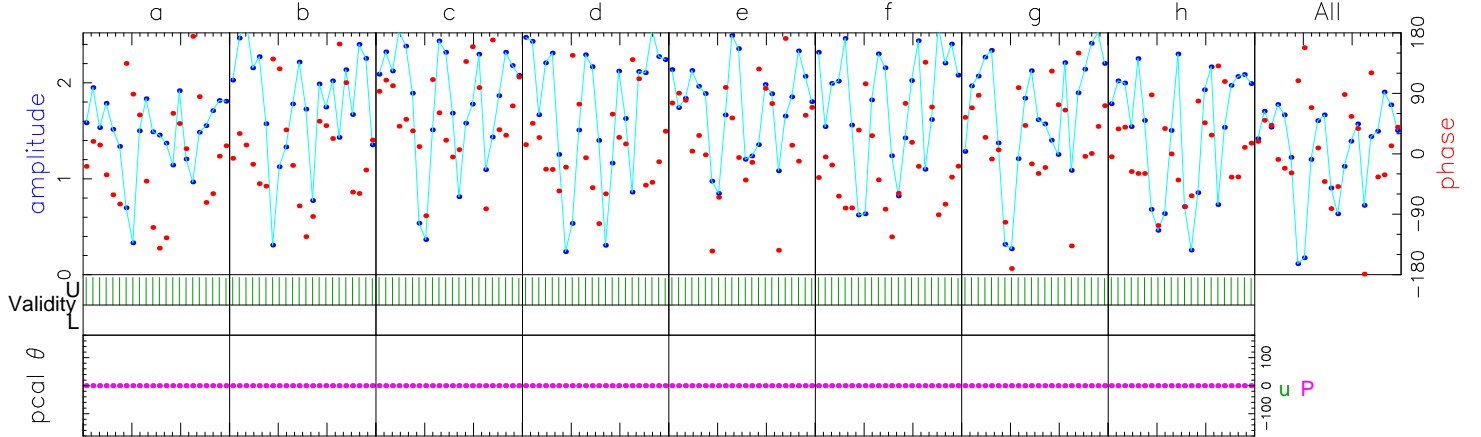
Fringe quality 4

SNR 30.8
 Int time 179.785
 Amp 0.840
 Phase 13.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.000379
 MBD 0.000542
 Fringe rate (Hz)
 0.042530
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132733
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-17.0	-7.6	70.6	1.4	46.5	-36.8	37.4	4.6	Phase	13.5	
	0.7	1.0	1.2	1.1	1.0	1.1	1.1	1.1	Ampl.	1.0	
	258.9	256.5	256.4	256.2	256.2	256.5	256.7	257.0	Sbd box	256.9	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used		
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
u:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
u:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
P	1000	1000	1000	1000	1000	1000	1000	1000			
u	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)	-3.12483390373E+03		Apriori delay (usec)		-3.12483444548E+03		Resid mbdelay (usec)		5.41749E-04	+/- 3.5E-05	
Sband delay (usec)	-3.12483482398E+03		Apriori clock (usec)		2.6938319E+00		Resid sbdelay (usec)		-3.78500E-04	+/- 2.8E-04	
Phase delay (usec)	-3.12483444504E+03		Apriori clockrate (us/s)		7.9999999E-07		Resid phdelay (usec)		4.36630E-07	+/- 1.2E-07	
Delay rate (us/s)	1.18089017113E+00		Apriori rate (us/s)		1.18088967740E+00		Resid rate (us/s)		4.93729E-07	+/- 1.2E-09	
Total phase (deg)			Apriori accel (us/s/s)		1.45481010799E-05		Resid phase (deg)		13.5	+/- 3.7	
	RMS	Theor.	Amplitude	0.840 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	69.8	8.7	Search (1024X32)	0.814		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	79.7	15.2	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	38.9	5.3	Inc. seg. avg.	1.284		Sample rate(MISamp/s): 128				dr window (ns/s)	-0.011 0.011
amp/frq (%)	26.9	9.2	Inc. frq. avg.	1.007		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
u: az 26.9 el 15.2 pa -45.2	P: az 326.2 el 24.4 pa 58.8		u, v (fr/asec)		-12935.872 1822.687				simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/uP..1HR1IN		Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/uP.W.420.1HR1IN								

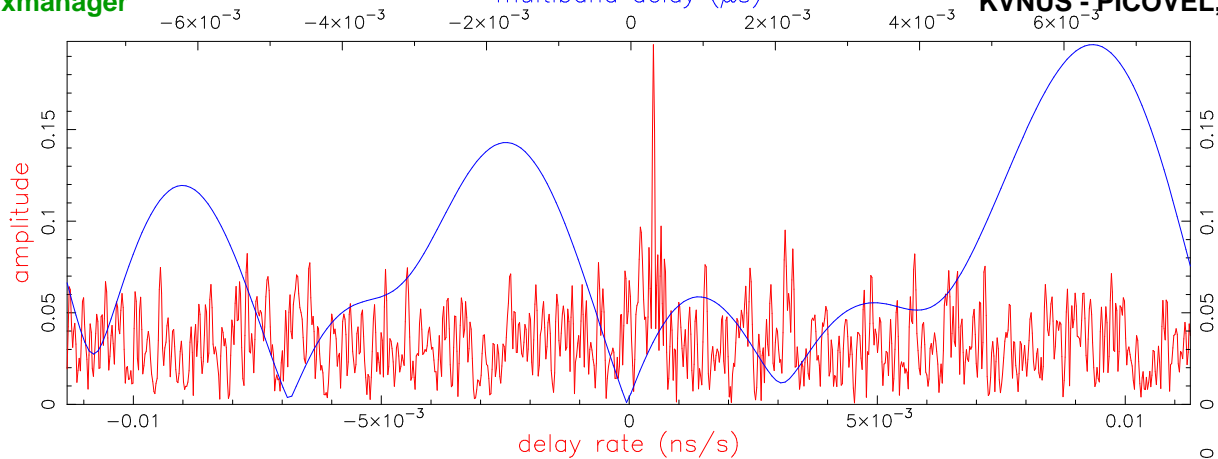
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, uP

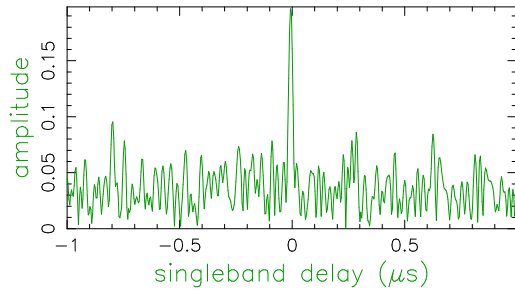
KVNUS - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

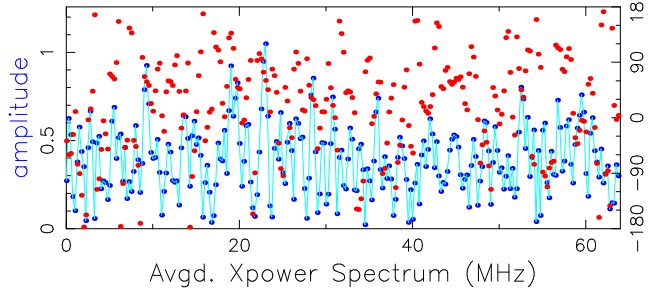


Fringe quality 9

SNR 7.3
 Int time 179.785
 Amp 0.198
 Phase -111.2
 PFD 6.0e-05
 Delays (us)
 SBD -0.006451
 MBD 0.006435
 Fringe rate (Hz)
 0.042780
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

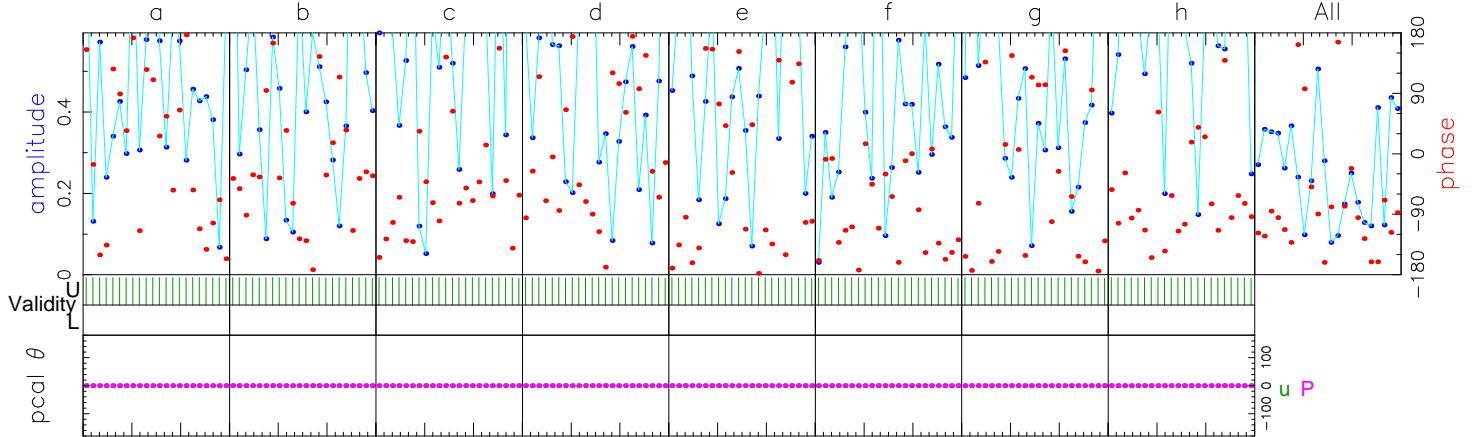


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132735
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	165.4	-64.2	-103.8	-65.9	-161.6	-110.2	-165.9	-80.1	Phase	-111.2
	0.1	0.2	0.3	0.2	0.3	0.3	0.3	0.4	Ampl.	0.2
	20.3	239.4	256.4	425.9	255.8	256.0	256.7	256.3	Sbd box	255.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-3.12484363557E+03	Apriori delay (usec)	-3.12483444548E+03	Resid mbdelay (usec)	6.43490E-03	+/-	1.5E-04
Sband delay (usec)	-3.12484089648E+03	Apriori clock (usec)	2.6938319E+00	Resid sbdelay (usec)	-6.45100E-03	+/-	1.2E-03
Phase delay (usec)	-3.12483444906E+03	Apriori clockrate (us/s)	7.9999999E-07	Resid phdelay (usec)	-3.58454E-06	+/-	5.1E-07
Delay rate (us/s)	1.18089017403E+00	Apriori rate (us/s)	1.18088967740E+00	Resid rate (us/s)	4.96634E-07	+/-	4.9E-09
Total phase (deg)	-159.2	Apriori accel (us/s/s)	1.45481010799E-05	Resid phase (deg)	-111.2	+/-	15.8

ph/seg (deg)	53.8	Theor.	37.0	Amplitude	0.198 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	69.2	Search (1024X32)	0.185	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	54.5	Inc. seg. avg.	0.215	Inc. frq. avg.	0.244	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	47.5	Inc. frq. avg.	0.244			Sample rate(MISamp/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

u: az 26.9 el 15.2 pa -45.2 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -12935.872 1822.687 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/uP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/uP.W.444.1HR1IN

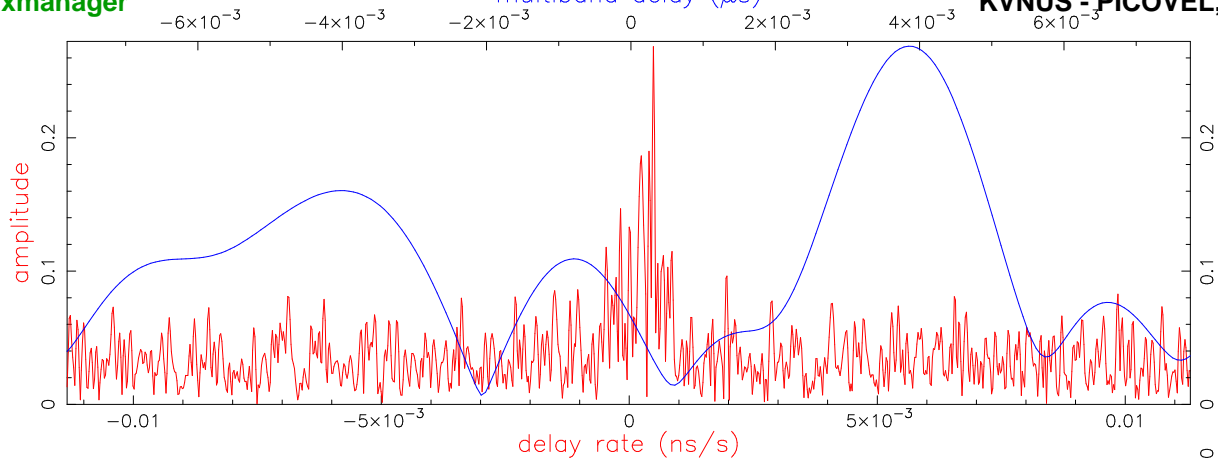
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, uP

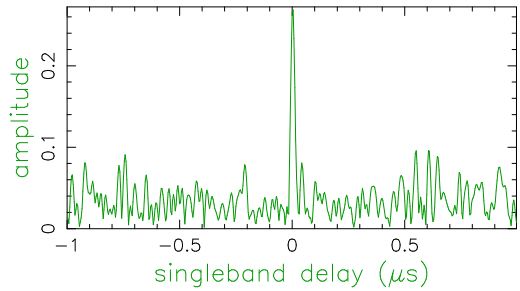
KVNUS - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

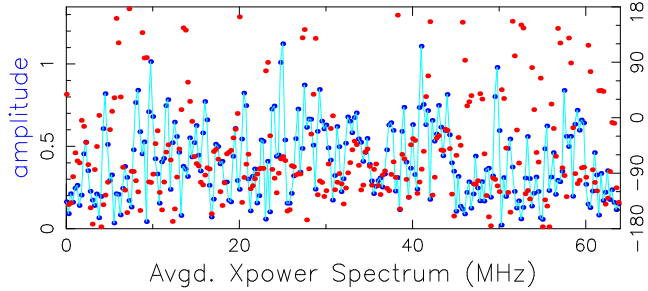


Fringe quality 9

SNR 10.0
 Int time 179.785
 Amp 0.272
 Phase -105.1
 PFD 4.0e-15
 Delays (us)
 SBD 0.002247
 MBD 0.003804
 Fringe rate (Hz)
 0.042920
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

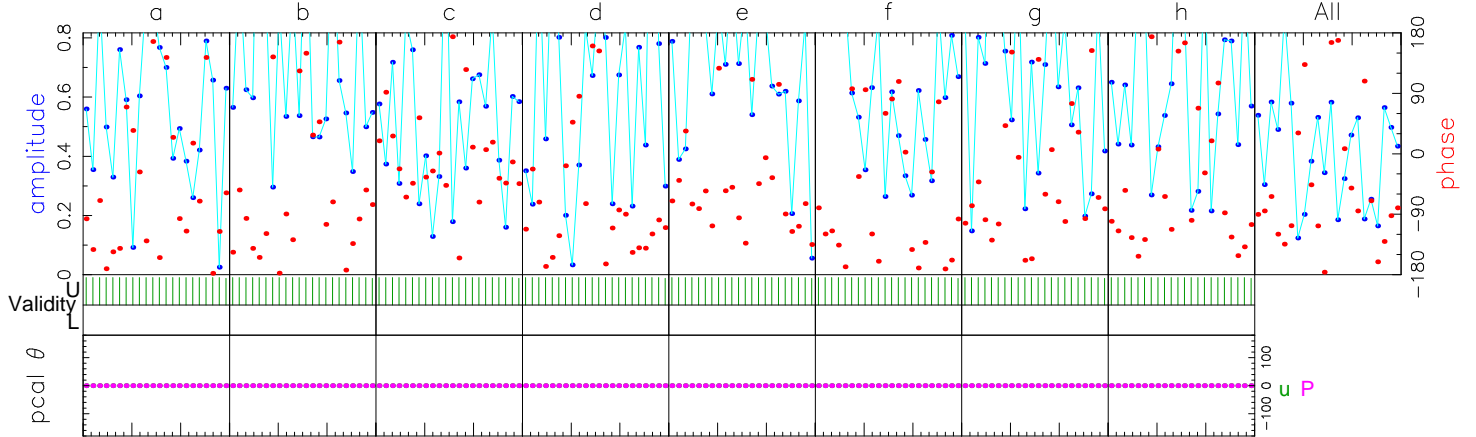


delay rate (ns/s)



Exp. c202a
 Yr:day 16383
 Start 2020:283
 Stop 2020:283
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132738
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-136.3	-128.8	-20.1	-124.3	-69.5	-142.9	-76.3	-124.3	Phase	-105.1
	0.2	0.4	0.3	0.4	0.4	0.3	0.3	0.3	Ampl.	0.3
	259.0	257.6	256.5	257.6	257.7	256.5	257.1	257.1	Sbd box	257.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-3.12483064109E+03	Apriori delay (usec)	-3.12483444548E+03	Resid mbdelay (usec)	3.80439E-03	+/-	1.1E-04
Sband delay (usec)	-3.12483219873E+03	Apriori clock (usec)	2.6938319E+00	Resid sbdelay (usec)	2.24675E-03	+/-	8.6E-04
Phase delay (usec)	-3.12483444887E+03	Apriori clockrate (us/s)	7.9999999E-07	Resid phdelay (usec)	-3.38780E-06	+/-	3.7E-07
Delay rate (us/s)	1.18089017566E+00	Apriori rate (us/s)	1.18088967740E+00	Resid rate (us/s)	4.98261E-07	+/-	3.6E-09
Total phase (deg)	-153.1	Apriori accel (us/s/s)	1.45481010799E-05	Resid phase (deg)	-105.1	+/-	11.5

ph/seg (deg)	68.8	Theor.	26.9	Search (1024X32)	0.251	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	85.4	Amplitude	0.272 +/- 0.027	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	46.6	Search	0.251	Inc. seg. avg.	0.375	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	35.2	Inc. frq. avg.	0.329	Inc. frq. avg.	0.329	Sample rate(MISamp/s): 128	mb window (us) -0.008 0.008
						Data rate(Mb/s): 2048	dr window (ns/s) -0.011 0.011
						nlags: 256	t_cohere infinite
u: az 26.9 el 15.2 pa -45.2	P: az 326.2 el 24.4 pa 58.8	u, v (fr/asec)	-12935.872 1822.687			ion window (TEC)	0.00 0.00

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/uP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/uP.W.464.1HR1IN simultaneous interpolator

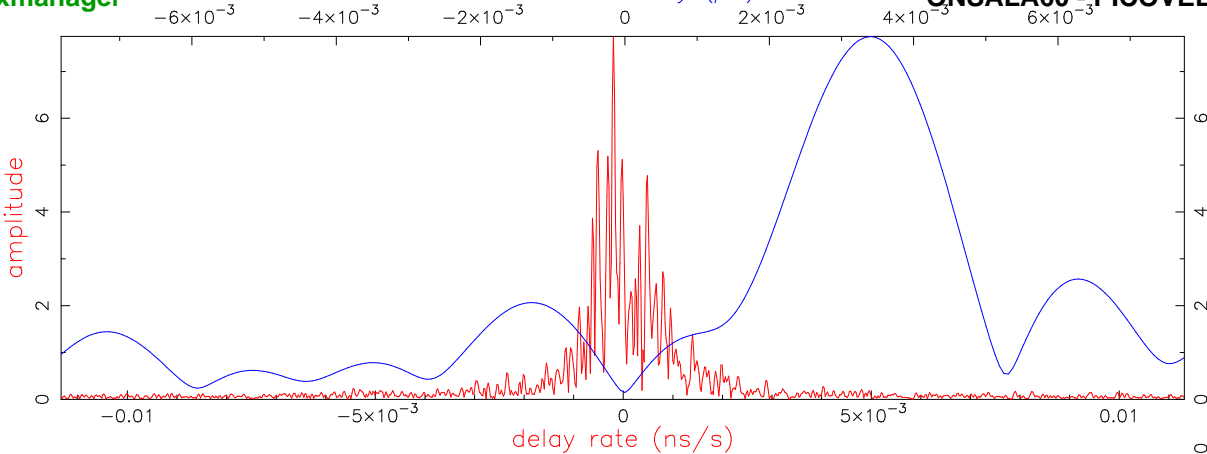
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, XP

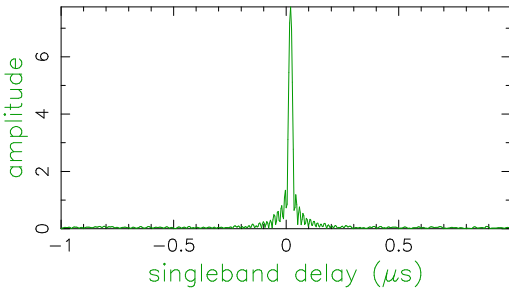
ONSALA60 - PICOVEL, fgroup W, pol LL

multiband delay (μ s)

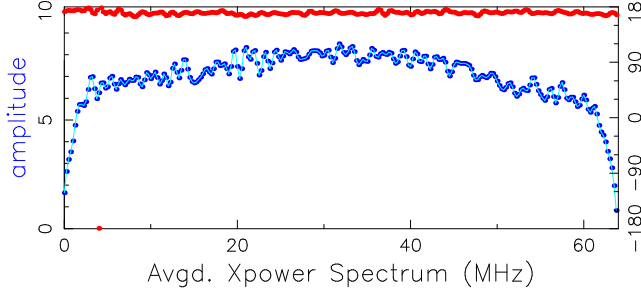


Fringe quality 4

SNR 284.1
 Int time 179.776
 Amp 7.749
 Phase -7.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.019208
 MBD 0.003394
 Fringe rate (Hz)
 -0.017619
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

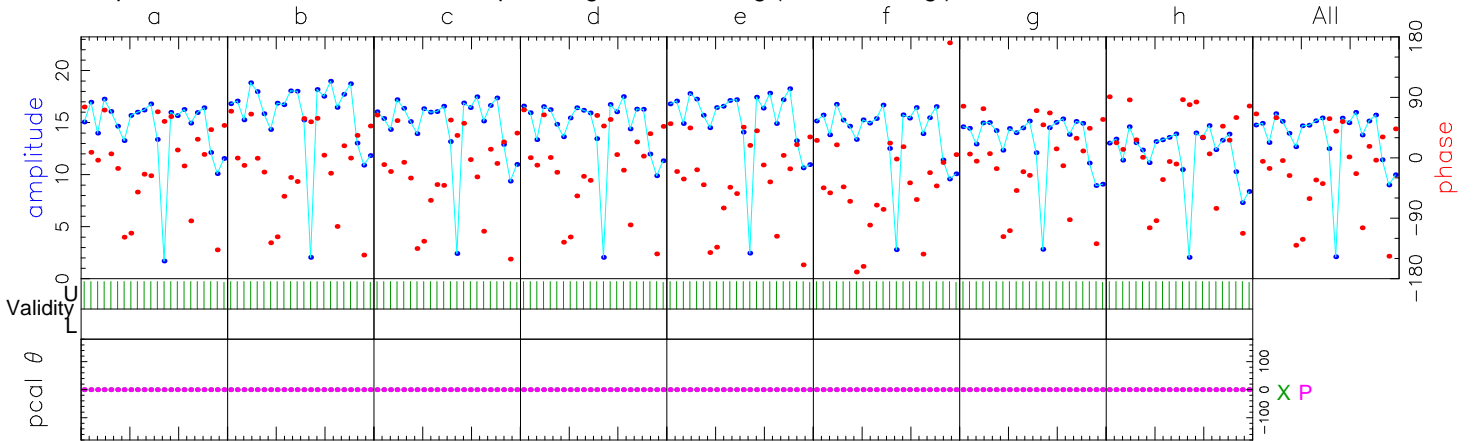


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132734
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec

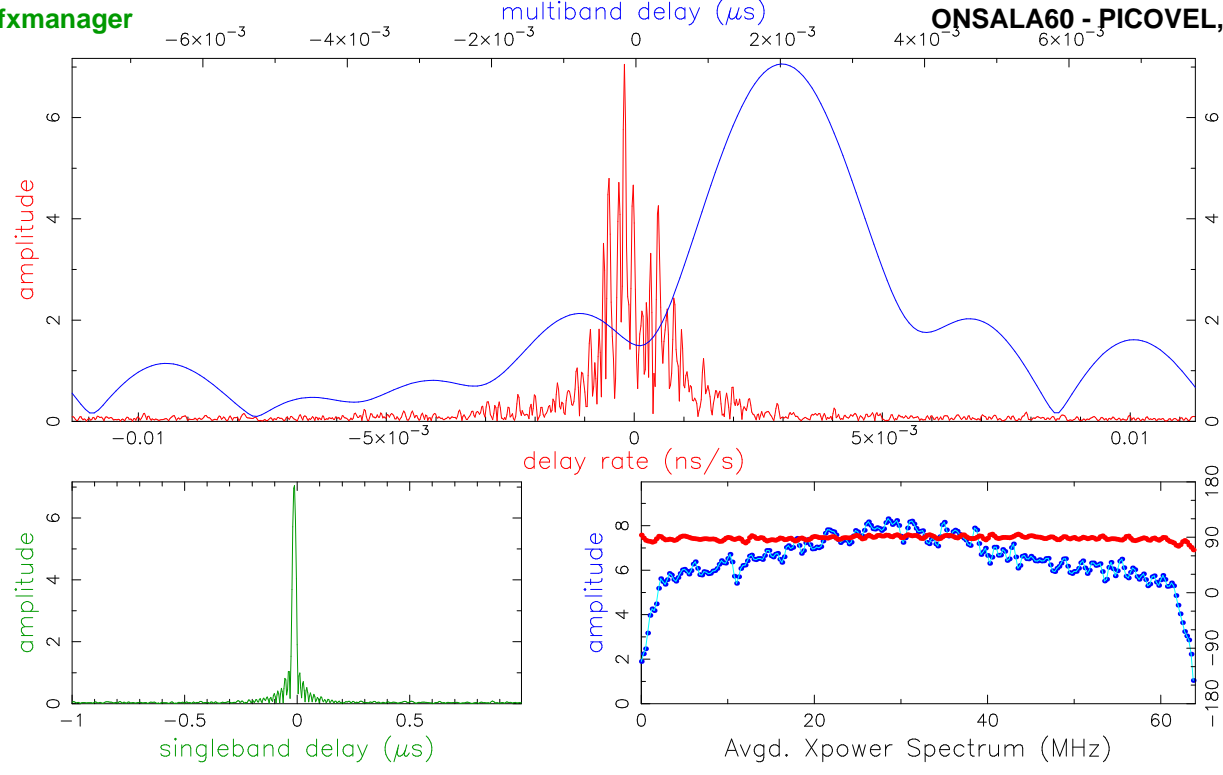


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
X	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
X:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
X:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
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)	3.61496198200E+03	Apriori delay (usec)	3.61494296332E+03	Resid mbdelay (usec)	3.39368E-03	+/-	3.8E-06
Sband delay (usec)	3.61496217132E+03	Apriori clock (usec)	4.8462624E+01	Resid sbdelay (usec)	1.92080E-02	+/-	3.0E-05
Phase delay (usec)	3.61494296308E+03	Apriori clockrate (us/s)	9.2799997E-07	Resid phdelay (usec)	-2.42510E-07	+/-	1.3E-08
Delay rate (us/s)	2.47141220320E-01	Apriori rate (us/s)	2.47141424863E-01	Resid rate (us/s)	-2.04542E-07	+/-	1.3E-10
Total phase (deg)	302.1	Apriori accel (us/s/s)	4.09930808770E-06	Resid phase (deg)	-7.5	+/-	0.4

ph/seg (deg)	62.8	RMS	7.749 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	84.1	Theor.	7.643	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	21.5	Search (1024X32)	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	9.6	Interp.	13.488	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
		Inc. seg. avg.	8.139	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00
		Inc. frq. avg.							

X: az 326.0 el 35.5 pa 35.6 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -2707.723 1646.907 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/XP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/XP.W.435.1HR1IN

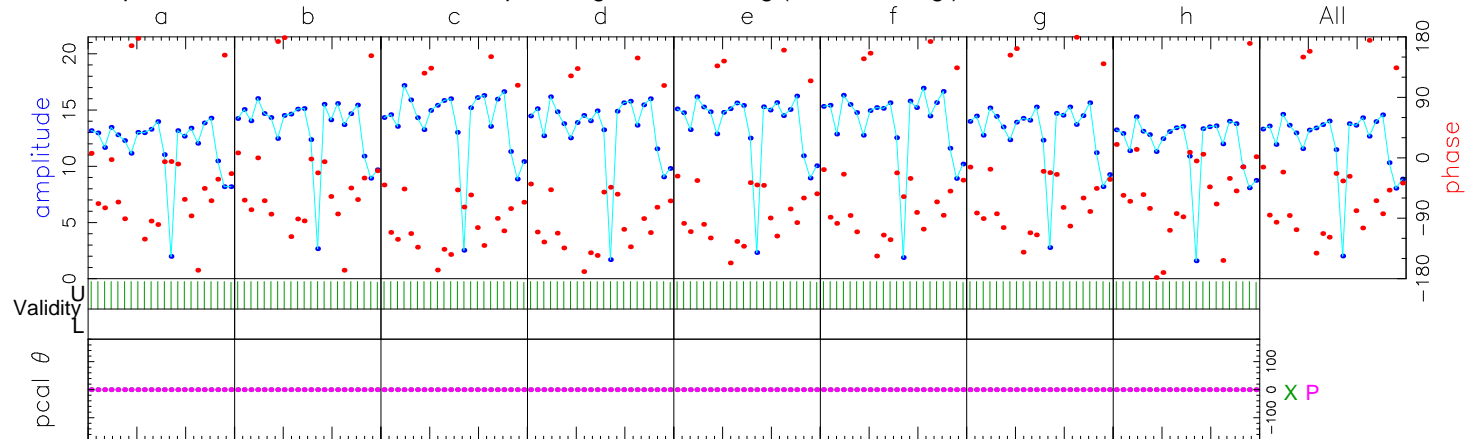


Fringe quality 3

SNR 262.8
Int time 179.776
Amp 7.169
Phase -87.9
PFD 0.0e+00
Delays (us)
SBD -0.013398
MBD 0.001977
Fringe rate (Hz)
-0.017607
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 070000.00
Stop 070300.22
FRT 070130.00
Corr/FF/build
2021:006:135349
2021:010:132736
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

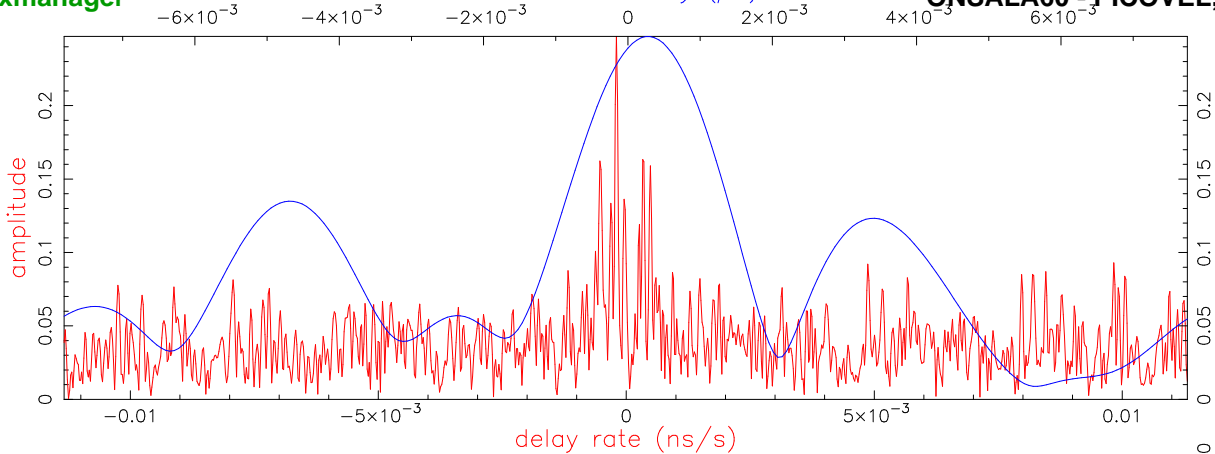
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
Group delay (usec)(sbd)	-69.7	-66.6	-113.7	-114.2	-100.7	-90.2	-84.6	-55.1		-87.9
Sband delay (usec)	6.8	7.7	8.1	7.6	7.7	7.9	7.5	6.7		7.5
Phase delay (usec)	253.3	253.2	253.2	253.5	254.0	253.6	253.8	253.9		253.6
Delay rate (us/s)	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Total phase (deg)			221.8							
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	3.61492931565E+03		Apriori delay (usec)		3.61494296332E+03		Resid mbdelay (usec)		1.97733E-03	+/- 4.1E-06
Sband delay (usec)	3.61492956507E+03		Apriori clock (usec)		4.8462624E+01		Resid sbdelay (usec)		-1.33982E-02	+/- 3.3E-05
Phase delay (usec)	3.61494296048E+03		Apriori clockrate (us/s)		9.279997E-07		Resid phdelay (usec)		-2.83300E-06	+/- 1.4E-08
Delay rate (us/s)	2.47141220465E-01		Apriori rate (us/s)		2.47141424863E-01		Resid rate (us/s)		-2.04398E-07	+/- 1.4E-10
Total phase (deg)	221.8		Apriori accel (us/s/s)		4.09930808770E-06		Resid phase (deg)		-87.9	+/- 0.4

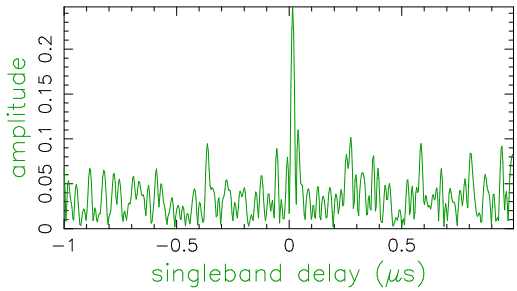
ph/seg (deg) 62.9 1.0 Search (1024X32) 6.950 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 81.2 1.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 23.8 0.6 Inc. seg. avg. 12.262 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 8.3 1.1 Inc. frq. avg. 7.524 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
X: az 326.0 el 35.5 pa 35.6 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -2707.723 1646.907 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/XP..1HR11N Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/XP.W.449.1HR11N

multiband delay (μ s)

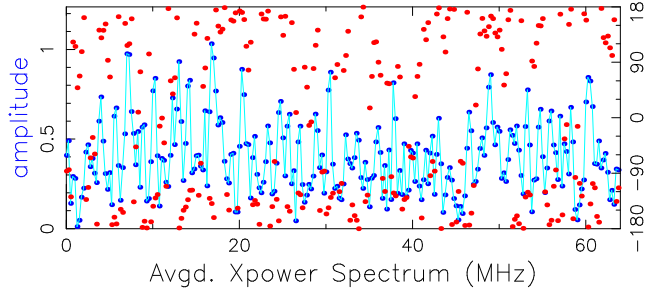


Fringe quality 9

SNR 9.1
Int time 179.776
Amp 0.247
Phase -3.2
PFD 2.5e-11
Delays (us)
SBD 0.015505
MBD 0.000274
Fringe rate (Hz)
-0.017942
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

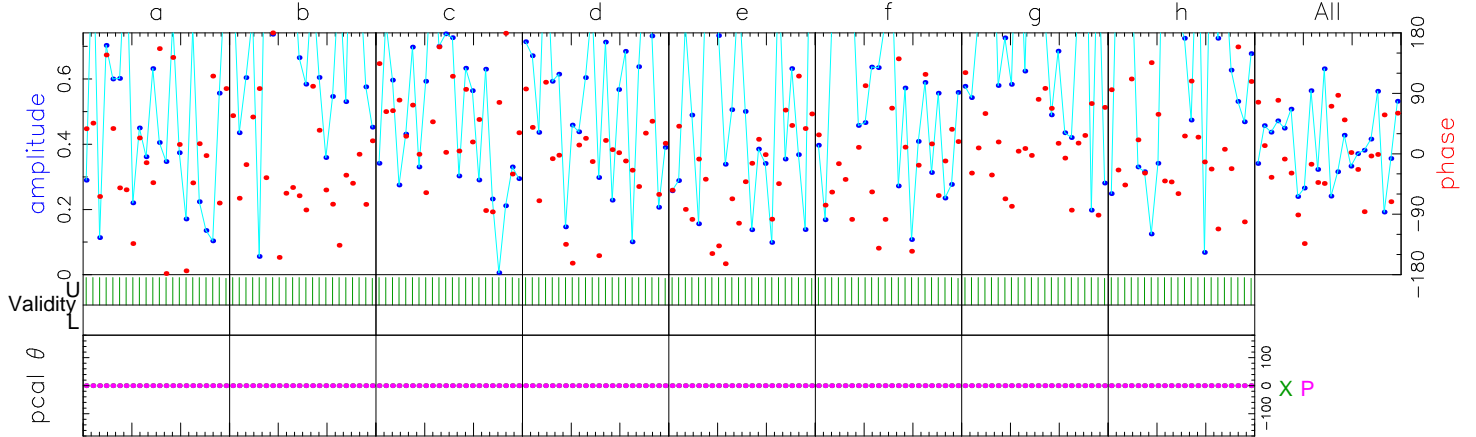


delay rate (ns/s)



Exp. c202a
Exper # 16383
Yr:day 2020:283
Start 070000.00
Stop 070300.22
FRT 070130.00
Corr/FF/build
2021:006:135349
2021:010:132738
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	10.7	-40.4	48.6	16.4	-46.2	-24.6	11.1	-10.9		Phase
	0.1	0.3	0.2	0.3	0.2	0.2	0.5	0.3		Ampl.
	497.8	259.9	258.6	259.8	381.1	168.9	261.1	260.0		Sbd box
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		261.0
X	1000	1000	1000	1000	1000	1000	1000	1000		APs used
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)	3.61495886203E+03	Apriori delay (usec)	3.61494296332E+03	Resid mbdelay (usec)	2.73709E-04	+/-	1.2E-04
Sband delay (usec)	3.61495846857E+03	Apriori clock (usec)	4.8462624E+01	Resid sbdelay (usec)	1.55052E-02	+/-	9.5E-04
Phase delay (usec)	3.61494296321E+03	Apriori clockrate (us/s)	9.2799997E-07	Resid phdelay (usec)	-1.04597E-07	+/-	4.1E-07
Delay rate (us/s)	2.47141216569E-01	Apriori rate (us/s)	2.47141424863E-01	Resid rate (us/s)	-2.08293E-07	+/-	3.9E-09
Total phase (deg)	306.4	Apriori accel (us/s/s)	4.09930808770E-06	Resid phase (deg)	-3.2	+/-	12.6

ph/seg (deg)	60.1	RMS	29.7	Theor.	0.247 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	77.3	Search (1024X32)	0.236	Amplitude		Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	34.7	Interp.	0.000	Interp.		Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)
amp/frq (%)	44.0	Inc. seg. avg.	0.353	Inc. seg. avg.		Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011
		Inc. frq. avg.	0.267	Inc. frq. avg.		Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00

X: az 326.0 el 35.5 pa 35.6 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -2707.723 1646.907 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/XP..1HR11N Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/XP.W.467.1HR11N

Mk4/DiFX fourfit 3.21 rev 2937

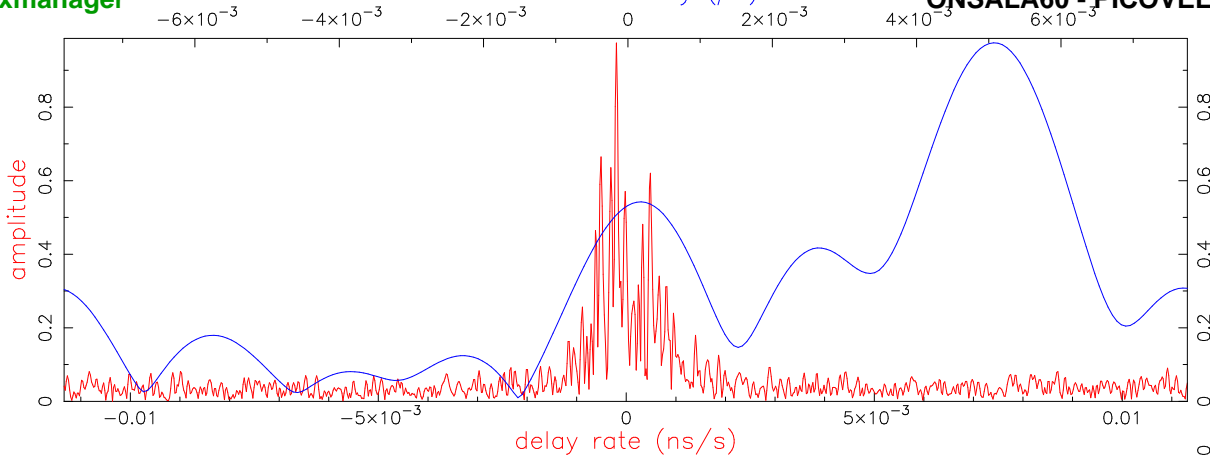
fxmanager

0102+584.1HR11N, No0100, XP

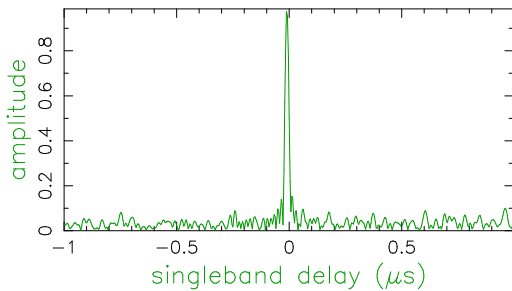
ONSALA60 - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

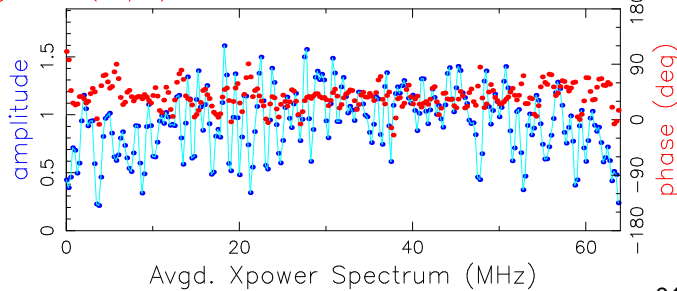
Fringe quality 4



SNR 36.2
 Int time 179.776
 Amp 0.987
 Phase -139.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.010243
 MBD 0.005112
 Fringe rate (Hz)
 -0.017698
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

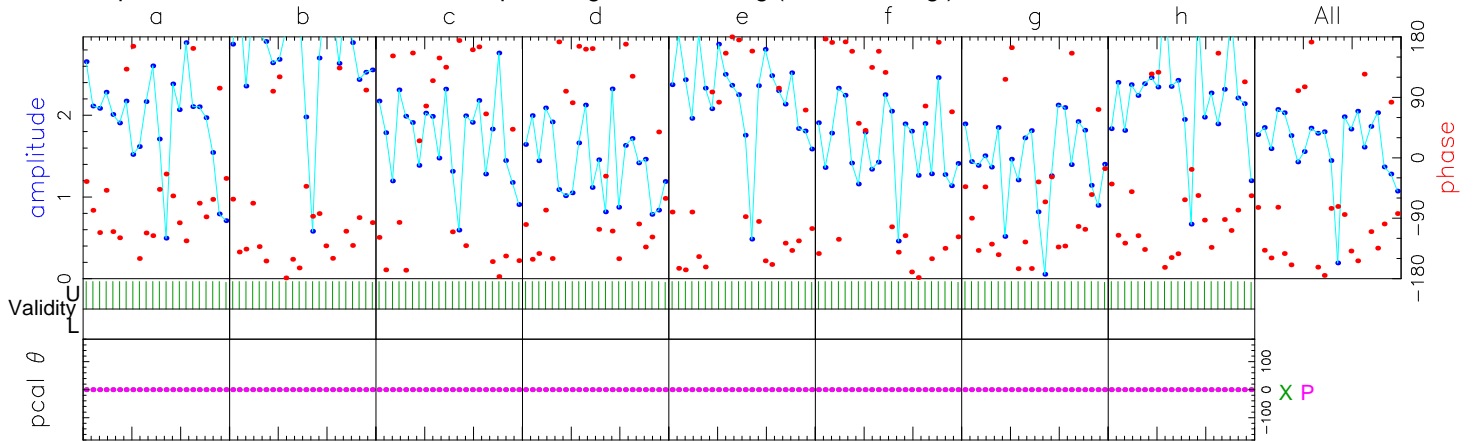


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132740
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-97.5	-135.6	176.2	-147.2	-158.2	-178.5	-114.9	-117.9	Phase	-139.8
	1.2	1.7	1.0	0.8	1.3	0.9	0.8	1.2	Ampl.	1.1
	254.6	253.6	254.2	254.5	254.4	255.0	254.7	254.1	Sbd box	254.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	3.61493245034E+03	Apriori delay (usec)	3.61494296332E+03	Resid mbdelay (usec)	5.11202E-03	+/-	3.0E-05
Sband delay (usec)	3.61493272032E+03	Apriori clock (usec)	4.8462624E+01	Resid sbdelay (usec)	-1.02430E-02	+/-	2.4E-04
Phase delay (usec)	3.61494295881E+03	Apriori clockrate (us/s)	9.2799997E-07	Resid phdelay (usec)	-4.50885E-06	+/-	1.0E-07
Delay rate (us/s)	2.47141219409E-01	Apriori rate (us/s)	2.47141424863E-01	Resid rate (us/s)	-2.05453E-07	+/-	9.8E-10
Total phase (deg)	169.8	Apriori accel (us/s/s)	4.09930808770E-06	Resid phase (deg)	-139.8	+/-	3.2

ph/seg (deg)	62.8	RMS	7.4	Theor.	7.4	Amplitude	0.987 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	78.8	Search (1024X32)	0.940	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	33.5	Inc. seg. avg.	1.633	Inc. frq. avg.	1.099	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	30.9	Inc. frq. avg.	1.099	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags:	256	t_cohere	infinite
X:	az 326.0 el 35.5 pa 35.6	P:	az 326.2 el 24.4 pa 58.8	u,v (fr/asec)	-2707.723 1646.907	ion window (TEC)	0.00	0.00			simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/XP..1HR11N Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/XP.W.484.1HR11N

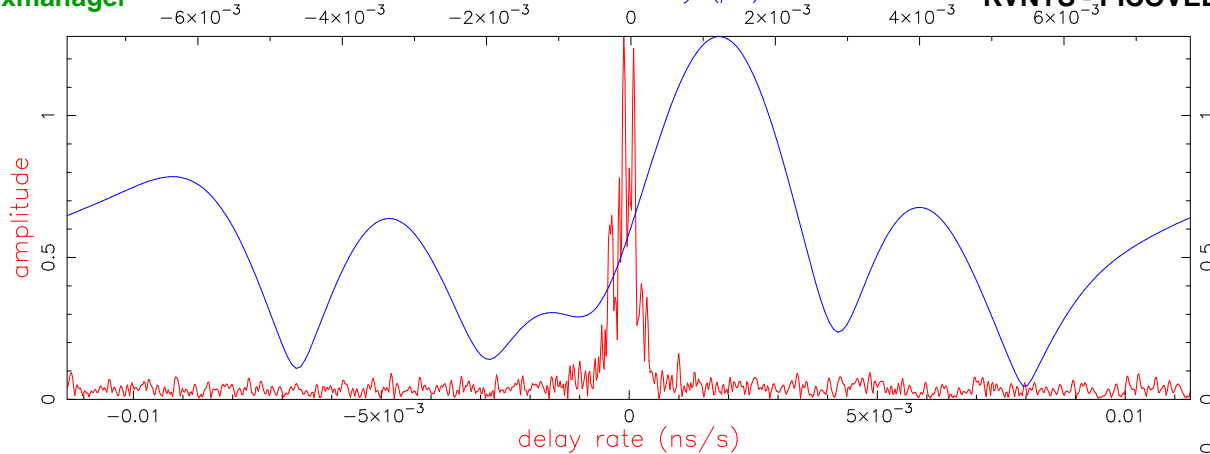
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, yP

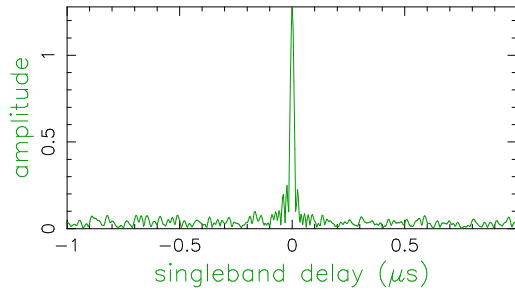
KVNYS - PICOVEL, fgroup W, pol LL

multiband delay (μ s)

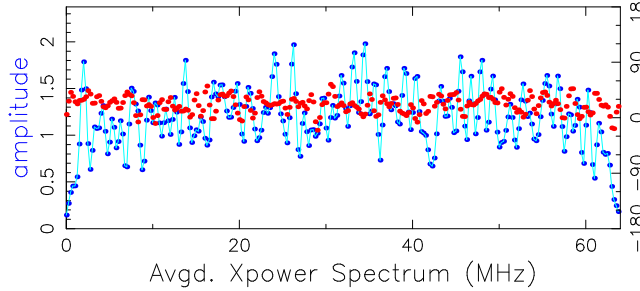


Fringe quality 3

SNR 46.9
 Int time 179.774
 Amp 1.279
 Phase 5.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.000194
 MBD 0.001216
 Fringe rate (Hz)
 -0.009792
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

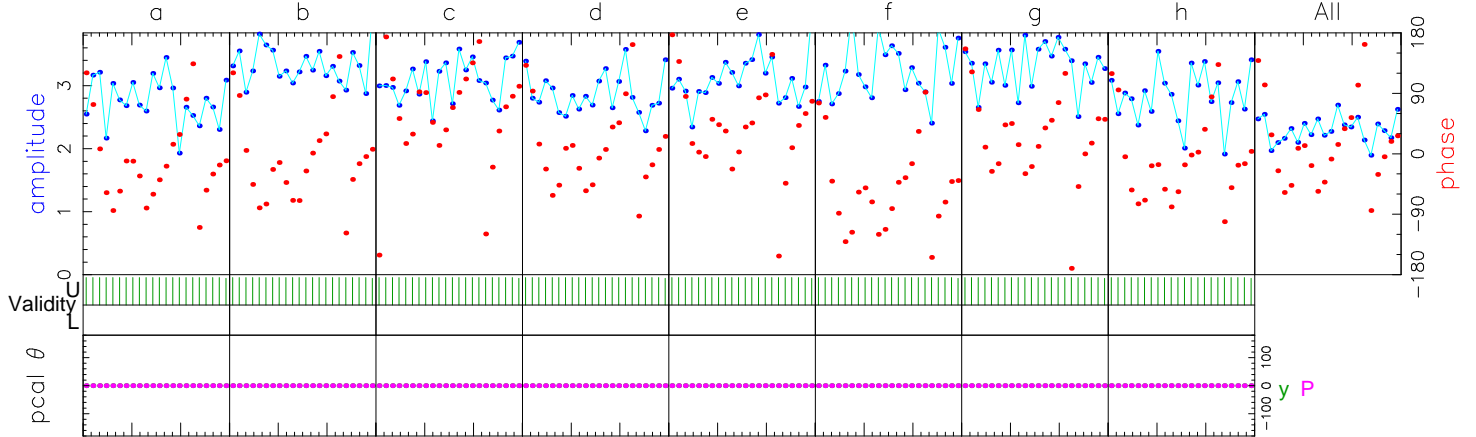


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132734
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-22.0	-17.7	80.3	2.5	49.6	-64.9	33.4	-17.0		Phase
	1.6	1.8	1.7	1.6	1.8	1.8	1.9	1.6		Ampl.
	258.1	256.9	256.7	256.1	256.0	256.4	256.8	256.7		Sbd box
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		257.0
y	1000	1000	1000	1000	1000	1000	1000	1000		APs used
P	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
y:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
y:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Manl PC
y	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
P	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Chan ids
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks

Group delay (usec)(sbd)	-2.78128338717E+03	Apriori delay (usec)	-2.78128460323E+03	Resid mbdelay (usec)	1.21606E-03	+/-	2.3E-05
Sband delay (usec)	-2.78128479698E+03	Apriori clock (usec)	1.4137640E+00	Resid sbdelay (usec)	-1.93750E-04	+/-	1.8E-04
Phase delay (usec)	-2.78128460306E+03	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	1.66309E-07	+/-	7.9E-08
Delay rate (us/s)	1.15211017143E+00	Apriori rate (us/s)	1.15211028510E+00	Resid rate (us/s)	-1.13670E-07	+/-	7.6E-10
Total phase (deg)	-254.8	Apriori accel (us/s/s)	1.54371463751E-05	Resid phase (deg)	5.2	+/-	2.4

ph/seg (deg)	63.9	RMS	5.7	Theor.	1.279 +/- 0.027	Amplitude	1.279 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	81.5	63.9	5.7	Search (1024X32)	1.240	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	50.1	81.5	10.0	Inc. seg. avg.	2.291	Inc. seg. avg.	2.291	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	36.9	50.1	3.5	Inc. frq. avg.	1.733	Inc. frq. avg.	1.733	Sample rate (MSamp/s):	128	nlags: 256	t_cohere infinite	dr window (ns/s)	-0.011 0.011
		36.9	6.0					Data rate (Mb/s):	2048		ion window (TEC)	0.00 0.00	

y: az 26.2 el 16.2 pa -42.5 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -12619.748 2066.220 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/yP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/yP.W.433.1HR1IN

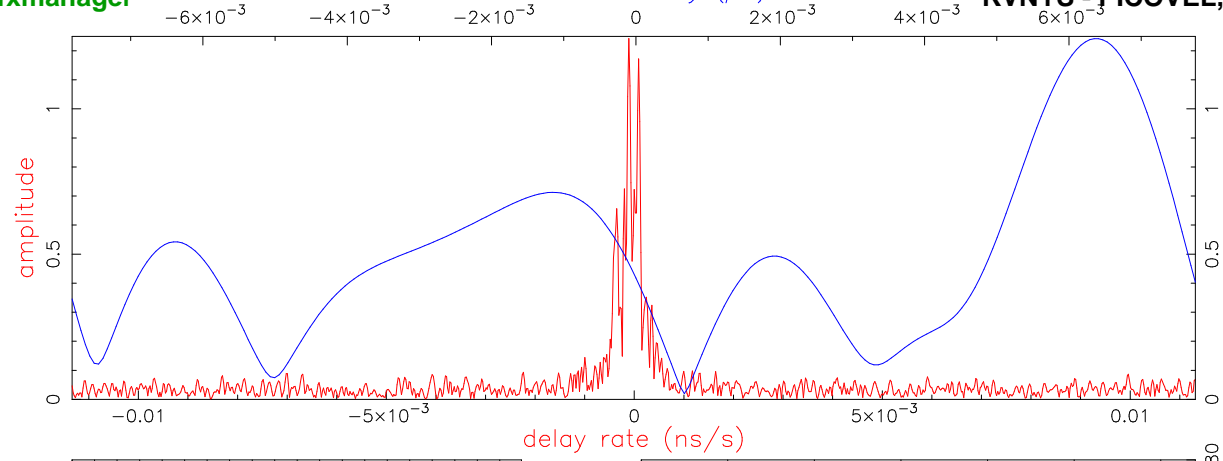
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

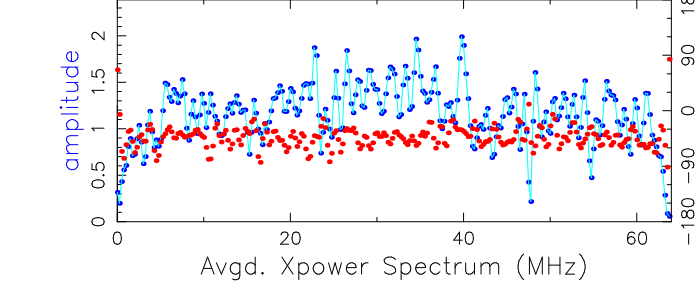
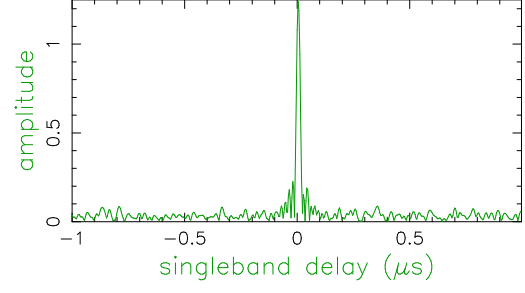
0102+584.1HR1IN, No0100, yP

KVNS - PICOVEL, fgroup W, pol RR

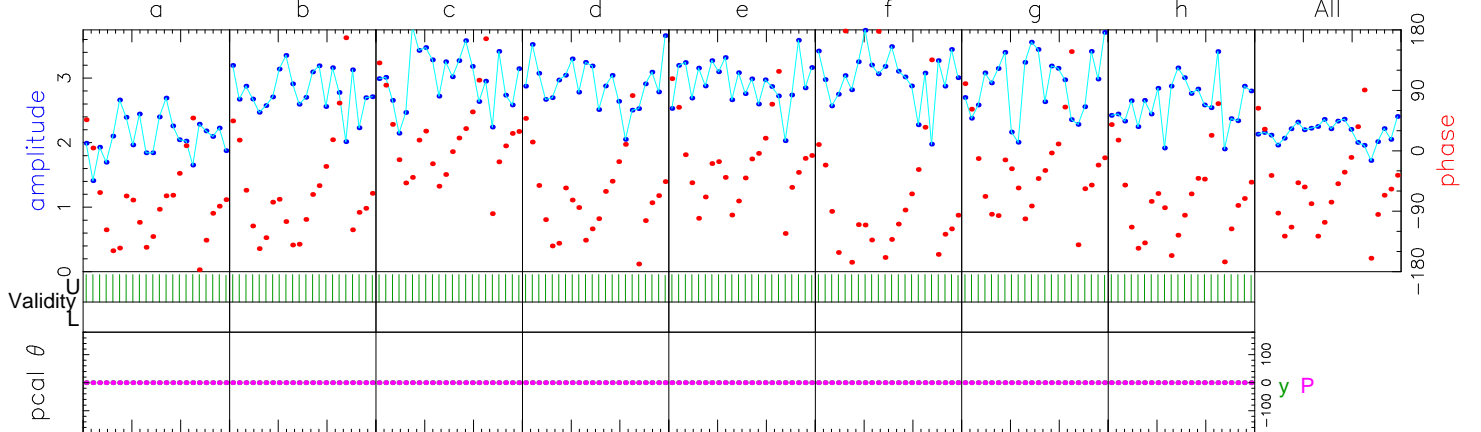
multiband delay (μ s)



Fringe quality 4
 SNR 45.8
 Int time 179.774
 Amp 1.250
 Phase -60.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.004919
 MBD 0.006400
 Fringe rate (Hz) -0.009823
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132736
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-88.0	-81.2	12.2	-73.3	-24.4	-117.9	-37.6	-76.7	Phase	-60.4
	1.3	1.5	1.8	1.7	1.7	1.7	1.6	1.4	Ampl.	1.6
	259.7	258.0	258.0	257.6	257.9	257.7	258.0	258.3	Sbd box	258.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) -2.78127820342E+03 Apriori delay (usec) -2.78128460323E+03 Resid mbdelay (usec) 6.39981E-03 +/- 2.4E-05
 Sband delay (usec) -2.78127968423E+03 Apriori clock (usec) 1.4137640E+00 Resid sbdelay (usec) 4.91900E-03 +/- 1.9E-04
 Phase delay (usec) -2.78128460518E+03 Apriori clockrate (us/s) 5.0000000E-07 Resid phdelay (usec) -1.94874E-06 +/- 8.1E-08
 Delay rate (us/s) 1.15211017107E+00 Apriori rate (us/s) 1.15211028510E+00 Resid rate (us/s) -1.14034E-07 +/- 7.8E-10
 Total phase (deg) -320.4 Apriori accel (us/s/s) 1.54371463751E-05 Resid phase (deg) -60.4 +/- 2.5

RMS Theor. Amplitude 1.250 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 63.0 5.9 Search (1024X32) 1.235 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 73.9 10.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 44.8 3.5 Inc. seg. avg. 2.148 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 31.3 6.2 Inc. frq. avg. 1.596 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

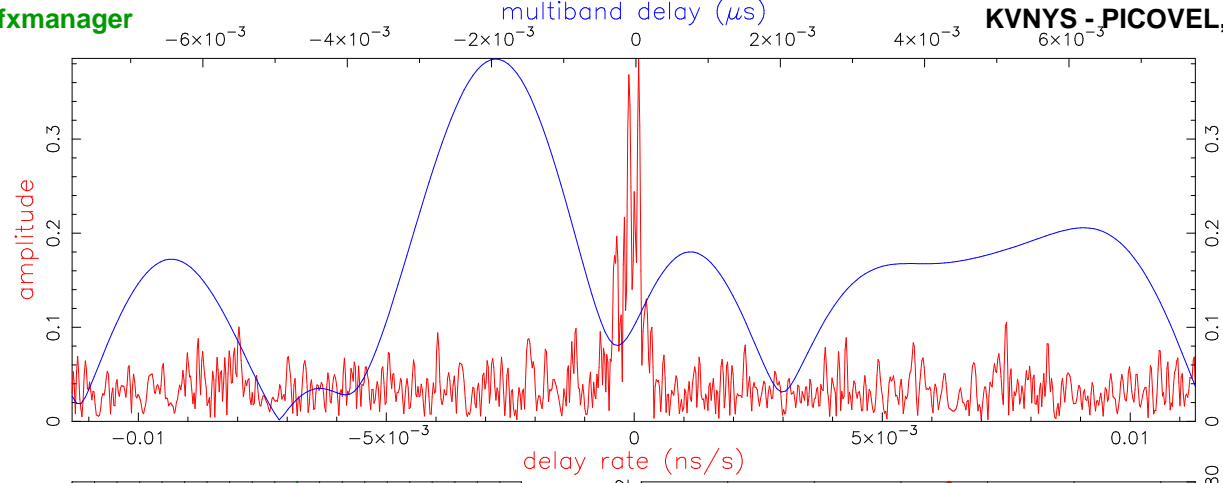
y: az 26.2 el 16.2 pa -42.5 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -12619.748 2066.220 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/yP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/yP.W.448.1HR1IN

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

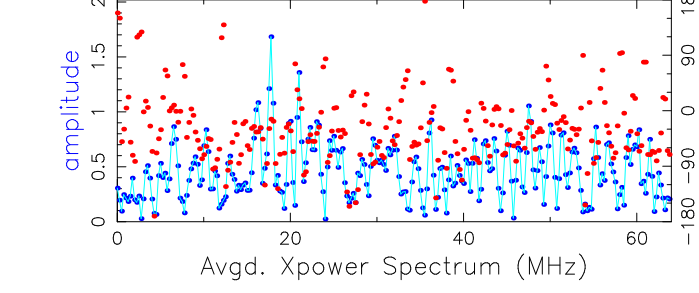
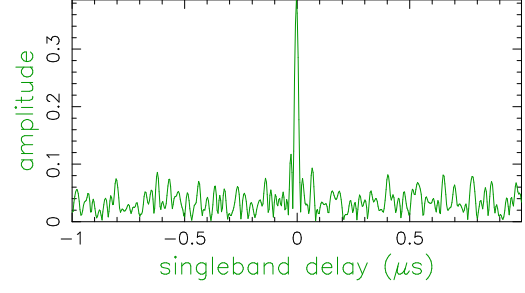
0102+584.1HR1IN, No0100, yP

KVNYS - PICOVEL, fgroup W, pol LR



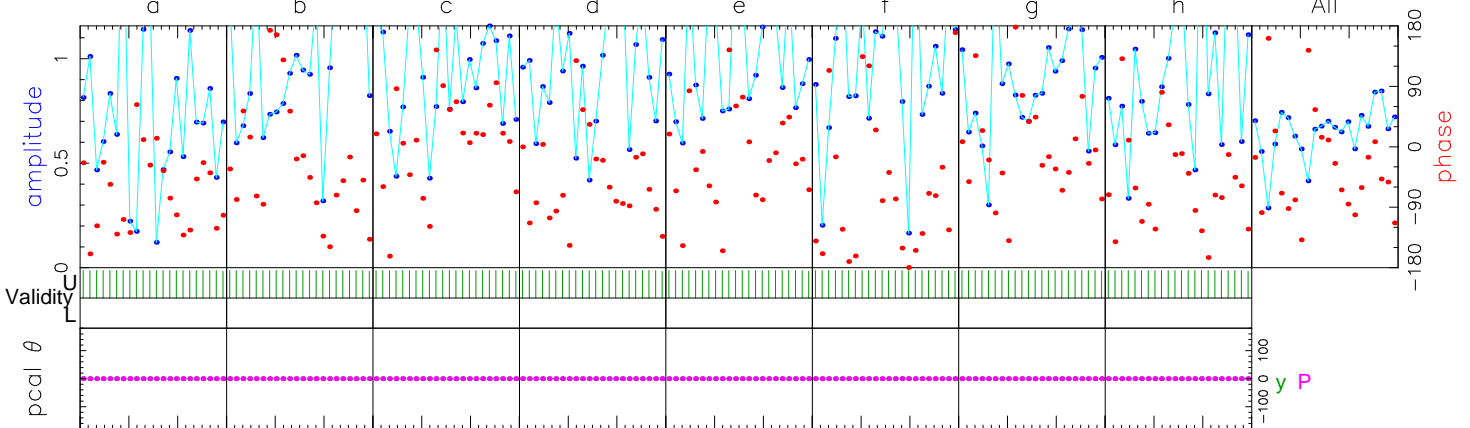
Fringe quality 8

SNR 14.1
 Int time 179.774
 Amp 0.386
 Phase -48.8
 PFD 6.1e-37
 Delays (us)
 SBD -0.003314
 MBD -0.001928
 Fringe rate (Hz)
 0.007162
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132738
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-74.6	-59.1	23.1	-63.3	-10.5	-119.8	-20.9	-64.9	Phase	-48.8
	0.5	0.6	0.5	0.6	0.5	0.4	0.4	0.5	Ampl.	0.5
	257.7	255.8	256.1	255.3	256.0	255.2	255.8	256.7	Sbd box	256.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-2.78128653162E+03	Apriori delay (usec)	-2.78128460323E+03	Resid mbdelay (usec)	-1.92840E-03	+/-	7.7E-05
Sband delay (usec)	-2.78128791723E+03	Apriori clock (usec)	1.4137640E+00	Resid sbdelay (usec)	-3.31400E-03	+/-	6.1E-04
Phase delay (usec)	-2.78128460480E+03	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	-1.57260E-06	+/-	2.6E-07
Delay rate (us/s)	1.15211036824E+00	Apriori rate (us/s)	1.15211028510E+00	Resid rate (us/s)	8.31407E-08	+/-	2.5E-09
Total phase (deg)	-308.8	Apriori accel (us/s/s)	1.54371463751E-05	Resid phase (deg)	-48.8	+/-	8.1

ph/seg (deg)	68.2	Theor.	19.0	Search (1024X32)	0.380	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	75.5		33.2	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)	47.8		11.5	Inc. seg. avg.	0.617	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	31.6		20.0	Inc. frq. avg.	0.487	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

y: az 26.2 el 16.2 pa -42.5 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -12619.748 2066.220 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/yP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/yP.W.465.1HR1IN

Mk4/DiFX fourfit 3.21 rev 2937

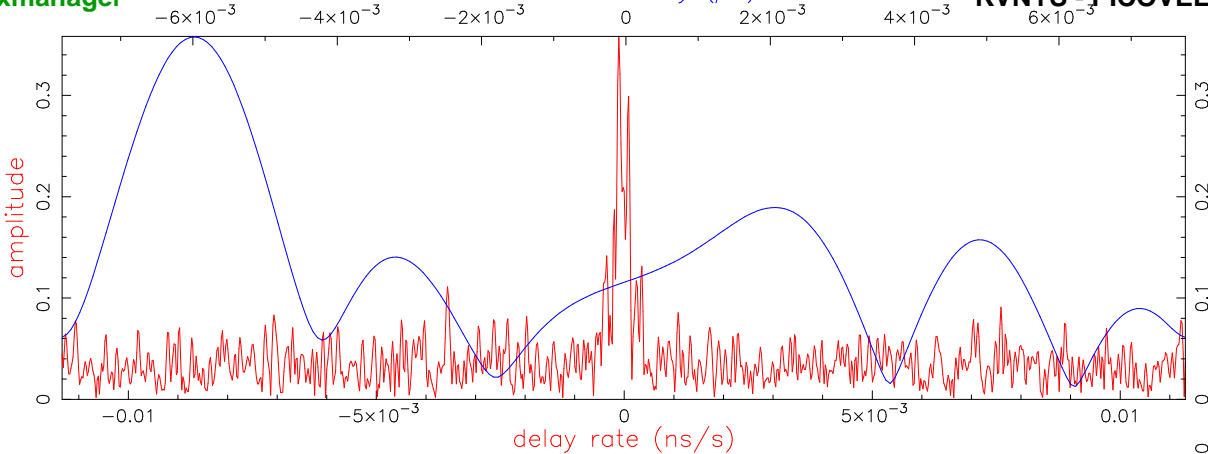
fxmanager

0102+584.1HR1IN, No0100, yP

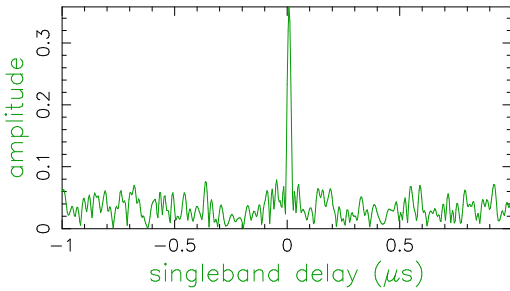
KVNYS - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

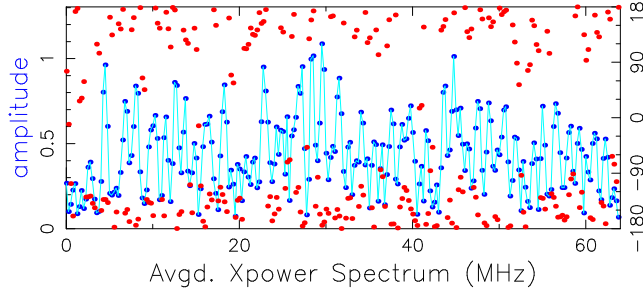
Fringe quality 9



SNR 13.1
 Int time 179.774
 Amp 0.358
 Phase -5.4
 PFD 5.7e-31
 Delays (us)
 SBD 0.008331
 MBD -0.005976
 Fringe rate (Hz)
 -0.009191
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

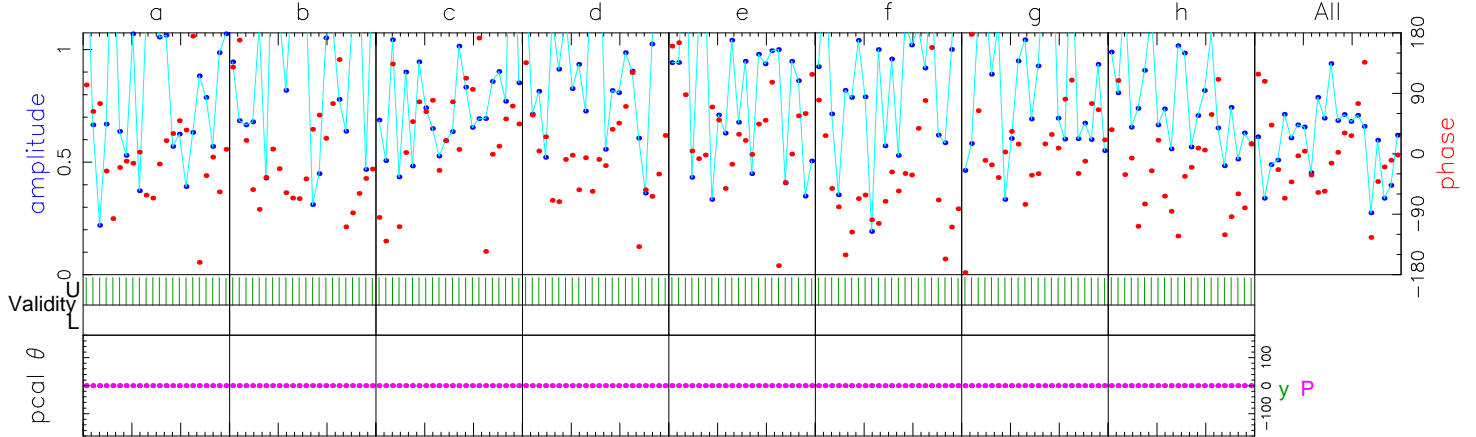


delay rate (ns/s)



Exp. c202a
 Yr:day 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132739
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
y:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-2.78127495451E+03	-2.78127627248E+03	-2.78128460340E+03	-2.78128460323E+03	-2.78128460323E+03	-2.78128460323E+03	-2.78128460323E+03	-2.78128460323E+03		
Sband delay (usec)	-2.78127627248E+03	-2.78127627248E+03	-2.78127627248E+03	-2.78127627248E+03	-2.78127627248E+03	-2.78127627248E+03	-2.78127627248E+03	-2.78127627248E+03		
Phase delay (usec)	-2.78128460340E+03	-2.78128460340E+03	-2.78128460340E+03	-2.78128460340E+03	-2.78128460340E+03	-2.78128460340E+03	-2.78128460340E+03	-2.78128460340E+03		
Delay rate (us/s)	1.15211017841E+00	1.15211017841E+00	1.15211017841E+00	1.15211028510E+00	1.15211028510E+00	1.15211028510E+00	1.15211028510E+00	1.15211028510E+00		
Total phase (deg)			-265.4							
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)										
Search (1024X32)										
Inc. seg. avg.										
Inc. frq. avg.										
Sample rate (MSamp/s): 128										
Data rate (Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
simultaneous interpolator										

y: az 26.2 el 16.2 pa -42.5 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -12619.748 2066.220 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/yP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/yP.W.480.1HR1IN

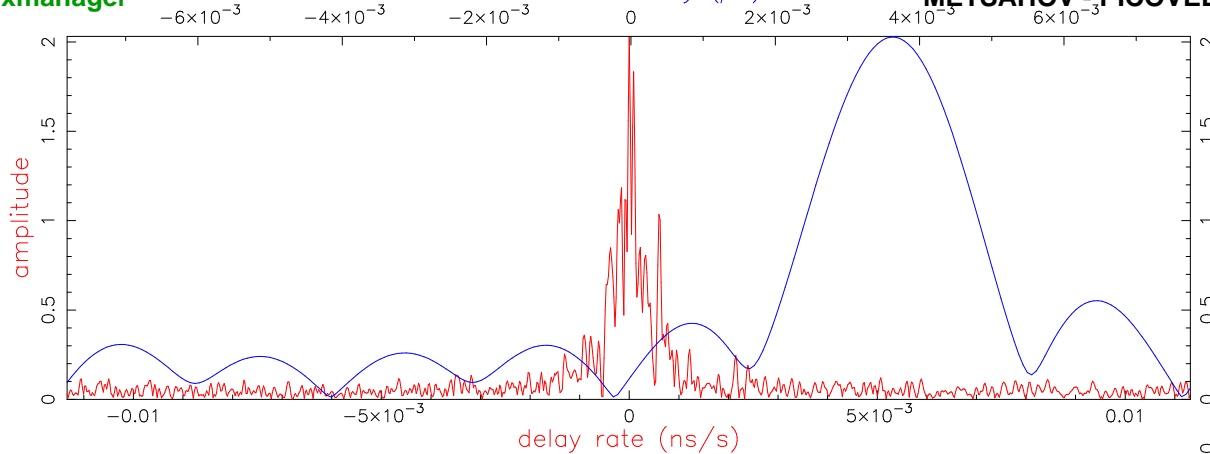
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, ZP

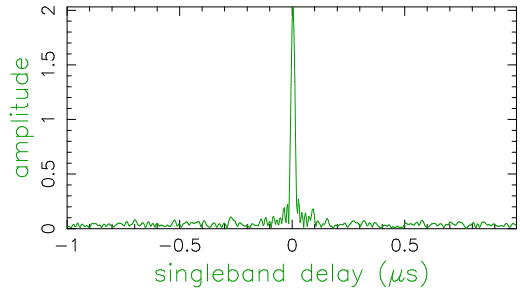
MEṬSAHOV - PICOVEL, fgroup W, pol LL

multiband delay (μ s)

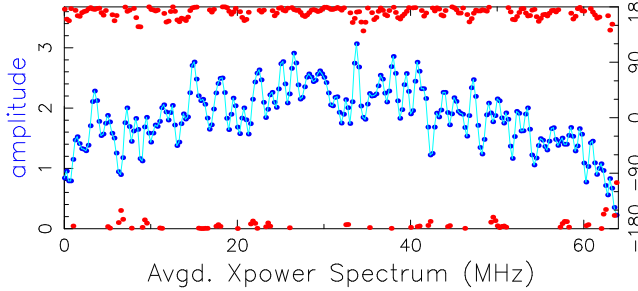


Fringe quality 5

SNR 74.4
 Int time 179.487
 Amp 2.031
 Phase 171.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.003354
 MBD 0.003615
 Fringe rate (Hz)
 -0.000523
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

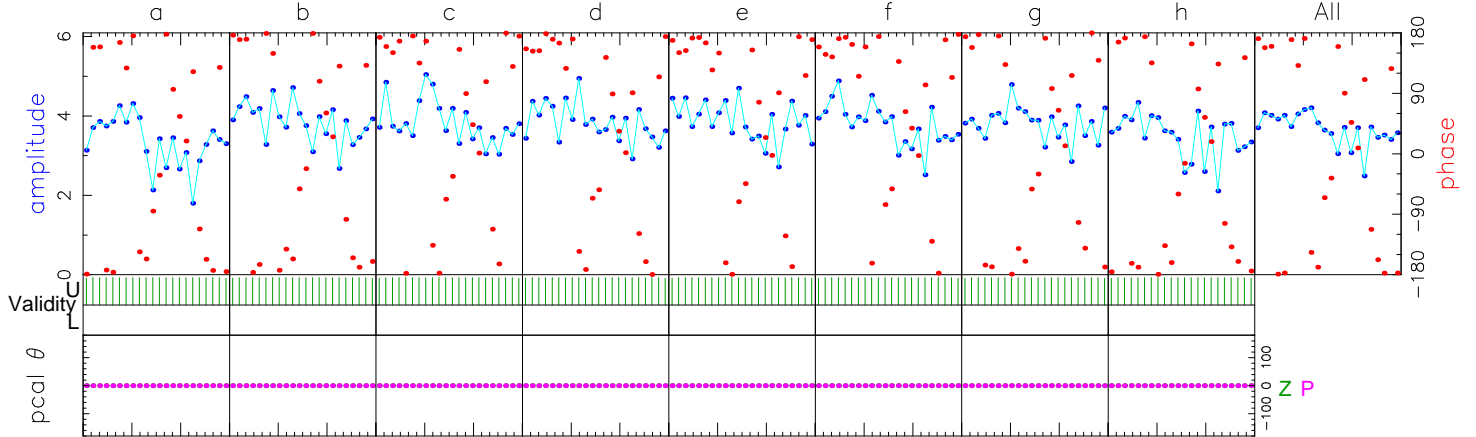


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132744
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	173.1	-179.8	167.8	166.2	163.5	160.2	179.9	-178.8	Phase	171.5
	2.0	2.1	2.1	2.0	2.1	2.1	2.0	2.0	Ampl.	2.0
	257.7	257.7	257.6	257.8	257.9	258.2	258.3	257.7	Sbd box	257.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	3.28801994265E+03	Apriori delay (usec)	3.28801632802E+03	Resid mbdelay (usec)	3.61462E-03	+/-	1.5E-05
Sband delay (usec)	3.28801968227E+03	Apriori clock (usec)	3.2177448E-01	Resid sbdelay (usec)	3.35425E-03	+/-	1.2E-04
Phase delay (usec)	3.28801633355E+03	Apriori clockrate (us/s)	4.1600000E-07	Resid phdelay (usec)	5.52927E-06	+/-	5.0E-08
Delay rate (us/s)	3.28181173428E-01	Apriori rate (us/s)	3.28181179499E-01	Resid rate (us/s)	-6.07092E-09	+/-	4.8E-10
Total phase (deg)	349.9	Apriori accel (us/s/s)	8.04434632005E-06	Resid phase (deg)	171.5	+/-	1.5

ph/seg (deg)	68.9	RMS	3.6	Theor.	2.031 +/- 0.027	PCal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	82.8	Search (1024X32)	1.952	Interp.	0.000	PCal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	8.9	Inc. seg. avg.	3.658	Inc. frq. avg.	2.045	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	2.3	Inc. frq. avg.	2.045	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 331.8 el 34.6 pa 27.2		P: az 326.2 el 24.4 pa 58.8		u, v (fr/asec)	-3593.193 2275.143	ion window (TEC)	0.00 0.00			simultaneous interpolator	

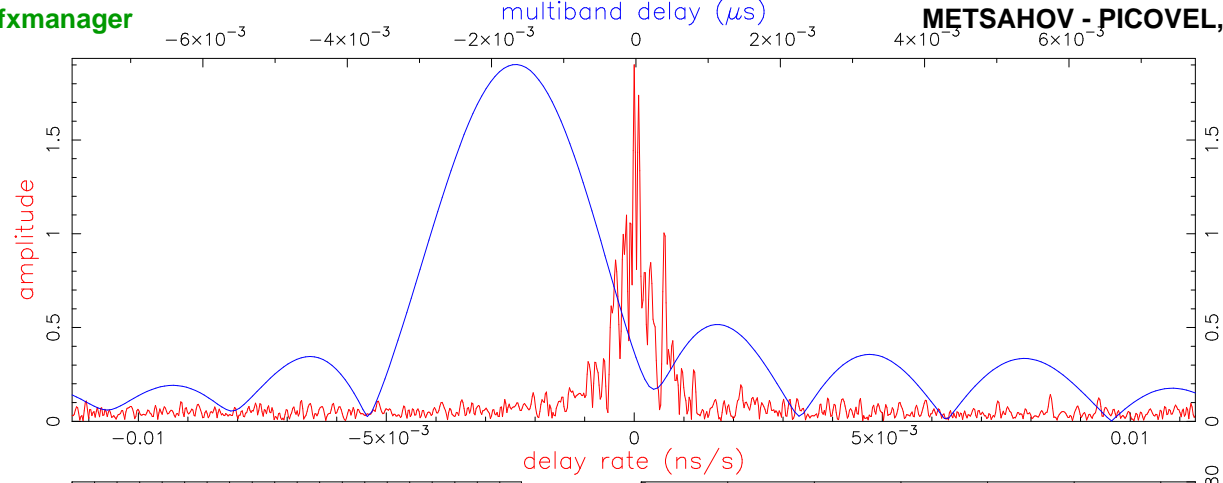
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/ZP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/ZP.W.510.1HR1IN

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, ZP

MEṬSAHOV - PICOVEL, fgroup W, pol RR



Fringe quality 5

SNR 70.9

Int time 179.487

Amp 1.935

Phase 2.9

PFD 0.0e+00

Delays (us)

SBD -0.001790

MBD -0.001706

Fringe rate (Hz)

-0.000538

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c202a

Exper # 16383

Yr:day 2020:283

Start 070000.00

Stop 070300.22

FRT 070130.00

Corr/FF/build

2021:006:135349

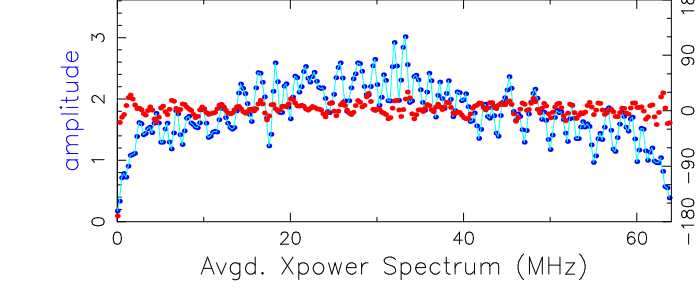
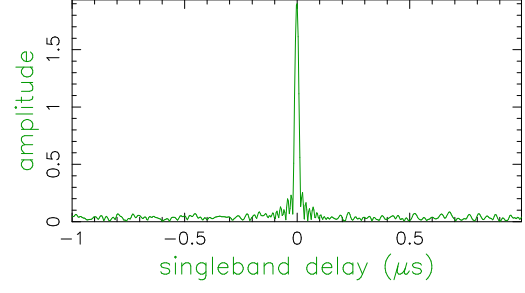
2021:010:132745

2020:247:085004

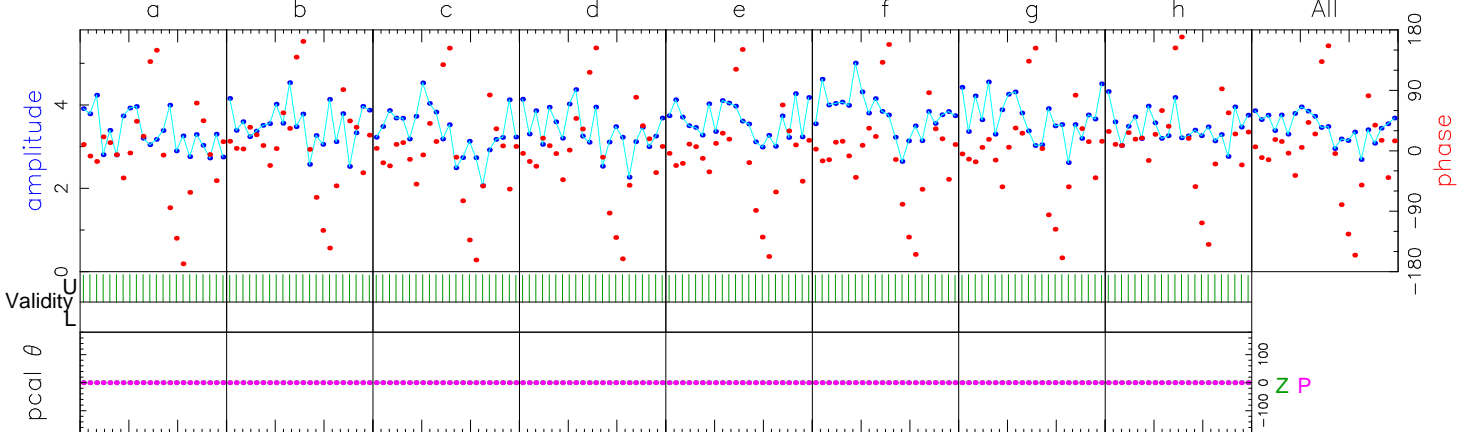
RA & Dec (J2000)

01h02m45.762375s

+58°24'11.136621"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-1.4	13.2	-4.6	2.4	-2.4	-0.4	-2.0	19.3	Phase	2.9
	1.8	1.8	1.8	1.8	2.0	2.1	2.0	1.9	Ampl.	1.9
	256.3	256.2	256.5	256.6	256.9	256.6	256.7	256.7	Sbd box	256.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) 3.28801462165E+03 Apriori delay (usec) 3.28801632802E+03 Resid mbdelay (usec) -1.70638E-03 +/- 1.5E-05

Sband delay (usec) 3.28801453802E+03 Apriori clock (usec) 3.2177448E-01 Resid sbdelay (usec) -1.79000E-03 +/- 1.2E-04

Phase delay (usec) 3.28801632812E+03 Apriori clockrate (us/s) 4.1600000E-07 Resid phdelay (usec) 9.42673E-08 +/- 5.2E-08

Delay rate (us/s) 3.28181173258E-01 Apriori rate (us/s) 3.28181179499E-01 Resid rate (us/s) -6.24098E-09 +/- 5.0E-10

Total phase (deg) 181.4 Apriori accel (us/s/s) 8.04434632005E-06 Resid phase (deg) 2.9 +/- 1.6

RMS Theor. Amplitude 1.935 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

ph/seg (deg) 69.2 3.8 Search (1024X32) 1.827 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

amp/seg (%) 81.4 6.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

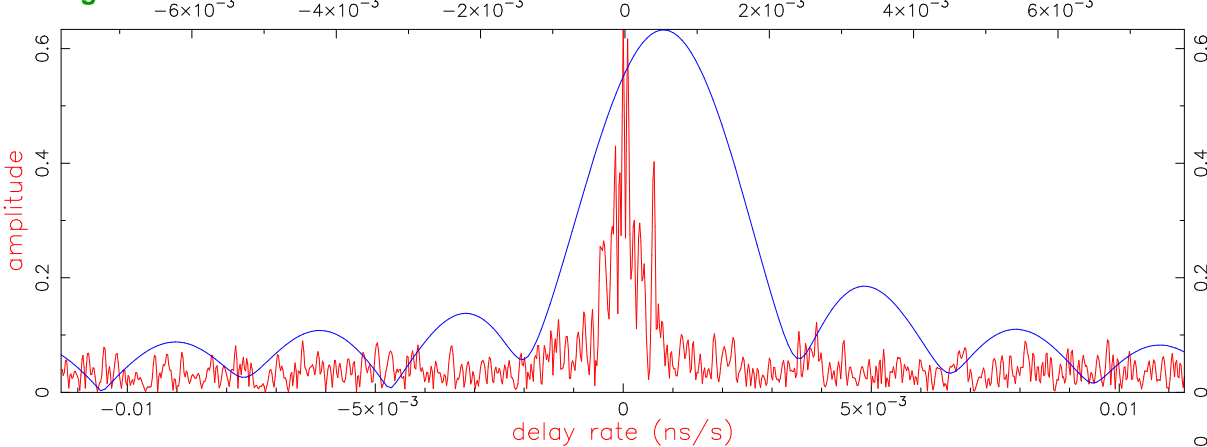
ph/frq (deg) 9.2 2.3 Inc. seg. avg. 3.469 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011

amp/frq (%) 6.2 4.0 Inc. frq. avg. 1.918 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 331.8 el 34.6 pa 27.2 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -3593.193 2275.143 simultaneous interpolator

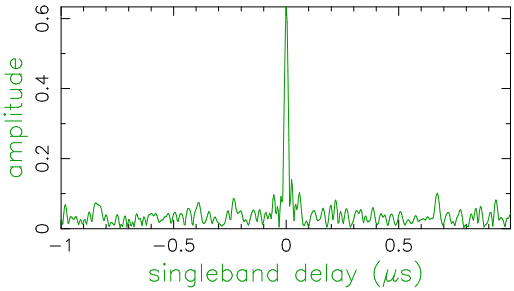
Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/ZP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/ZP.W.523.1HR1IN

multiband delay (μ s)

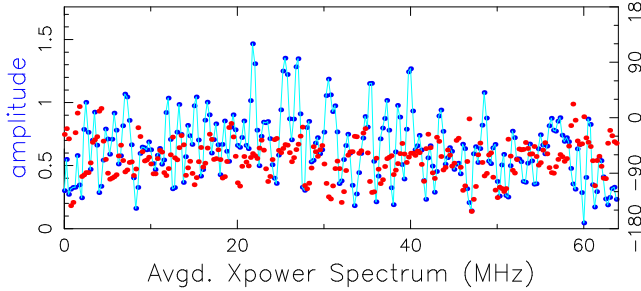


Fringe quality 9

SNR 23.2
 Int time 179.487
 Amp 0.634
 Phase -69.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.000454
 MBD 0.000545
 Fringe rate (Hz) -0.000521
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

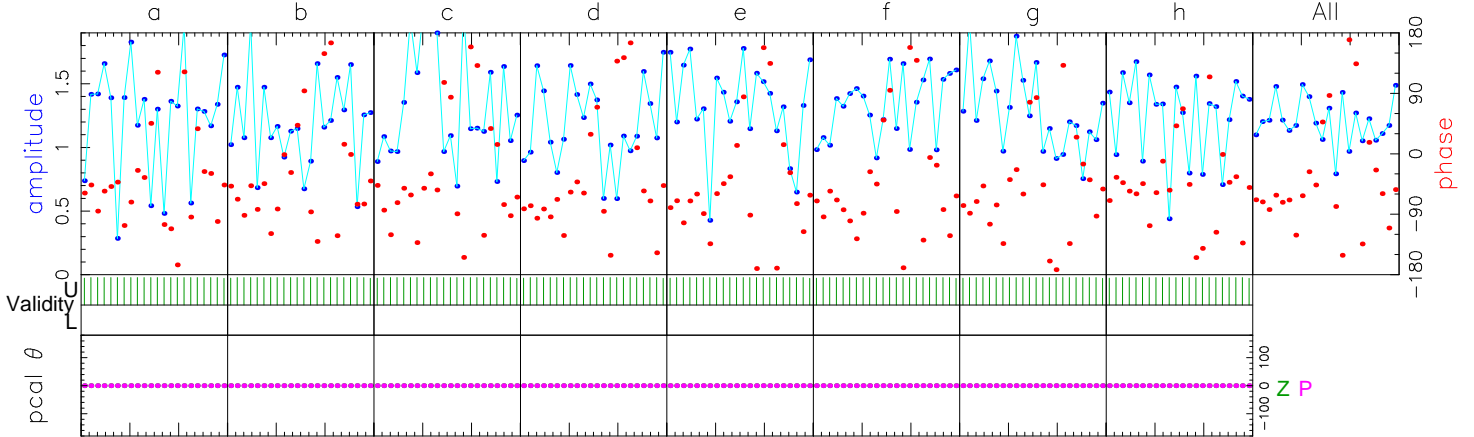


delay rate (ns/s)



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132747
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-61.4	-62.8	-74.0	-72.7	-77.6	-85.6	-66.8	-56.9	Phase	-69.5
	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	Ampl.	0.6
	257.6	256.7	256.8	257.2	257.9	257.1	257.2	257.1	Sbd box	257.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	3.28801687333E+03	Apriori delay (usec)	3.28801632802E+03	Resid mbdelay (usec)	5.45312E-04	+/-	4.7E-05
Sband delay (usec)	3.28801678202E+03	Apriori clock (usec)	3.2177448E-01	Resid sbdelay (usec)	4.54000E-04	+/-	3.7E-04
Phase delay (usec)	3.28801632578E+03	Apriori clockrate (us/s)	4.1600000E-07	Resid phdelay (usec)	-2.24234E-06	+/-	1.6E-07
Delay rate (us/s)	3.28181173453E-01	Apriori rate (us/s)	3.28181179499E-01	Resid rate (us/s)	-6.04541E-09	+/-	1.5E-09
Total phase (deg)	108.9	Apriori accel (us/s/s)	8.04434632005E-06	Resid phase (deg)	-69.5	+/-	4.9

ph/seg (deg)	69.2	RMS	11.6	Theor.	0.634 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	94.5	Search (1024X32)	0.619	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	10.3	Inc. seg. avg.	1.182	Inc. frq. avg.	0.636	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	3.7	Inc. frq. avg.	0.636	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 331.8 el 34.6 pa 27.2		P: az 326.2 el 24.4 pa 58.8		u, v (fr/asec)	-3593.193 2275.143	ion window (TEC)	0.00	0.00	0.00	0.00	

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/ZP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/ZP.W.532.1HR1IN simultaneous interpolator

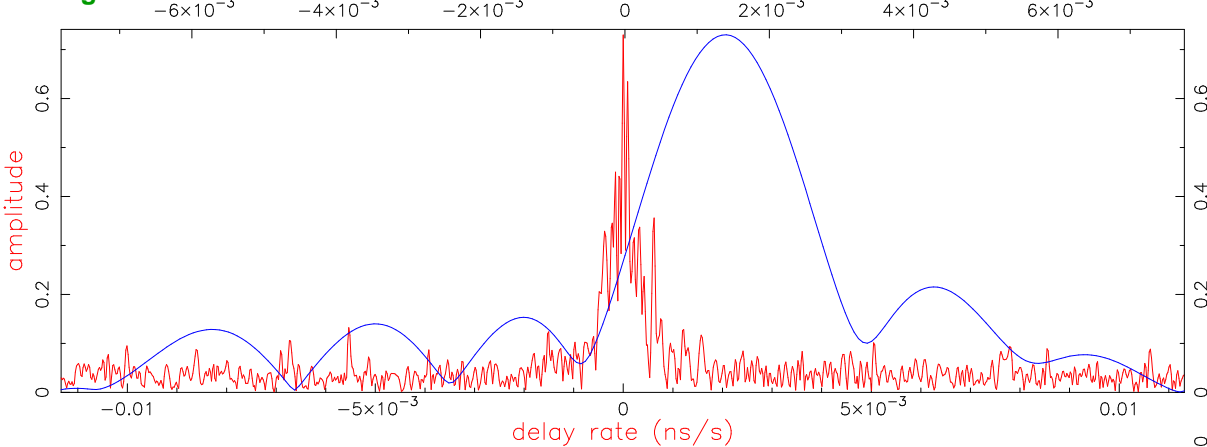
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1HR1IN, No0100, ZP

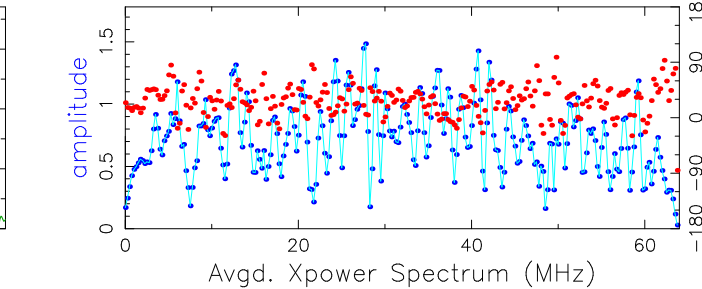
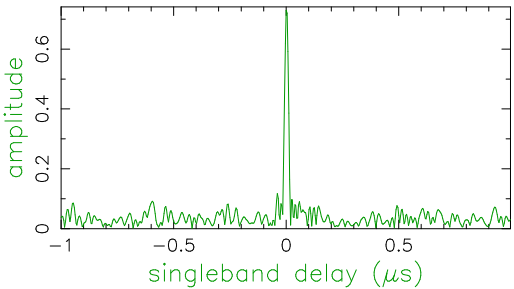
MEṬSAHOV - PICOVEL, fgroup W, pol RL

multiband delay (μ s)



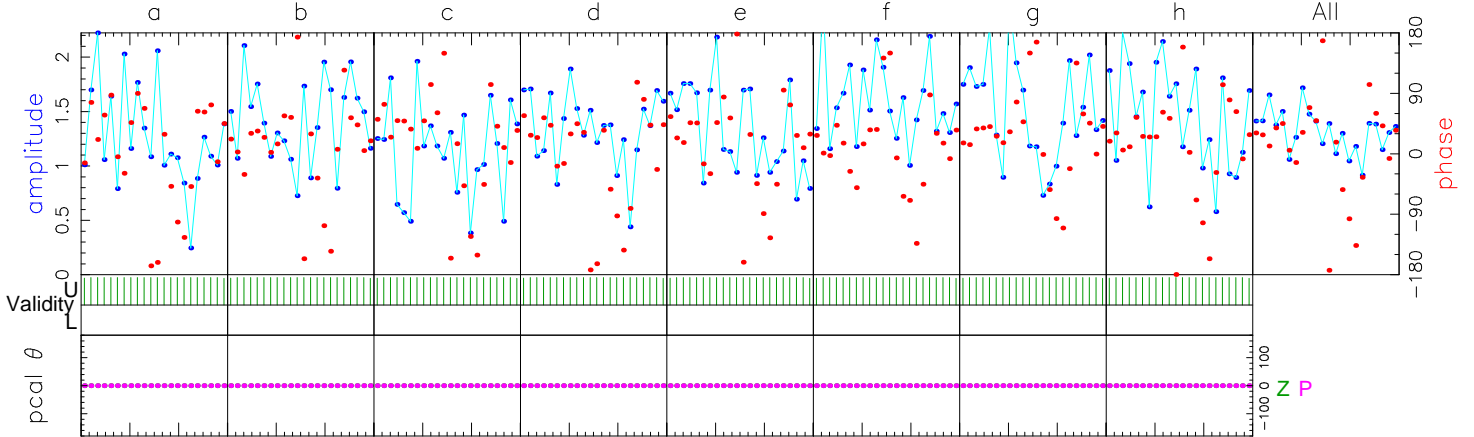
Fringe quality 7

SNR 27.2
 Int time 179.487
 Amp 0.741
 Phase 28.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.001654
 MBD 0.001422
 Fringe rate (Hz) -0.000501
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202a
 Exper # 16383
 Yr:day 2020:283
 Start 070000.00
 Stop 070300.22
 FRT 070130.00
 Corr/FF/build
 2021:006:135349
 2021:010:132748
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	3.28801774993E+03	Apriori delay (usec)	3.28801632802E+03	Resid mbdelay (usec)	1.42191E-03	+/-	4.0E-05
Sband delay (usec)	3.28801798202E+03	Apriori clock (usec)	3.2177448E-01	Resid sbdelay (usec)	1.65400E-03	+/-	3.2E-04
Phase delay (usec)	3.28801632895E+03	Apriori clockrate (us/s)	4.1600000E-07	Resid phdelay (usec)	9.26261E-07	+/-	1.4E-07
Delay rate (us/s)	3.28181173680E-01	Apriori rate (us/s)	3.28181179499E-01	Resid rate (us/s)	-5.81868E-09	+/-	1.3E-09
Total phase (deg)	207.2	Apriori accel (us/s/s)	8.04434632005E-06	Resid phase (deg)	28.7	+/-	4.2

ph/seg (deg)	71.3	Theor.	9.9	Amplitude	0.741 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	82.0		17.3	Search (1024X32)	0.715	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	10.7		6.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	18.1		10.4	Inc. seg. avg.	1.300	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.736	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

Z: az 331.8 el 34.6 pa 27.2 P: az 326.2 el 24.4 pa 58.8 u,v (fr/asec) -3593.193 2275.143 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202a/v1/v1_3mm/1234/No0100/ZP..1HR1IN Output file: /Exps/c202a/v1/v1_3mm/1234/No0100/ZP.W.537.1HR1IN