

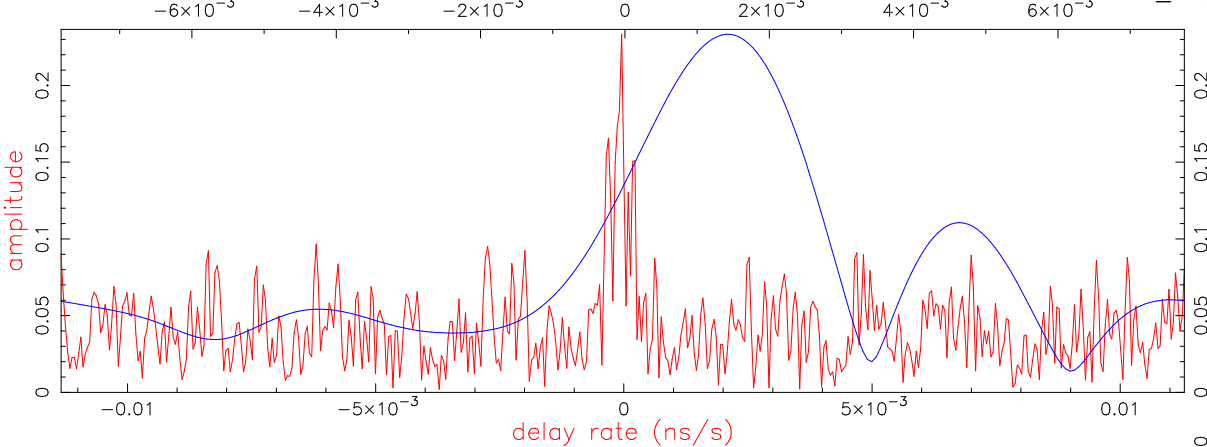
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, Bp

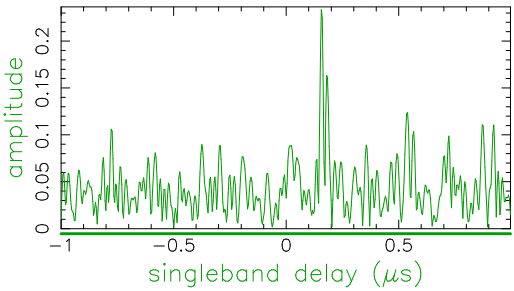
EFLSBERG - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)

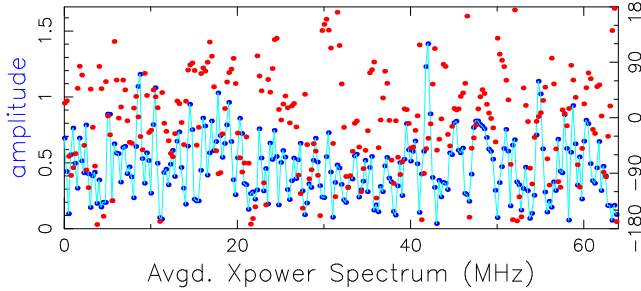


Fringe quality 0

SNR 6.9
 Int time 112.633
 Amp 0.237
 Phase 6.3
 PFD 4.9e-04
 Delays (us)
 SBD 0.157580
 MBD 0.001447
 Fringe rate (Hz) -0.003631
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

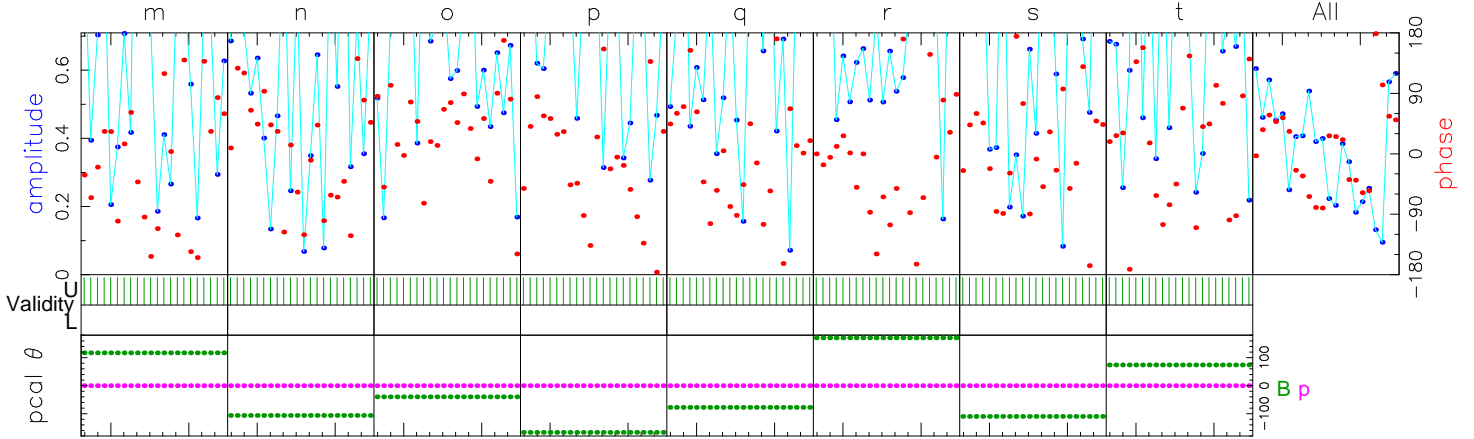


delay rate (ns/s)



Exp. c241a
 Yr:day 1234
 Start 2024:109
 Stop 2024:113
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112956
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	
	-26.2	9.6	45.2	-6.0	-3.4	-27.0	-1.2	65.1	Phase	6.3	
	0.1	0.2	0.4	0.3	0.3	0.3	0.3	0.1	Ampl.	0.2	
	346.8	203.7	297.8	484.4	478.2	106.5	297.8	235.8	Sbd box	297.3	
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used		
B	0	0	0	0	0	0	0	0	PC freqs		
p	0	0	0	0	0	0	0	0	PC freqs		
B:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
B:p	118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0	Manl PC		
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
p	1000	1000	1000	1000	1000	1000	1000	1000			
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	-6.42817677526E+03		Apriori delay (usec)		-6.42833447205E+03		Resid mbdelay (usec)		1.44679E-03	+/- 1.6E-04	
Sband delay (usec)	-6.42817689230E+03		Apriori clock (usec)		-4.111317E+01		Resid sbdelay (usec)		1.57580E-01	+/- 1.3E-03	
Phase delay (usec)	-6.42833447185E+03		Apriori clockrate (us/s)		-5.6823600E-07		Resid phdelay (usec)		2.01549E-07	+/- 5.4E-07	
Delay rate (us/s)	-1.07654370539E+00		Apriori rate (us/s)		-1.07654366323E+00		Resid rate (us/s)		-4.21563E-08	+/- 8.3E-09	
Total phase (deg)			Apriori accel (us/s/s)		5.14237596954E-05		Resid phase (deg)		6.3	+/- 16.7	
	RMS	Theor.	Amplitude	0.237 +/- 0.034		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	62.9	39.1	Search (512X32)	0.233		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	85.5	68.3	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	35.2	23.6	Inc. seg. avg.	0.300		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	42.1	41.2	Inc. frq. avg.	0.244		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
B: az 302.9 el 37.3 pa 52.8	p: az 49.1 el 64.2 pa -111.4		u, v (fr/asec) 9246.579 5679.935						simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0916/Bp..3MP1AB		Output file: /Exps/c241a/v2/3mm/1234/No0916/Bp.W.101.3MP1AB								

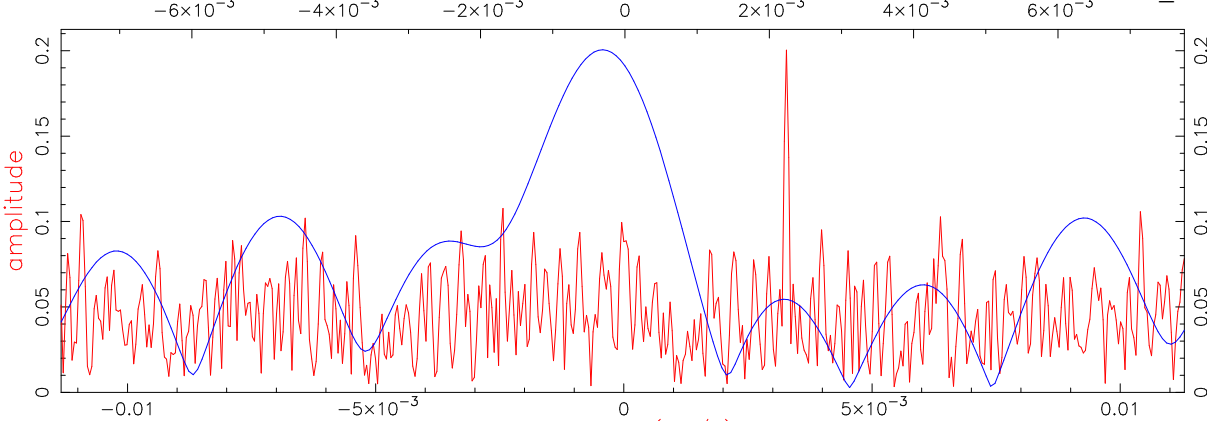
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, Bp

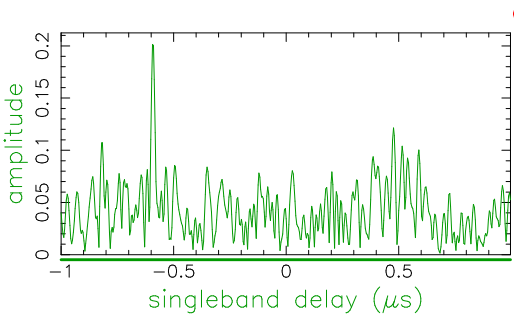
EFLSBERG - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)

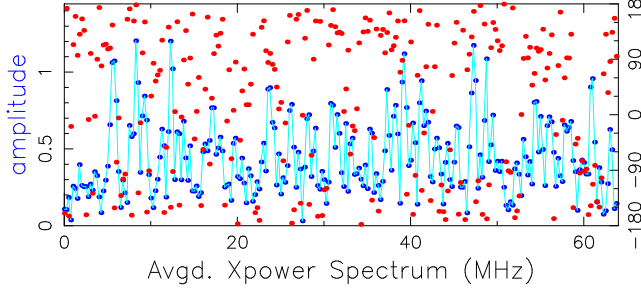


Fringe quality 0

SNR 6.0
 Int time 112.633
 Amp 0.213
 Phase 170.8
 PFD 1.5e-01
 Delays (us)
 SBD -0.591927
 MBD -0.000360
 Fringe rate (Hz)
 0.282630
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

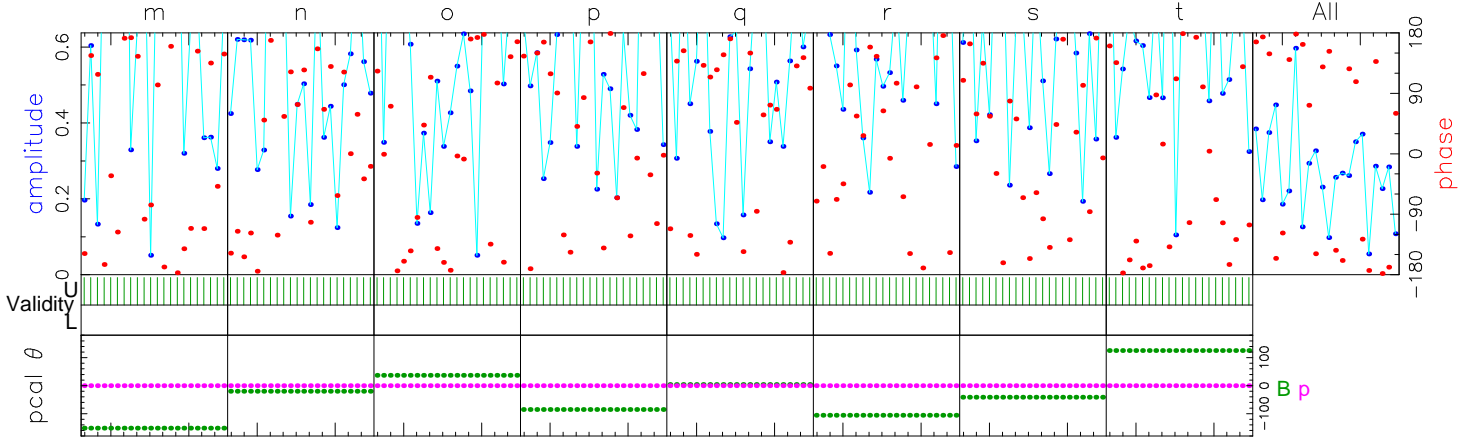


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112957
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-173.6	151.6	164.5	163.4	145.7	126.5	-135.6	-162.4	Phase	170.8
	0.4	0.1	0.3	0.2	0.3	0.1	0.0	0.3	Ampl.	0.2
	105.0	493.1	356.5	363.1	129.6	35.6	208.6	103.2	Sbd box	105.5
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
B:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:p	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-6.42892858220E+03	Apriori delay (usec)	-6.42833447205E+03	Resid mbdelay (usec)	-3.60152E-04	+/-	1.8E-04
Sband delay (usec)	-6.42892639930E+03	Apriori clock (usec)	-4.111317E+01	Resid sbdelay (usec)	-5.91927E-01	+/-	1.4E-03
Phase delay (usec)	-6.42833446654E+03	Apriori clockrate (us/s)	-5.6823600E-07	Resid phdelay (usec)	5.50685E-06	+/-	6.2E-07
Delay rate (us/s)	-1.07654038217E+00	Apriori rate (us/s)	-1.07654366323E+00	Resid rate (us/s)	3.28106E-06	+/-	9.5E-09
Total phase (deg)	18.8	Apriori accel (us/s/s)	5.14237596954E-05	Resid phase (deg)	170.8	+/-	19.2

ph/seg (deg)	46.8	Theor.	45.1	Amplitude	0.213 +/- 0.036	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	67.2	Search (512X32)	0.198	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	33.9	Inc. seg. avg.	0.214	Inc. frq. avg.	0.201	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	57.4	Inc. frq. avg.	0.201			Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	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 302.9 el 37.3 pa 52.8 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 9246.579 5679.935 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/Bp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/Bp.W.105.3MP1AB

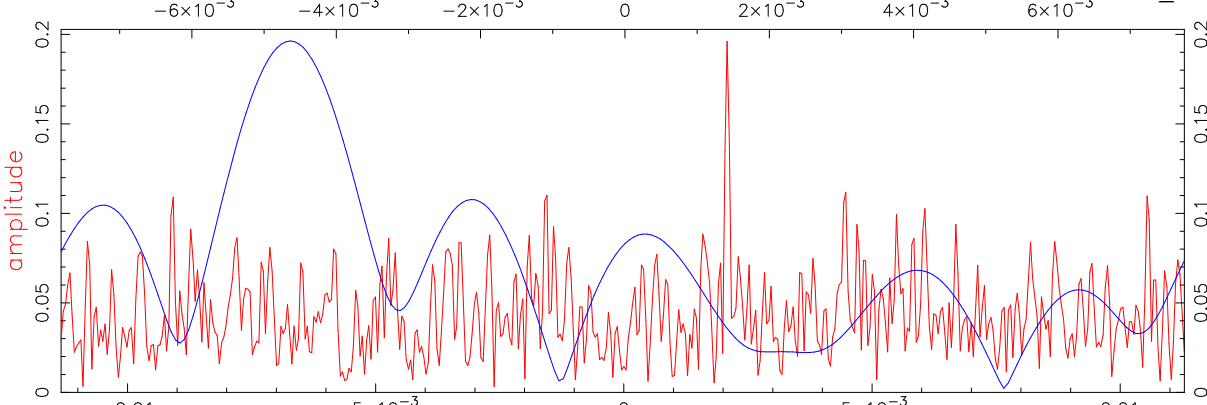
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, Bp

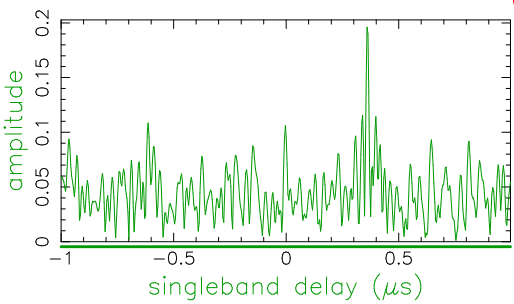
EFLSBERG - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

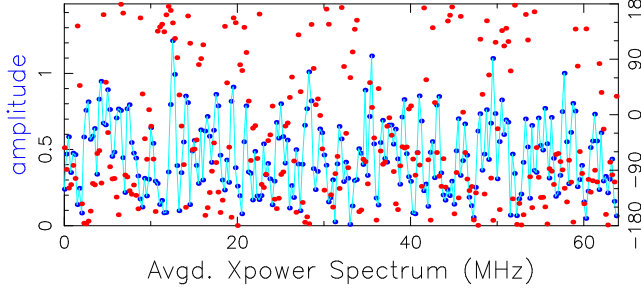


Fringe quality 0

SNR 5.8
 Int time 112.633
 Amp 0.203
 Phase 122.5
 PFD 3.3e-01
 Delays (us)
 SBD 0.360866
 MBD -0.004598
 Fringe rate (Hz)
 0.180438
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

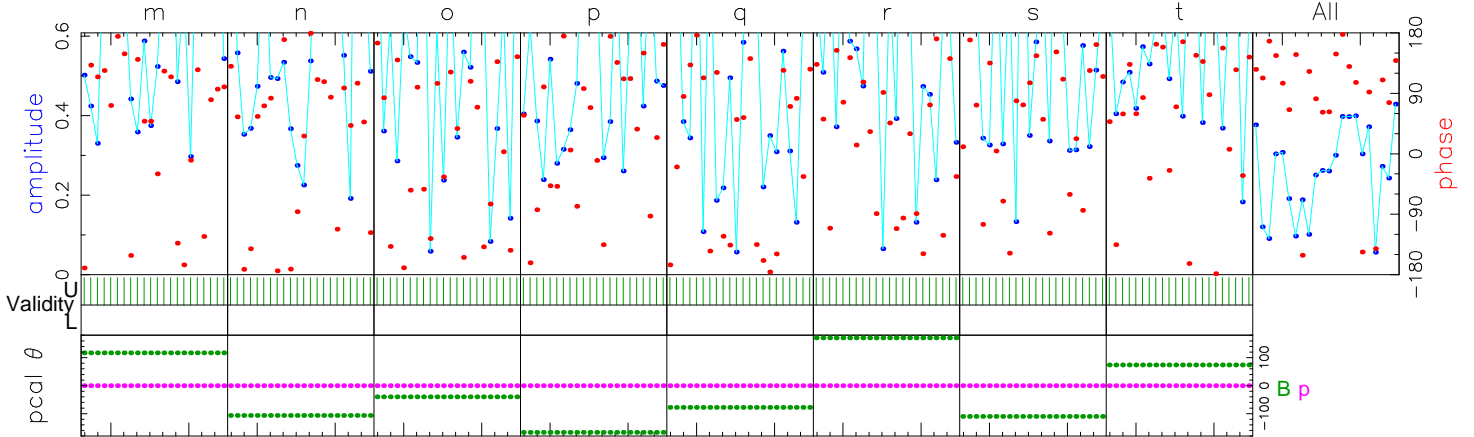


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112958
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
B	0	0	0	0	0	0	0	0		
p	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:p	118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0		
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-6.42797969490E+03	Apriori delay (usec)	-6.42833447205E+03	Resid mbdelay (usec)	-4.59785E-03	+/-	1.9E-04
Sband delay (usec)	-6.42797360655E+03	Apriori clock (usec)	-4.111317E+01	Resid sbdelay (usec)	3.60866E-01	+/-	1.5E-03
Phase delay (usec)	-6.42833446810E+03	Apriori clockrate (us/s)	-5.6823600E-07	Resid phdelay (usec)	3.94926E-06	+/-	6.4E-07
Delay rate (us/s)	-1.07654156852E+00	Apriori rate (us/s)	-1.07654366323E+00	Resid rate (us/s)	2.09471E-06	+/-	9.8E-09
Total phase (deg)		Apriori accel (us/s/s)	5.14237596954E-05	Resid phase (deg)	122.5	+/-	19.7

ph/seg (deg)	RMS 46.9	Theor. 46.3	Amplitude Search (512X32)	0.203 +/- 0.035	0.186	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	63.2	80.8	Interp.	0.000	0.199	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	32.1	27.9	Inc. seg. avg.	0.199	0.191	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	51.5	48.7	Inc. frq. avg.	0.191		Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 302.9 el 37.3 pa 52.8 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 9246.579 5679.935 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/Bp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/Bp.W.108.3MP1AB

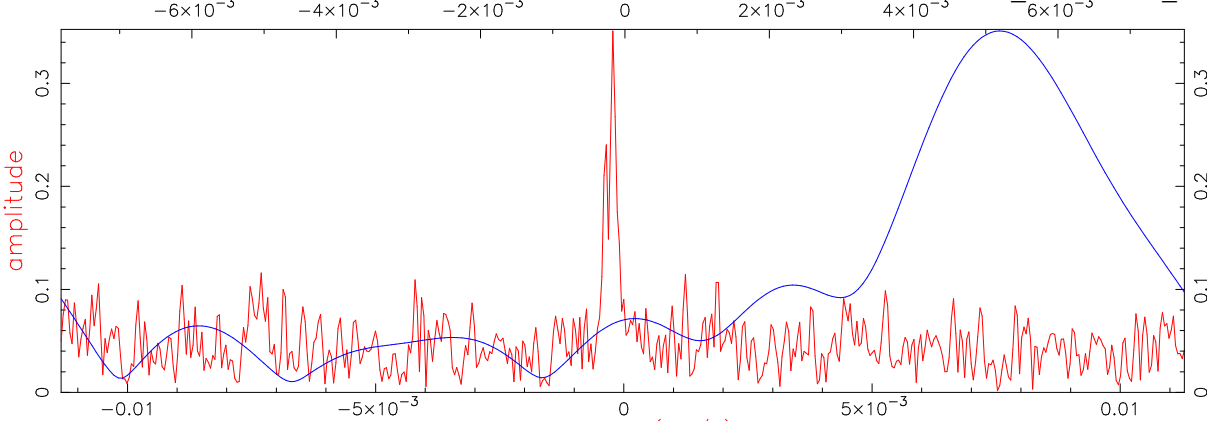
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bp

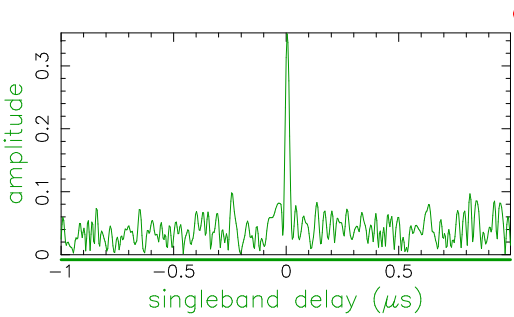
VLBA_BR - VLBA_PT, fgroup W, pol LL

multiband delay (μ s)

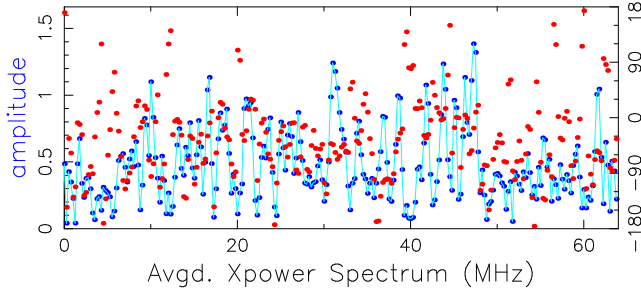


Fringe quality 9

SNR 10.2
Int time 112.617
Amp 0.352
Phase -43.0
PFD 1.6e-16
Delays (us)
SBD 0.004807
MBD 0.005187
Fringe rate (Hz) -0.018684
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

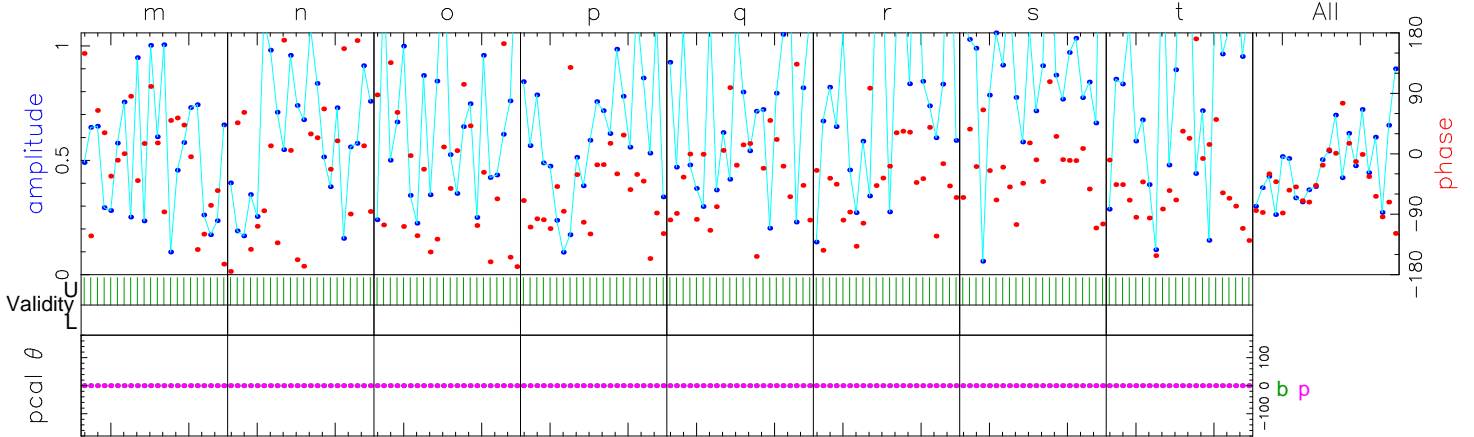


delay rate (ns/s)



Exp. c241a
Exper # 1234
Yr:day 2024:109
Start 170437.17
Stop 170629.81
FRT 170540.00
Corr/FF/build
2025:007:183750
2025:041:112943
2024:113:095956
RA & Dec (J2000)
01h36m58.594803s
+47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-7.2	-30.7	-90.9	-58.7	-44.1	-36.9	-31.1	-50.1	Phase	-43.0
	0.1	0.1	0.1	0.4	0.4	0.5	0.6	0.5	Ampl.	0.4
	82.7	239.0	509.7	258.7	259.3	257.2	258.5	258.0	Sbd box	258.2
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	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	

Group delay (usec) (SBD)	-2.17665139736E+02	Apriori delay (usec)	-2.17670326692E+02	Resid mbdelay (usec)	5.18696E-03	+/-	1.1E-04
Sband delay (usec)	-2.17665519942E+02	Apriori clock (usec)	-1.0722427E+00	Resid sbdelay (usec)	4.80675E-03	+/-	8.4E-04
Phase delay (usec)	-2.17670328080E+02	Apriori clockrate (us/s)	1.9774395E-07	Resid phdelay (usec)	-1.38802E-06	+/-	3.6E-07
Delay rate (us/s)	3.50626410524E-02	Apriori rate (us/s)	3.50628579532E-02	Resid rate (us/s)	-2.16901E-07	+/-	5.6E-09
Total phase (deg)		Apriori accel (us/s/s)	1.63239522965E-05	Resid phase (deg)	-43.0	+/-	11.2

ph/seg (deg)	43.9	Theor.	26.3	Amplitude	0.352 +/- 0.034	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	58.8		45.9	Search (512X32)	0.346	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	26.5		15.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	52.9		27.7	Inc. seg. avg.	0.439	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.352	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

b: az 74.8 el 62.9 pa -74.1 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) -289.372 2497.764 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bp.W.51.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

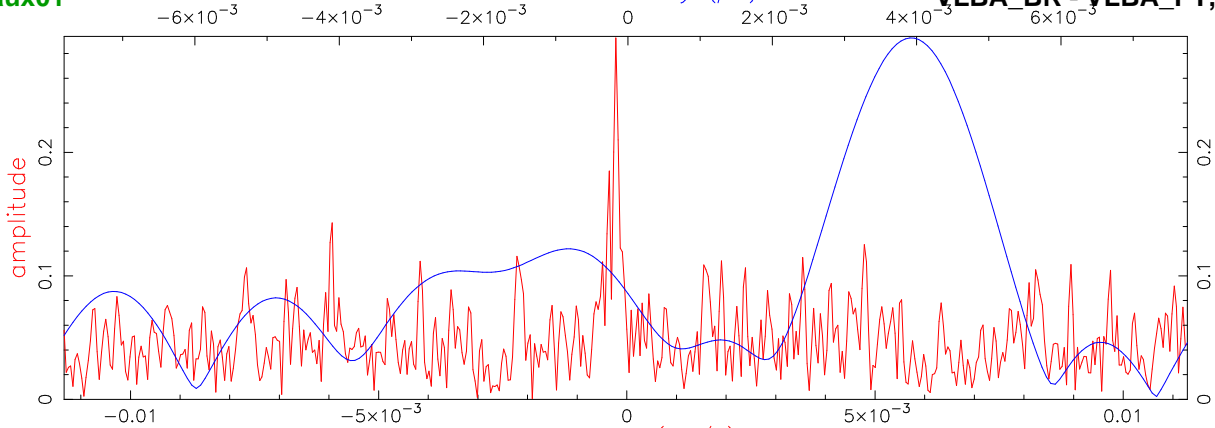
aux01

0133+476.3MP1AB, No0916, bp

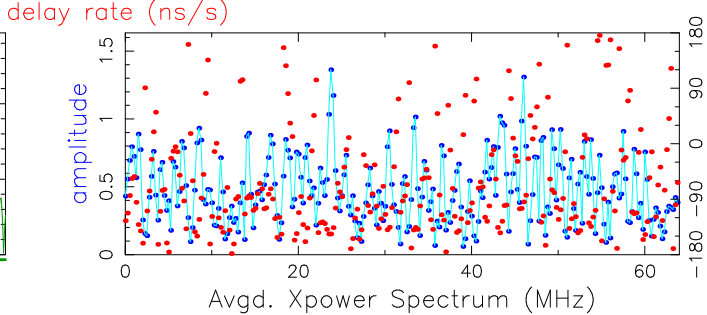
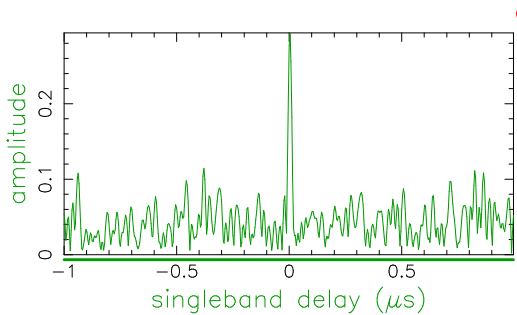
VLBA_BR - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 9

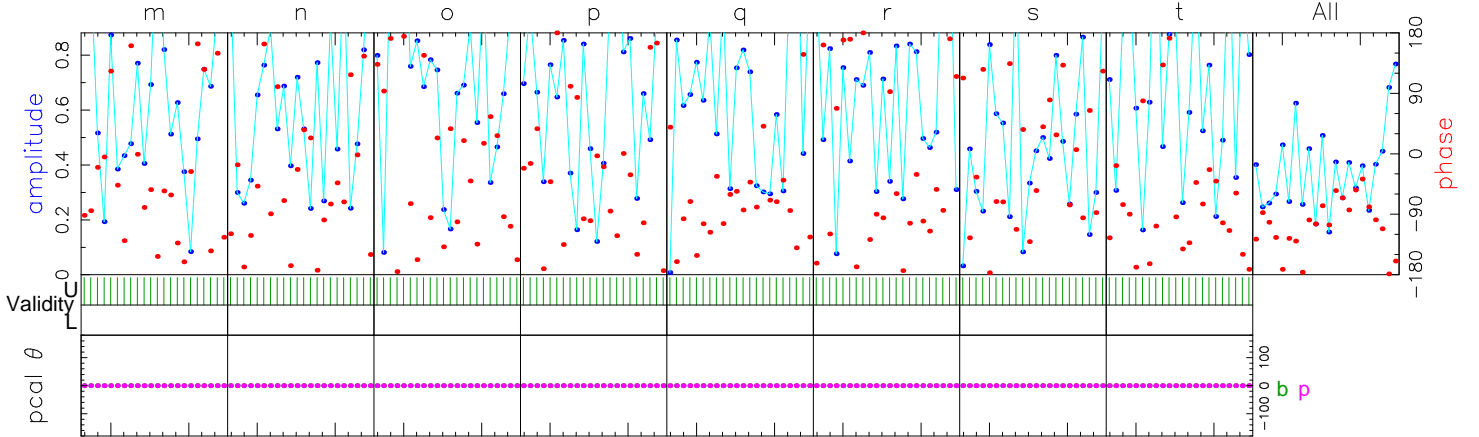


SNR 8.5
 Int time 112.617
 Amp 0.294
 Phase -112.5
 PFD 1.4e-09
 Delays (us)
 SBD 0.003080
 MBD 0.003909
 Fringe rate (Hz)
 -0.017653
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112946
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-118.9	-102.5	-141.6	-93.9	-99.0	-132.7	-95.7	-111.0	Phase	-112.5
	0.3	0.2	0.2	0.2	0.5	0.4	0.1	0.5	Ampl.	0.3
	210.4	340.9	245.4	463.0	257.1	257.8	429.5	257.6	Sbd box	257.8
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-2.17666417954E+02	Apriori delay (usec)	-2.17670326692E+02	Resid mbdelay (usec)	3.90874E-03	+/-	1.3E-04
Sband delay (usec)	-2.17667247192E+02	Apriori clock (usec)	-1.0722427E+00	Resid sbdelay (usec)	3.07950E-03	+/-	1.0E-03
Phase delay (usec)	-2.17670330319E+02	Apriori clockrate (us/s)	1.9774395E-07	Resid phdelay (usec)	-3.62624E-06	+/-	4.3E-07
Delay rate (us/s)	3.50626530185E-02	Apriori rate (us/s)	3.50628579532E-02	Resid rate (us/s)	-2.04935E-07	+/-	6.7E-09
Total phase (deg)	-91.3	Apriori accel (us/s/s)	1.63239522965E-05	Resid phase (deg)	-112.5	+/-	13.4

ph/seg (deg)	RMS 39.3	Theor. 31.5	Amplitude Search (512X32)	0.294 +/- 0.034	0.279	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	61.5	55.0	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)	19.2	19.0	Inc. seg. avg.	0.335		Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	44.2	33.2	Inc. frq. avg.	0.288		Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 74.8 el 62.9 pa -74.1 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) -289.372 2497.764 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bp.W.55.3MP1AB

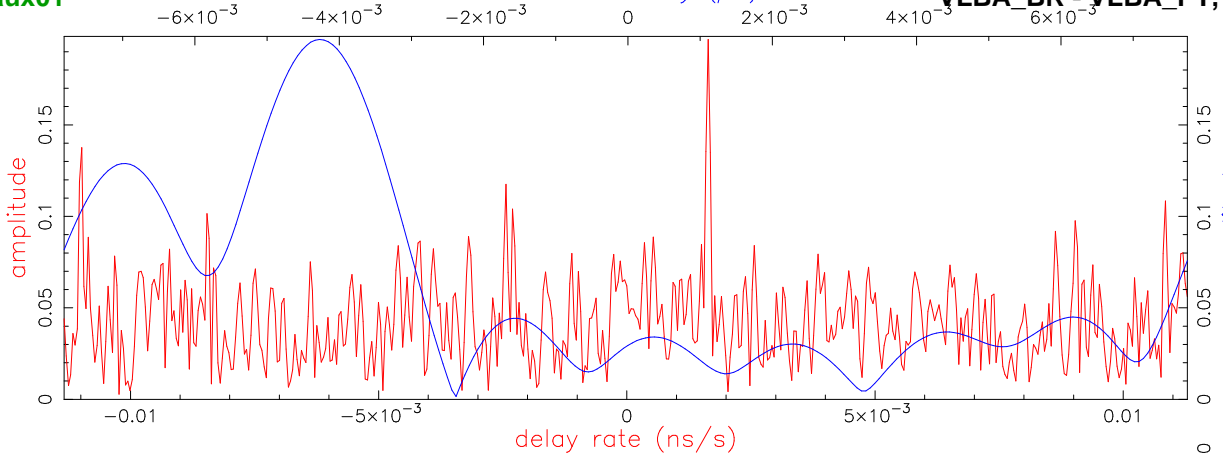
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bp

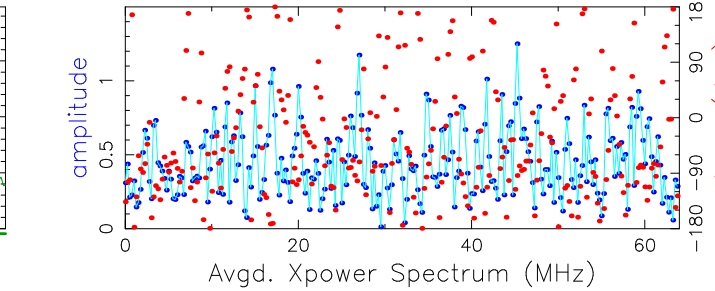
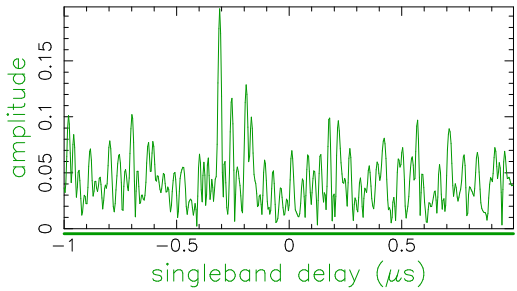
VLBA_BR - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)



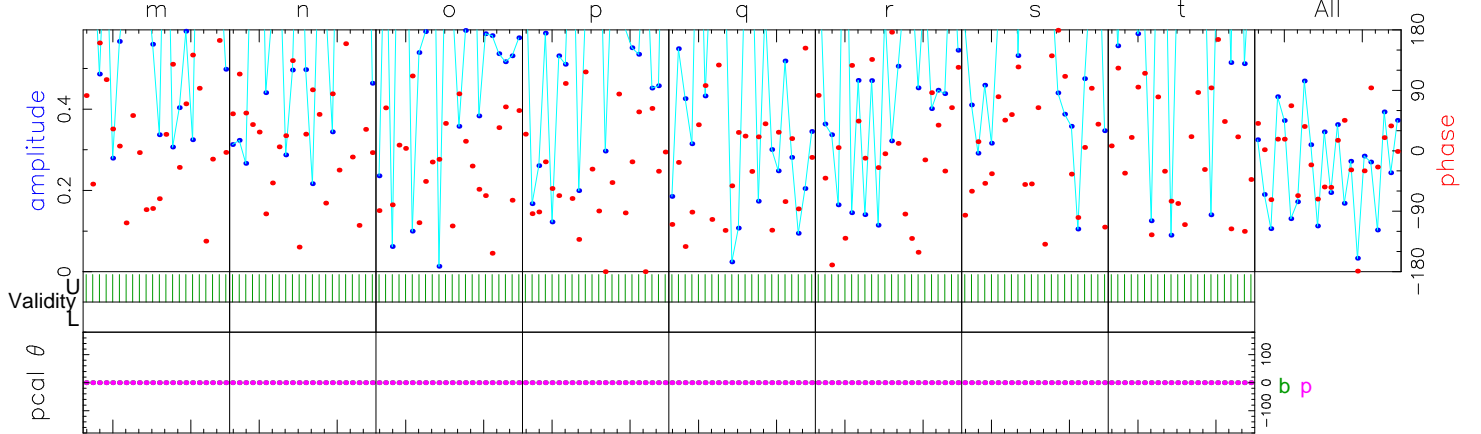
Fringe quality 0

SNR 5.7
 Int time 112.617
 Amp 0.198
 Phase 5.1
 PFD 5.1e-01
 Delays (us)
 SBD -0.308768
 MBD -0.004274
 Fringe rate (Hz)
 0.140170
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112947
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
b	0	0	0	0	0	0	0	0		
p	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: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)	-2.17971475690E+02									
Sband delay (usec)	-2.17979094692E+02									
Phase delay (usec)	-2.17670326529E+02									
Delay rate (us/s)	3.50644851870E-02									
Total phase (deg)			-333.8							
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										
Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us										
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										

b: az 74.8 el 62.9 pa -74.1
 Control file: cf_1234_gmva
 Input file: /Exps/c241a/v2/3mm/1234/No0916/bp..3MP1AB
 Output file: /Exps/c241a/v2/3mm/1234/No0916/bp.W.62.3MP1AB

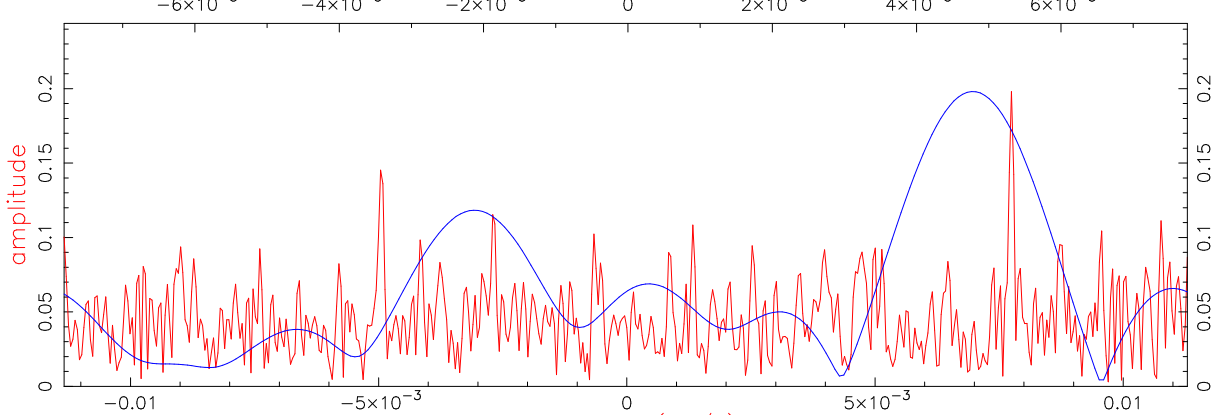
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bp

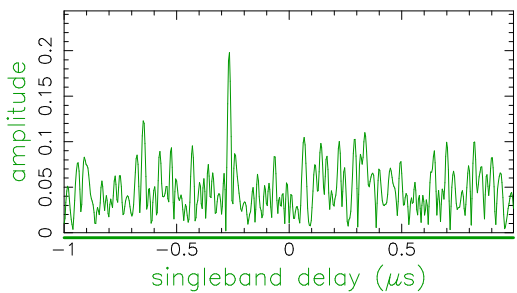
VLBA_BR - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

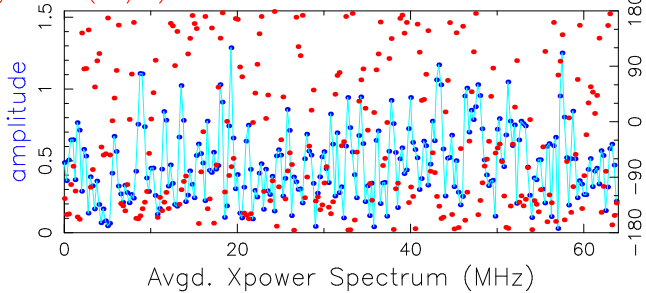


Fringe quality 0

SNR 5.8
 Int time 112.617
 Amp 0.244
 Phase -31.8
 PFD 3.5e-01
 Delays (us)
 SBD -0.266721
 MBD 0.004747
 Fringe rate (Hz)
 0.667100
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

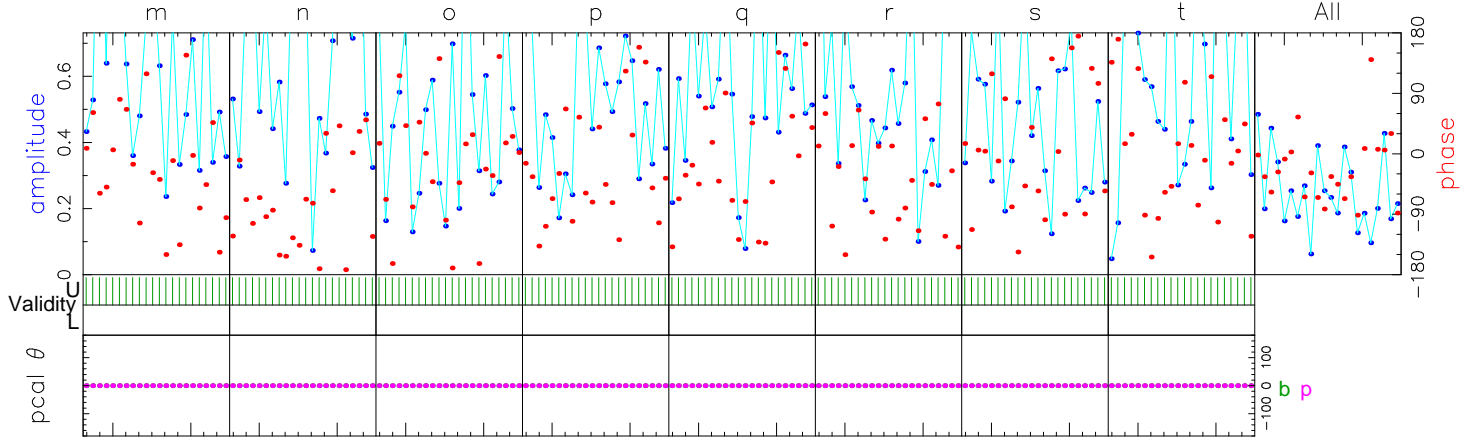


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112948
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
b	0	0	0	0	0	0	0	0		
p	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: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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-2.17931204738E+02	Apriori delay (usec)	-2.17670326692E+02	Resid mbdelay (usec)	4.74695E-03	+/-	1.9E-04
Sband delay (usec)	-2.17937047442E+02	Apriori clock (usec)	-1.0722427E+00	Resid sbdelay (usec)	-2.66721E-01	+/-	1.5E-03
Phase delay (usec)	-2.17670327718E+02	Apriori clockrate (us/s)	1.9774395E-07	Resid phdelay (usec)	-1.02536E-06	+/-	6.4E-07
Delay rate (us/s)	3.50706023180E-02	Apriori rate (us/s)	3.50628579532E-02	Resid rate (us/s)	7.74436E-06	+/-	9.8E-09
Total phase (deg)	-10.7	Apriori accel (us/s/s)	1.63239522965E-05	Resid phase (deg)	-31.8	+/-	19.8

ph/seg (deg)	RMS 52.9	Theor. 46.4	Amplitude Search (512X32)	0.244 +/- 0.042	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	62.8	80.9	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	28.0	Inc. seg. avg.	0.233	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	28.5	48.8	Inc. frq. avg.	0.245	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s)	-0.011	0.011
					Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 74.8 el 62.9 pa -74.1 p: az 49.1 el 64.2 pa -111.4 u, v (fr/asec) -289.372 2497.764 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bp.W.71.3MP1AB

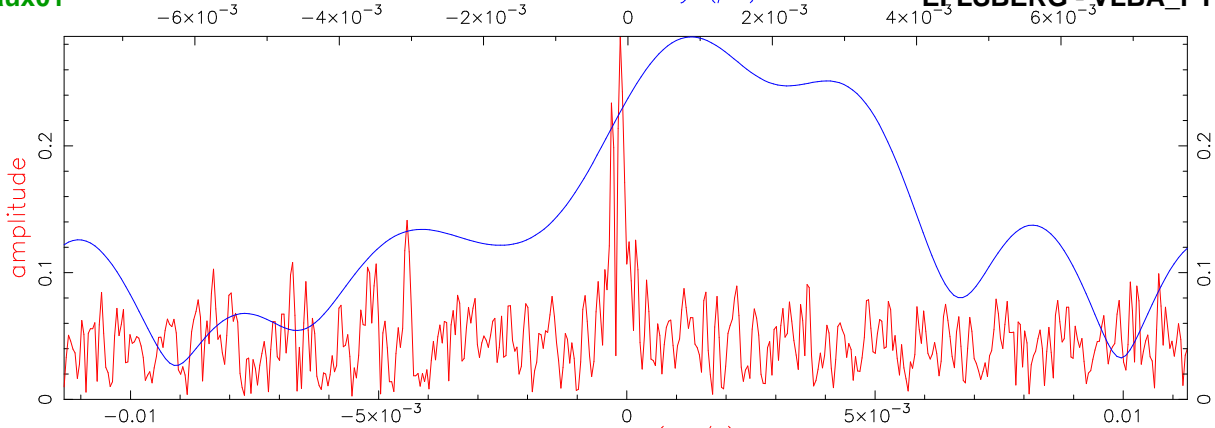
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, Bp

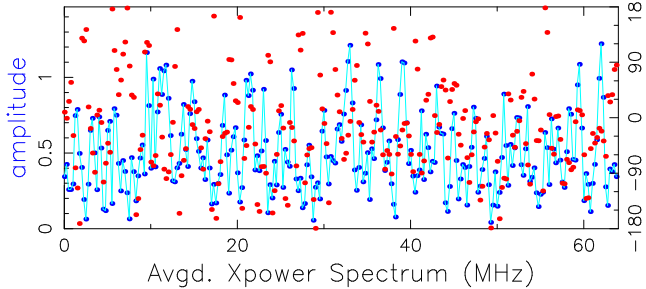
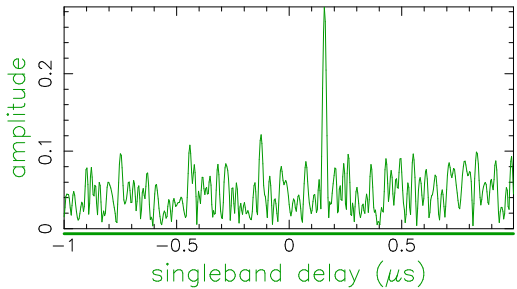
EFLSBERG - VLBA_PT, fgroup W, pol LL

multiband delay (μ s)

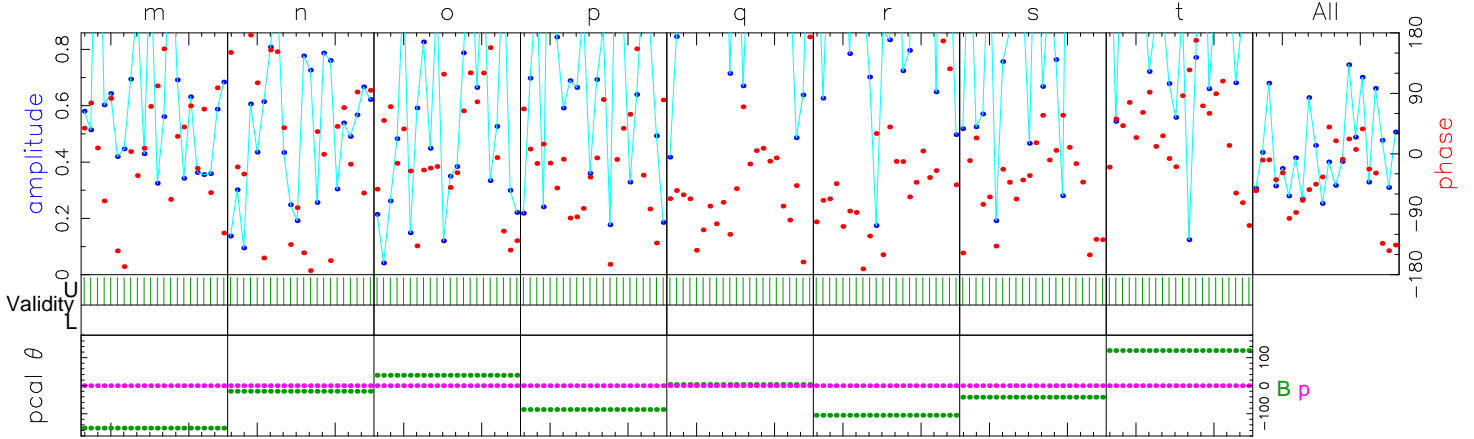


Fringe quality 9
 SNR 8.3
 Int time 112.633
 Amp 0.286
 Phase -28.4
 PFD 8.6e-09
 Delays (us)
 SBD 0.156778
 MBD 0.000921
 Fringe rate (Hz)
 -0.009952
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112955
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

delay rate (ns/s)



Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
B	0	0	0	0	0	0	0	0		
p	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:p	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0		
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-6.42817730127E+03	Apriori delay (usec)	-6.42833447205E+03	Resid mbdelay (usec)	9.20780E-04	+/-	1.3E-04
Sband delay (usec)	-6.42817769355E+03	Apriori clock (usec)	-4.111317E+01	Resid sbdelay (usec)	1.56778E-01	+/-	1.0E-03
Phase delay (usec)	-6.42833447296E+03	Apriori clockrate (us/s)	-5.6823600E-07	Resid phdelay (usec)	-9.15405E-07	+/-	4.4E-07
Delay rate (us/s)	-1.07654377876E+00	Apriori rate (us/s)	-1.07654366323E+00	Resid rate (us/s)	-1.15532E-07	+/-	6.8E-09
Total phase (deg)		Apriori accel (us/s/s)	5.14237596954E-05	Resid phase (deg)	-28.4	+/-	13.8

ph/seg (deg)	53.8	Theor.	32.3	Amplitude	0.286 +/- 0.034	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	75.6	Search (512X32)	0.276	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	85.5	Inc. seg. avg.	0.383	Inc. frq. avg.	0.383	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	80.8	Inc. frq. avg.	0.380			Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	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 302.9 el 37.3 pa 52.8 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 9246.579 5679.935 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/Bp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/Bp.W.96.3MP1AB

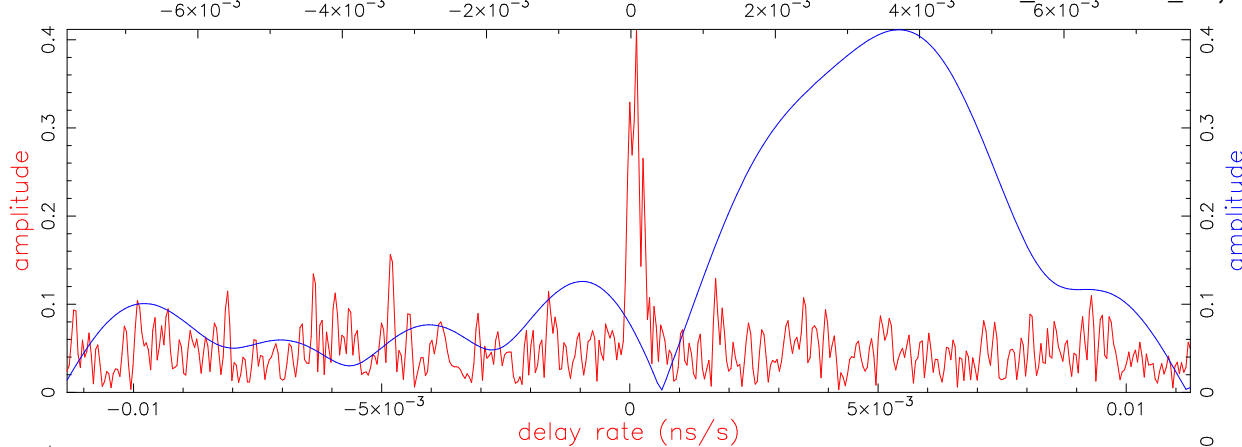
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, fp

VLBA_FD - VLBA_PT, fgroup W, pol LL

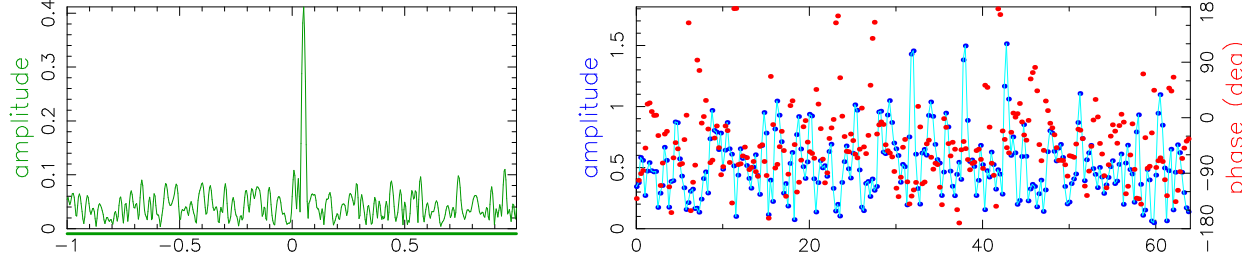
multiband delay (μ s)



Fringe quality 9

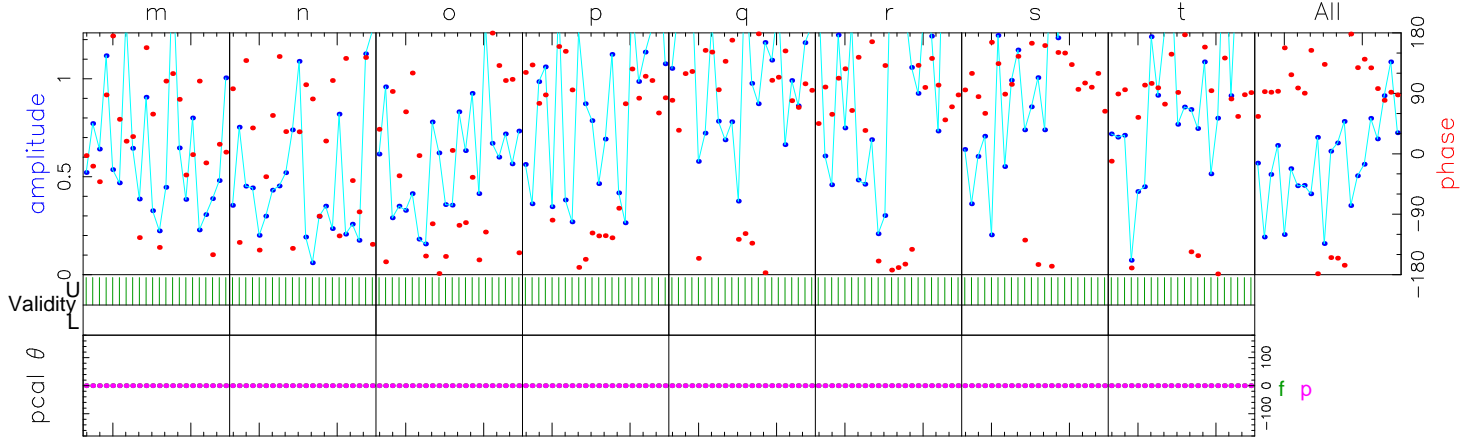
SNR 11.9
 Int time 112.633
 Amp 0.412
 Phase 122.5
 PFD 8.3e-25
 Delays (us)
 SBD 0.050421
 MBD 0.003704
 Fringe rate (Hz)
 0.010070
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113011
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
f	0	0	0	0	0	0	0	0		
p	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		
fp	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-2.71746232438E+01	Apriori delay (usec)	-2.72252017760E+01	Resid mbdelay (usec)	3.70353E-03	+/-	9.1E-05
Sband delay (usec)	-2.71747802760E+01	Apriori clock (usec)	-5.6530151E+00	Resid sbdelay (usec)	5.04215E-02	+/-	7.2E-04
Phase delay (usec)	-2.72251978245E+01	Apriori clockrate (us/s)	-3.2847705E-07	Resid phdelay (usec)	3.95148E-06	+/-	3.1E-07
Delay rate (us/s)	-4.09183773580E-02	Apriori rate (us/s)	-4.09184942615E-02	Resid rate (us/s)	1.16904E-07	+/-	4.8E-09
Total phase (deg)	-194.6	Apriori accel (us/s/s)	-4.41098732596E-06	Resid phase (deg)	122.5	+/-	9.6

ph/seg (deg)	43.5	RMS	22.5	Theor.	Amplitude	0.412 +/- 0.034	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	67.2	43.5	22.5	Search (512X32)	0.387		Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	52.5	67.2	39.3	Interp.	0.000		Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	62.7	52.5	13.6	Inc. seg. avg.	0.532		Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011		
		62.7	23.7	Inc. frq. avg.	0.455		Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

f: az 40.8 el 64.1 pa -123.1 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 347.249 -706.184 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/fp.3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/fp.W.126.3MP1AB

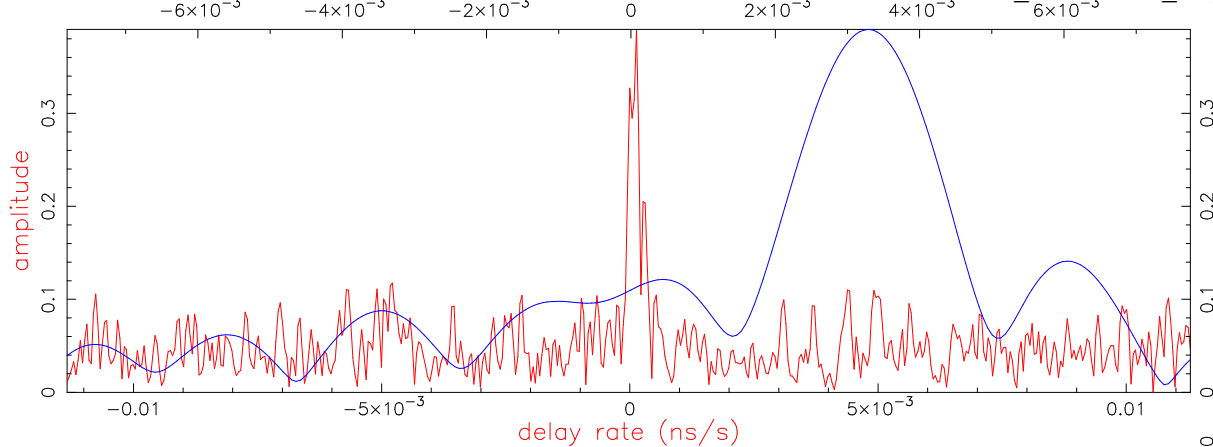
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, fp

VLBA_FD - VLBA_PT, fgroup W, pol RR

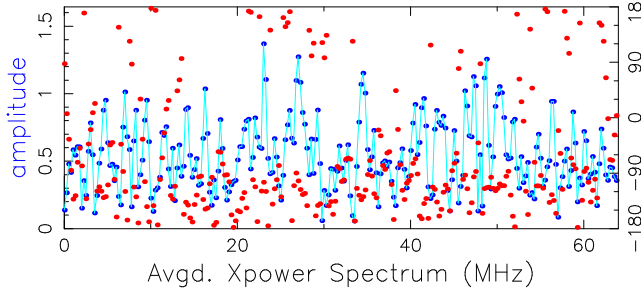
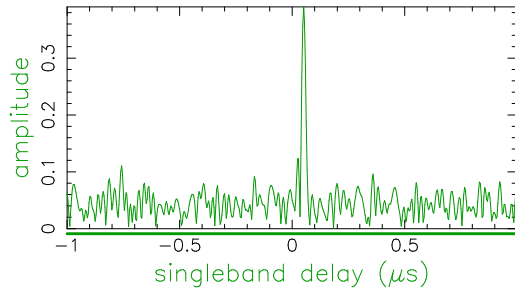
multiband delay (μ s)



Fringe quality 9

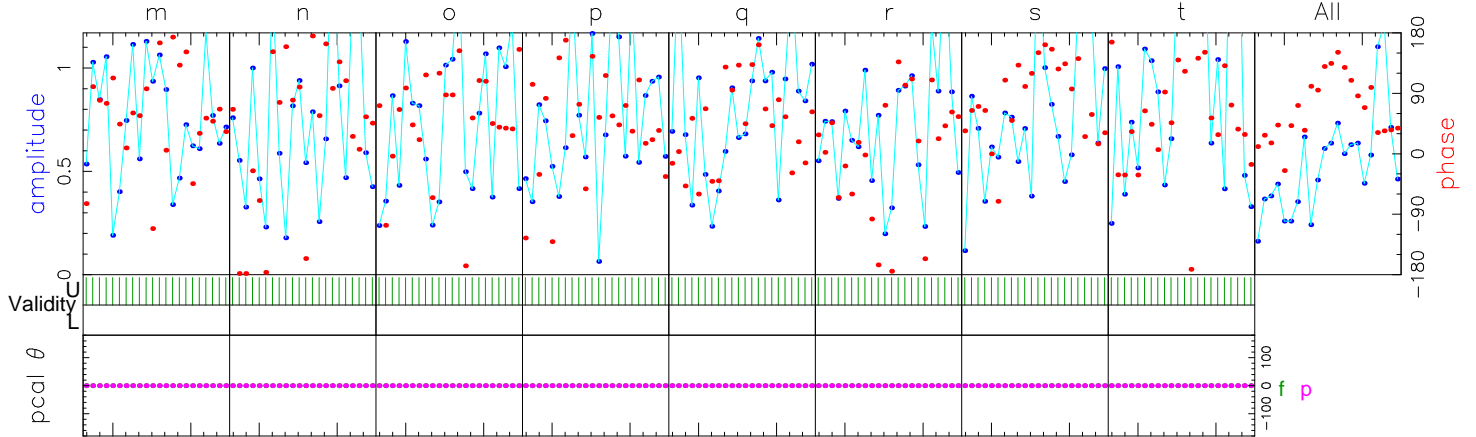
SNR 11.3
 Int time 112.633
 Amp 0.390
 Phase 68.6
 PFD 1.2e-21
 Delays (us)
 SBD 0.050940
 MBD 0.003292
 Fringe rate (Hz) 0.009951
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113012
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	67.5	94.7	76.8	51.9	36.6	48.6	92.3	74.3	Phase	68.6
	0.4	0.3	0.5	0.4	0.4	0.3	0.5	0.5	Ampl.	0.4
	269.6	269.4	270.3	269.7	349.1	270.5	270.2	270.2	Sbd box	270.0
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
f:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	-2.71750345875E+01					-2.72252017760E+01			Resid mbdelay (usec)	3.29219E-03 +/- 9.6E-05
Sband delay (usec)	-2.71742615260E+01					-5.6530151E+00			Resid sbdelay (usec)	5.09402E-02 +/- 7.6E-04
Phase delay (usec)	-2.72251995642E+01					-3.2847705E-07			Resid phdelay (usec)	2.21184E-06 +/- 3.3E-07
Delay rate (us/s)	-4.09183787439E-02					-4.09184942615E-02			Resid rate (us/s)	1.15518E-07 +/- 5.0E-09
Total phase (deg)			-248.6			-4.41098732596E-06			Resid phase (deg)	68.6 +/- 10.1
	RMS	Theor.	Amplitude	0.390 +/- 0.034					Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	46.1	23.7	Search (512X32)	0.369					Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	75.6	41.4	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	22.5	14.3	Inc. seg. avg.	0.500					Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
amp/frq (%)	14.7	25.0	Inc. frq. avg.	0.400					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
f: az 40.8 el 64.1 pa -123.1			p: az 49.1 el 64.2 pa -111.4						u,v (fr/asec) 347.249 -706.184	ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva			Input file: /Exps/c241a/v2/3mm/1234/No0916/fp..3MP1AB						Output file: /Exps/c241a/v2/3mm/1234/No0916/fp.W.128.3MP1AB	simultaneous interpolator

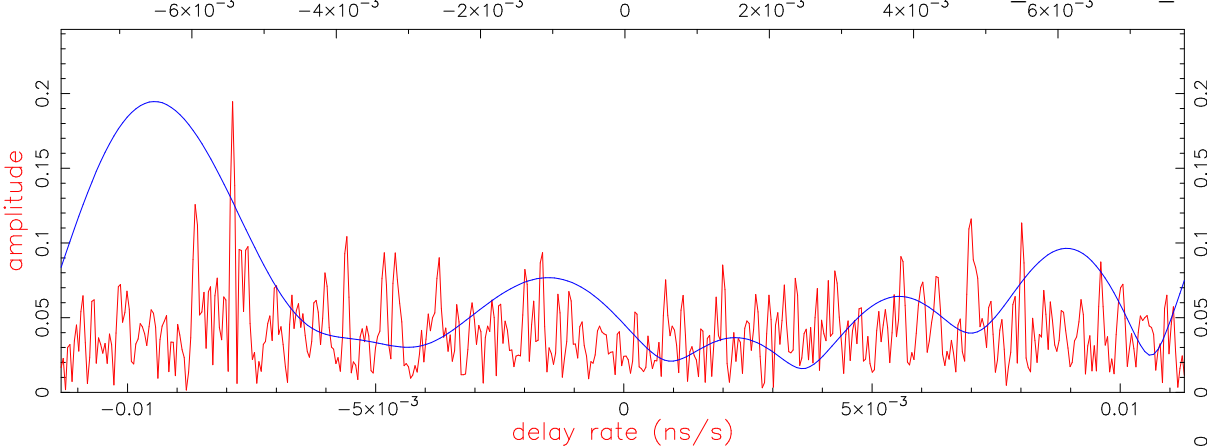
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, fp

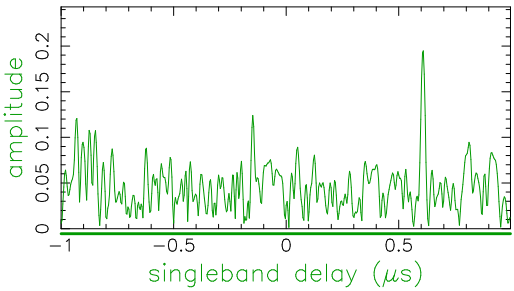
VLBA_FD - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)

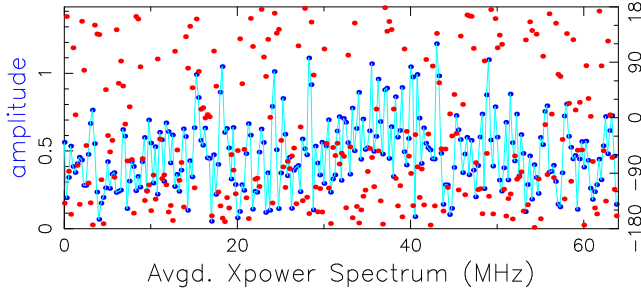


Fringe quality 0

SNR 5.7
 Int time 112.633
 Amp 0.243
 Phase 102.9
 PFD 4.7e-01
 Delays (us)
 SBD 0.607705
 MBD -0.006534
 Fringe rate (Hz)
 -0.680364
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

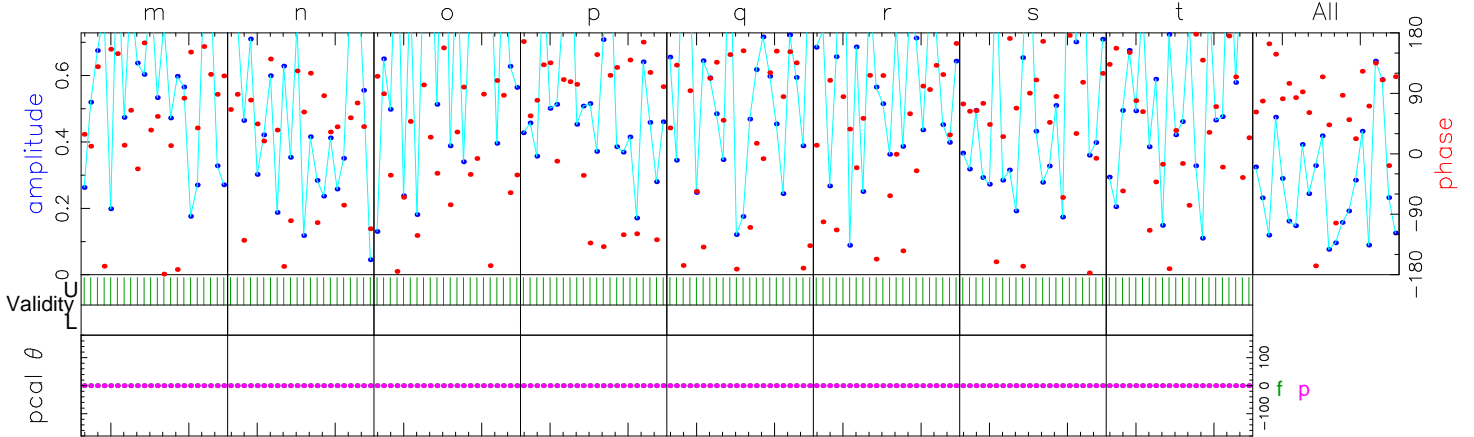


delay rate (ns/s)



Exp. c241a
 Yr:day 1234
 Start 2024:109
 Stop 2024:109
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113013
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
f	0	0	0	0	0	0	0	0		
p	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		
fp	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)	-2.66223605128E+01	Apriori delay (usec)	-2.72252017760E+01	Resid mbdelay (usec)	-6.53374E-03	+/-	1.9E-04
Sband delay (usec)	-2.66174972760E+01	Apriori clock (usec)	-5.6530151E+00	Resid sbdelay (usec)	6.07705E-01	+/-	1.5E-03
Phase delay (usec)	-2.72251984572E+01	Apriori clockrate (us/s)	-3.2847705E-07	Resid phdelay (usec)	3.31881E-06	+/-	6.5E-07
Delay rate (us/s)	-4.09263926156E-02	Apriori rate (us/s)	-4.09184942615E-02	Resid rate (us/s)	-7.89835E-06	+/-	9.9E-09
Total phase (deg)	-214.2	Apriori accel (us/s/s)	-4.41098732596E-06	Resid phase (deg)	102.9	+/-	20.0

ph/seg (deg)	57.6	Theor.	46.9	Amplitude	0.243 +/- 0.042	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	89.0	Search (512X32)	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)	41.1	Inc. seg. avg.	0.254	Inc. frq. avg.	0.248	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	34.4	Inc. frq. avg.	0.248			Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

f: az 40.8 el 64.1 pa -123.1 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 347.249 -706.184 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/fp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/fp.W.130.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

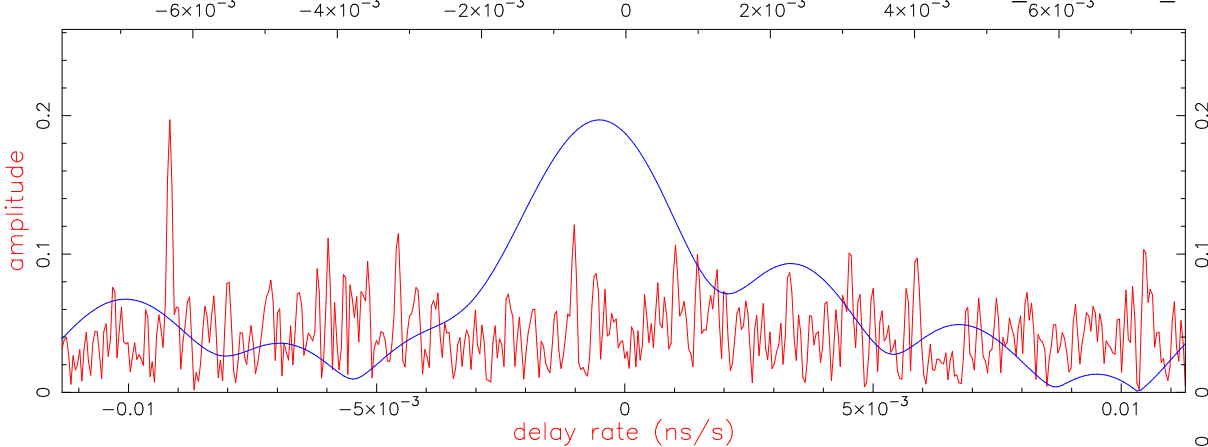
aux01

0133+476.3MP1AB, No0916, fp

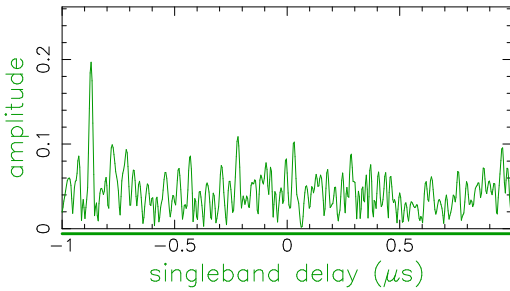
VLBA_FD - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

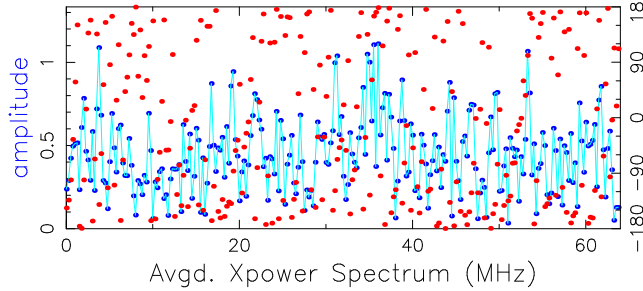
Fringe quality 0



SNR 5.7
 Int time 112.633
 Amp 0.262
 Phase -118.9
 PFD 4.7e-01
 Delays (us)
 SBD -0.871598
 MBD -0.000375
 Fringe rate (Hz)
 -0.790189
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

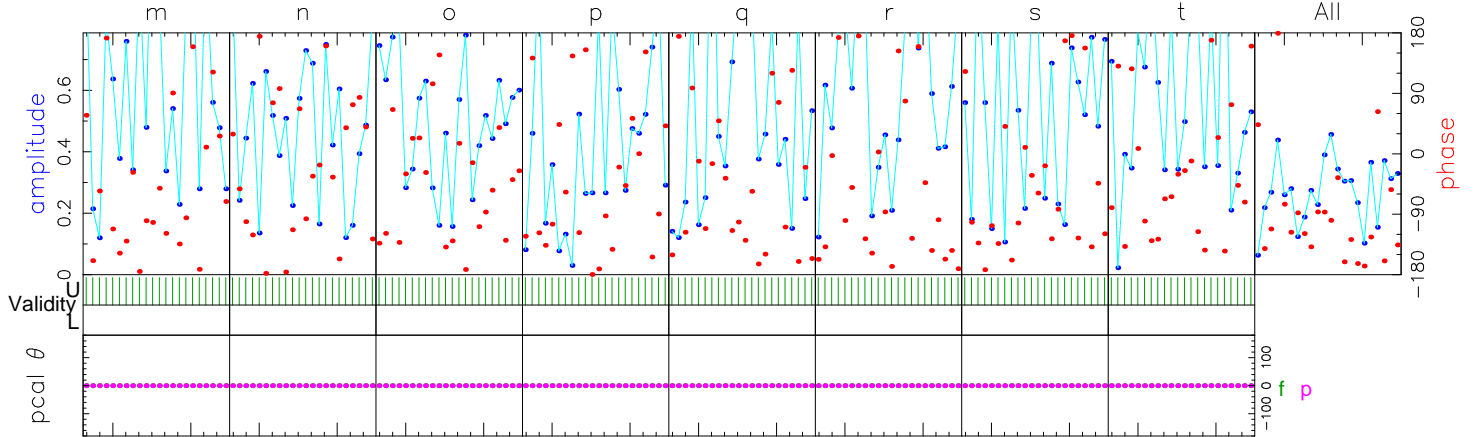


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113014
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-127.0	-138.0	-66.9	-128.7	-114.7	-137.3	-126.2	-99.8	Phase	-118.9
	0.2	0.1	0.2	0.3	0.2	0.4	0.4	0.4	Ampl.	0.2
	39.0	234.9	447.2	321.3	8.7	71.8	57.2	212.6	Sbd box	33.9
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
f:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	-2.81005769392E+01		Apriori delay (usec)		-2.72252017760E+01		Resid mbdelay (usec)		-3.75163E-04	+/- 1.9E-04
Sband delay (usec)	-2.80968002760E+01		Apriori clock (usec)		-5.6530151E+00		Resid sbdelay (usec)		-8.71598E-01	+/- 1.5E-03
Phase delay (usec)	-2.72252056102E+01		Apriori clockrate (us/s)		-3.2847705E-07		Resid phdelay (usec)		-3.83421E-06	+/- 6.5E-07
Delay rate (us/s)	-4.09276675743E-02		Apriori rate (us/s)		-4.09184942615E-02		Resid rate (us/s)		-9.17331E-06	+/- 9.9E-09
Total phase (deg)			Apriori accel (us/s/s)		-4.41098732596E-06		Resid phase (deg)		-118.9	+/- 20.0

ph/seg (deg) 63.0 46.9 Search (512X32) 0.190 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 64.5 81.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 25.8 28.3 Inc. seg. avg. 0.272 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 47.0 49.4 Inc. frq. avg. 0.248 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 f: az 40.8 el 64.1 pa -123.1 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 347.249 -706.184 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/fp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/fp.W.132.3MP1AB

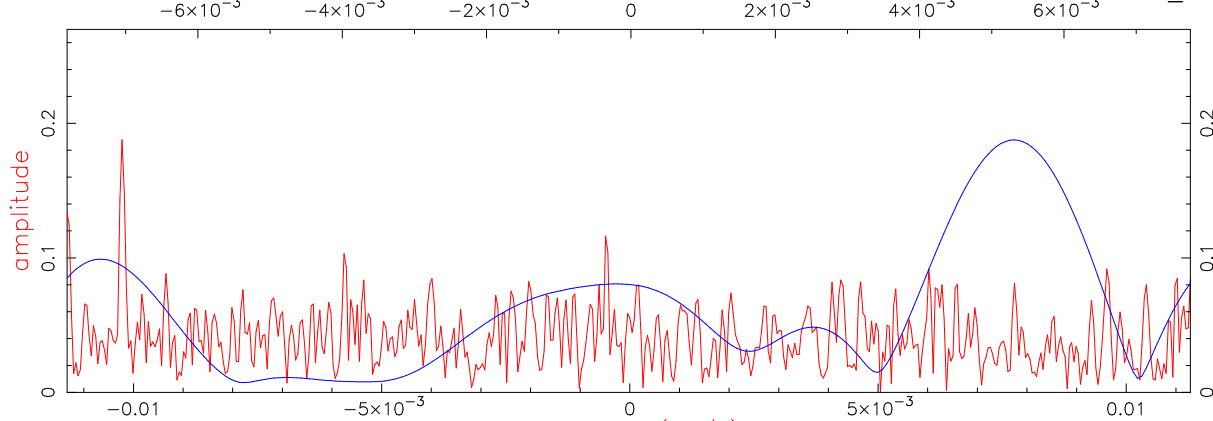
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, gp

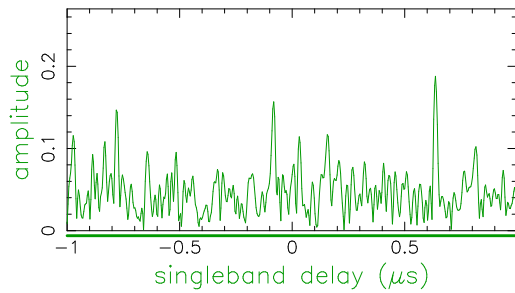
GLT - VLBA_PT, fgroup W, pol LL

multiband delay (μ s)

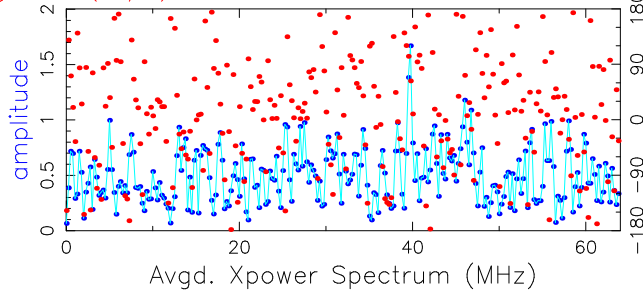


Fringe quality 0

SNR 5.5
 Int time 112.633
 Amp 0.270
 Phase 87.7
 PFD 9.4e-01
 Delays (us)
 SBD 0.636147
 MBD 0.005302
 Fringe rate (Hz)
 -0.882055
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

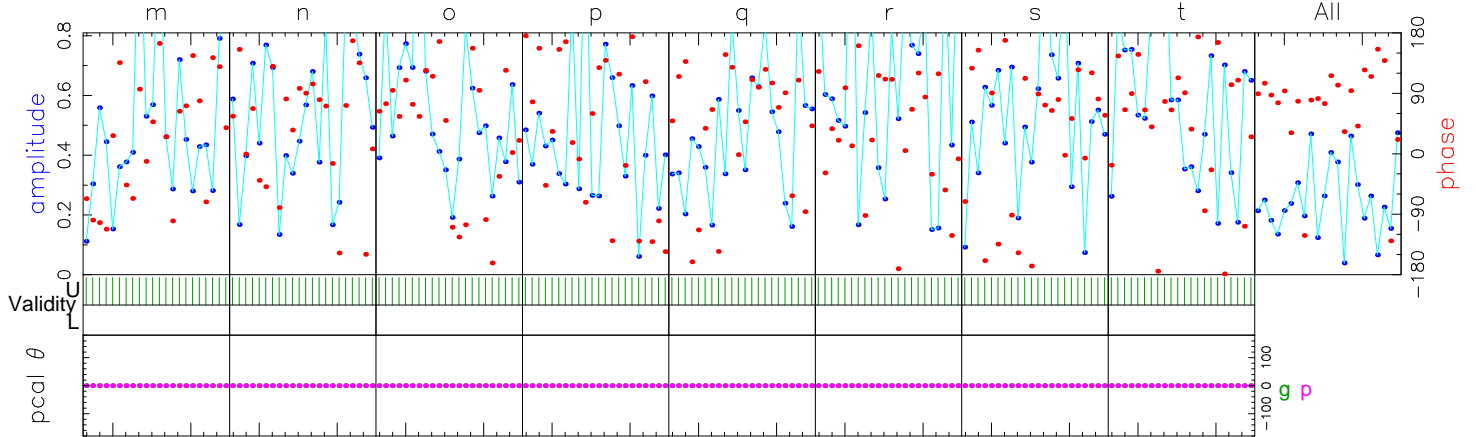


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113019
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	81.9	84.9	85.0	177.9	105.9	41.5	101.0	93.5	Phase	87.7
	0.2	0.3	0.3	0.1	0.3	0.4	0.3	0.4	Ampl.	0.3
	114.8	210.9	19.7	7.8	56.2	232.2	295.5	298.8	Sbd box	419.9
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-5.79967137688E+02	Apriori delay (usec)	-5.80597440173E+02	Resid mbdelay (usec)	5.30249E-03	+/-	2.0E-04
Sband delay (usec)	-5.79961292923E+02	Apriori clock (usec)	-5.2464581E+00	Resid sbdelay (usec)	6.36147E-01	+/-	1.6E-03
Phase delay (usec)	-5.80597437344E+02	Apriori clockrate (us/s)	-2.9873608E-07	Resid phdelay (usec)	2.82898E-06	+/-	6.8E-07
Delay rate (us/s)	-4.60494338223E-01	Apriori rate (us/s)	-4.60484098440E-01	Resid rate (us/s)	-1.02398E-05	+/-	1.0E-08
Total phase (deg)	-91.0	Apriori accel (us/s/s)	3.73933970490E-05	Resid phase (deg)	87.7	+/-	21.0

ph/seg (deg)	55.2	RMS	49.2	Theor.	51.8	Amplitude	0.270 +/- 0.049	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	73.2	Search (512X32)	0.182	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	SampCntNorm:	enabled	mb window (us)	-0.008	0.008		
ph/frq (deg)	42.5	Inc. seg. avg.	0.265	Inc. frq. avg.	0.267	Bits/sample:	2x2	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011		
amp/frq (%)	36.3	u,v (fr/asec)	3964.022 5672.747	simultaneous interpolator		Data rate (Mb/s):	2048	nlags:	256	t_cohere infinite	ion window (TEC)	0.00	0.00	

g: az 194.0 el 61.2 pa 4.9 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 3964.022 5672.747 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/gp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/gp.W.142.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

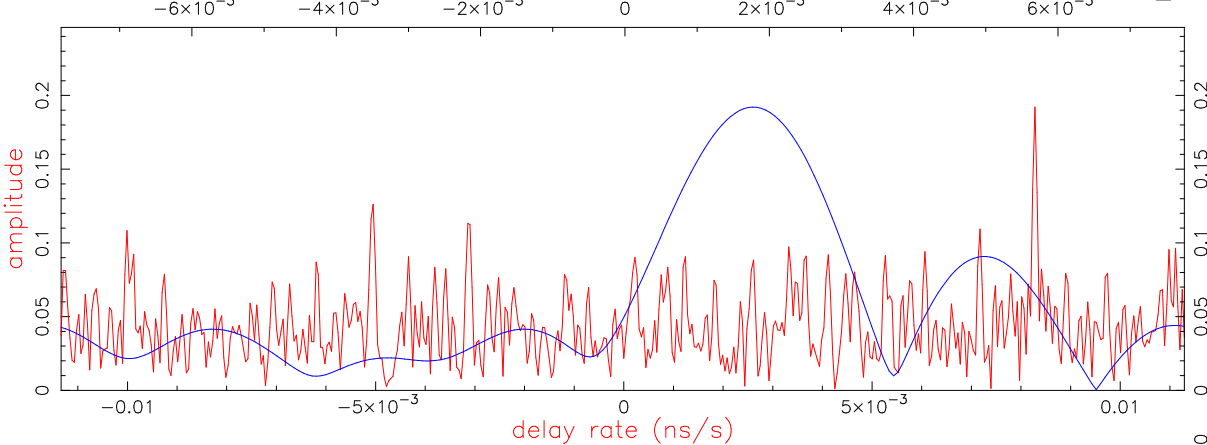
aux01

0133+476.3MP1AB, No0916, gp

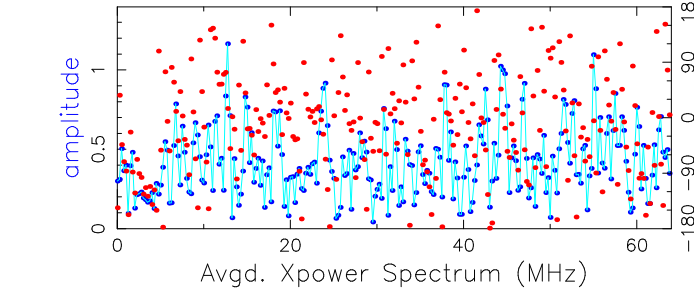
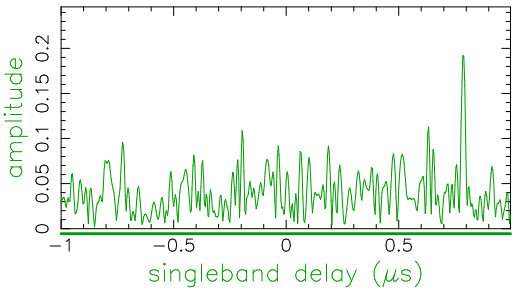
GLT - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 0

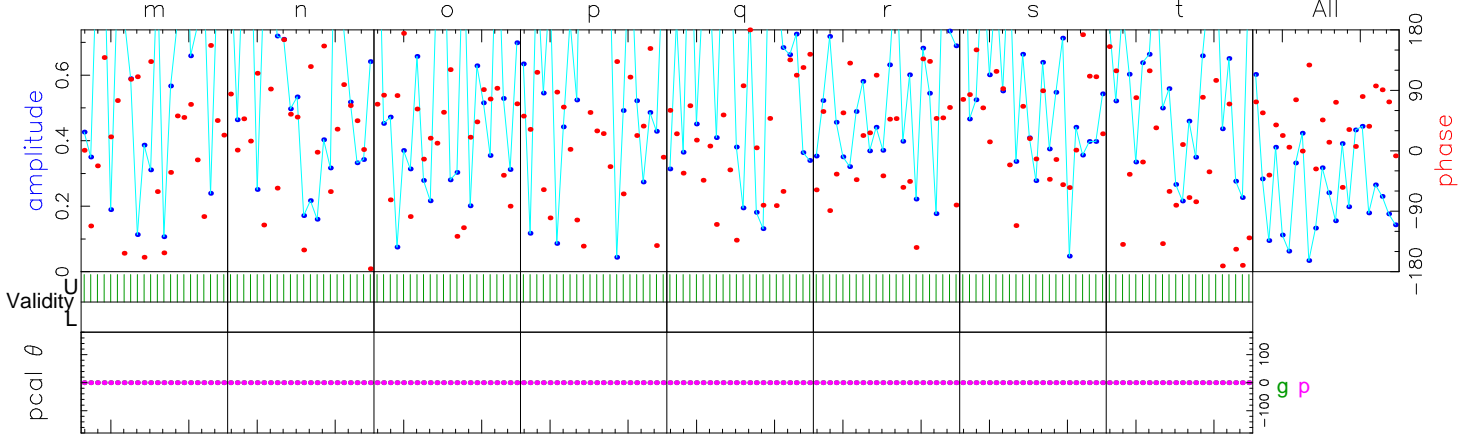


SNR 5.7
 Int time 112.633
 Amp 0.246
 Phase 41.1
 PFD 5.8e-01
 Delays (us)
 SBD 0.786963
 MBD 0.001789
 Fringe rate (Hz)
 0.714732
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113020
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	31.9	57.4	53.6	18.9	24.4	25.6	54.2	132.8	Phase	41.1
	0.2	0.3	0.3	0.2	0.3	0.3	0.4	0.0	Ampl.	0.2
	244.0	233.8	483.4	379.4	370.9	130.3	457.9	370.7	Sbd box	458.5
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) -5.79814401246E+02 Apriori delay (usec) -5.80597440173E+02 Resid mbdelay (usec) 1.78893E-03 +/- 1.9E-04
 Sband delay (usec) -5.79810476923E+02 Apriori clock (usec) -5.2464581E+00 Resid sbdelay (usec) 7.86963E-01 +/- 1.5E-03
 Phase delay (usec) -5.80597438849E+02 Apriori clockrate (us/s) -2.9873608E-07 Resid phdelay (usec) 1.32455E-06 +/- 6.5E-07
 Delay rate (us/s) -4.60475801108E-01 Apriori rate (us/s) -4.60484098440E-01 Resid rate (us/s) 8.29733E-06 +/- 1.0E-08
 Total phase (deg) -137.7 Apriori accel (us/s/s) 3.73933970490E-05 Resid phase (deg) 41.1 +/- 20.2

RMS Theor. Amplitude 0.246 +/- 0.043 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 46.0 47.4 Search (512X32) 0.181 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 79.2 82.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 41.0 28.6 Inc. seg. avg. 0.240 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 42.1 49.9 Inc. frq. avg. 0.225 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

g: az 194.0 el 61.2 pa 4.9 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 3964.022 5672.747 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916//gp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916//gp.W.148.3MP1AB

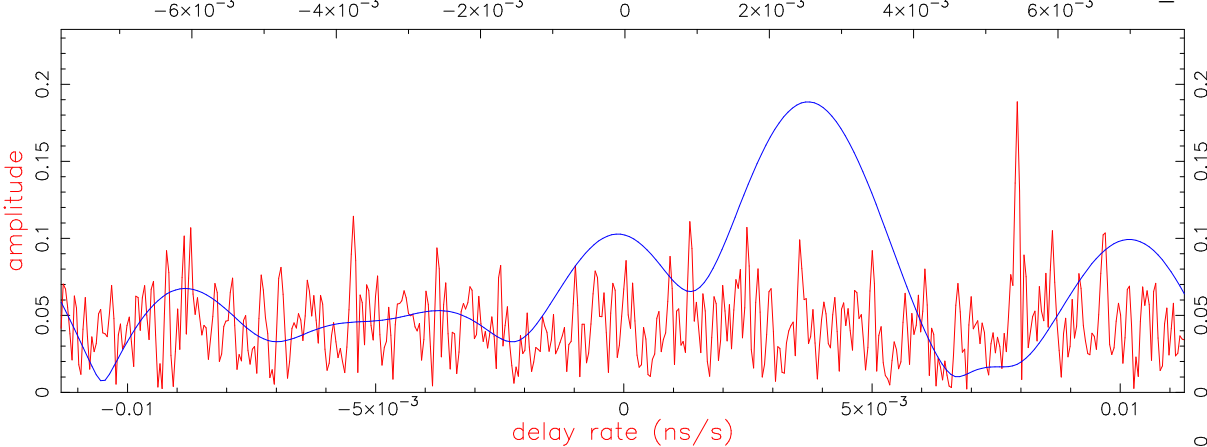
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, gp

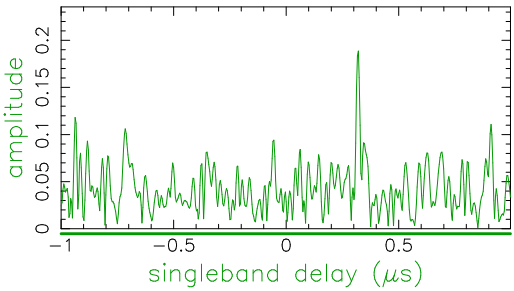
GLT - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)

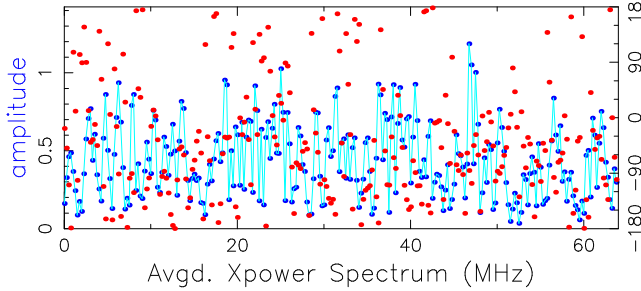


Fringe quality 0

SNR 5.5
 Int time 112.633
 Amp 0.236
 Phase -35.4
 PFD 8.4e-01
 Delays (us)
 SBD 0.318937
 MBD 0.002526
 Fringe rate (Hz)
 0.685207
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

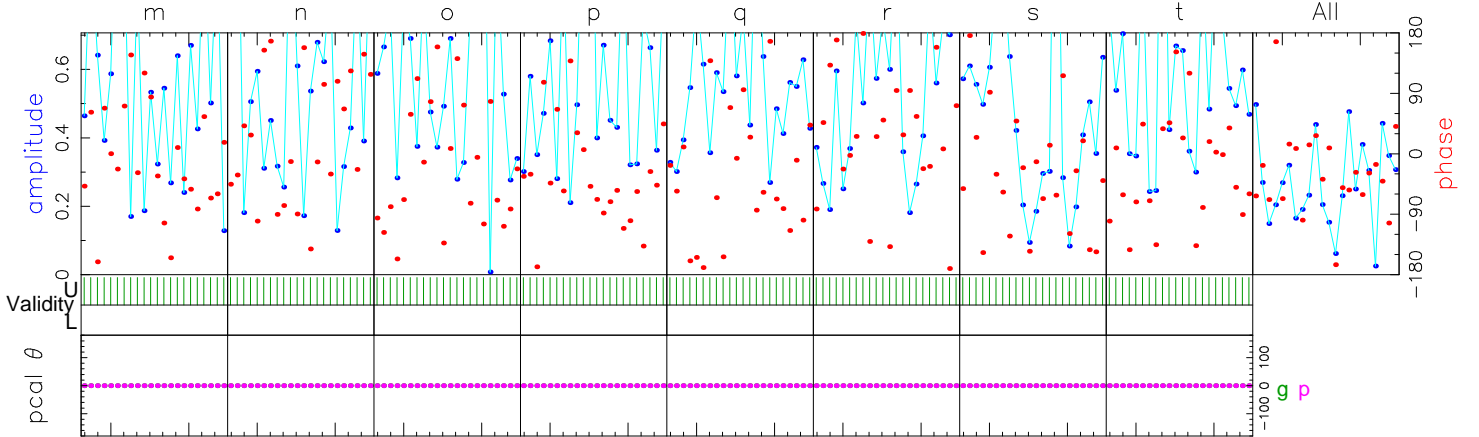


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113021
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
g	0	0	0	0	0	0	0	0		
p	0	0	0	0	0	0	0	0		
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec) (SBD)	-5.80282414613E+02				-5.80597440173E+02				2.52556E-03	+/- 2.0E-04
Sband delay (usec)	-5.80278502923E+02				-5.2464581E+00				3.18937E-01	+/- 1.6E-03
Phase delay (usec)	-5.80597441316E+02				-2.9873608E-07				-1.14284E-06	+/- 6.7E-07
Delay rate (us/s)	-4.60476143863E-01				-4.60484098440E-01				7.95458E-06	+/- 1.0E-08
Total phase (deg)			-214.2		3.73933970490E-05				-35.4	+/- 20.7
Apriori delay (usec)					0.178					
Apriori clock (usec)					0.178					
Apriori clockrate (us/s)					0.000					
Apriori rate (us/s)					0.245					
Apriori accel (us/s/s)					0.242					
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										
Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us										
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
simultaneous interpolator										

ph/seg (deg) 57.8 48.5 Search (512X32) 0.178 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 76.8 84.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 45.4 29.3 Inc. seg. avg. 0.245 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 40.4 51.1 Inc. frq. avg. 0.242 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 g: az 194.0 el 61.2 pa 4.9 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 3964.022 5672.747 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/c241a/v2/3mm/1234/No0916/gp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/gp.W.153.3MP1AB

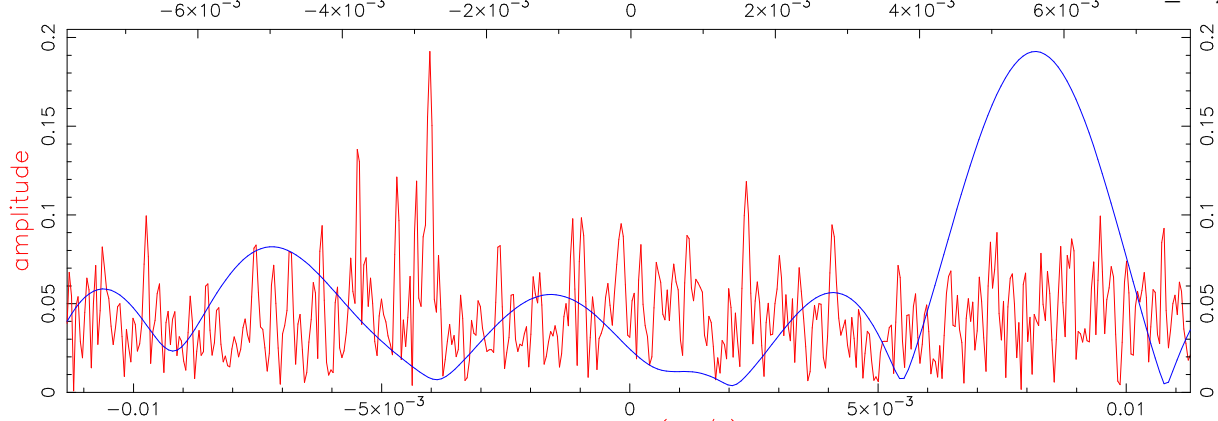
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, gp

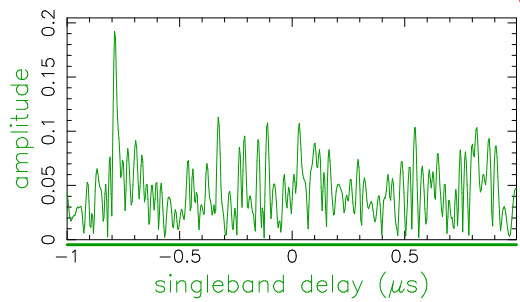
GLT - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

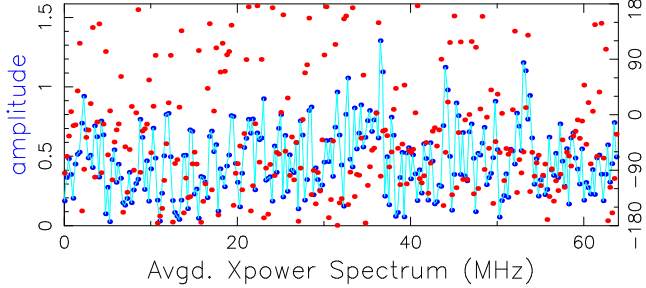


Fringe quality 0

SNR 5.6
Int time 112.633
Amp 0.205
Phase 138.8
PFD 6.6e-01
Delays (us)
SBD -0.787827
MBD 0.005616
Fringe rate (Hz)
-0.348839
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

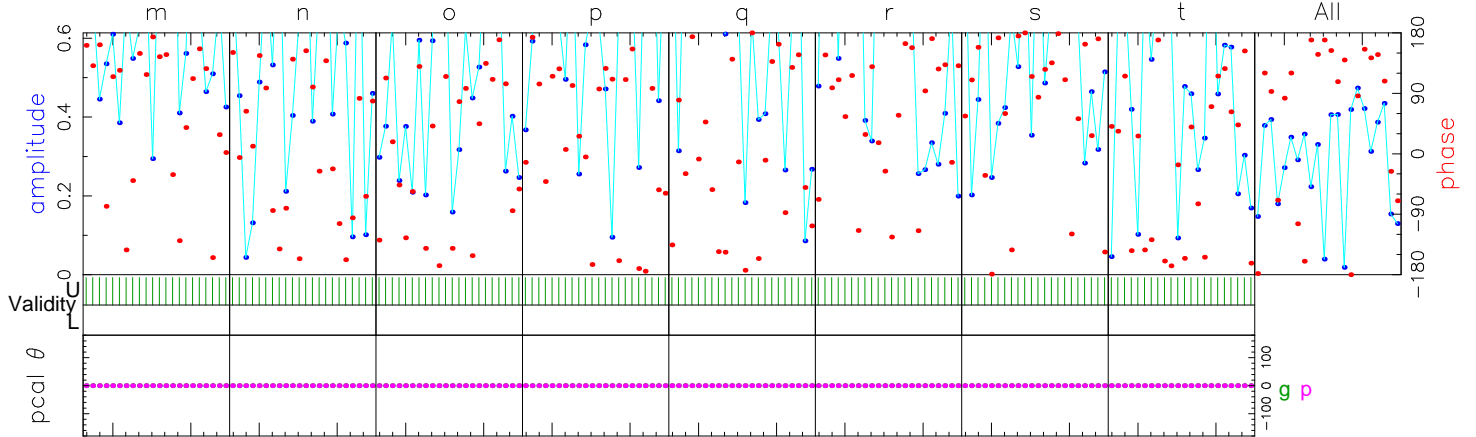


delay rate (ns/s)



Exp. c241a
Exper # 1234
Yr:day 2024:109
Start 170437.17
Stop 170629.81
FRT 170540.00
Corr/FF/build
2025:007:183750
2025:041:113022
2024:113:095956
RA & Dec (J2000)
01h36m58.594803s
+47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
g	0	0	0	0	0	0	0	0		
p	0	0	0	0	0	0	0	0		
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-5.81388699412E+02	Apriori delay (usec)	-5.80597440173E+02	Resid mbdelay (usec)	5.61576E-03	+/-	1.9E-04
Sband delay (usec)	-5.81385266923E+02	Apriori clock (usec)	-5.2464581E+00	Resid sbdelay (usec)	-7.87827E-01	+/-	1.5E-03
Phase delay (usec)	-5.80597435698E+02	Apriori clockrate (us/s)	-2.9873608E-07	Resid phdelay (usec)	4.47529E-06	+/-	6.6E-07
Delay rate (us/s)	-4.60488148116E-01	Apriori rate (us/s)	-4.60484098440E-01	Resid rate (us/s)	-4.04968E-06	+/-	1.0E-08
Total phase (deg)	-40.0	Apriori accel (us/s/s)	3.73933970490E-05	Resid phase (deg)	138.8	+/-	20.3

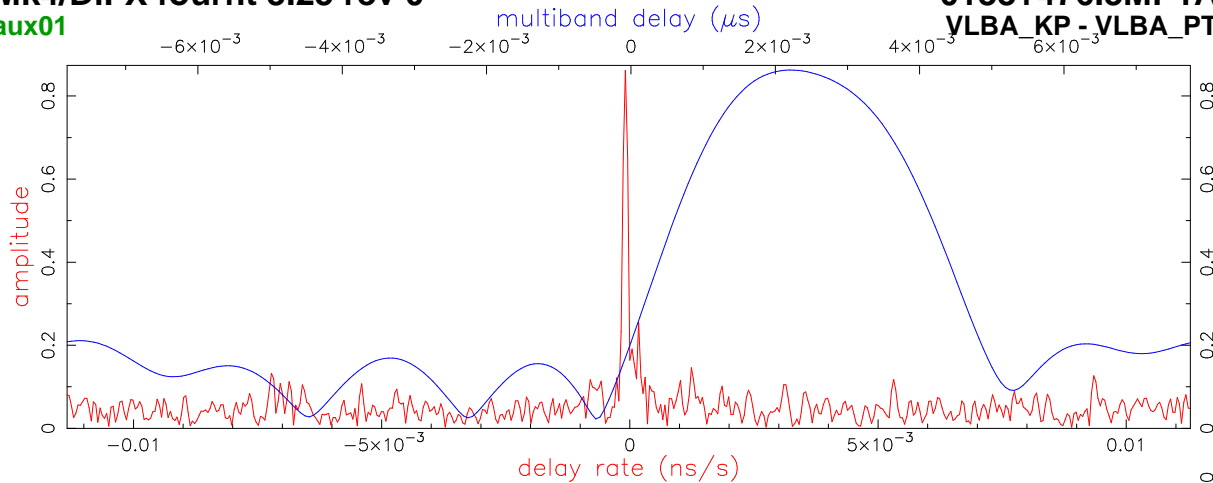
ph/seg (deg) 69.9 47.7 Search (512X32) 0.181 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 85.3 83.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 27.0 28.8 Inc. seg. avg. 0.232 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 20.8 50.2 Inc. frq. avg. 0.192 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
g: az 194.0 el 61.2 pa 4.9 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 3964.022 5672.747 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/gp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/gp.W.157.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

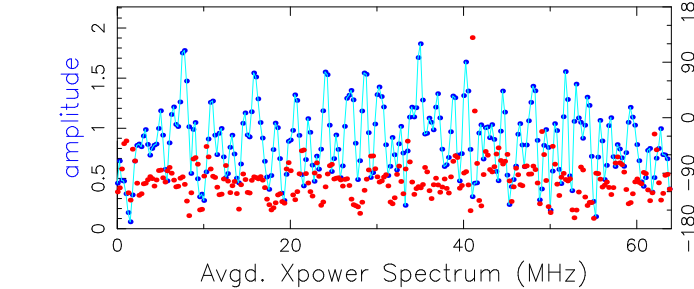
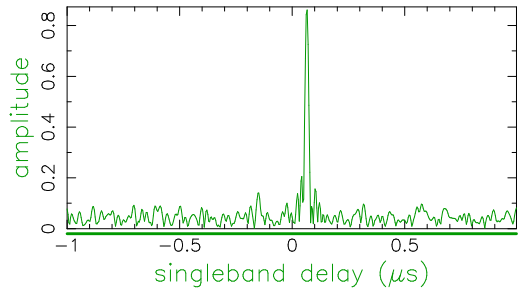
aux01

0133+476.3MP1AB, No0916, kp

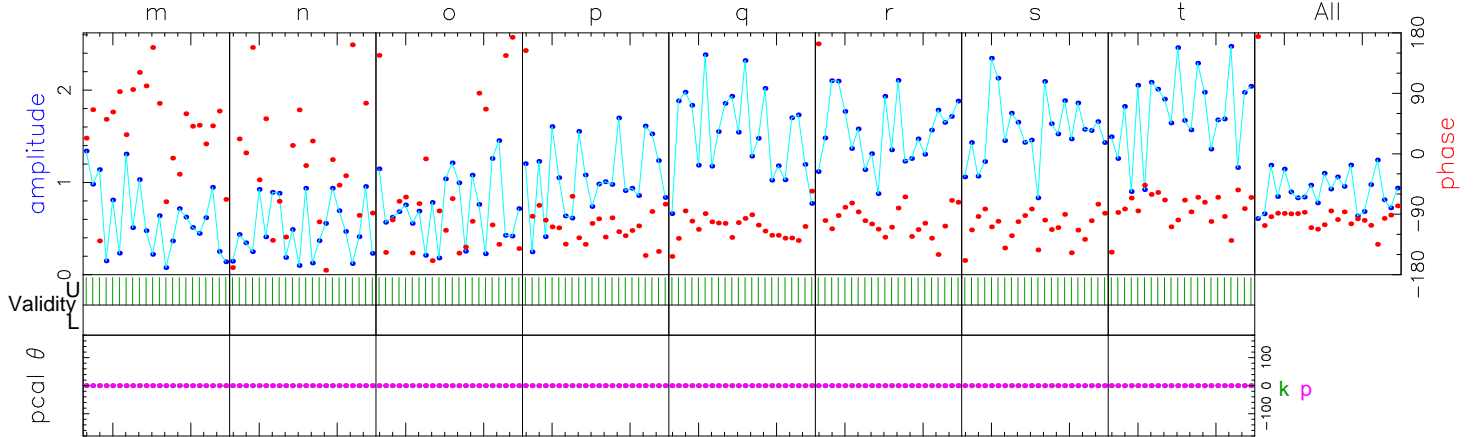
VLBA_KP - VLBA_PT, fgroup W, pol LL



Fringe quality 7
 Error code G
 SNR 25.4
 Int time 112.633
 Amp 0.874
 Phase -99.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.064908
 MBD 0.002119
 Fringe rate (Hz)
 -0.008449
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113027
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"



Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
k	0	0	0	0	0	0	0	0		
p	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		
kp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-6.46159686547E+02	Apriori delay (usec)	-6.46224305504E+02	Resid mbdelay (usec)	2.11896E-03	+/-	4.3E-05
Sband delay (usec)	-6.46159397004E+02	Apriori clock (usec)	-5.5573940E+00	Resid sbdelay (usec)	6.49085E-02	+/-	3.4E-04
Phase delay (usec)	-6.46224308720E+02	Apriori clockrate (us/s)	-2.2649092E-07	Resid phdelay (usec)	-3.21596E-06	+/-	1.5E-07
Delay rate (us/s)	5.74091137427E-02	Apriori rate (us/s)	5.74092118326E-02	Resid rate (us/s)	-9.80899E-08	+/-	2.2E-09
Total phase (deg)	-343.1	Apriori accel (us/s/s)	5.33009253807E-07	Resid phase (deg)	-99.7	+/-	4.5

ph/seg (deg)	22.0	Theor.	10.6	Amplitude	0.874 +/- 0.034	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	21.5	Search (512X32)	0.849	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	68.0	Inc. seg. avg.	0.895	Inc. frq. avg.	0.981	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	62.4	Inc. frq. avg.	0.981			Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	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

k: az 47.5 el 60.5 pa -111.0 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) -490.515 -154.861 simultaneous interpolator

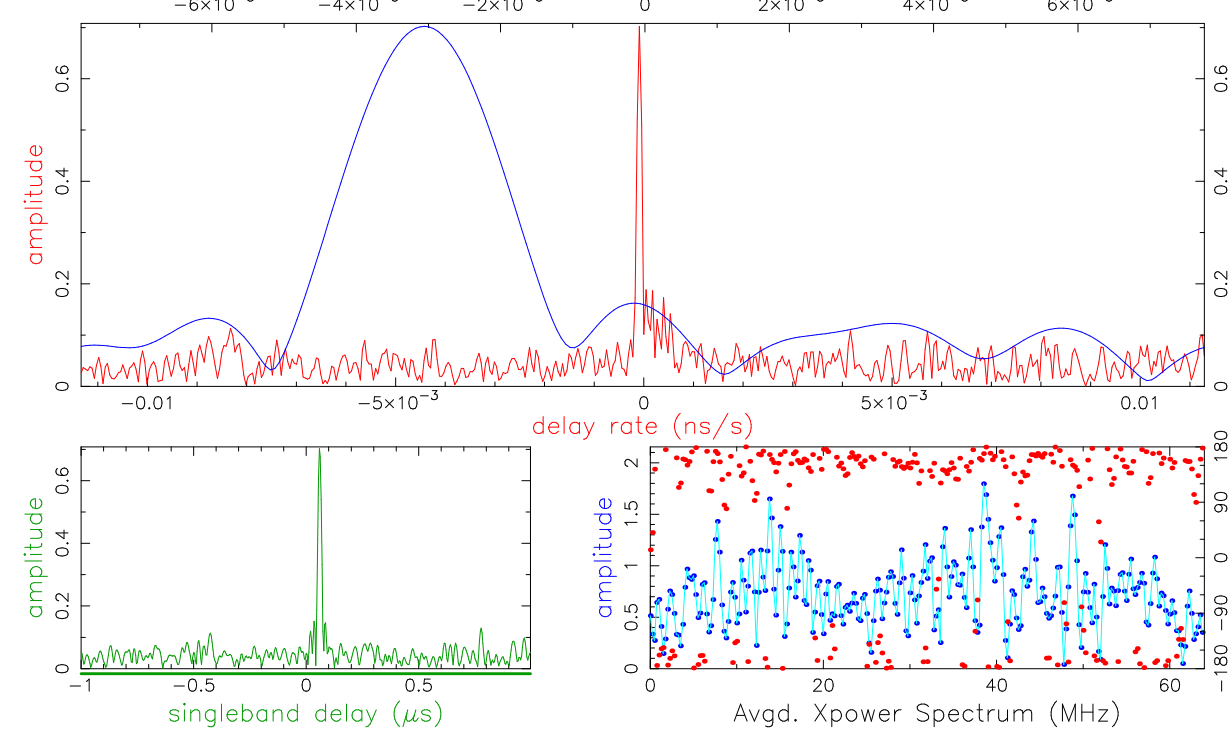
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/kp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kp.W.166.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, kp

VLBA_KP - VLBA_PT, fgroup W, pol RR

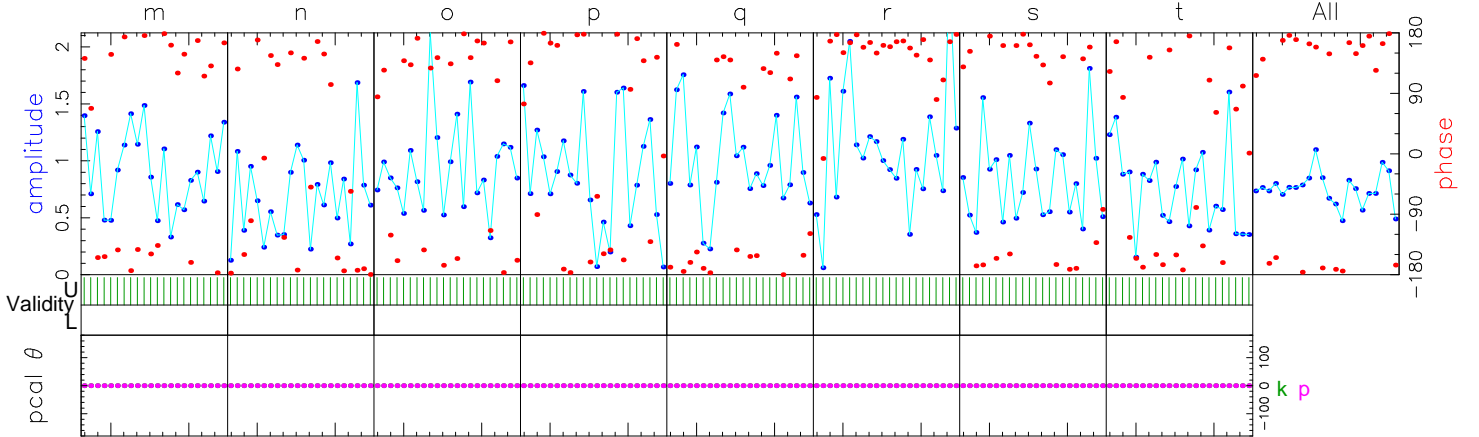


Fringe quality 9

SNR 20.5
 Int time 112.633
 Amp 0.708
 Phase 168.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.059781
 MBD -0.003039
 Fringe rate (Hz)
 -0.008343
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113028
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
k	0	0	0	0	0	0	0	0		
p	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		
kp	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) -6.46164844672E+02 Apriori delay (usec) -6.46224305504E+02 Resid mbdelay (usec) -3.03917E-03 +/- 5.3E-05
 Sband delay (usec) -6.46164524254E+02 Apriori clock (usec) -5.5573940E+00 Resid sbdelay (usec) 5.97812E-02 +/- 4.2E-04
 Phase delay (usec) -6.46224300081E+02 Apriori clockrate (us/s) -2.2649092E-07 Resid phdelay (usec) 5.42363E-06 +/- 1.8E-07
 Delay rate (us/s) 5.74091149756E-02 Apriori rate (us/s) 5.74092118326E-02 Resid rate (us/s) -9.68570E-08 +/- 2.8E-09
 Total phase (deg) -75.2 Apriori accel (us/s/s) 5.33009253807E-07 Resid phase (deg) 168.2 +/- 5.6

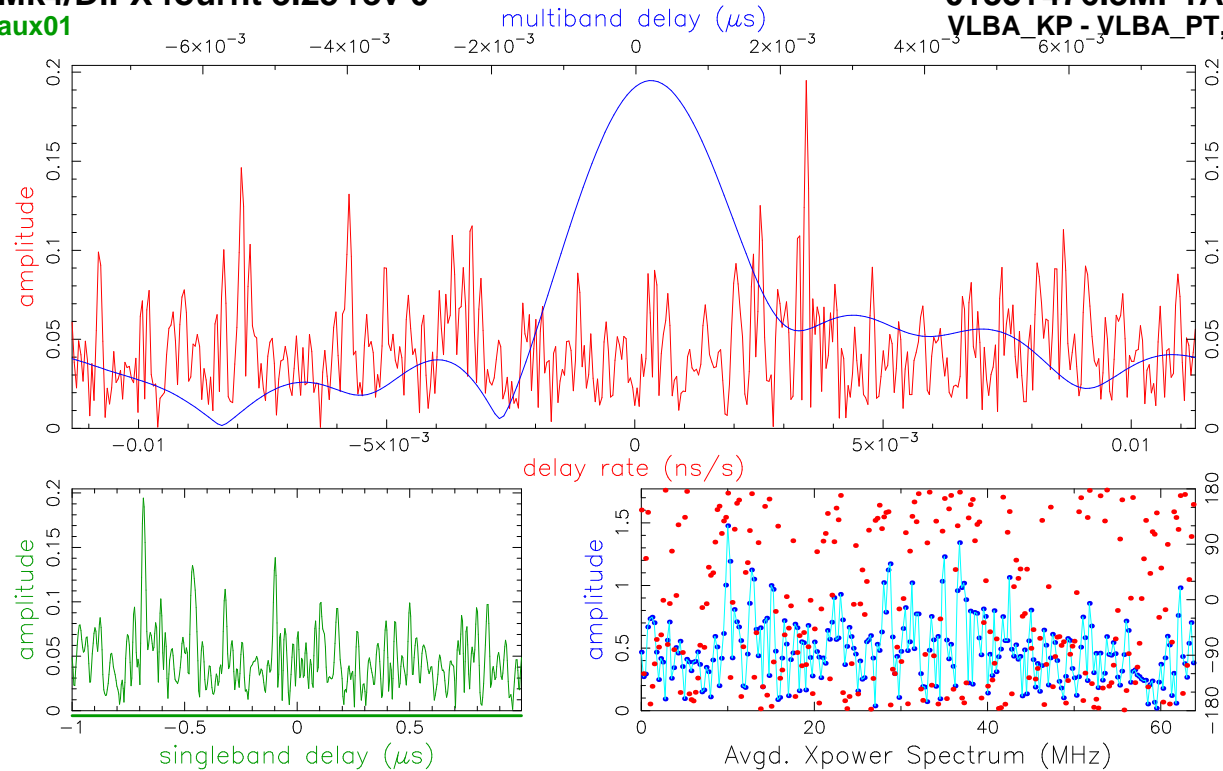
ph/seg (deg) 22.2 13.1 Amplitude 0.708 +/- 0.034 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 21.1 22.8 Search (512X32) 0.692 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 8.3 7.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 23.4 13.8 Inc. seg. avg. 0.736 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 k: az 47.5 el 60.5 pa -111.0 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) -490.515 -154.861 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/c241a/v2/3mm/1234/No0916/kp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kp.W.172.3MP1AB simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

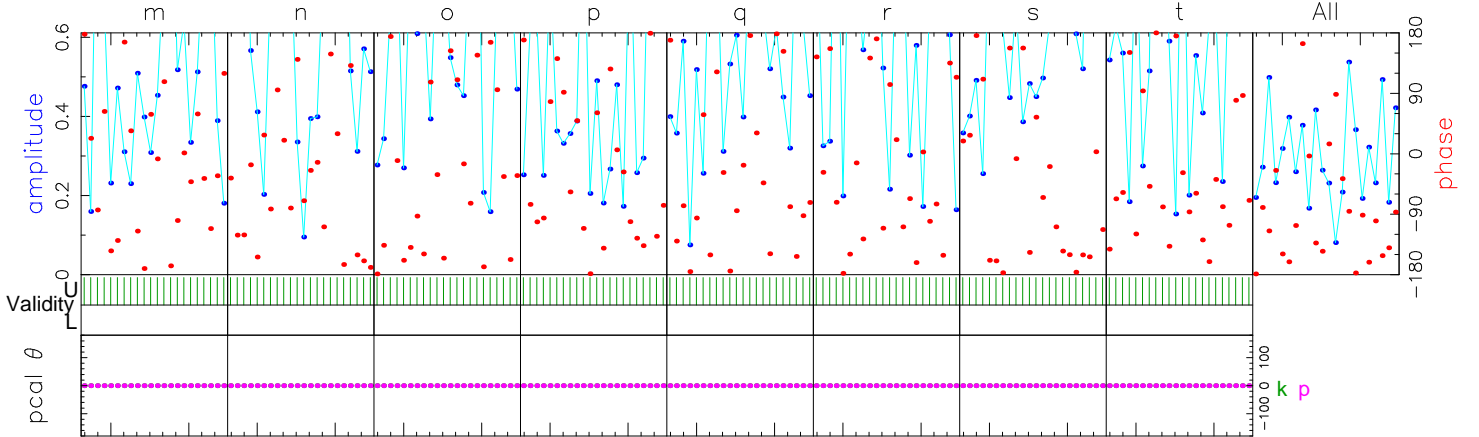
0133+476.3MP1AB, No0916, kp

VLBA_KP - VLBA_PT, fgroup W, pol LR



Fringe quality 0
 SNR 5.7
 Int time 112.633
 Amp 0.204
 Phase -123.9
 PFD 5.4e-01
 Delays (us)
 SBD -0.682693
 MBD 0.000211
 Fringe rate (Hz) 0.297286
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113029
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-96.9	-113.8	-145.0	-118.0	-130.9	-133.7	-142.5	-94.8	Phase	-123.9
	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	Ampl.	0.2
	174.5	316.4	240.4	328.9	454.8	139.0	282.5	138.9	Sbd box	82.2
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
kp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl 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)	-6.46911594572E+02		Apriori delay (usec)		-6.46224305504E+02		Resid mbdelay (usec)		2.10932E-04	+/- 1.9E-04
Sband delay (usec)	-6.46906999004E+02		Apriori clock (usec)		-5.5573940E+00		Resid sbdelay (usec)		-6.82693E-01	+/- 1.5E-03
Phase delay (usec)	-6.46224309499E+02		Apriori clockrate (us/s)		-2.2649092E-07		Resid phdelay (usec)		-3.99447E-06	+/- 6.5E-07
Delay rate (us/s)	5.74126630325E-02		Apriori rate (us/s)		5.74092118326E-02		Resid rate (us/s)		3.45120E-06	+/- 1.0E-08
Total phase (deg)			Apriori accel (us/s/s)		5.33009253807E-07		Resid phase (deg)		-123.9	+/- 20.1

ph/seg (deg) 66.0 47.2 Search (512X32) 0.193 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 81.6 82.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 21.0 28.5 Inc. seg. avg. 0.235 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 32.9 49.7 Inc. frq. avg. 0.190 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 k: az 47.5 el 60.5 pa -111.0 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) -490.515 -154.861 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/kp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kp.W.176.3MP1AB

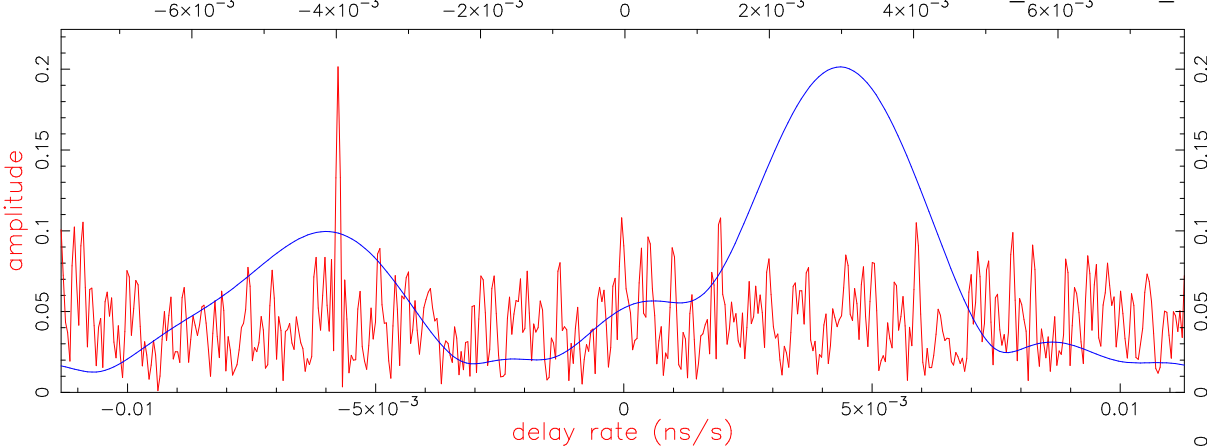
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, kp

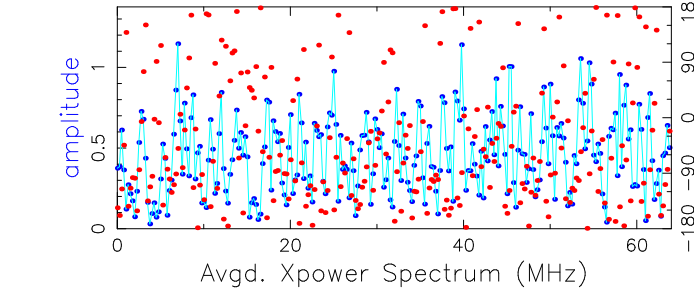
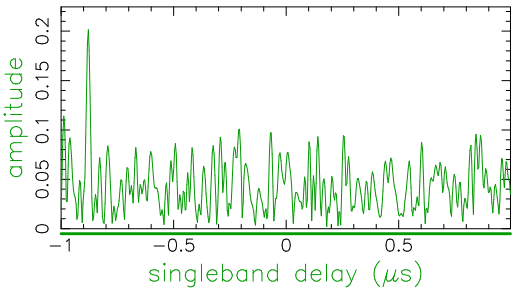
VLBA_KP - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)



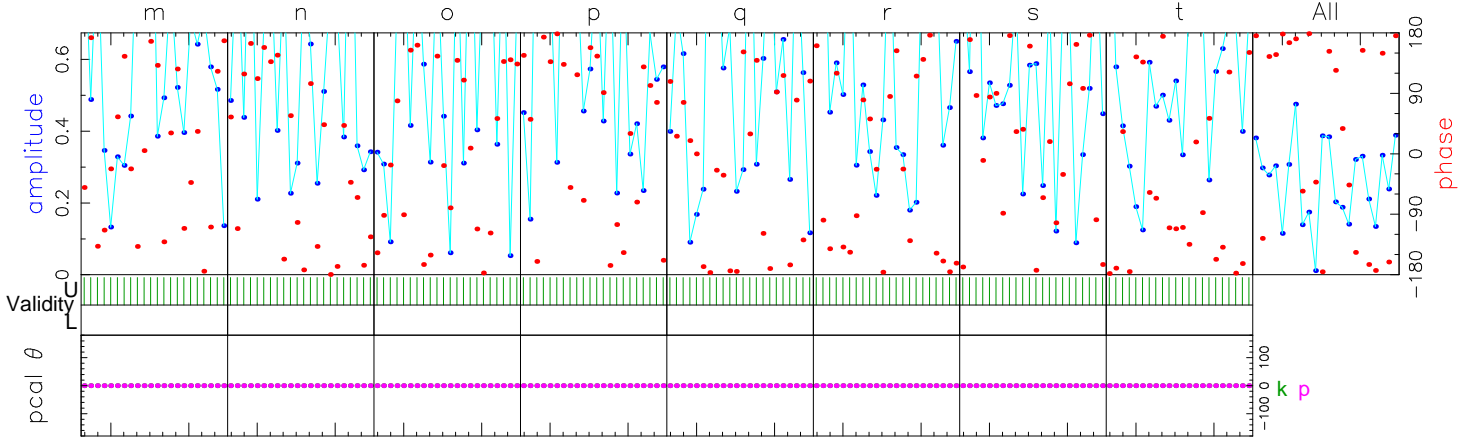
Fringe quality 0

SNR 5.9
 Int time 112.633
 Amp 0.225
 Phase 173.6
 PFD 2.7e-01
 Delays (us)
 SBD -0.879306
 MBD 0.002974
 Fringe rate (Hz)
 -0.495549
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113030
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-143.0	177.3	167.8	161.4	126.3	-178.5	127.7	-153.8	Phase	173.6
	0.1	0.3	0.3	0.4	0.1	0.4	0.1	0.3	Ampl.	0.2
	189.9	162.8	9.3	426.9	260.0	369.0	357.0	105.0	Sbd box	31.9
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
kp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-6.47096331631E+02	Apriori delay (usec)	-6.46224305504E+02	Resid mbdelay (usec)	2.97387E-03	+/-	1.9E-04
Sband delay (usec)	-6.47103611254E+02	Apriori clock (usec)	-5.5573940E+00	Resid sbdelay (usec)	-8.79306E-01	+/-	1.5E-03
Phase delay (usec)	-6.46224299907E+02	Apriori clockrate (us/s)	-2.2649092E-07	Resid phdelay (usec)	5.59763E-06	+/-	6.3E-07
Delay rate (us/s)	5.74034590022E-02	Apriori rate (us/s)	5.74092118326E-02	Resid rate (us/s)	-5.75283E-06	+/-	9.7E-09
Total phase (deg)	-69.8	Apriori accel (us/s/s)	5.33009253807E-07	Resid phase (deg)	173.6	+/-	19.6

ph/seg (deg)	63.3	Theor.	45.9	Amplitude	0.225 +/- 0.038	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	62.8	Search (512X32)	0.199	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	35.5	Inc. seg. avg.	0.220	Inc. frq. avg.	0.222	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	43.6	Inc. frq. avg.	0.222			Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	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

k: az 47.5 el 60.5 pa -111.0 p: az 49.1 el 64.2 pa -111.4 u, v (fr/asec) -490.515 -154.861 simultaneous interpolator

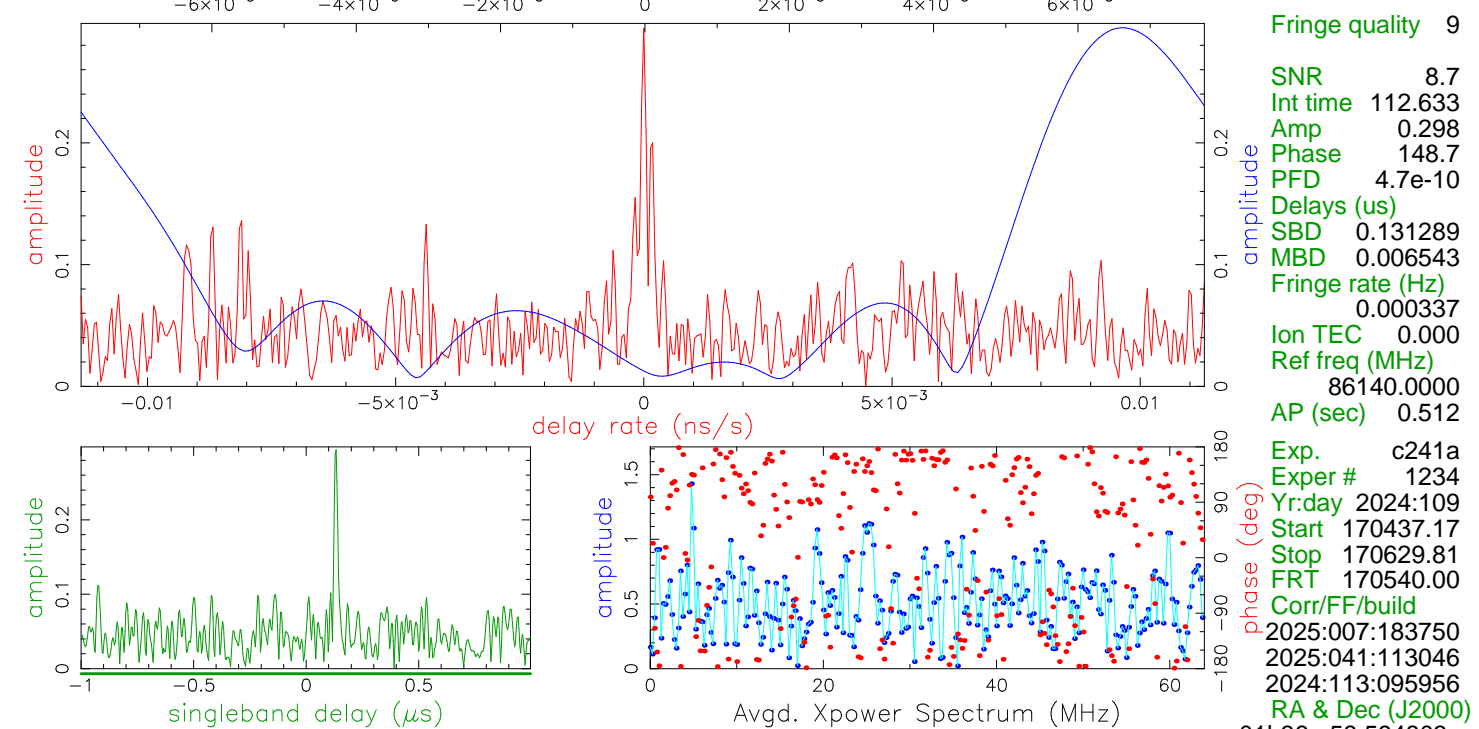
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Mk4/DiFX fourfit 3.25 rev 0

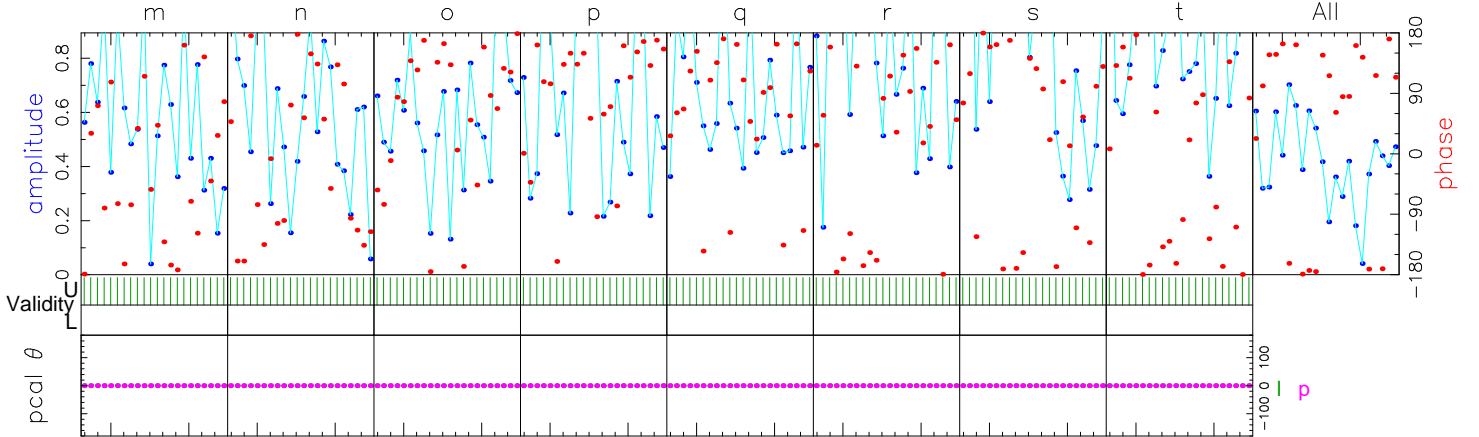
aux01

0133+476.3MP1AB, No0916, lp

VLBA_LA - VLBA_PT, fgroup W, pol LL



Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-154.0	-152.9	110.3	137.2	125.4	149.7	150.5	172.2	Phase	148.7
	0.1	0.1	0.3	0.3	0.4	0.5	0.5	0.4	Ampl.	0.3
	196.8	259.1	13.5	290.5	292.2	291.2	290.6	290.5	Sbd box	290.6
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
l	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
lp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	3.11436502101E+02	Apriori delay (usec)	3.11304959601E+02	Resid mbdelay (usec)	6.54250E-03	+/-	1.3E-04
Sband delay (usec)	3.11436248601E+02	Apriori clock (usec)	-1.4018665E+01	Resid sbdelay (usec)	1.31289E-01	+/-	1.0E-03
Phase delay (usec)	3.11304964397E+02	Apriori clockrate (us/s)	-6.1269804E-07	Resid phdelay (usec)	4.79556E-06	+/-	4.3E-07
Delay rate (us/s)	-3.17872016194E-02	Apriori rate (us/s)	-3.17872055363E-02	Resid rate (us/s)	3.91691E-09	+/-	6.6E-09
Total phase (deg)	227.9	Apriori accel (us/s/s)	3.20364818143E-08	Resid phase (deg)	148.7	+/-	13.2

ph/seg (deg)	46.5	Theor.	31.1	Amplitude	0.298 +/- 0.034	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	66.7		54.2	Search (512X32)	0.290	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	39.6		18.7	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	48.0		32.7	Inc. seg. avg.	0.366	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.307	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

l: az 50.4 el 66.3 pa -111.1 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 271.814 126.348 simultaneous interpolator

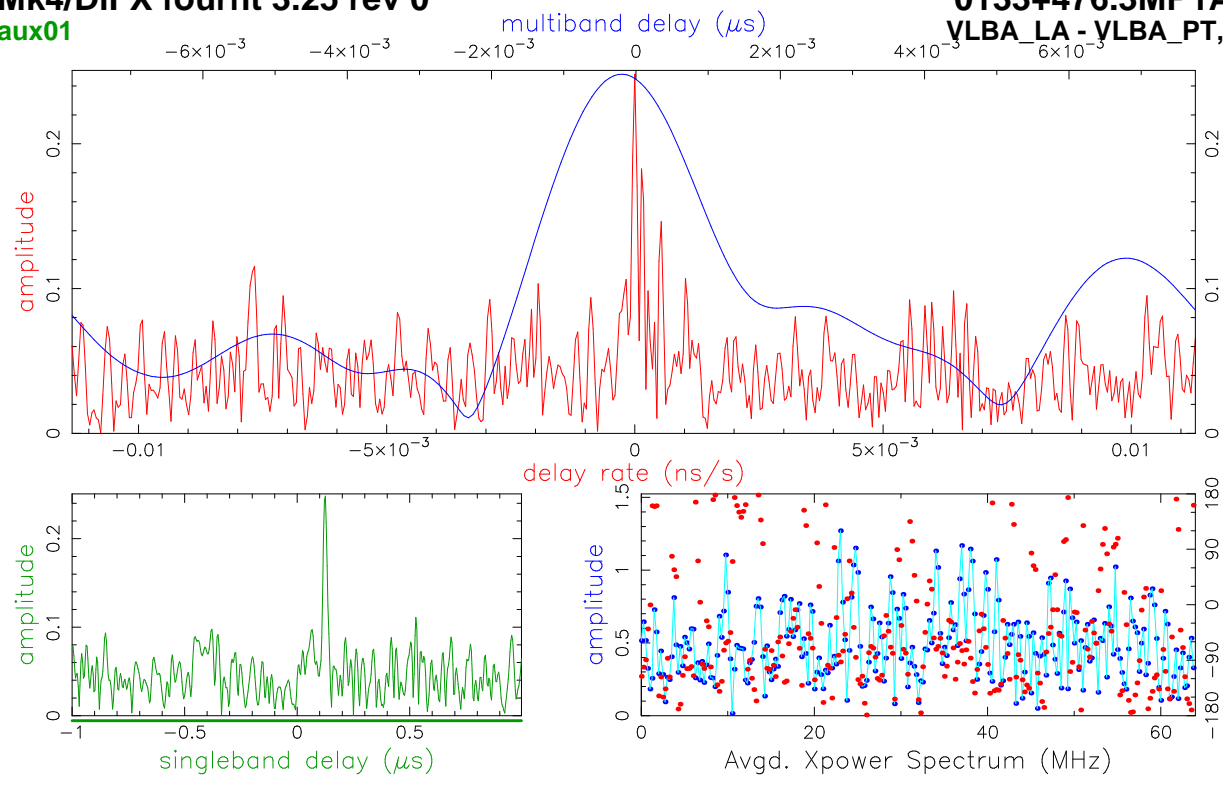
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/lp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/lp.W.198.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, lp

VLBA_LA - VLBA_PT, fgroup W, pol RR

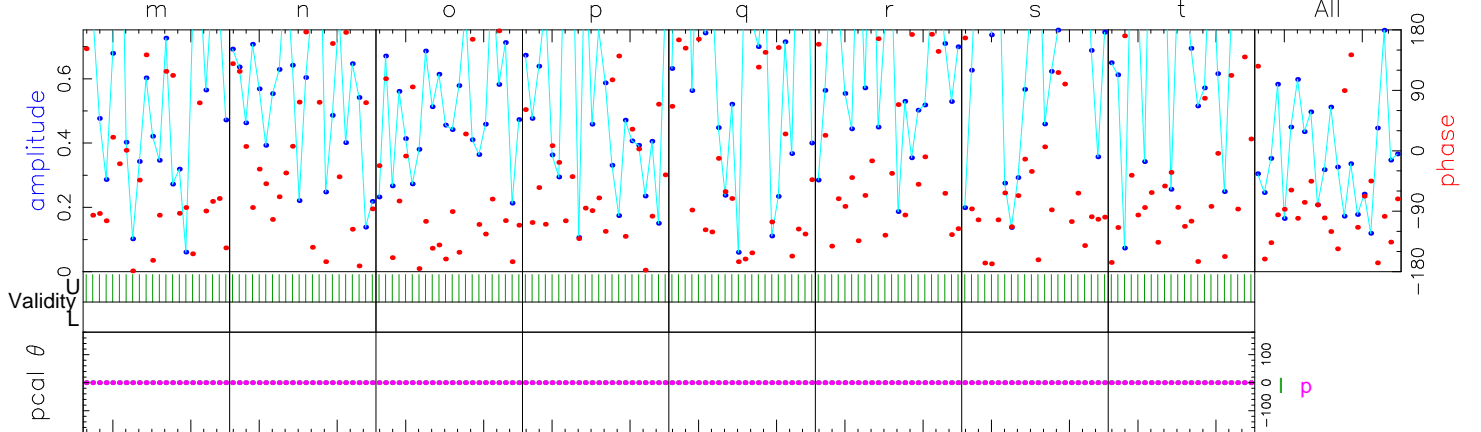


Fringe quality 9

SNR 7.3
 Int time 112.633
 Amp 0.251
 Phase -106.1
 PFD 2.7e-05
 Delays (us)
 SBD 0.123529
 MBD -0.000195
 Fringe rate (Hz) 0.000793
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113047
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-85.7	-89.3	-123.5	-70.6	-159.3	-95.3	-112.4	-88.7	Phase	-106.1
	0.1	0.1	0.2	0.3	0.4	0.3	0.4	0.4	Ampl.	0.3
	312.7	74.1	415.8	287.6	289.2	144.6	288.5	289.9	Sbd box	288.6
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
l	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
lp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
l	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)	3.11429764445E+02		Apriori delay (usec)	3.11304959601E+02	Resid mbdelay (usec)	-1.95156E-04	+/-	1.5E-04		
Sband delay (usec)	3.11428488851E+02		Apriori clock (usec)	-1.4018665E+01	Resid sbdelay (usec)	1.23529E-01	+/-	1.2E-03		
Phase delay (usec)	3.11304956180E+02		Apriori clockrate (us/s)	-6.1269804E-07	Resid phdelay (usec)	-3.42110E-06	+/-	5.1E-07		
Delay rate (us/s)	-3.17871963336E-02		Apriori rate (us/s)	-3.17872055363E-02	Resid rate (us/s)	9.20275E-09	+/-	7.8E-09		
Total phase (deg)		-26.9	Apriori accel (us/s/s)	3.20364818143E-08	Resid phase (deg)	-106.1	+/-	15.7		
	RMS	Theor.	Amplitude	0.251 +/- 0.034	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	60.5	36.9	Search (512X32)	0.241	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	76.7	64.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	30.4	22.3	Inc. seg. avg.	0.299	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011		
amp/frq (%)	44.4	38.9	Inc. frq. avg.	0.261	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00	
l: az 50.4 el 66.3 pa -111.1			p: az 49.1 el 64.2 pa -111.4							simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c241a/v2/3mm/1234/No0916/lp..3MP1AB							Output file: /Exps/c241a/v2/3mm/1234/No0916/lp.W.201.3MP1AB

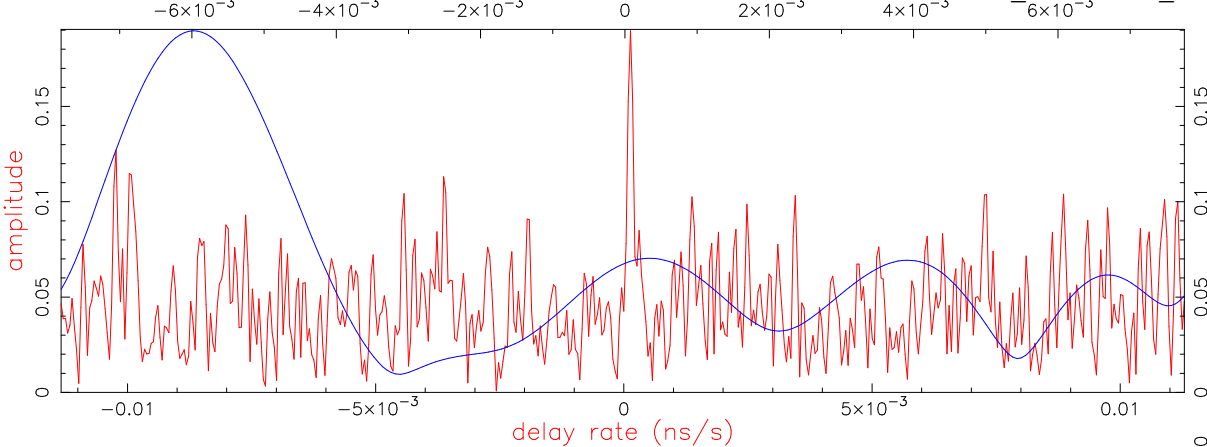
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, lp

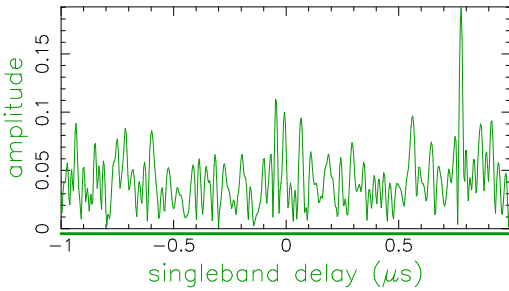
VLBA_LA - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)

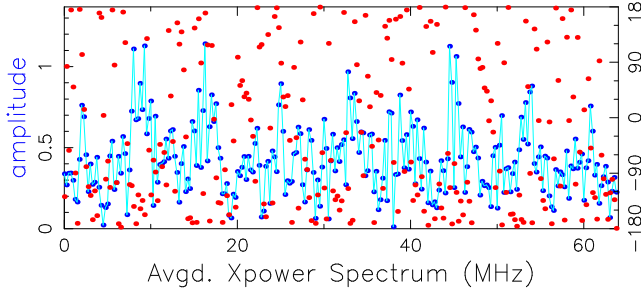


Fringe quality 0

SNR 5.5
 Int time 112.633
 Amp 0.190
 Phase -139.4
 PFD 8.6e-01
 Delays (us)
 SBD 0.776586
 MBD -0.005993
 Fringe rate (Hz)
 0.011937
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

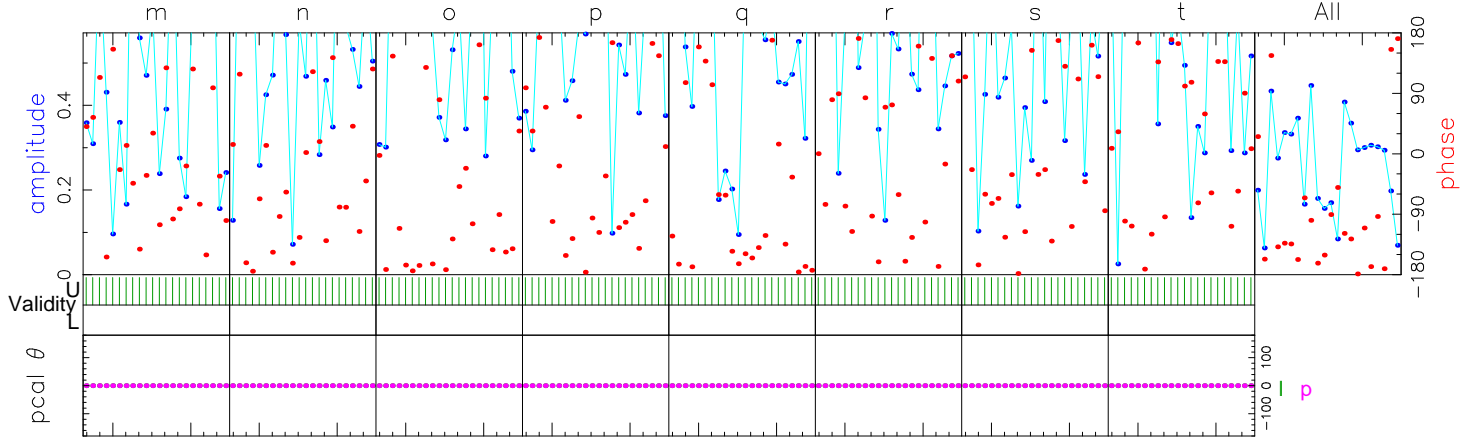


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113048
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-83.2	-122.0	-156.5	-118.6	-169.0	-134.5	-100.9	-139.0	Phase	-139.4
	0.1	0.1	0.4	0.2	0.4	0.2	0.2	0.2	Ampl.	0.2
	401.8	342.9	455.6	220.9	456.2	52.4	335.2	467.8	Sbd box	455.8
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
l	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
lp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
l	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)	3.12080216509E+02		Apriori delay (usec)		3.11304959601E+02		Resid mbdelay (usec)		-5.99309E-03	+/- 2.0E-04
Sband delay (usec)	3.12081545351E+02		Apriori clock (usec)		-1.4018665E+01		Resid sbdelay (usec)		7.76586E-01	+/- 1.6E-03
Phase delay (usec)	3.11304955106E+02		Apriori clockrate (us/s)		-6.1269804E-07		Resid phdelay (usec)		-4.49568E-06	+/- 6.7E-07
Delay rate (us/s)	-3.17870669594E-02		Apriori rate (us/s)		-3.17872055363E-02		Resid rate (us/s)		1.38577E-07	+/- 1.0E-08
Total phase (deg)			Apriori accel (us/s/s)		3.20364818143E-08		Resid phase (deg)		-139.4	+/- 20.7

ph/seg (deg) 54.4 48.6 Search (512X32) 0.187 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 69.4 84.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 33.1 29.3 Inc. seg. avg. 0.192 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 51.7 51.2 Inc. frq. avg. 0.184 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 l: az 50.4 el 66.3 pa -111.1 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 271.814 126.348 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/c241a/v2/3mm/1234/No0916/lp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/lp.W.204.3MP1AB simultaneous interpolator

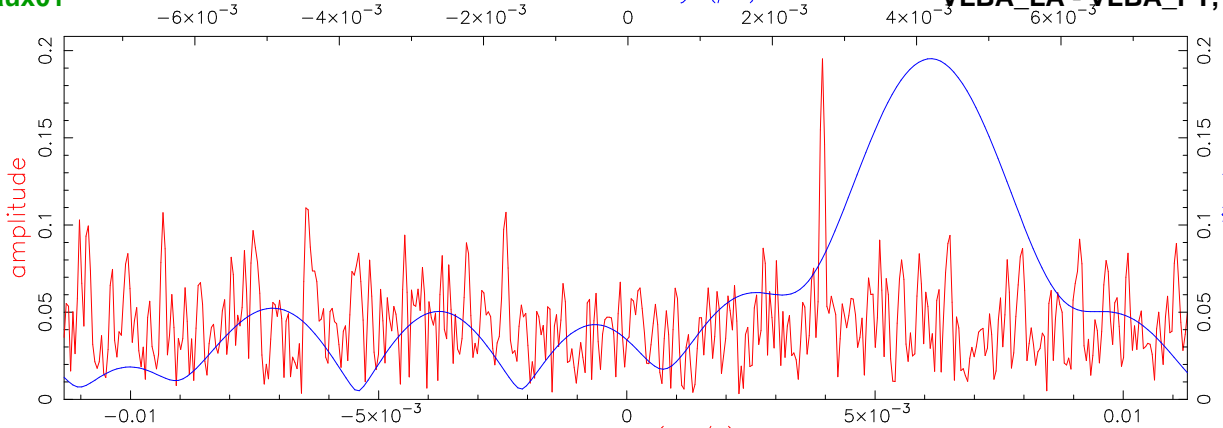
Mk4/DiFX fourfit 3.25 rev 0

aux01

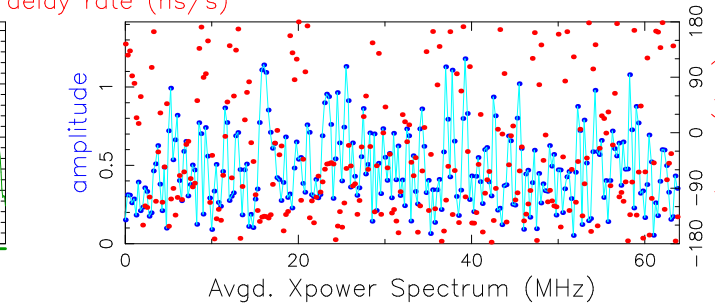
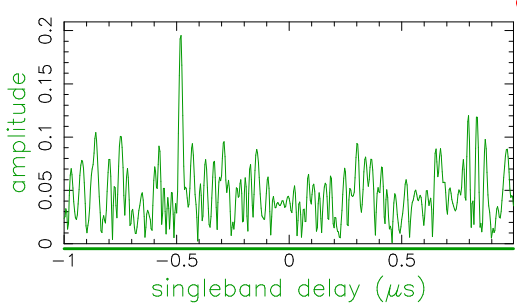
0133+476.3MP1AB, No0916, lp

VLBA_LA - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

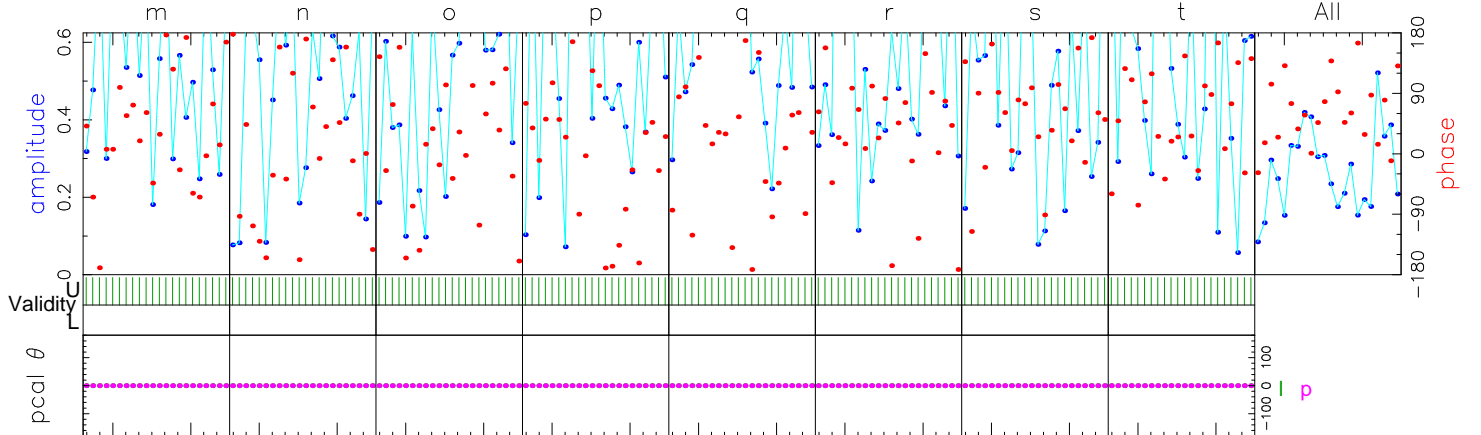


Fringe quality 0
 SNR 5.7
 Int time 112.633
 Amp 0.208
 Phase 55.0
 PFD 4.3e-01
 Delays (us)
 SBD -0.482042
 MBD 0.004159
 Fringe rate (Hz) 0.340176
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113050
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
l	0	0	0	0	0	0	0	0	APs used	
p	0	0	0	0	0	0	0	0	PC freqs	
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
lp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	3.10824743923E+02	Apriori delay (usec)	3.11304959601E+02	Resid mbdelay (usec)	4.15932E-03	+/-	1.9E-04
Sband delay (usec)	3.10822917851E+02	Apriori clock (usec)	-1.4018665E+01	Resid sbdelay (usec)	-4.82042E-01	+/-	1.5E-03
Phase delay (usec)	3.11304961373E+02	Apriori clockrate (us/s)	-6.1269804E-07	Resid phdelay (usec)	1.77210E-06	+/-	6.4E-07
Delay rate (us/s)	-3.17832564273E-02	Apriori rate (us/s)	-3.17872055363E-02	Resid rate (us/s)	3.94911E-06	+/-	9.9E-09
Total phase (deg)	134.2	Apriori accel (us/s/s)	3.20364818143E-08	Resid phase (deg)	55.0	+/-	19.9

ph/seg (deg) 50.5 46.8 Search (512X32) 0.192 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 64.8 81.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 12.6 28.2 Inc. seg. avg. 0.213 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 44.2 49.2 Inc. frq. avg. 0.186 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 l: az 50.4 el 66.3 pa -111.1 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 271.814 126.348 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/lp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/lp.W.207.3MP1AB

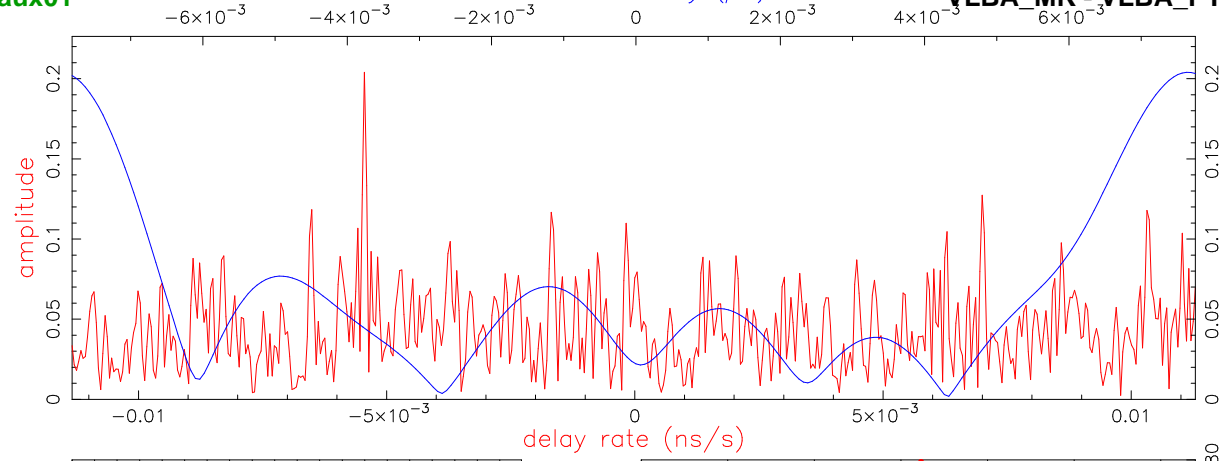
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, mp

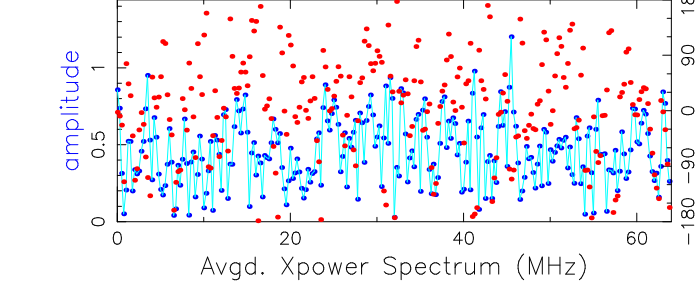
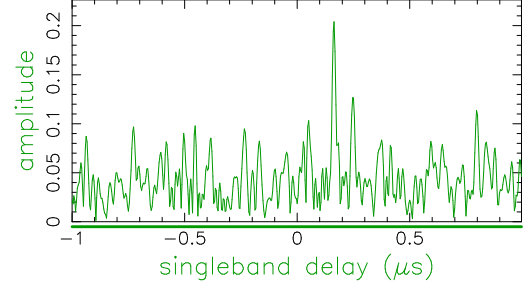
VLBA_MK - VLBA_PT, fgroup W, pol LL

multiband delay (μ s)



Fringe quality 0

SNR 6.0
 Int time 112.633
 Amp 0.226
 Phase -168.1
 PFD 1.5e-01
 Delays (us)
 SBD 0.163058
 MBD -0.008006
 Fringe rate (Hz)
 -0.471071
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

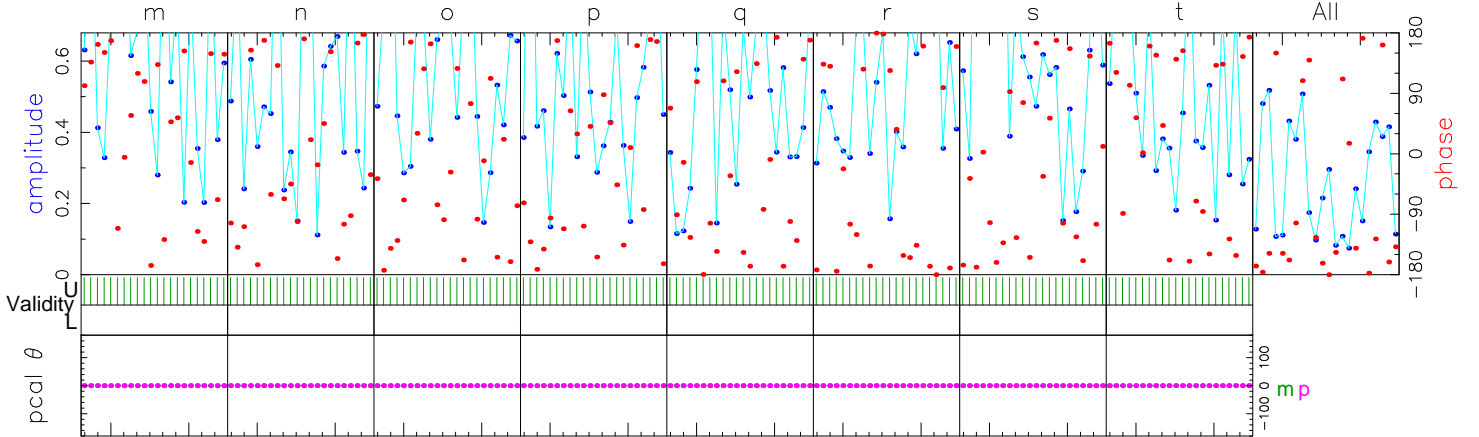


amplitude

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113059
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	139.6	-144.1	-137.7	-148.4	-167.9	179.4	-143.1	172.1	Phase	-168.1
	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.3	Ampl.	0.2
	312.4	29.4	365.1	406.0	215.1	298.7	370.9	461.2	Sbd box	298.7
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	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	Manl 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	

Group delay (usec) (SBD)	-1.06781758474E+04	Apriori delay (usec)	-1.06783397163E+04	Resid mbdelay (usec)	-8.00603E-03	+/-	1.8E-04
Sband delay (usec)	-1.06781766588E+04	Apriori clock (usec)	-5.1686993E+00	Resid sbdelay (usec)	1.63058E-01	+/-	1.4E-03
Phase delay (usec)	-1.06783397217E+04	Apriori clockrate (us/s)	-3.9319698E-07	Resid phdelay (usec)	-5.42046E-06	+/-	6.2E-07
Delay rate (us/s)	5.33806770353E-01	Apriori rate (us/s)	5.33812239021E-01	Resid rate (us/s)	-5.46867E-06	+/-	9.5E-09
Total phase (deg)	-227.1	Apriori accel (us/s/s)	3.79487537972E-05	Resid phase (deg)	-168.1	+/-	19.2

ph/seg (deg)	52.9	Theor.	45.1	Amplitude	0.226 +/- 0.038	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	80.0		78.7	Search (512X32)	0.184	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	31.1		27.2	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	32.0		47.5	Inc. seg. avg.	0.222	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.224	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

m: az 45.2 el 23.3 pa -86.1 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) -4537.455 1996.064 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/mp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/mp.W.224.3MP1AB

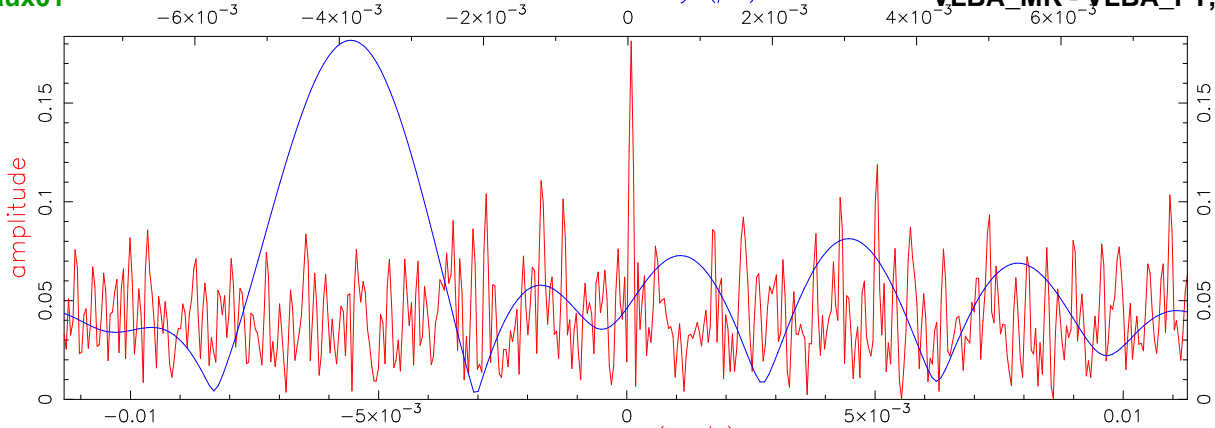
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, mp

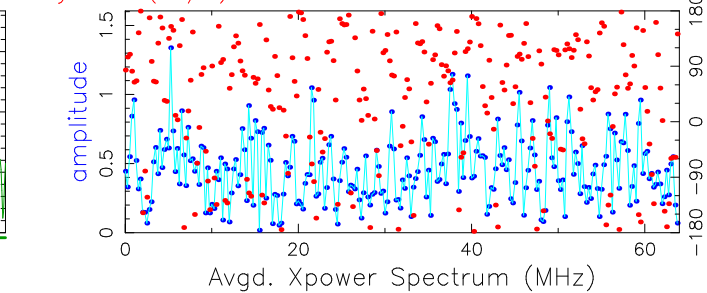
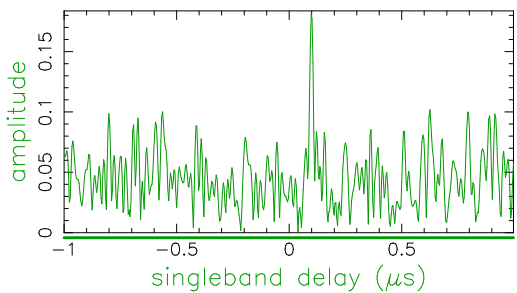
VLBA_MK - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)

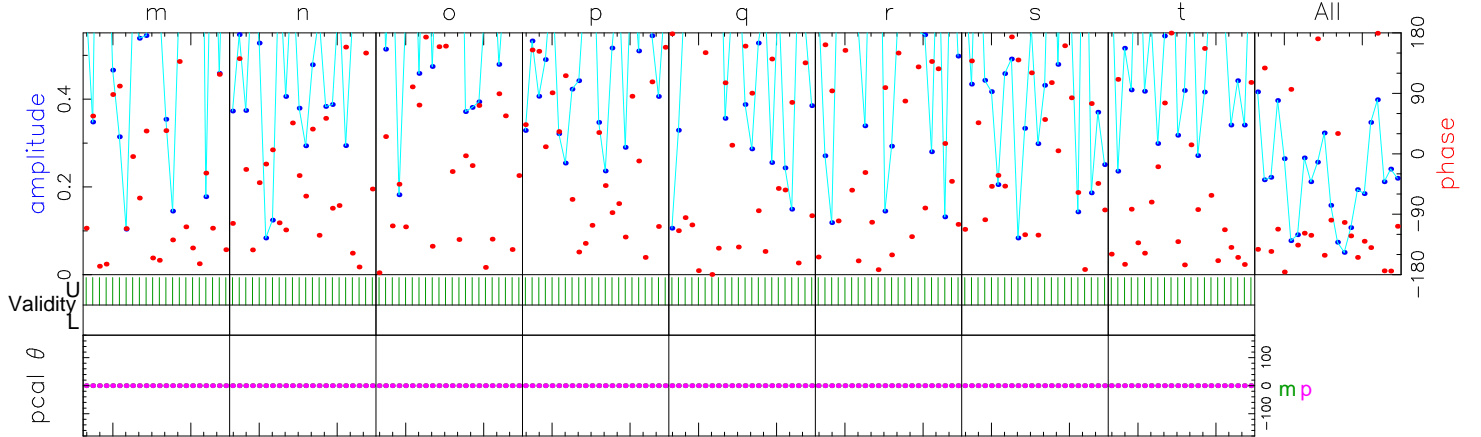


Fringe quality 0
 SNR 5.3
 Int time 112.633
 Amp 0.184
 Phase -148.6
 PFD 1.0e+00
 Delays (us)
 SBD 0.099135
 MBD -0.003769
 Fringe rate (Hz) 0.007828
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113100
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

delay rate (ns/s)



Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	
	-152.0	-113.2	-151.6	-148.9	-148.1	-151.2	152.1	-144.1	Phase	-148.6	
	0.3	0.1	0.2	0.1	0.3	0.2	0.1	0.2	Ampl.	0.2	
	280.9	106.4	242.1	213.1	279.3	339.8	151.0	53.7	Sbd box	282.4	
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used		
m	0	0	0	0	0	0	0	0	PC freqs		
p	0	0	0	0	0	0	0	0	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	Manl 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)	-1.06782341099E+04		Apriori delay (usec)		-1.06783397163E+04		Resid mbdelay (usec)		-3.76855E-03	+/- 2.0E-04	
Sband delay (usec)	-1.06782405816E+04		Apriori clock (usec)		-5.1686993E+00		Resid sbdelay (usec)		9.91348E-02	+/- 1.6E-03	
Phase delay (usec)	-1.06783397211E+04		Apriori clockrate (us/s)		-3.9319698E-07		Resid phdelay (usec)		-4.79239E-06	+/- 6.9E-07	
Delay rate (us/s)	5.33812329900E-01		Apriori rate (us/s)		5.3381239021E-01		Resid rate (us/s)		9.08796E-08	+/- 1.1E-08	
Total phase (deg)			Apriori accel (us/s/s)		3.79487537972E-05		Resid phase (deg)		-148.6	+/- 21.5	
	RMS	Theor.	Amplitude	0.184 +/- 0.034		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	55.5	50.4	Search (512X32)	0.182		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	60.9	87.9	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	28.3	30.4	Inc. seg. avg.	0.162		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	43.3	53.0	Inc. frq. avg.	0.166		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
m: az 45.2 el 23.3 pa -86.1	p: az 49.1 el 64.2 pa -111.4		u,v (fr/asec) -4537.455 1996.064						simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0916/mp..3MP1AB		Output file: /Exps/c241a/v2/3mm/1234/No0916/mp.W.229.3MP1AB								

Mk4/DiFX fourfit 3.25 rev 0

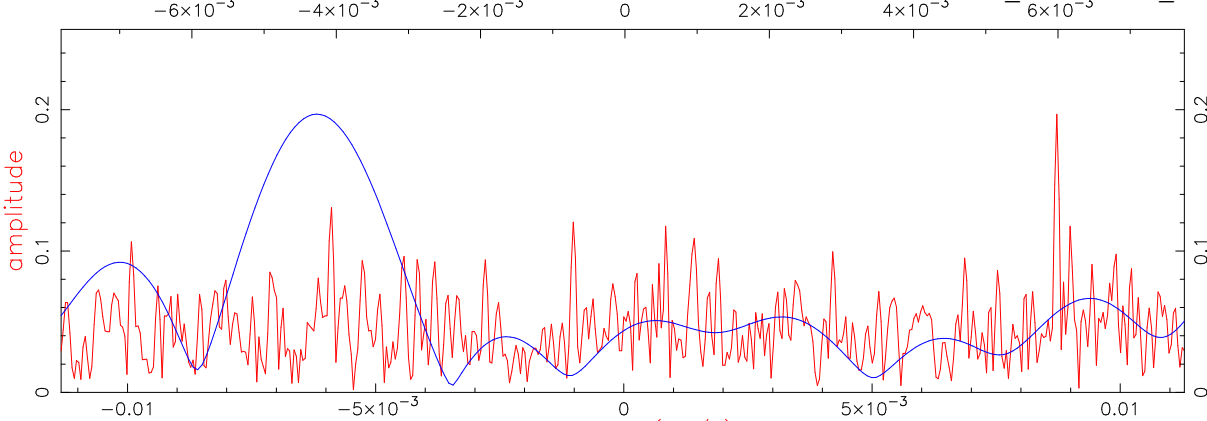
aux01

0133+476.3MP1AB, No0916, mp

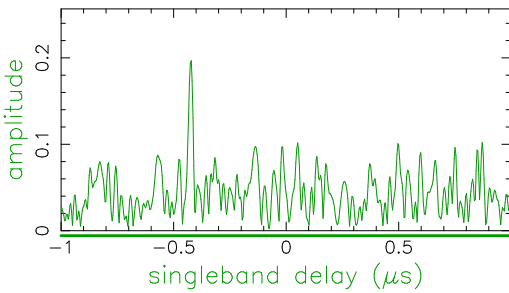
VLBA_MK - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)

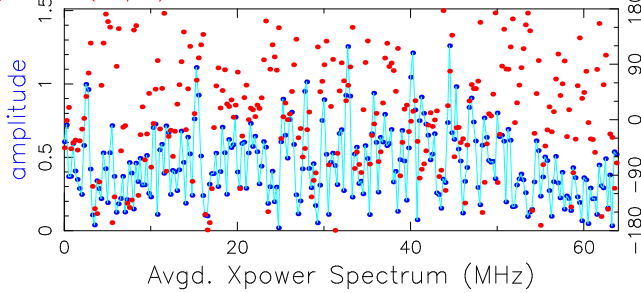
Fringe quality 0



SNR 5.8
 Int time 112.633
 Amp 0.257
 Phase -125.0
 PFD 3.9e-01
 Delays (us)
 SBD -0.423411
 MBD -0.004293
 Fringe rate (Hz)
 0.751079
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

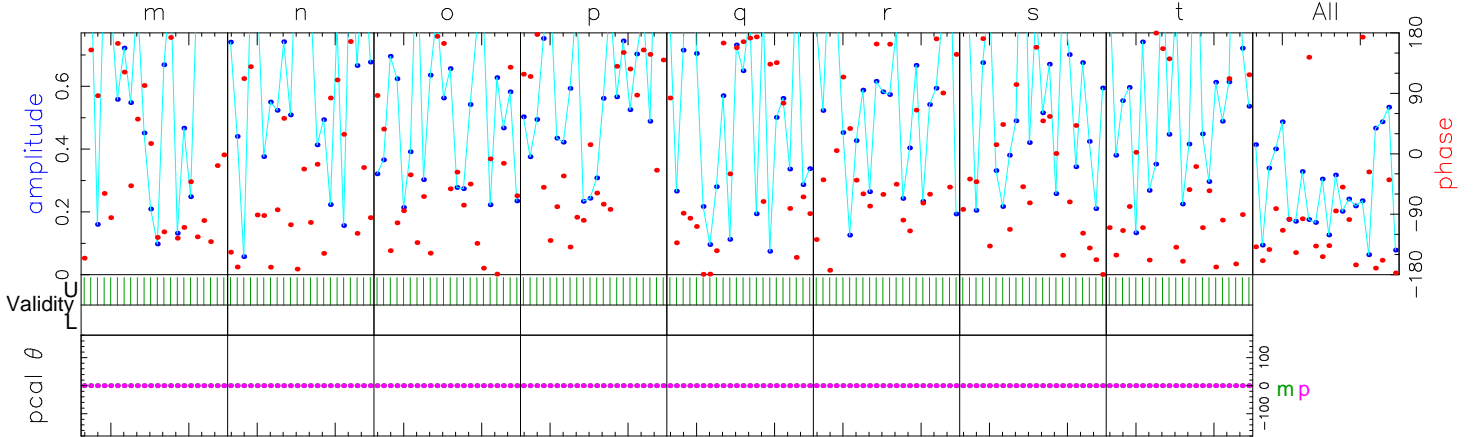


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113102
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-116.5	-127.2	-126.9	-148.7	-146.7	-80.6	-98.7	-133.3	Phase	-125.0
	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.4	Ampl.	0.2
	296.4	251.8	176.2	480.1	424.0	122.4	285.1	174.1	Sbd box	148.6
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	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	Manl PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) -1.06787658846E+04 Apriori delay (usec) -1.06783397163E+04 Resid mbdelay (usec) -4.29327E-03 +/- 1.9E-04
 Sband delay (usec) -1.06787631271E+04 Apriori clock (usec) -5.1686993E+00 Resid sbdelay (usec) -4.23411E-01 +/- 1.5E-03
 Phase delay (usec) -1.06783397204E+04 Apriori clockrate (us/s) -3.9319698E-07 Resid phdelay (usec) -4.02951E-06 +/- 6.4E-07
 Delay rate (us/s) 5.33820958299E-01 Apriori rate (us/s) 5.33812239021E-01 Resid rate (us/s) 8.71928E-06 +/- 9.9E-09
 Total phase (deg) -184.0 Apriori accel (us/s/s) 3.79487537972E-05 Resid phase (deg) -125.0 +/- 19.9

RMS Theor. Amplitude 0.257 +/- 0.045 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 48.4 46.6 Search (512X32) 0.194 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 79.9 81.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 25.3 28.1 Inc. seg. avg. 0.266 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 28.4 49.0 Inc. frq. avg. 0.240 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

m: az 45.2 el 23.3 pa -86.1 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) -4537.455 1996.064 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/mp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/mp.W.234.3MP1AB

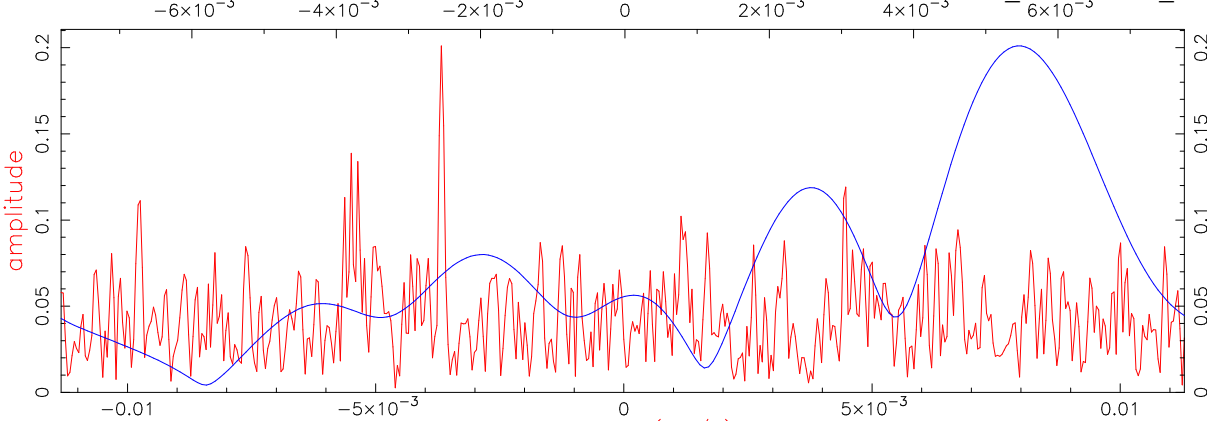
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, mp

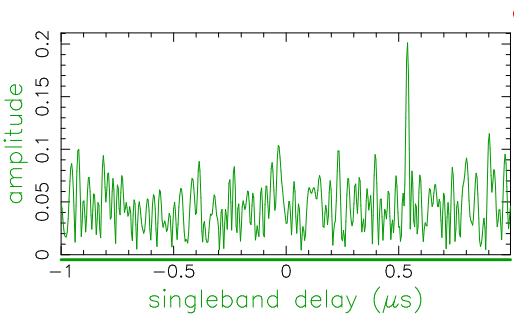
VLBA_MK - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

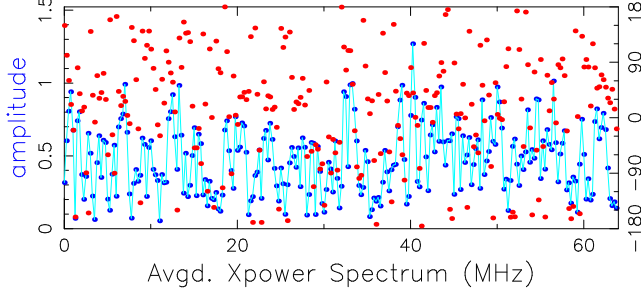


Fringe quality 0

SNR 5.9
 Int time 112.633
 Amp 0.211
 Phase 65.7
 PFD 2.6e-01
 Delays (us)
 SBD 0.538460
 MBD 0.005447
 Fringe rate (Hz)
 -0.316429
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

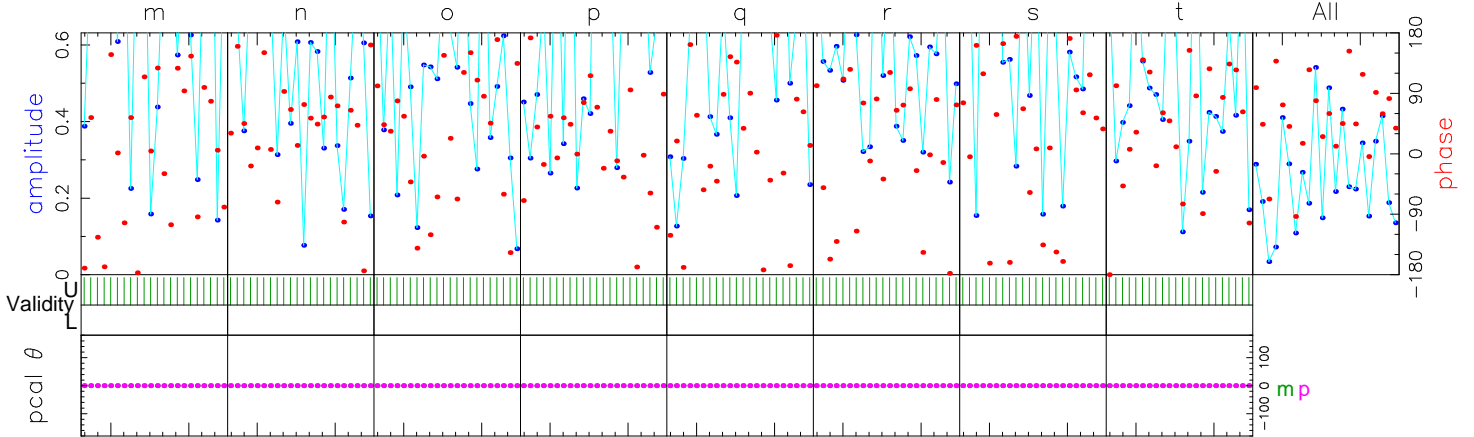


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113102
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	144.2	50.9	73.9	26.1	37.5	80.4	83.8	73.9	Phase	65.7
	0.2	0.3	0.2	0.3	0.2	0.2	0.3	0.3	Ampl.	0.2
	407.5	394.8	245.2	395.0	407.0	337.8	393.7	247.9	Sbd box	394.8
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	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	Manl PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.06778030191E+04	Apriori delay (usec)	-1.06783397163E+04	Resid mbdelay (usec)	5.44718E-03	+/-	1.9E-04
Sband delay (usec)	-1.06778012566E+04	Apriori clock (usec)	-5.1686993E+00	Resid sbdelay (usec)	5.38460E-01	+/-	1.5E-03
Phase delay (usec)	-1.06783397142E+04	Apriori clockrate (us/s)	-3.9319698E-07	Resid phdelay (usec)	2.11779E-06	+/-	6.3E-07
Delay rate (us/s)	5.33808565595E-01	Apriori rate (us/s)	5.33812239021E-01	Resid rate (us/s)	-3.67343E-06	+/-	9.7E-09
Total phase (deg)	6.7	Apriori accel (us/s/s)	3.79487537972E-05	Resid phase (deg)	65.7	+/-	19.6

ph/seg (deg)	RMS 59.9	Theor. 45.9	Amplitude Search (512X32)	0.211 +/- 0.036	0.196	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	72.2	80.1	Interp.	0.000	0.205	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	39.7	27.7	Inc. seg. avg.	0.205	0.220	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	38.1	48.3	Inc. frq. avg.	0.220		Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

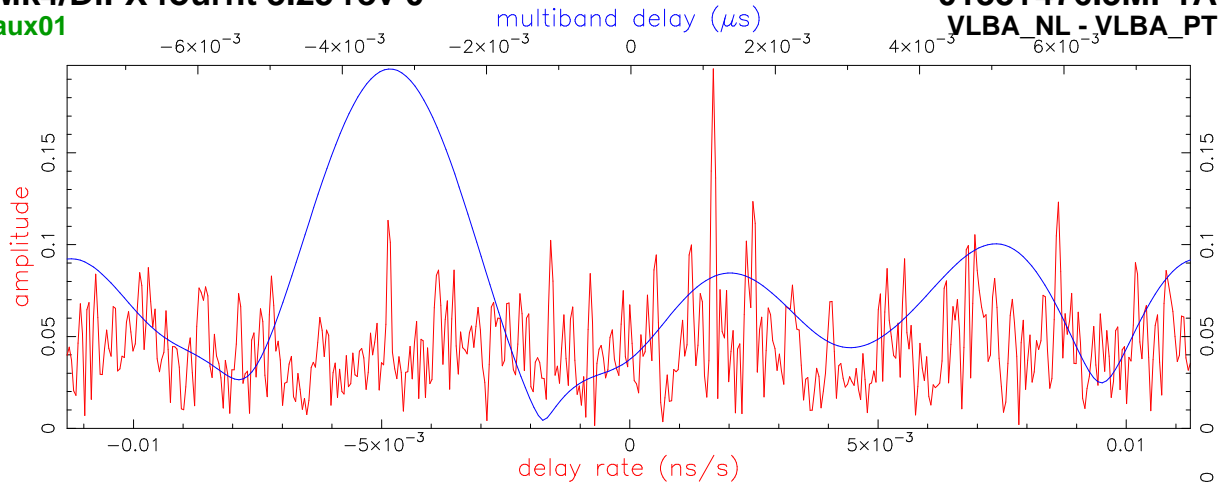
m: az 45.2 el 23.3 pa -86.1 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) -4537.455 1996.064 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/mp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/mp.W.239.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

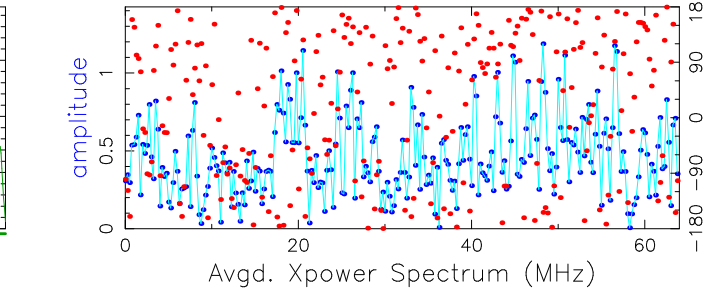
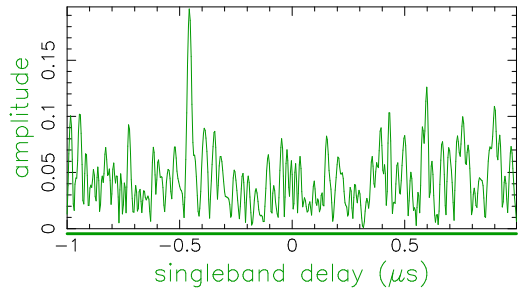
0133+476.3MP1AB, No0916, np

VLBA_NL - VLBA_PT, fgroup W, pol LL



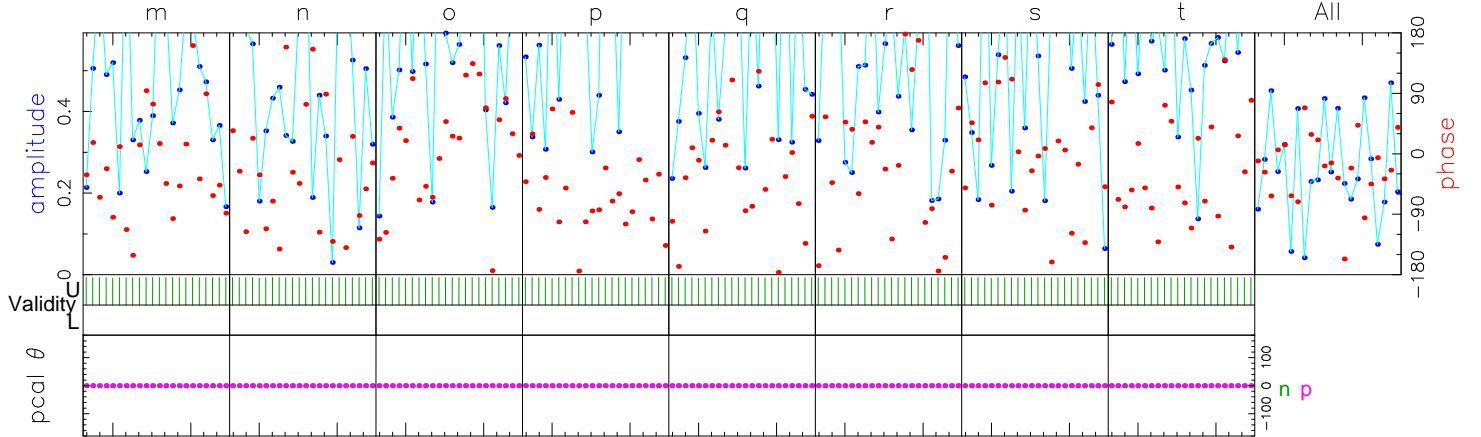
Fringe quality 0

SNR 5.7
 Int time 112.498
 Amp 0.198
 Phase -26.5
 PFD 5.7e-01
 Delays (us)
 SBD -0.456636
 MBD -0.003347
 Fringe rate (Hz)
 0.146376
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113100
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-34.9	-31.1	36.0	-61.8	-20.6	-42.8	18.8	-40.3	Phase	-26.5
	0.2	0.2	0.3	0.4	0.3	0.1	0.2	0.2	Ampl.	0.2
	70.1	158.0	505.7	140.9	458.5	55.2	10.3	34.1	Sbd box	140.1
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	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)	1.69097730137E+03	Apriori delay (usec)	1.69143377351E+03	Resid mbdelay (usec)	-3.34713E-03	+/-	1.9E-04
Sband delay (usec)	1.69097713701E+03	Apriori clock (usec)	-5.9903088E+00	Resid sbdelay (usec)	-4.56636E-01	+/-	1.5E-03
Phase delay (usec)	1.69143377265E+03	Apriori clockrate (us/s)	-8.1437027E-08	Resid phdelay (usec)	-8.53163E-07	+/-	6.5E-07
Delay rate (us/s)	-2.49211711944E-01	Apriori rate (us/s)	-2.49213411221E-01	Resid rate (us/s)	1.69928E-06	+/-	1.0E-08
Total phase (deg)	63.5	Apriori accel (us/s/s)	-4.41930319721E-07	Resid phase (deg)	-26.5	+/-	20.2

ph/seg (deg)	49.4	Theor.	47.3	Amplitude	0.198 +/- 0.035	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	72.5	Search (512X32)	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)	36.0	Inc. seg. avg.	0.199	Inc. frq. avg.	0.207	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	48.4	Inc. frq. avg.	0.207	u,v (fr/asec)	2131.046 560.104	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
n: az 51.3 el 79.0 pa -119.7		p: az 49.1 el 64.2 pa -111.4				Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

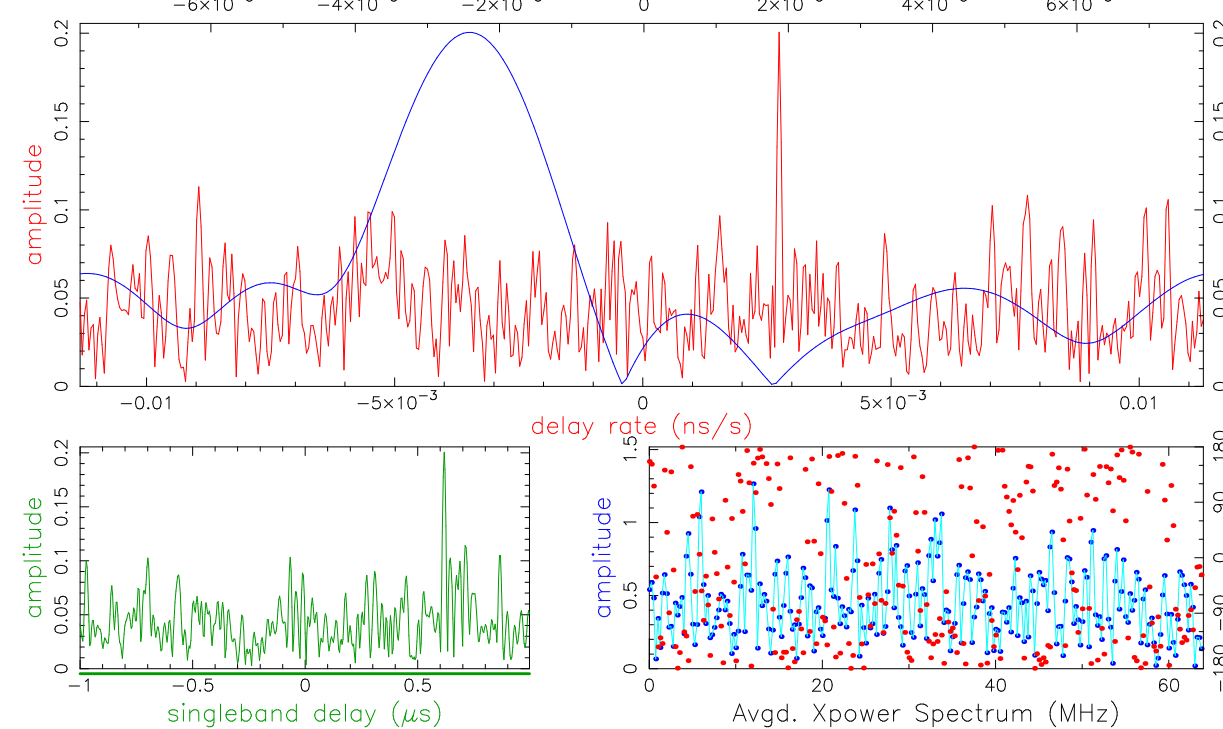
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/np..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/np.W.227.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, np

VLBA_NL - VLBA_PT, fgroup W, pol RR

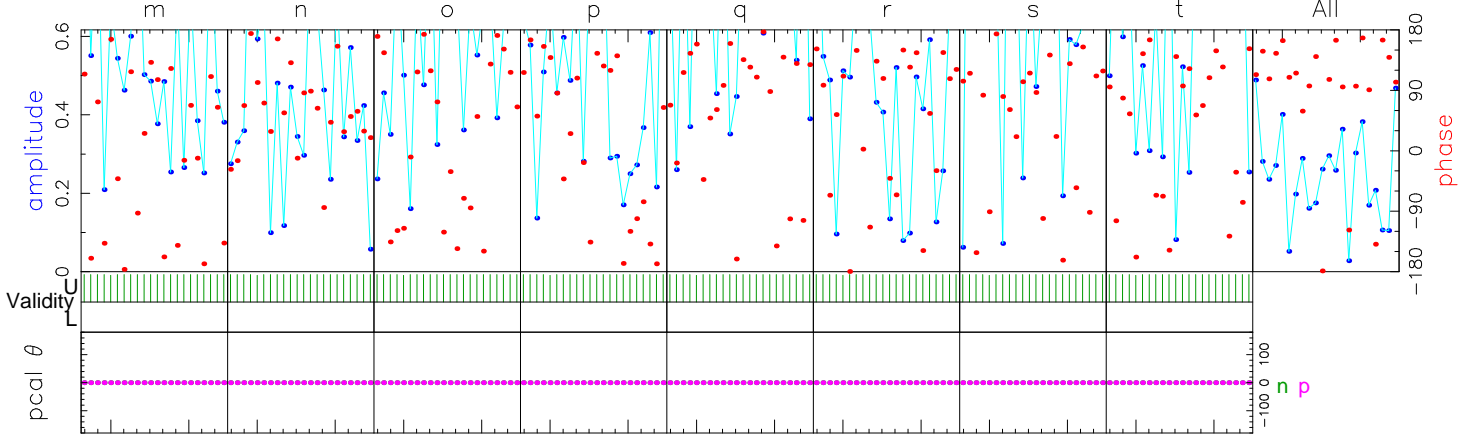


Fringe quality 0

SNR 5.8
 Int time 112.498
 Amp 0.206
 Phase 127.6
 PFD 3.1e-01
 Delays (us)
 SBD 0.617580
 MBD -0.002406
 Fringe rate (Hz)
 0.235307
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113101
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
n	0	0	0	0	0	0	0	0		
p	0	0	0	0	0	0	0	0		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	1.69205636754E+03	Apriori delay (usec)	1.69143377351E+03	Resid mbdelay (usec)	-2.40597E-03	+/-	1.9E-04
Sband delay (usec)	1.69205135401E+03	Apriori clock (usec)	-5.9903088E+00	Resid sbdelay (usec)	6.17580E-01	+/-	1.5E-03
Phase delay (usec)	1.69143377762E+03	Apriori clockrate (us/s)	-8.1437027E-08	Resid phdelay (usec)	4.11520E-06	+/-	6.3E-07
Delay rate (us/s)	-2.49210679536E-01	Apriori rate (us/s)	-2.49213411221E-01	Resid rate (us/s)	2.73169E-06	+/-	9.8E-09
Total phase (deg)	217.6	Apriori accel (us/s/s)	-4.41930319721E-07	Resid phase (deg)	127.6	+/-	19.7

ph/seg (deg)	44.1	RMS	46.2	Theor.	46.2	Amplitude	0.206 +/- 0.035	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	65.0	Search (512X32)	0.190	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	0.190	SampCntNorm: enabled	sb window (us) -1.000 1.000
ph/frq (deg)	27.5	Inc. seg. avg.	0.193	Inc. frq. avg.	0.200	Bits/sample: 2x2	0.193	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	mb window (us) -0.008 0.008
amp/frq (%)	31.7	Inc. frq. avg.	0.200			Data rate(Mb/s): 2048	0.200	nlags: 256 t_cohere infinite	dr window (ns/s) -0.011 0.011

n: az 51.3 el 79.0 pa -119.7 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 2131.046 560.104 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/np..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/np.W.232.3MP1AB

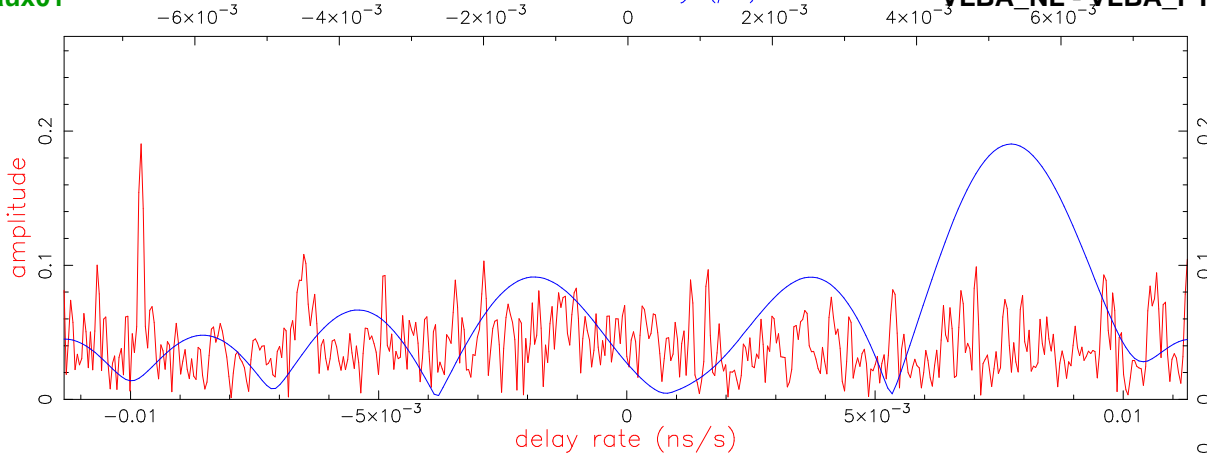
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, np

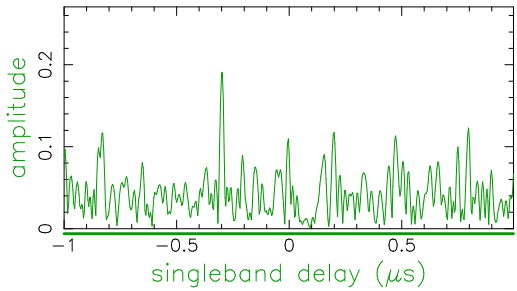
VLBA_NL - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)

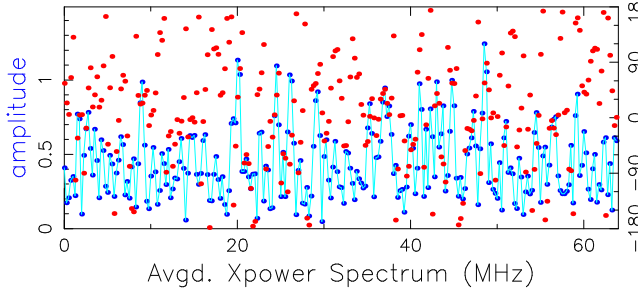


Fringe quality 0

SNR 5.6
 Int time 112.498
 Amp 0.271
 Phase 121.9
 PFD 6.4e-01
 Delays (us)
 SBD -0.298761
 MBD 0.005313
 Fringe rate (Hz)
 -0.846135
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

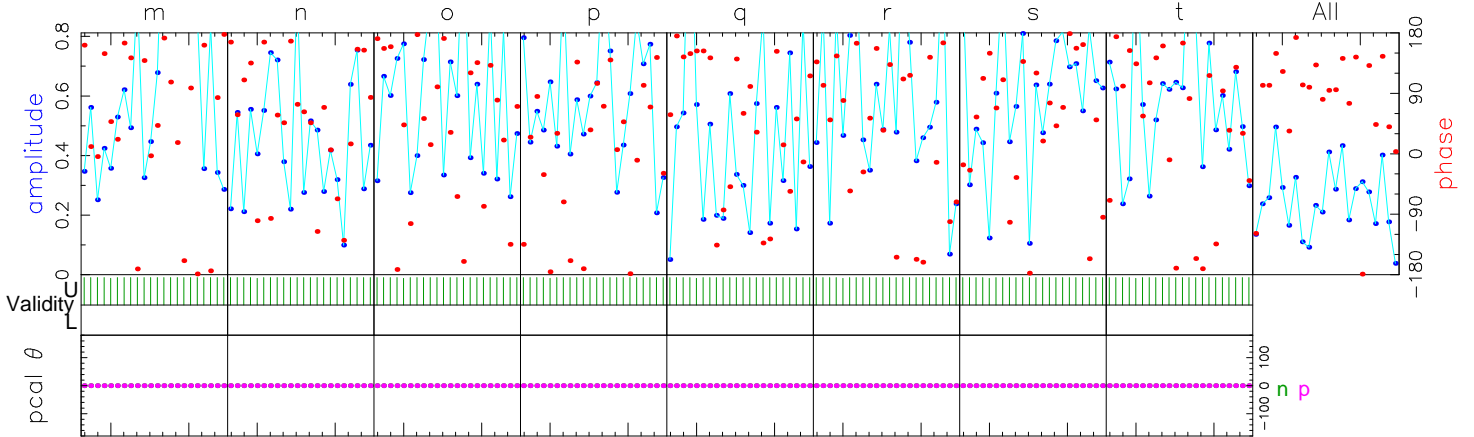


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113102
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	144.1	86.3	116.2	85.8	153.8	135.2	94.2	132.7	Phase	121.9
	0.4	0.2	0.3	0.2	0.2	0.4	0.3	0.4	Ampl.	0.3
	449.4	419.8	106.4	424.6	120.1	77.1	241.6	339.9	Sbd box	180.5
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	1.69114221165E+03		Apriori delay (usec)		1.69143377351E+03		Resid mbdelay (usec)		5.31314E-03	+/- 1.9E-04
Sband delay (usec)	1.69113501301E+03		Apriori clock (usec)		-5.9903088E+00		Resid sbdelay (usec)		-2.98761E-01	+/- 1.5E-03
Phase delay (usec)	1.69143377744E+03		Apriori clockrate (us/s)		-8.1437027E-08		Resid phdelay (usec)		3.92954E-06	+/- 6.5E-07
Delay rate (us/s)	-2.49223234006E-01		Apriori rate (us/s)		-2.49213411221E-01		Resid rate (us/s)		-9.82279E-06	+/- 1.0E-08
Total phase (deg)	211.8		Apriori accel (us/s/s)		-4.41930319721E-07		Resid phase (deg)		121.9	+/- 20.3

ph/seg (deg) 54.1 47.6 Search (512X32) 0.188 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 65.7 83.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 29.4 28.7 Inc. seg. avg. 0.261 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 33.8 50.1 Inc. frq. avg. 0.256 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 n: az 51.3 el 79.0 pa -119.7 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 2131.046 560.104 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/np..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/np.W.237.3MP1AB

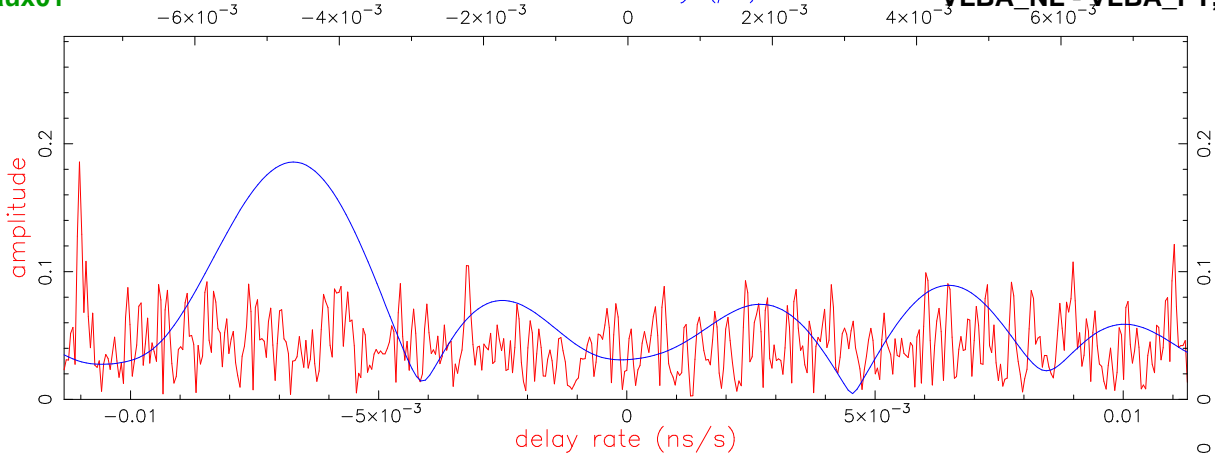
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, np

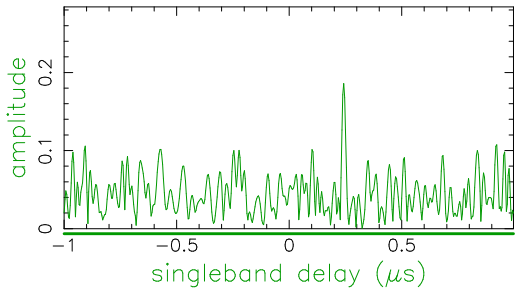
VLBA_NL - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

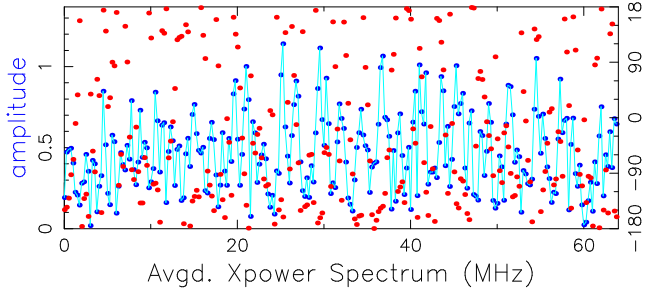


Fringe quality 0

SNR 5.4
 Int time 112.498
 Amp 0.284
 Phase -173.1
 PFD 9.8e-01
 Delays (us)
 SBD 0.241902
 MBD -0.004645
 Fringe rate (Hz)
 -0.949380
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

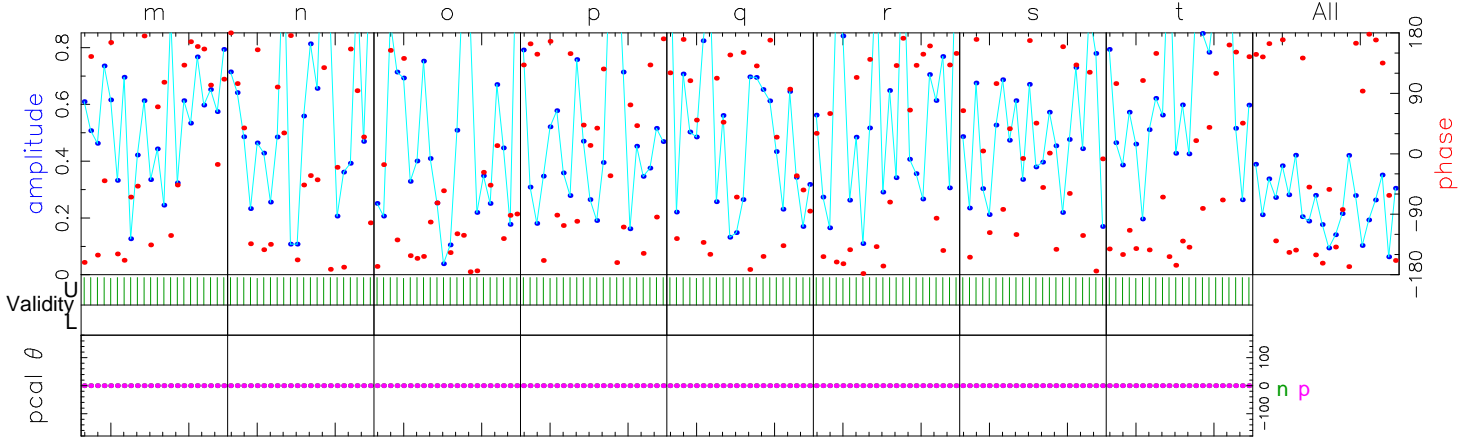


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113103
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
n	0	0	0	0	0	0	0	0		
p	0	0	0	0	0	0	0	0		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	1.69167912842E+03	Apriori delay (usec)	1.69143377351E+03	Resid mbdelay (usec)	-4.64508E-03	+/-	2.0E-04
Sband delay (usec)	1.69167567526E+03	Apriori clock (usec)	-5.9903088E+00	Resid sbdelay (usec)	2.41902E-01	+/-	1.6E-03
Phase delay (usec)	1.69143376792E+03	Apriori clockrate (us/s)	-8.1437027E-08	Resid phdelay (usec)	-5.58241E-06	+/-	6.9E-07
Delay rate (us/s)	-2.49224432585E-01	Apriori rate (us/s)	-2.49213411221E-01	Resid rate (us/s)	-1.10214E-05	+/-	1.1E-08
Total phase (deg)	-83.2	Apriori accel (us/s/s)	-4.41930319721E-07	Resid phase (deg)	-173.1	+/-	21.3

ph/seg (deg)	58.1	Theor.	Amplitude	0.284 +/- 0.053	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	65.8	49.9	Search (512X32)	0.182	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	31.9	30.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	47.5	52.5	Inc. seg. avg.	0.281	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
			Inc. frq. avg.	0.276	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

n: az 51.3 el 79.0 pa -119.7 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 2131.046 560.104 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/np..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/np.W.240.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

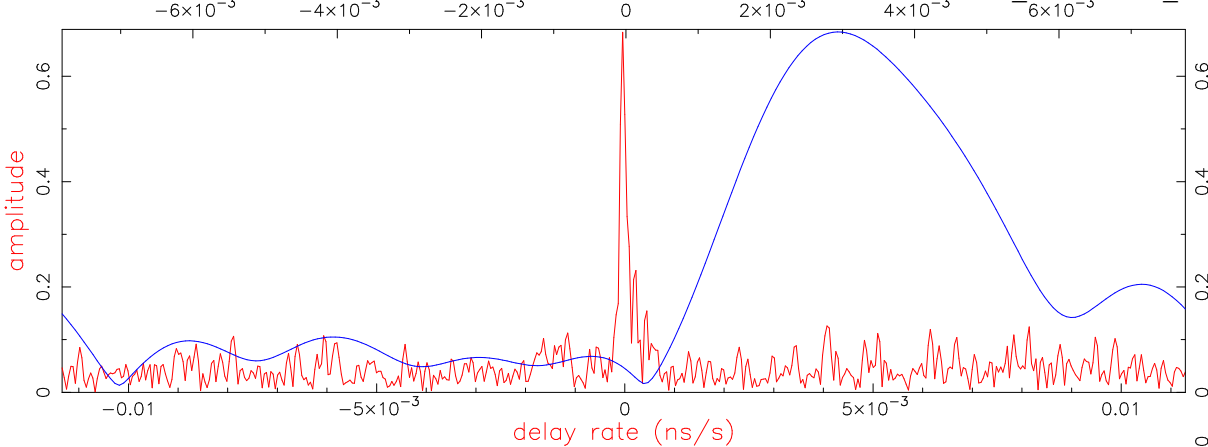
aux01

0133+476.3MP1AB, No0916, op

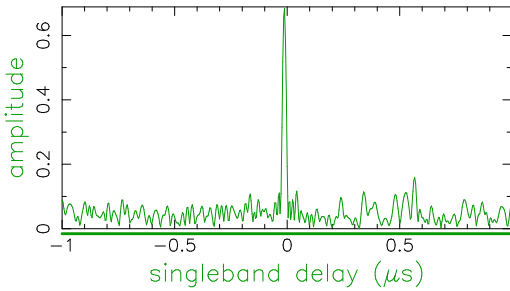
VLBA_OV - VLBA_PT, fgroup W, pol LL

multiband delay (μ s)

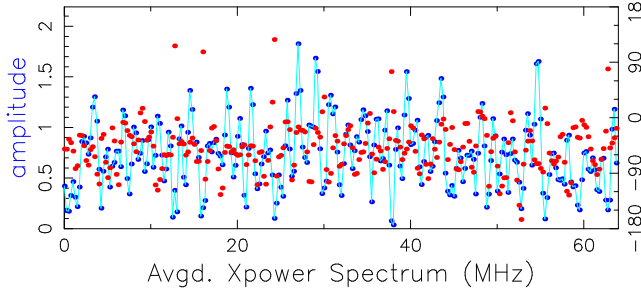
Fringe quality 7



SNR 19.9
 Int time 112.052
 Amp 0.689
 Phase 128.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.012857
 MBD 0.002881
 Fringe rate (Hz)
 -0.005423
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

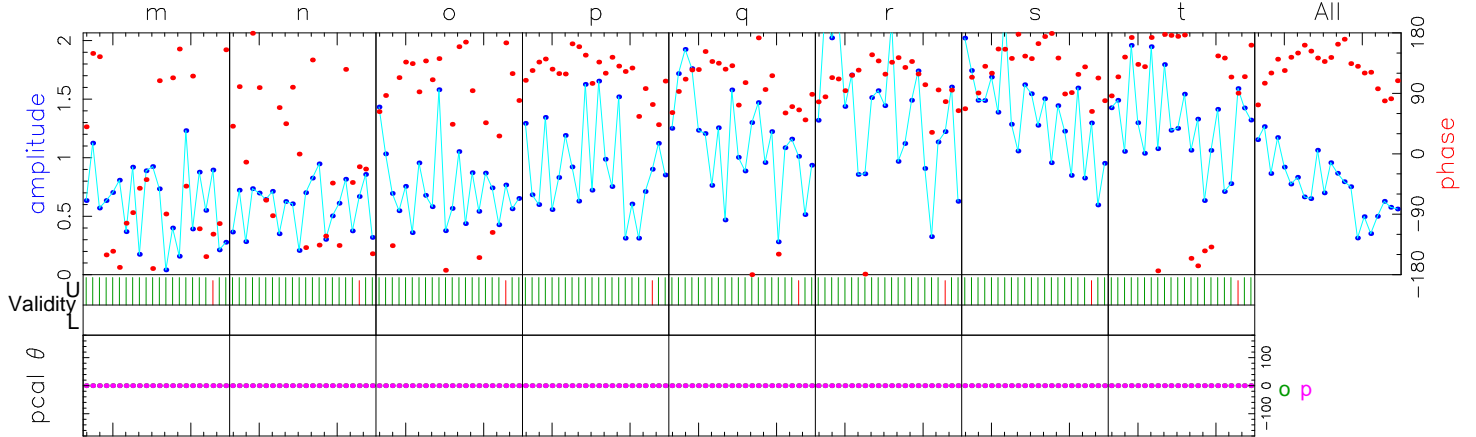


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113108
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
o	0	0	0	0	0	0	0	0		
p	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:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-8.28140799164E+02	Apriori delay (usec)	-8.28128054831E+02	Resid mbdelay (usec)	2.88067E-03	+/-	5.4E-05
Sband delay (usec)	-8.28140911831E+02	Apriori clock (usec)	1.9355576E+01	Resid sbdelay (usec)	-1.28570E-02	+/-	4.3E-04
Phase delay (usec)	-8.28128050683E+02	Apriori clockrate (us/s)	1.0257507E-07	Resid phdelay (usec)	4.14779E-06	+/-	1.9E-07
Delay rate (us/s)	1.063394744498E-01	Apriori rate (us/s)	1.06339537449E-01	Resid rate (us/s)	-6.29511E-08	+/-	2.8E-09
Total phase (deg)	-102.9	Apriori accel (us/s/s)	7.97477482334E-06	Resid phase (deg)	128.6	+/-	5.7

ph/seg (deg)	26.8	RMS	Theor.	Amplitude	0.689 +/- 0.035	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	38.2	26.8	13.5	Search (512X32)	0.650	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	47.7	38.2	23.5	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	60.8	47.7	8.1	Inc. seg. avg.	0.747	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
		60.8	14.2	Inc. frq. avg.	0.734	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

o: az 56.8 el 59.3 pa -95.8 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) -904.249 944.318 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/op..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/op.W.244.3MP1AB

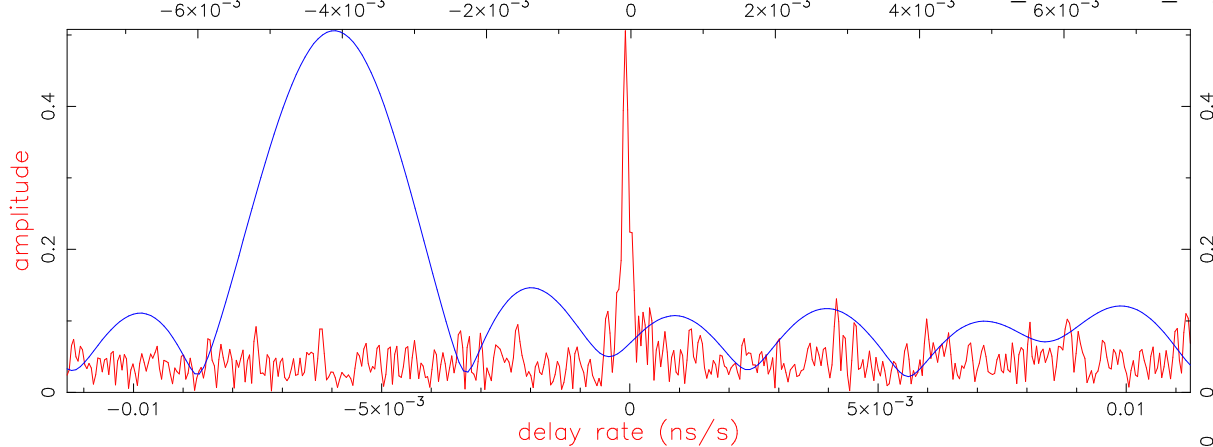
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, op

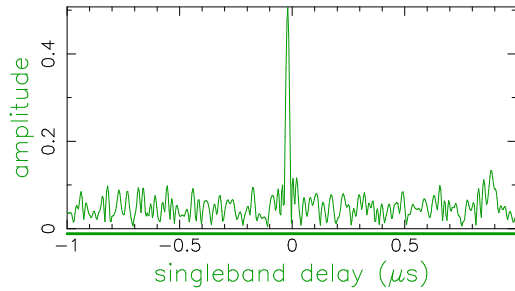
VLBA_OV - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)

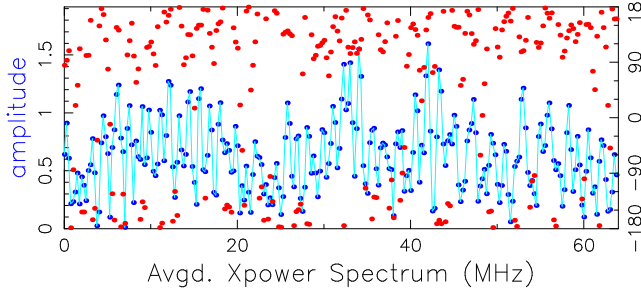


Fringe quality 9

SNR 14.7
 Int time 112.052
 Amp 0.508
 Phase -34.7
 PFD 1.0e-40
 Delays (us)
 SBD -0.020313
 MBD -0.004131
 Fringe rate (Hz)
 -0.006063
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

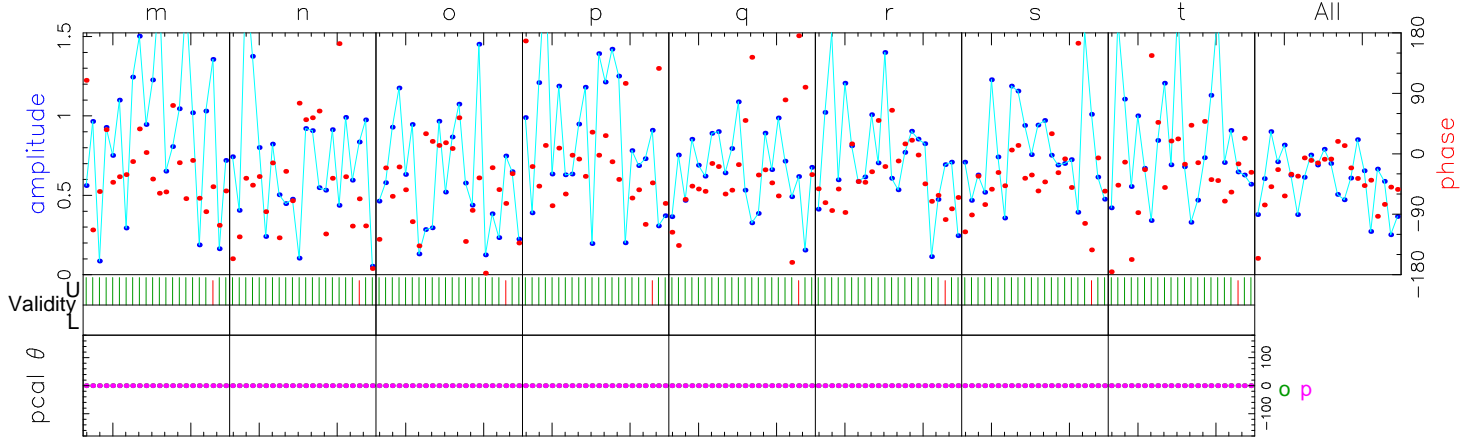


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113109
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-32.0	-49.6	-34.5	-22.6	-43.7	-36.5	-44.2	-23.5	Phase	-34.7
	0.6	0.4	0.4	0.6	0.4	0.6	0.6	0.6	Ampl.	0.5
	252.4	251.8	252.2	251.6	252.0	251.3	251.2	251.9	Sbd box	251.8
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
o	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	-8.28147810904E+02					-8.28128054831E+02			Resid mbdelay (usec)	-4.13107E-03 +/- 7.4E-05
Sband delay (usec)	-8.28148367581E+02					1.9355576E+01			Resid sbdelay (usec)	-2.03128E-02 +/- 5.9E-04
Phase delay (usec)	-8.28128055948E+02					1.0257507E-07			Resid phdelay (usec)	-1.11758E-06 +/- 2.5E-07
Delay rate (us/s)	1.06339467061E-01					1.06339537449E-01			Resid rate (us/s)	-7.03881E-08 +/- 3.9E-09
Total phase (deg)			-266.2			7.97477482334E-06			Resid phase (deg)	-34.7 +/- 7.8
	RMS	Theor.	Amplitude	0.508 +/- 0.035					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	38.0	18.3	Search (512X32)	0.475					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	39.8	31.9	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	10.6	11.0	Inc. seg. avg.	0.571					Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
amp/frq (%)	19.6	19.2	Inc. frq. avg.	0.503					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
o: az 56.8 el 59.3 pa -95.8			p: az 49.1 el 64.2 pa -111.4			u, v (fr/asec) -904.249 944.318				ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva			Input file: /Exps/c241a/v2/3mm/1234/No0916//op..3MP1AB			Output file: /Exps/c241a/v2/3mm/1234/No0916//op.W.248.3MP1AB				simultaneous interpolator

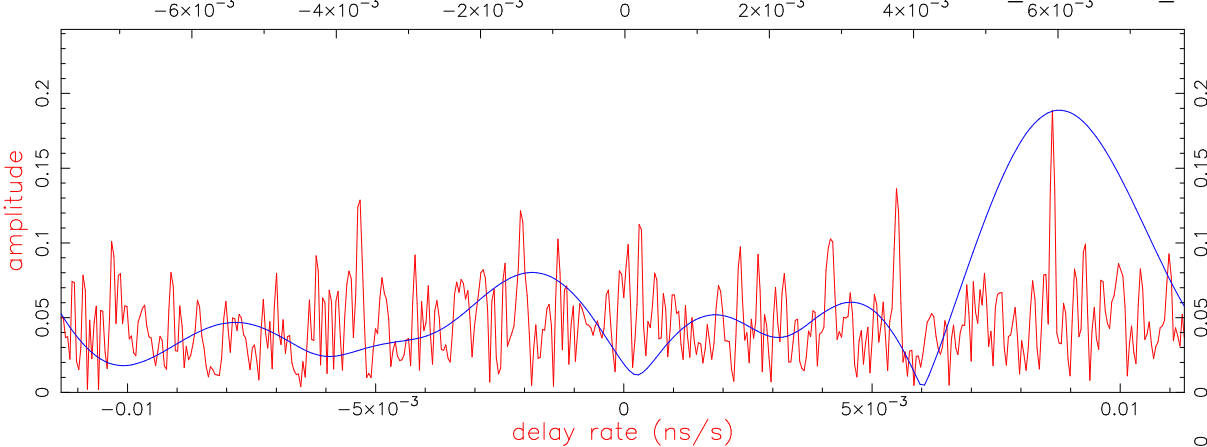
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, op

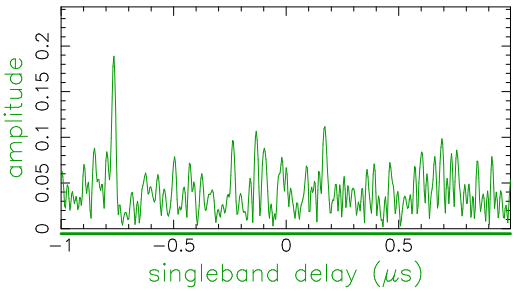
VLBA_OV - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)

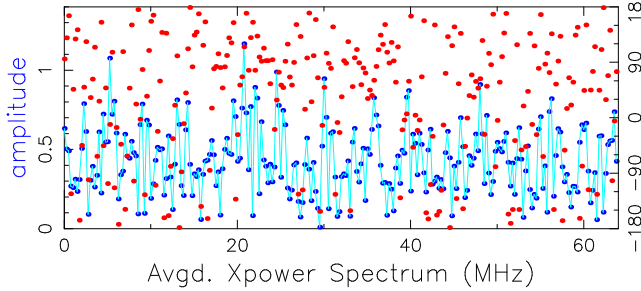


Fringe quality 0

SNR 5.5
 Int time 112.052
 Amp 0.243
 Phase -165.7
 PFD 9.3e-01
 Delays (us)
 SBD -0.766017
 MBD 0.006009
 Fringe rate (Hz)
 0.743738
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

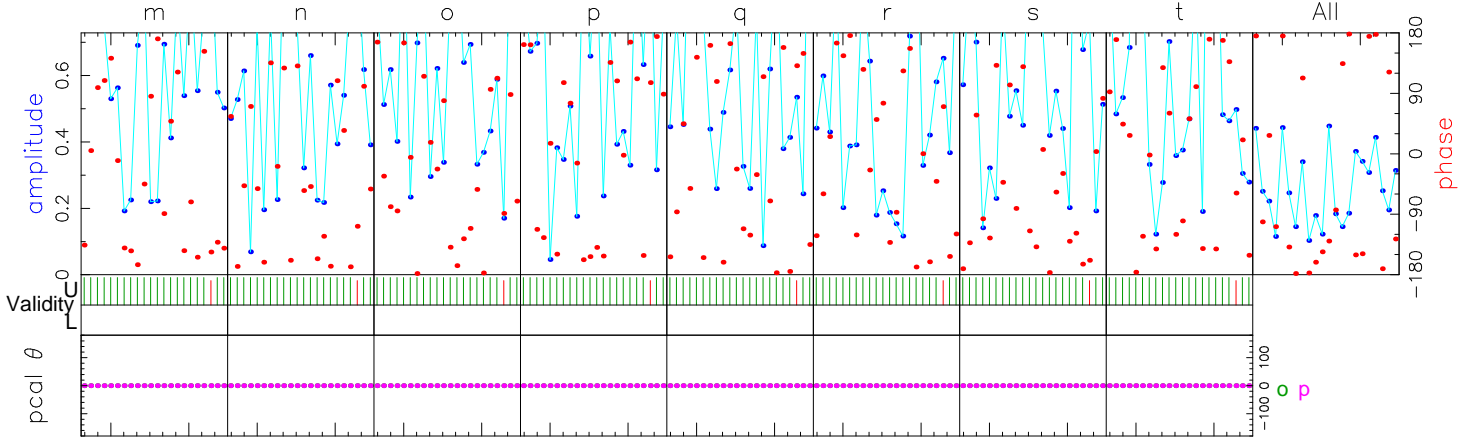


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113110
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-157.7	-170.6	-165.6	167.1	-142.1	-164.7	-122.7	161.0	Phase	-165.7
	0.2	0.2	0.2	0.4	0.3	0.2	0.3	0.3	Ampl.	0.2
	119.7	439.7	110.8	60.5	328.9	27.6	452.0	208.3	Sbd box	60.9
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
o	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	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)	-8.28887670984E+02	Apriori delay (usec)	-8.28128054831E+02	Resid mbdelay (usec)	6.00885E-03	+/-	2.0E-04
Sband delay (usec)	-8.28894071831E+02	Apriori clock (usec)	1.9355576E+01	Resid sbdelay (usec)	-7.66017E-01	+/-	1.6E-03
Phase delay (usec)	-8.28128060175E+02	Apriori clockrate (us/s)	1.0257507E-07	Resid phdelay (usec)	-5.34450E-06	+/-	6.8E-07
Delay rate (us/s)	1.06348171513E-01	Apriori rate (us/s)	1.06339537449E-01	Resid rate (us/s)	8.63406E-06	+/-	1.0E-08
Total phase (deg)	-37.3	Apriori accel (us/s/s)	7.97477482334E-06	Resid phase (deg)	-165.7	+/-	21.0

ph/seg (deg)	54.1	Theor.	49.1	Amplitude	0.243 +/- 0.044	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	70.5		85.8	Search (512X32)	0.185	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	26.9		29.6	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	31.2		51.7	Inc. seg. avg.	0.246	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.236	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

o: az 56.8 el 59.3 pa -95.8 p: az 49.1 el 64.2 pa -111.4 u, v (fr/asec) -904.249 944.318 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/op..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/op.W.253.3MP1AB

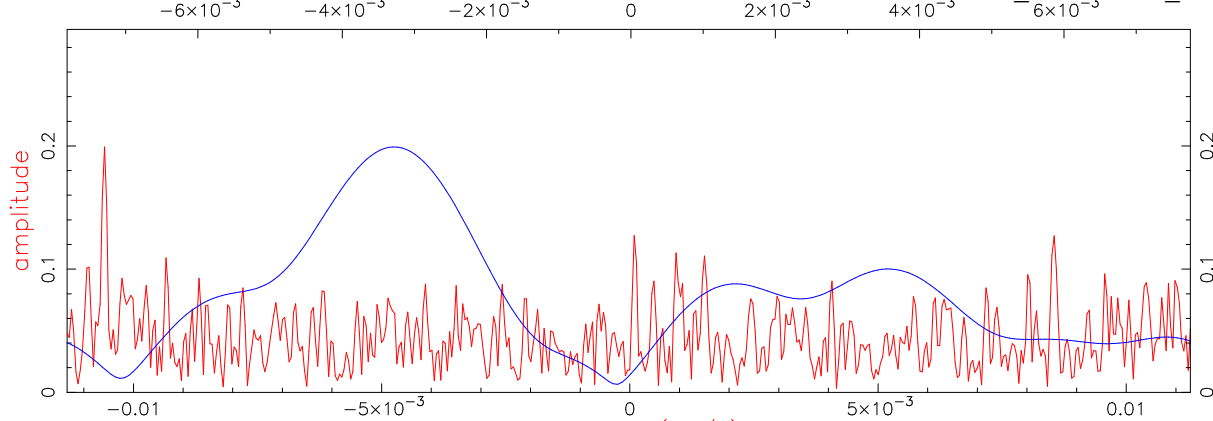
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, op

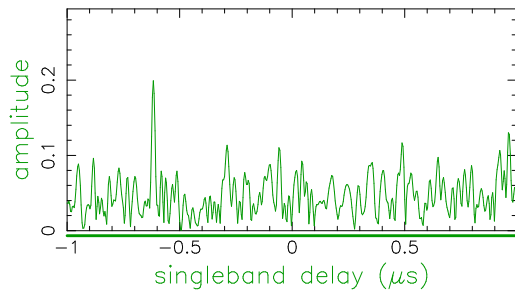
VLBA_OV - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

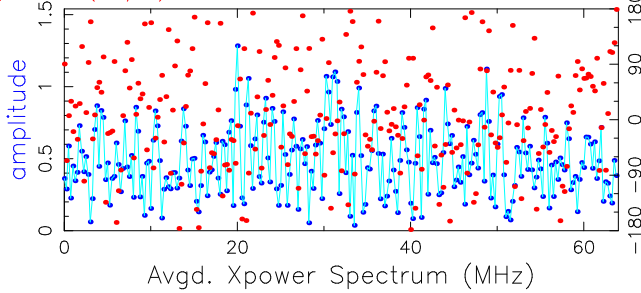


Fringe quality 0

SNR 5.8
 Int time 112.052
 Amp 0.295
 Phase 138.6
 PFD 3.9e-01
 Delays (us)
 SBD -0.616913
 MBD -0.003279
 Fringe rate (Hz)
 -0.914158
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

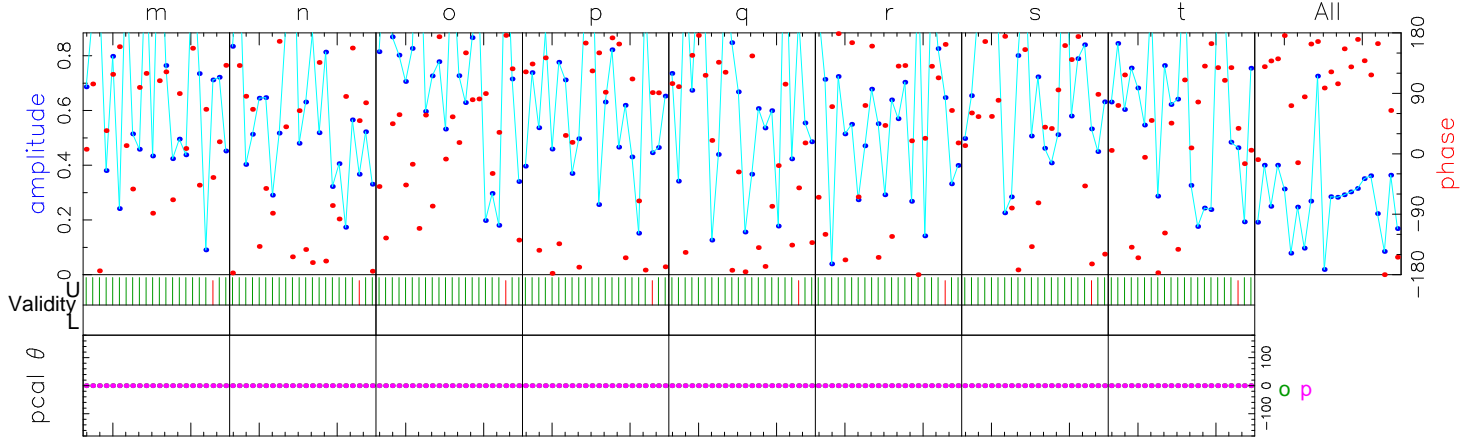


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113111
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100773"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
o	0	0	0	0	0	0	0	0		
p	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: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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-8.28740708661E+02	Apriori delay (usec)	-8.28128054831E+02	Resid mbdelay (usec)	-3.27883E-03	+/-	1.9E-04
Sband delay (usec)	-8.28744968081E+02	Apriori clock (usec)	1.9355576E+01	Resid sbdelay (usec)	-6.16913E-01	+/-	1.5E-03
Phase delay (usec)	-8.28128050360E+02	Apriori clockrate (us/s)	1.0257507E-07	Resid phdelay (usec)	4.47054E-06	+/-	6.4E-07
Delay rate (us/s)	1.06328924979E-01	Apriori rate (us/s)	1.06339537449E-01	Resid rate (us/s)	-1.06125E-05	+/-	9.8E-09
Total phase (deg)	-92.9	Apriori accel (us/s/s)	7.97477482334E-06	Resid phase (deg)	138.6	+/-	19.9

ph/seg (deg)	57.5	Theor.	46.6	Amplitude	0.295 +/- 0.051	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	81.3	Search (512X32)	0.190	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	52.3	Inc. seg. avg.	0.305	Inc. frq. avg.	0.320	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	44.3	Inc. frq. avg.	0.320			Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	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

o: az 56.8 el 59.3 pa -95.8 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) -904.249 944.318 simultaneous interpolator

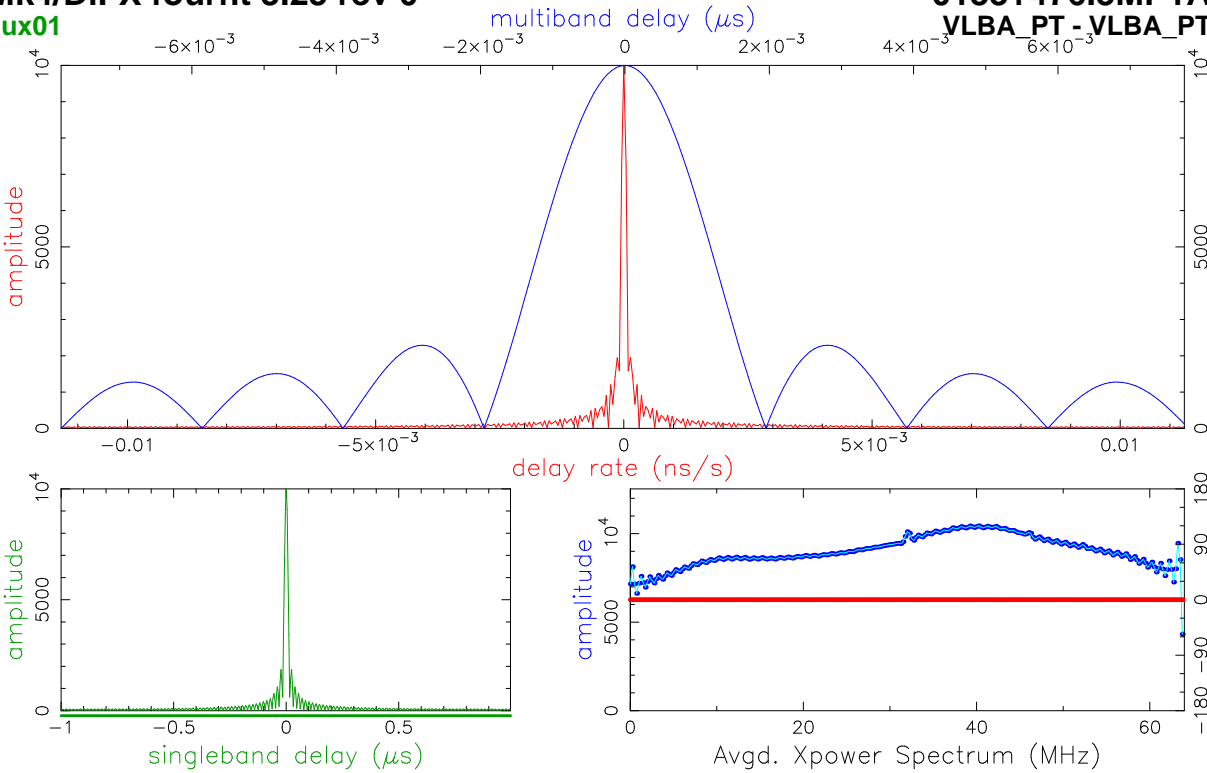
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/op..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/op.W.258.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

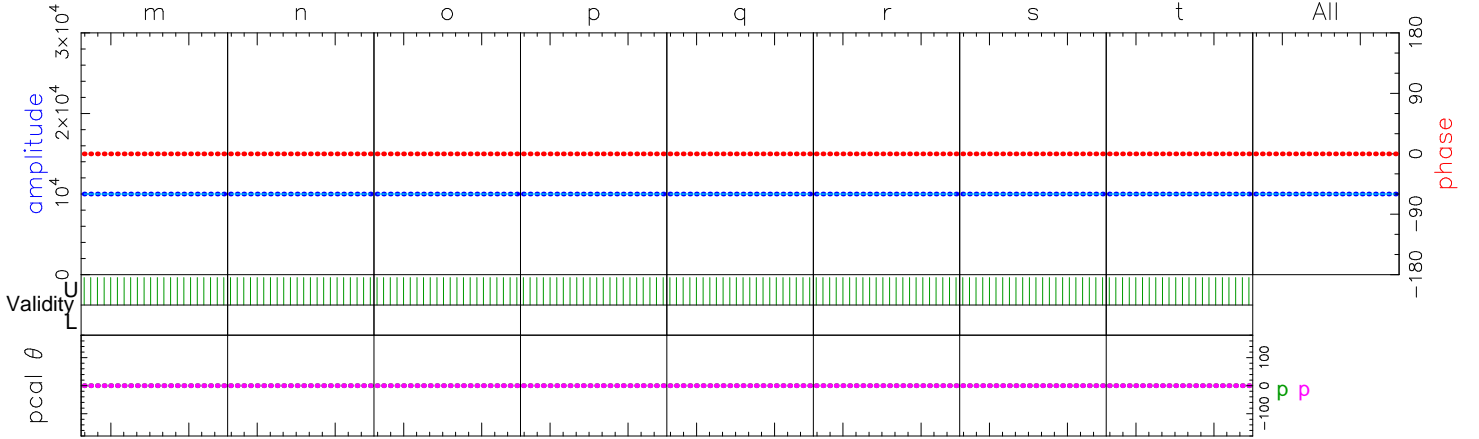
0133+476.3MP1AB, No0916, pp

VLBA_PT - VLBA_PT, fgroup W, pol LL



Fringe quality 9
 SNR 290222.6
 Int time 112.633
 Amp 10000.001
 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. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113108
 2024:113:095956
 RA & Dec (J2000) 01h36m58.594803s +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	10000.0	10000.0
p	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	10000.0	10000.0
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	257.0	257.0
p	1000	1000	1000	1000	1000	1000	1000	1000	257.0	257.0
p	1000	1000	1000	1000	1000	1000	1000	1000	257.0	257.0
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	257.0	257.0
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	257.0	257.0

Group delay (usec) (SBD)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	3.7E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	3.0E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	1.3E-11
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	2.0E-13
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

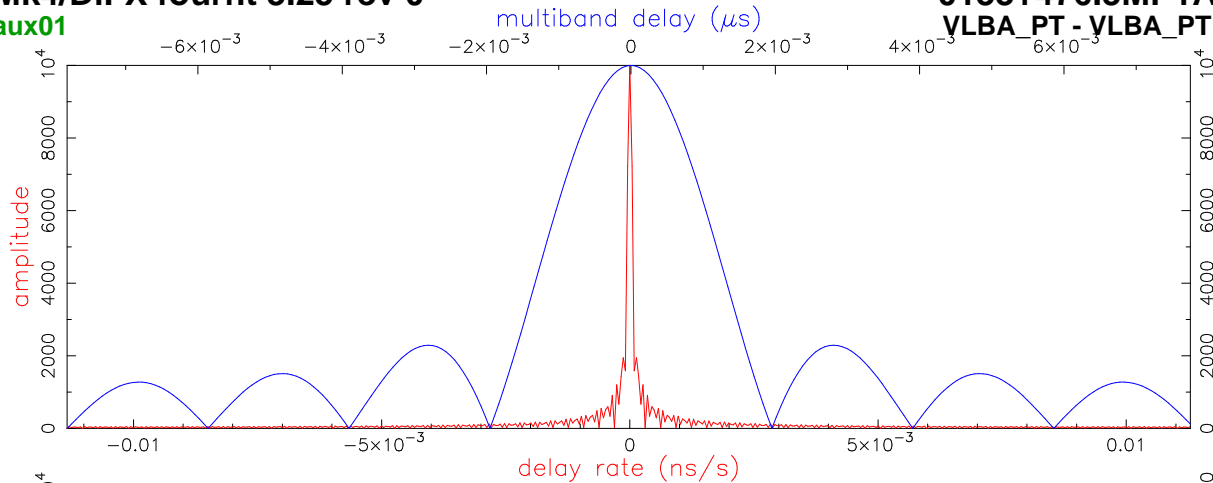
ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.001 +/- 0.034 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (512X32) 10000.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 p: az 49.1 el 64.2 pa -111.4 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 0.000 0.000 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/c241a/v2/3mm/1234/No0916/pp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/pp.W.247.3MP1AB simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

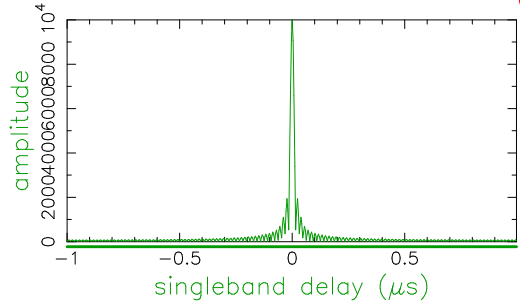
0133+476.3MP1AB, No0916, pp

VLBA_PT - VLBA_PT, fgroup W, pol RR

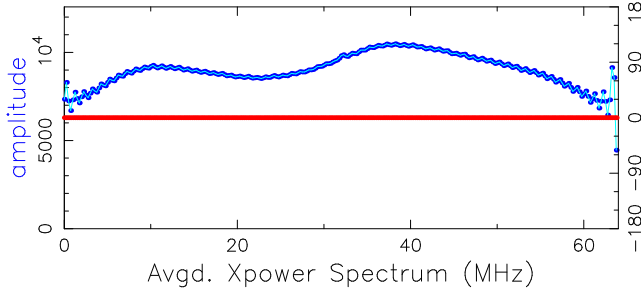


Fringe quality 9

SNR 290222.5
 Int time 112.633
 Amp 10000.000
 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

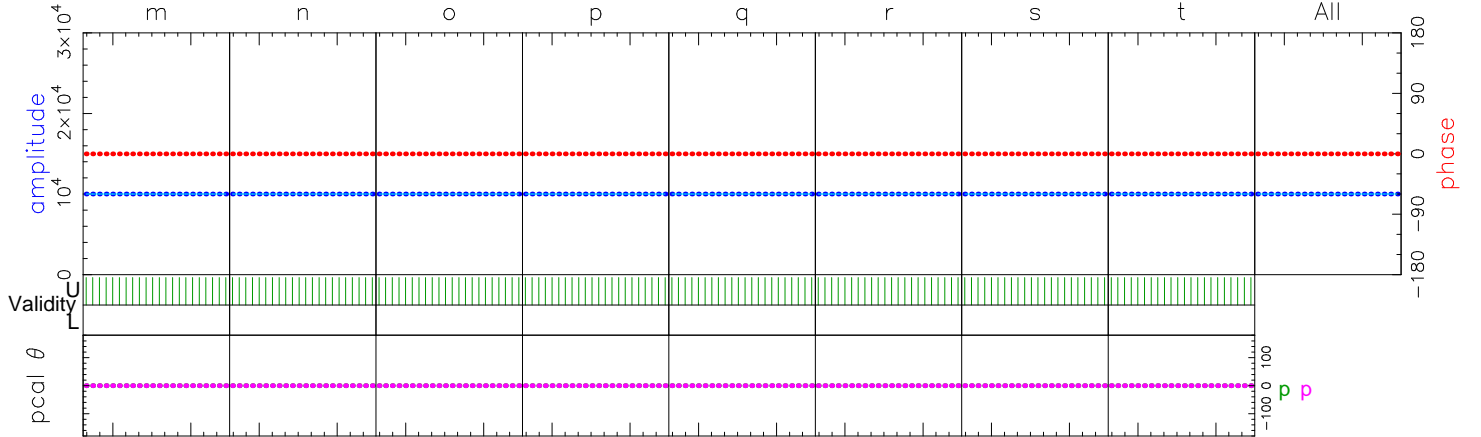


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113109
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	10000.0	10000.0
p	0	0	0	0	0	0	0	0	Ampl.	10000.0
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.0
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC phase	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Mani PC	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC amp	
									Chan ids	
									Tracks	
									Chan ids	
									Tracks	

Group delay (usec) (SBD)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	3.7E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	3.0E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	1.3E-11
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	2.0E-13
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

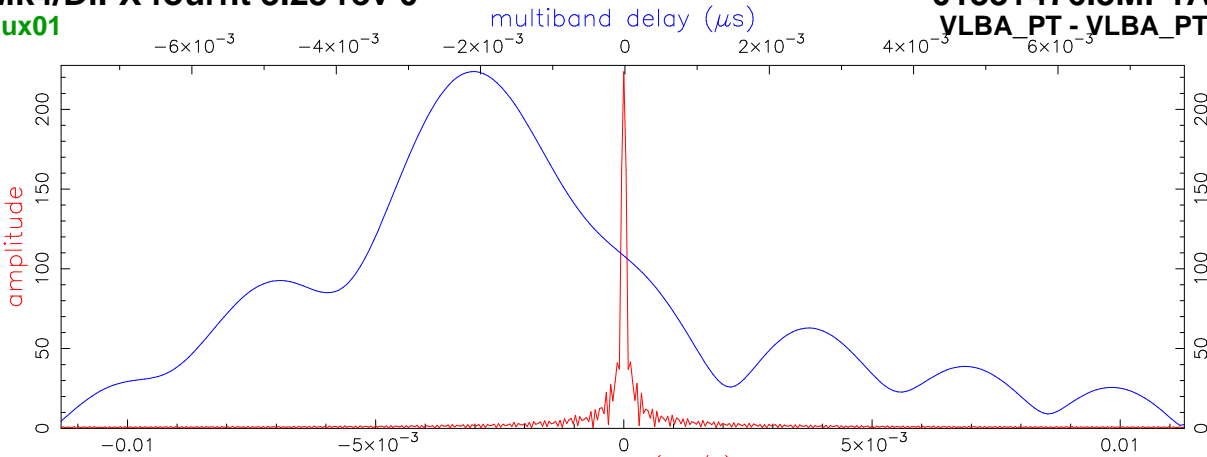
ph/seg (deg) 0.0 0.0 Theor. Amplitude 10000.000 +/- 0.034 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (512X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 p: az 49.1 el 64.2 pa -111.4 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 0.000 0.000 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/c241a/v2/3mm/1234/No0916/pp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/pp.W.252.3MP1AB simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

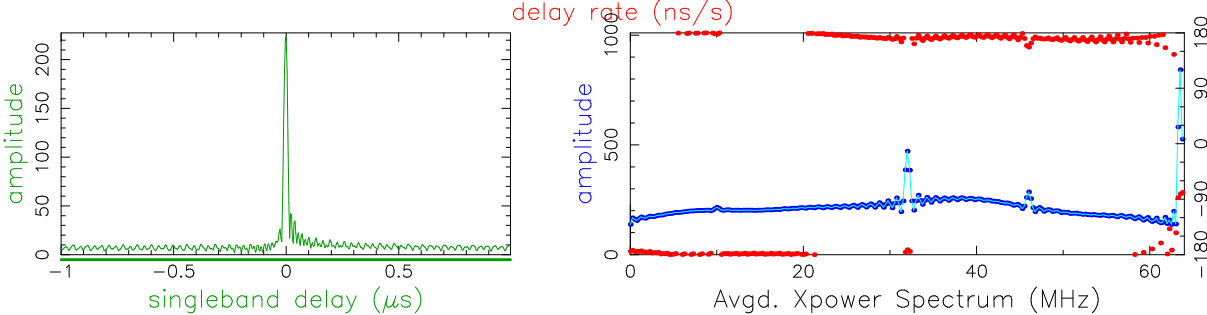
aux01

0133+476.3MP1AB, No0916, pp

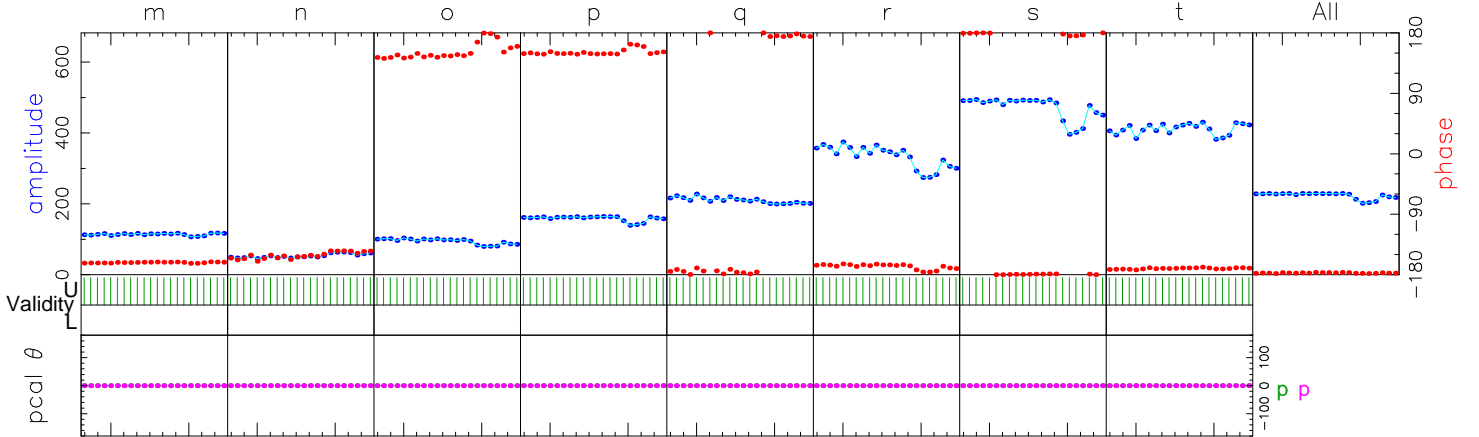
VLBA_PT - VLBA_PT, fgroup W, pol LR



Fringe quality 6
 Error code G
 SNR 6603.5
 Int time 112.633
 Amp 227.531
 Phase -177.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.001758
 MBD -0.002147
 Fringe rate (Hz)
 -0.000061
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113110
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"



Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-161.8	-150.7	151.1	151.1	-178.5	-167.4	179.7	-170.6	Phase	-177.3
	114.0	53.5	92.8	158.5	209.5	332.8	471.7	411.0	Ampl.	230.5
	256.5	256.2	256.1	256.4	256.8	256.4	256.4	257.1	Sbd box	256.5
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
p	0	0	0	0	0	0	0	0	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	
									Tracks	
Group delay (usec) (SBD)	-2.14703125000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		-2.14703E-03	+/- 1.6E-07
Sband delay (usec)	-1.75825000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		-1.75825E-03	+/- 1.3E-06
Phase delay (usec)	-5.71892652587E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-5.71893E-06	+/- 5.6E-10
Delay rate (us/s)	-7.08557619584E-10		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-7.08558E-10	+/- 8.6E-12
Total phase (deg)			Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		-177.3	+/- 0.0

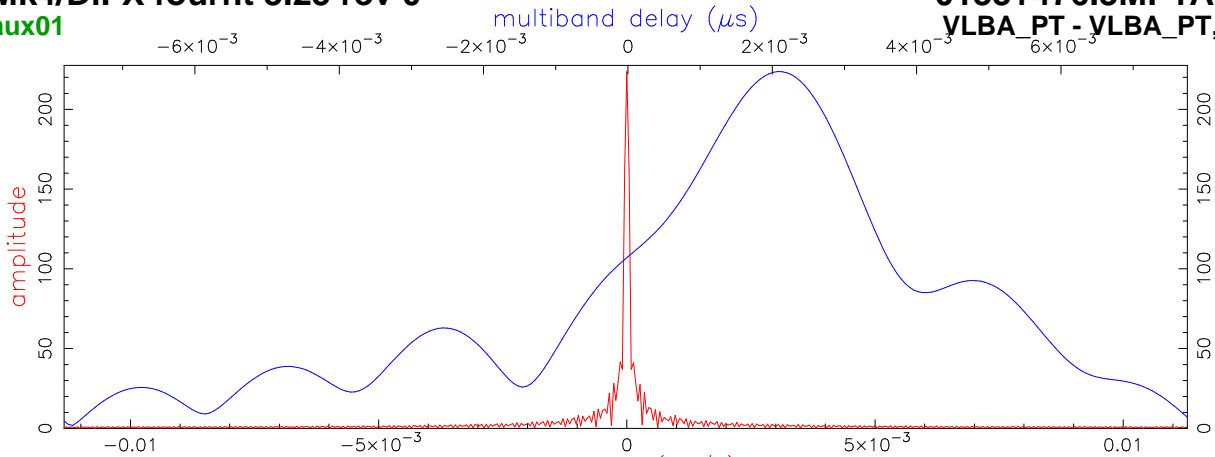
ph/seg (deg) 0.5 0.0 Theor. Amplitude 227.531 +/- 0.034 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 4.2 0.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 22.7 0.0 Inc. seg. avg. 223.532 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 64.2 0.0 Inc. frq. avg. 230.461 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 p: az 49.1 el 64.2 pa -111.4 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 0.000 0.000 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/c241a/v2/3mm/1234/No0916/pp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/pp.W.257.3MP1AB simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

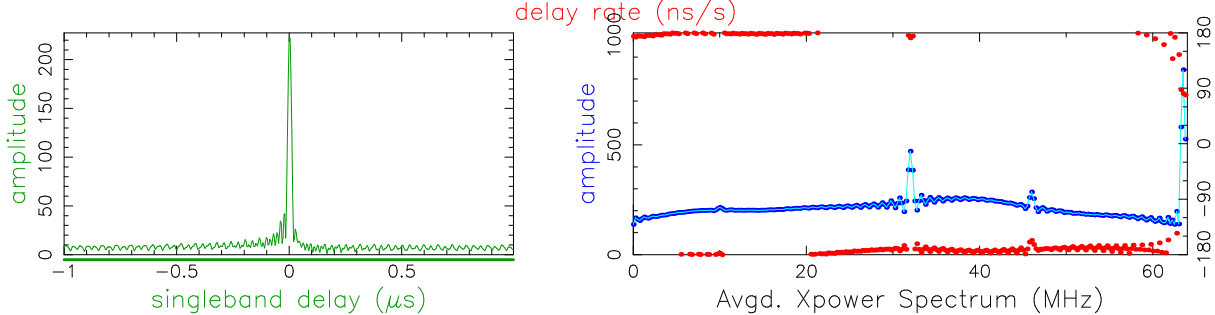
aux01

0133+476.3MP1AB, No0916, pp

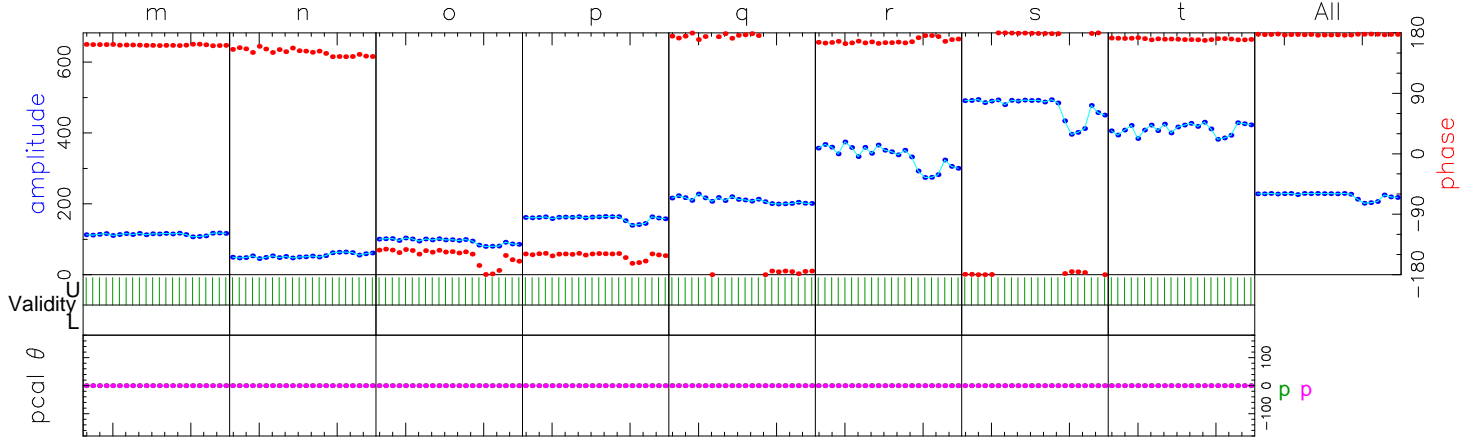
VLBA_PT - VLBA_PT, fgroup W, pol RL



Fringe quality 6
 Error code G
 SNR 6603.5
 Int time 112.633
 Amp 227.531
 Phase 177.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.001758
 MBD 0.002147
 Fringe rate (Hz)
 0.000061
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113111
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"



Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 sec / seg.), time ticks 10 sec



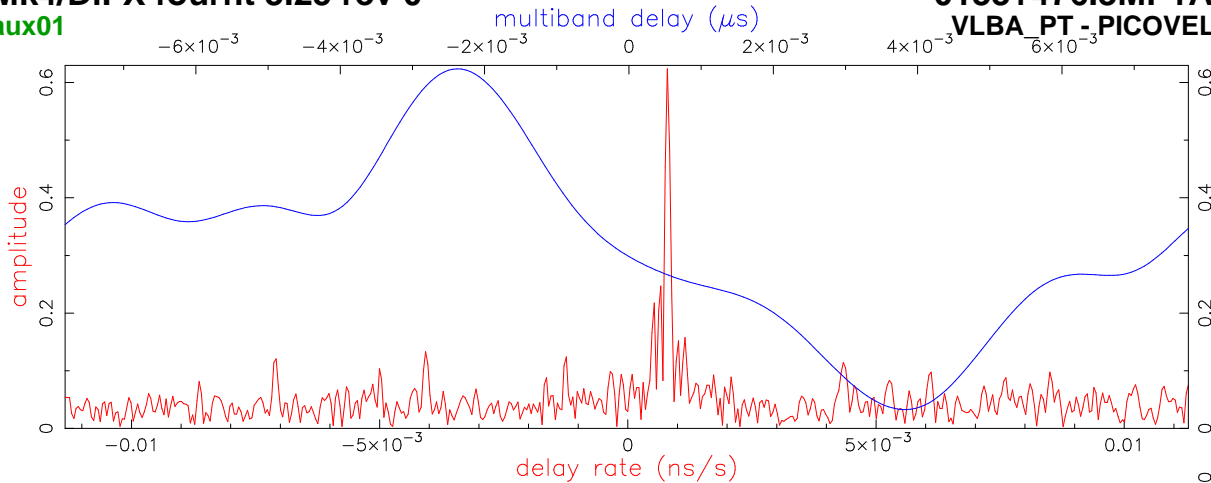
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
p	0	0	0	0	0	0	0	0		
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
p	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	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)	2.14703125000E-03								2.14703E-03	+/- 1.6E-07
Sband delay (usec)	1.75825000000E-03								1.75825E-03	+/- 1.3E-06
Phase delay (usec)	5.71892652587E-06								5.71893E-06	+/- 5.6E-10
Delay rate (us/s)	7.08557619584E-10								7.08558E-10	+/- 8.6E-12
Total phase (deg)			177.3						177.3	+/- 0.0
ph/seg (deg)	0.5	0.0								
amp/seg (%)	4.2	0.1								
ph/frq (deg)	22.7	0.0								
amp/frq (%)	64.2	0.0								
p: az 49.1 el 64.2 pa -111.4	p: az 49.1 el 64.2 pa -111.4		u,v (fr/asec) 0.000 0.000		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		simultaneous interpolator	
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0916/pp..3MP1AB		Output file: /Exps/c241a/v2/3mm/1234/No0916/pp.W.260.3MP1AB							

Mk4/DiFX fourfit 3.25 rev 0

aux01

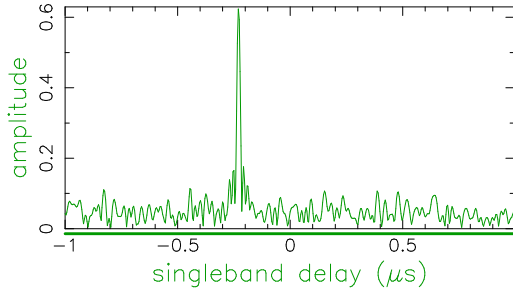
0133+476.3MP1AB, No0916, pP

VLBA_PT - PICOVEL, fgroup W, pol LL

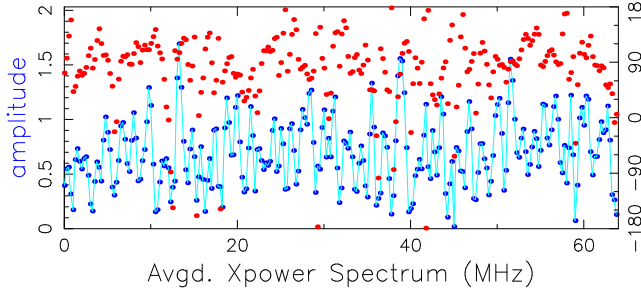


Fringe quality 7

SNR 18.2
 Int time 112.633
 Amp 0.630
 Phase -5.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.229436
 MBD -0.002344
 Fringe rate (Hz)
 0.070452
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

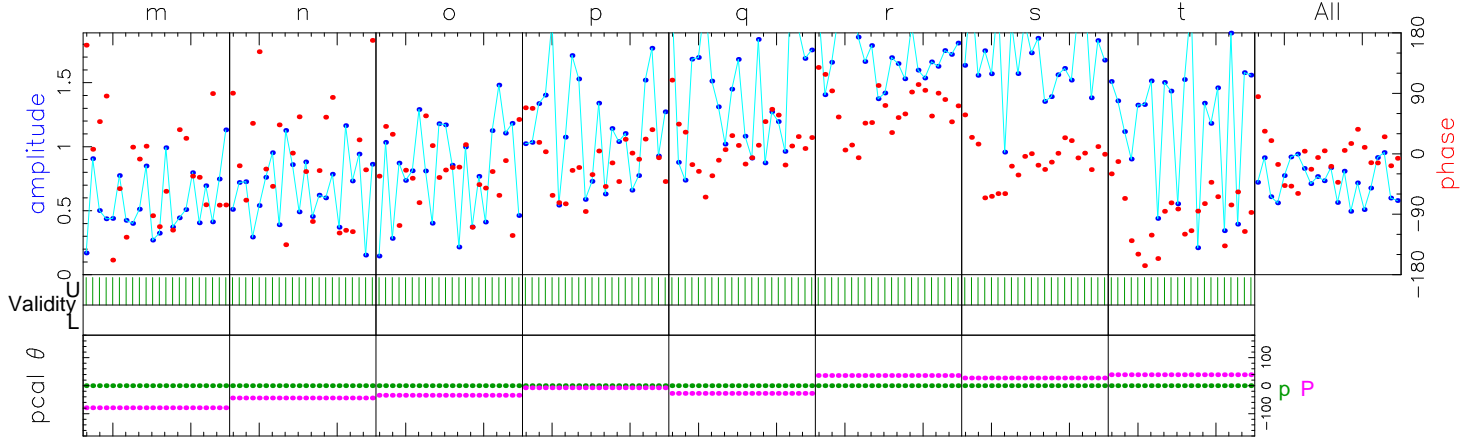


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113115
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
p:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39		
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) 6.88451387177E+03 Apriori delay (usec) 6.88475059095E+03 Resid mbdelay (usec) -2.34418E-03 +/- 6.0E-05
 Sband delay (usec) 6.88452115495E+03 Apriori clock (usec) 6.7180347E+00 Resid sbdelay (usec) -2.29436E-01 +/- 4.7E-04
 Phase delay (usec) 6.88475059079E+03 Apriori clockrate (us/s) -2.1954010E-07 Resid phdelay (usec) -1.59626E-07 +/- 2.0E-07
 Delay rate (us/s) 1.22098231886E+00 Apriori rate (us/s) 1.22098150099E+00 Resid rate (us/s) 8.17877E-07 +/- 3.1E-09
 Total phase (deg) 320.6 Apriori accel (us/s/s) -3.98625928023E-05 Resid phase (deg) -5.0 +/- 6.3

ph/seg (deg) 32.1 14.7 Amplitude 0.630 +/- 0.035 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 28.2 25.7 Search (512X32) 0.580 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 50.2 8.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 81.7 15.5 Inc. seg. avg. 0.712 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 0.863 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

p: az 49.1 el 64.2 pa -111.4 P: az 307.1 el 35.7 pa 71.7 u,v (fr/asec) -10475.129 -3664.317 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/pP..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/pP.W.263.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

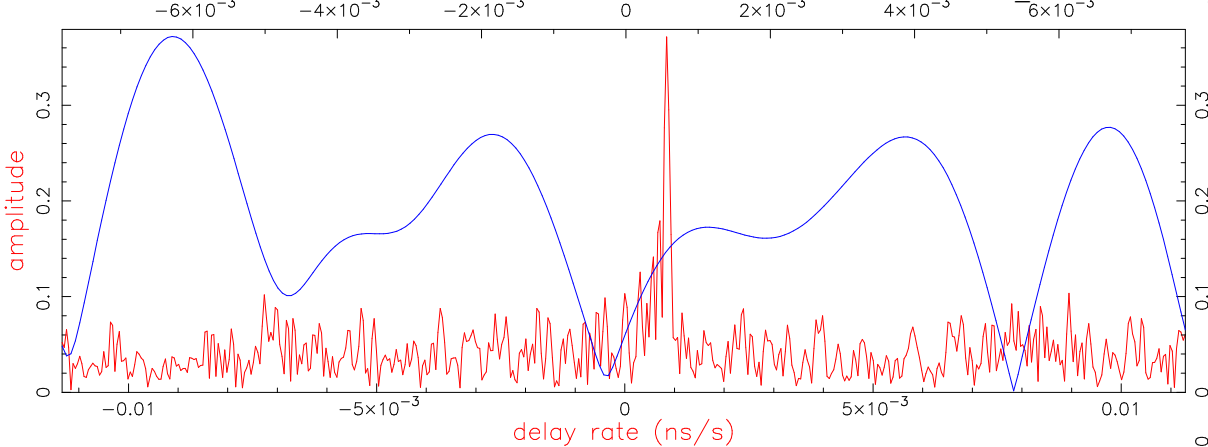
aux01

0133+476.3MP1AB, No0916, pP

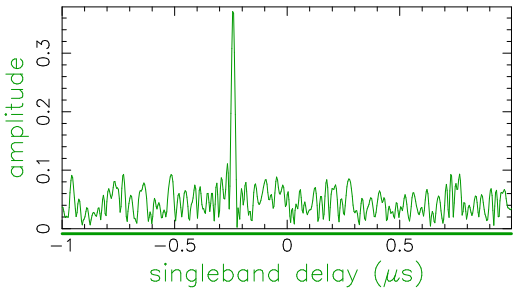
VLBA_PT - PICOVEL, fgroup W, pol RR

multiband delay (μ s)

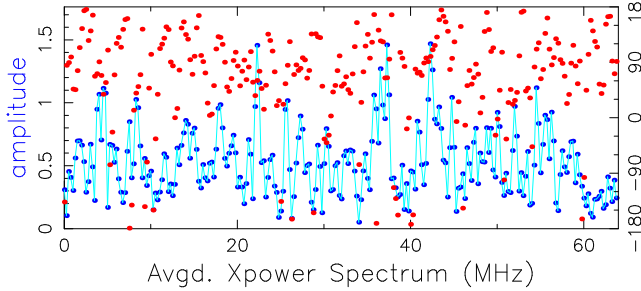
Fringe quality 9



SNR 11.0
 Int time 112.633
 Amp 0.379
 Phase -86.2
 PFD 5.4e-20
 Delays (us)
 SBD -0.240418
 MBD -0.006232
 Fringe rate (Hz)
 0.071597
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

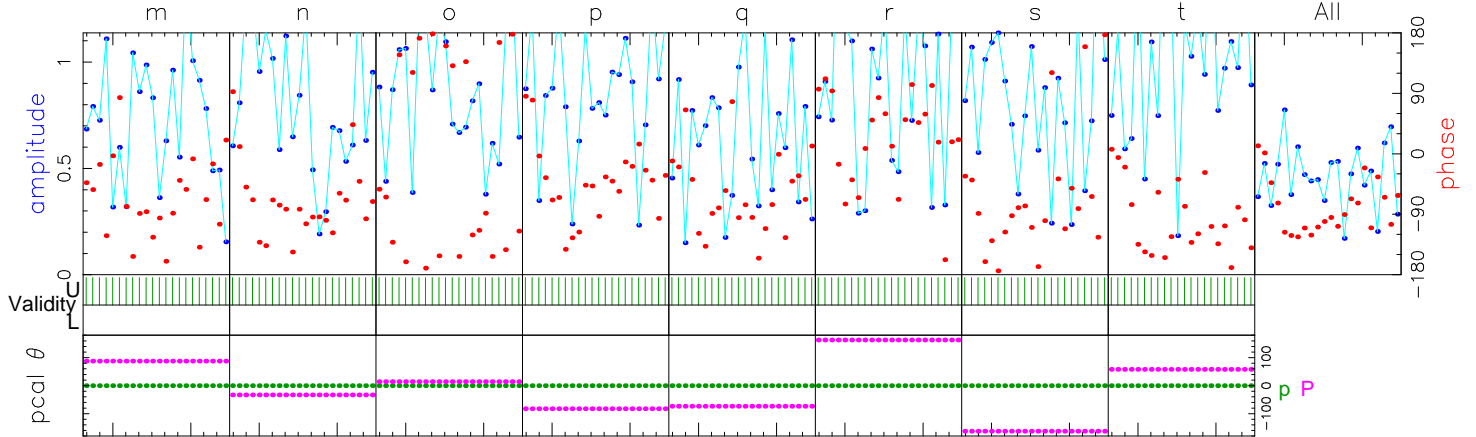


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113116
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-78.8	-79.3	-163.4	-44.4	-71.7	35.1	-108.0	-108.5	Phase	-86.2
	0.5	0.6	0.6	0.6	0.5	0.6	0.6	0.7	Ampl.	0.6
	194.9	196.2	196.3	196.6	197.3	196.9	196.8	194.4	Sbd box	195.5
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec) (SBD)	6.88450998391E+03		Apriori delay (usec)		6.88475059095E+03		Resid mbdelay (usec)		-6.23204E-03	+/- 9.9E-05
Sband delay (usec)	6.88451017295E+03		Apriori clock (usec)		6.7180347E+00		Resid sbdelay (usec)		-2.40418E-01	+/- 7.8E-04
Phase delay (usec)	6.88475058817E+03		Apriori clockrate (us/s)		-2.1954010E-07		Resid phdelay (usec)		-2.77869E-06	+/- 3.4E-07
Delay rate (us/s)	1.22098233216E+00		Apriori rate (us/s)		1.22098150099E+00		Resid rate (us/s)		8.31175E-07	+/- 5.2E-09
Total phase (deg)	239.4		Apriori accel (us/s/s)		-3.98625928023E-05		Resid phase (deg)		-86.2	+/- 10.4
ph/seg (deg)	RMS 40.1	Theor. 24.5	Amplitude 0.379 +/- 0.035		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		sb window (us)	-1.000 1.000
amp/seg (%)	44.6	42.7	Search (512X32) 0.363		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	62.9	14.8	Interp. 0.000		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		nlags: 256 t_cohere infinite		dr window (ns/s)	-0.011 0.011
amp/frq (%)	56.1	25.8	Inc. seg. avg. 0.426		Data rate(Mb/s): 2048		ion window (TEC)		0.00 0.00	
p: az 49.1 el 64.2 pa -111.4	P: az 307.1 el 35.7 pa 71.7		u, v (fr/asec) -10475.129 -3664.317						simultaneous interpolator	
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0916/pP..3MP1AB		Output file: /Exps/c241a/v2/3mm/1234/No0916/pP.W.266.3MP1AB							

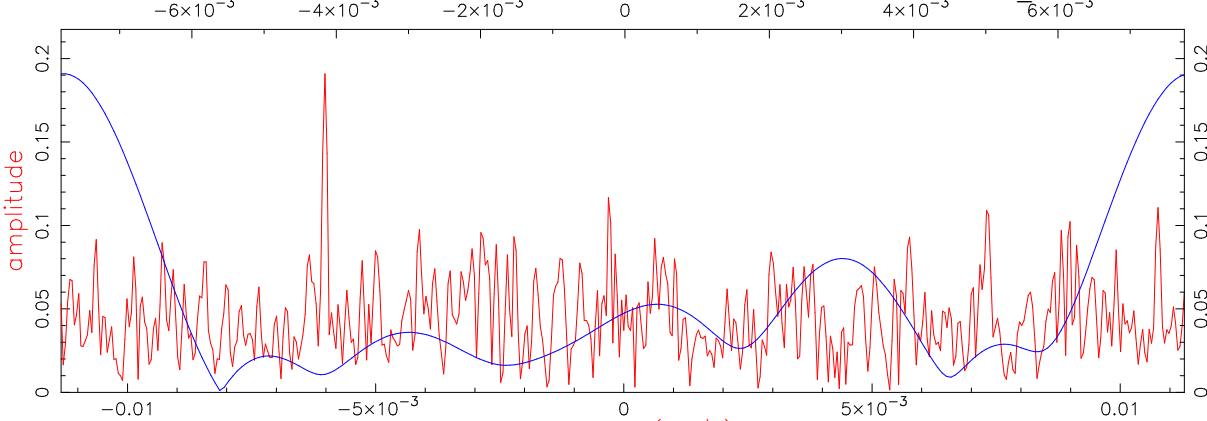
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, pP

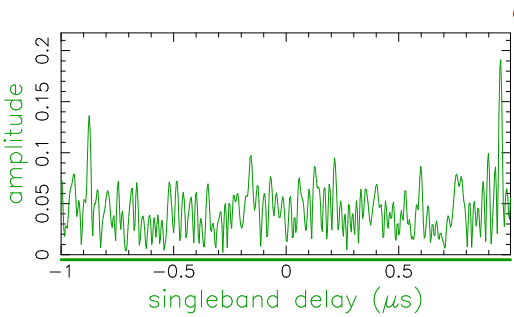
VLBA_PT - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

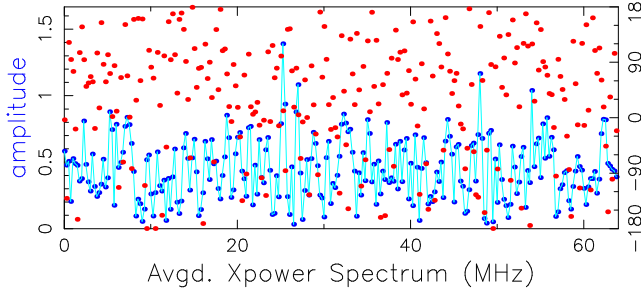


Fringe quality 0

SNR 5.6
 Int time 112.633
 Amp 0.217
 Phase -36.0
 PFD 7.2e-01
 Delays (us)
 SBD 0.951845
 MBD -0.007758
 Fringe rate (Hz)
 -0.518728
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

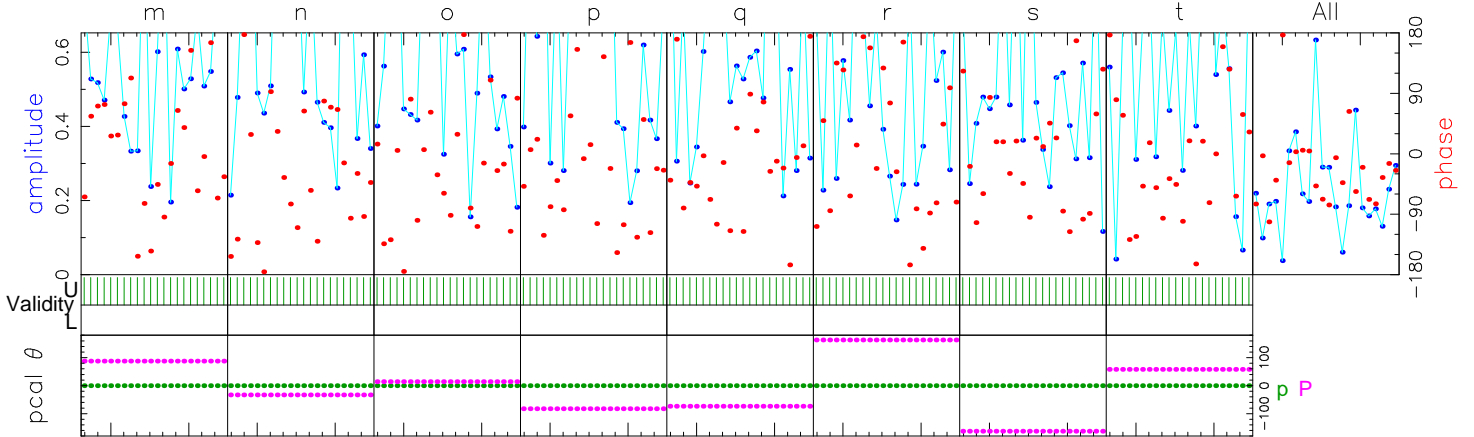


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113117
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-17.7	-50.4	-31.6	-38.7	-34.6	-96.9	-11.6	-39.0	Phase	-36.0
	0.2	0.2	0.2	0.3	0.4	0.1	0.2	0.2	Ampl.	0.2
	83.0	33.2	448.0	414.7	308.9	270.3	506.8	379.4	Sbd box	500.7
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
p	0	0	0	0	0	0	0	0	PC freqs	
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58	Manl 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)	6.88569595798E+03	Apriori delay (usec)	6.88475059095E+03	Resid mbdelay (usec)	-7.75797E-03	+/-	1.9E-04
Sband delay (usec)	6.88570243545E+03	Apriori clock (usec)	6.7180347E+00	Resid sbdelay (usec)	9.51845E-01	+/-	1.5E-03
Phase delay (usec)	6.88475058979E+03	Apriori clockrate (us/s)	-2.1954010E-07	Resid phdelay (usec)	-1.16197E-06	+/-	6.6E-07
Delay rate (us/s)	1.22097547907E+00	Apriori rate (us/s)	1.22098150099E+00	Resid rate (us/s)	-6.02192E-06	+/-	1.0E-08
Total phase (deg)	289.5	Apriori accel (us/s/s)	-3.98625928023E-05	Resid phase (deg)	-36.0	+/-	20.4

ph/seg (deg)	48.2	Theor.	48.0	Amplitude	0.217 +/- 0.039	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	69.9	Search (512X32)	0.188	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	28.5	Inc. seg. avg.	0.195	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	28.4	Inc. frq. avg.	0.202	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	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 49.1 el 64.2 pa -111.4 P: az 307.1 el 35.7 pa 71.7 u, v (fr/asec) -10475.129 -3664.317 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/pP..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/pP.W.269.3MP1AB

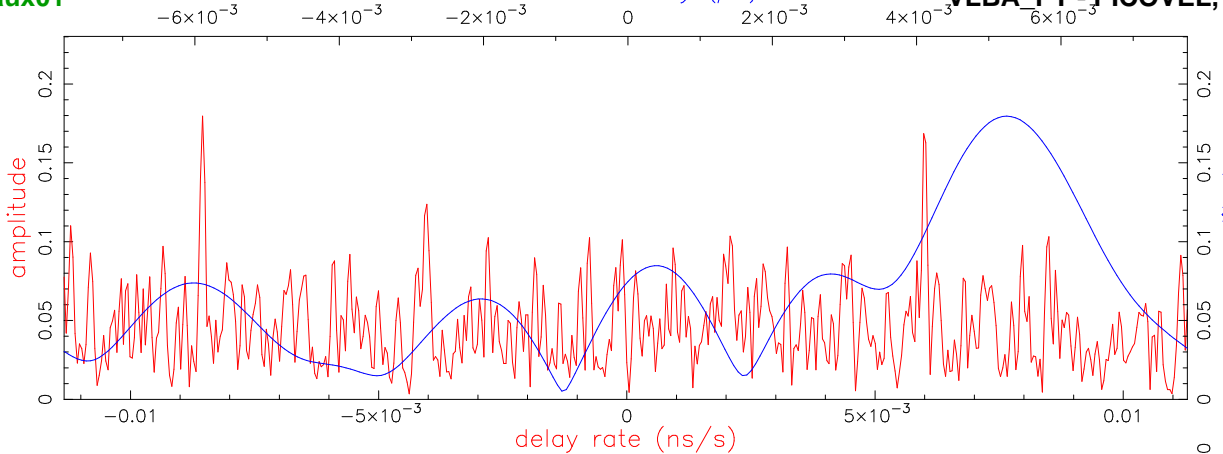
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, pP

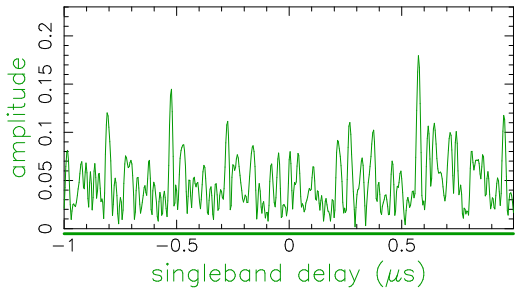
VLBA_PT - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

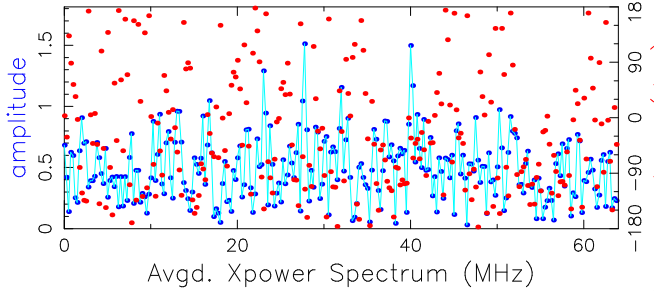


Fringe quality 0

SNR 5.2
 Int time 112.633
 Amp 0.230
 Phase 9.1
 PFD 1.0e+00
 Delays (us)
 SBD 0.574568
 MBD 0.005254
 Fringe rate (Hz)
 -0.738998
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

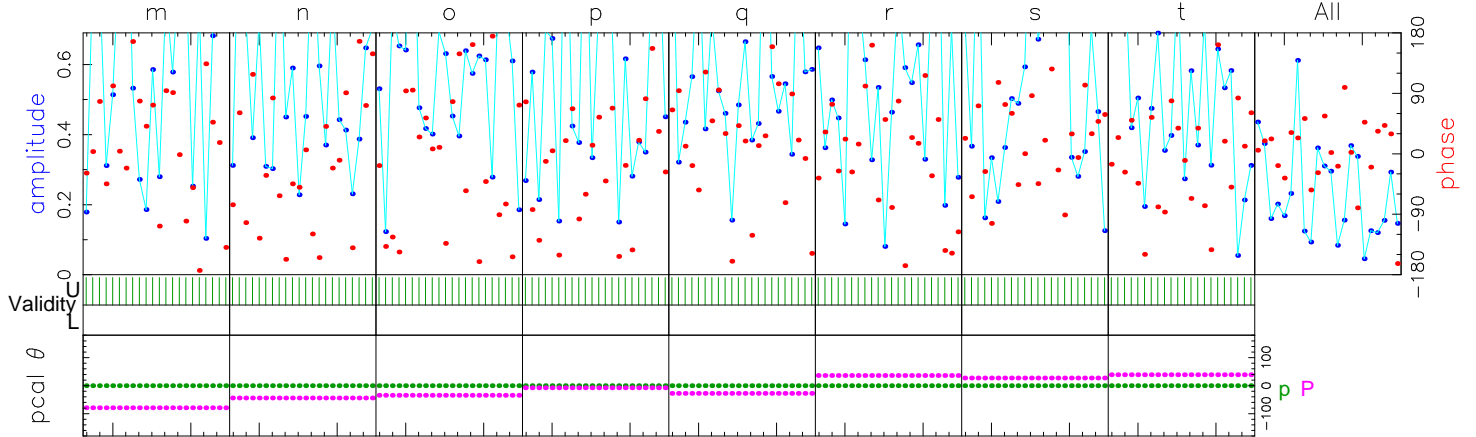


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113129
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	27.3	-68.8	-114.2	3.4	32.4	8.4	23.9	-10.2		9.1
	0.3	0.1	0.1	0.3	0.4	0.3	0.3	0.3		0.2
	382.4	154.0	429.7	509.8	374.1	206.2	191.3	211.9	Sbd box	404.1
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
p	0	0	0	0	0	0	0	0	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:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) 6.88531834540E+03 Apriori delay (usec) 6.88475059095E+03 Resid mbdelay (usec) 5.25446E-03 +/- 2.1E-04
 Sband delay (usec) 6.88532515920E+03 Apriori clock (usec) 6.7180347E+00 Resid sbdelay (usec) 5.74568E-01 +/- 1.7E-03
 Phase delay (usec) 6.88475059124E+03 Apriori clockrate (us/s) -2.1954010E-07 Resid phdelay (usec) 2.92711E-07 +/- 7.1E-07
 Delay rate (us/s) 1.22097292195E+00 Apriori rate (us/s) 1.22098150099E+00 Resid rate (us/s) -8.57903E-06 +/- 1.1E-08
 Total phase (deg) 334.6 Apriori accel (us/s/s) -3.98625928023E-05 Resid phase (deg) 9.1 +/- 22.0

ph/seg (deg) 54.0 51.5 Search (512X32) 0.174 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 82.0 89.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 61.6 31.1 Inc. seg. avg. 0.216 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 48.8 54.2 Inc. frq. avg. 0.230 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 p: az 49.1 el 64.2 pa -111.4 P: az 307.1 el 35.7 pa 71.7 u,v (fr/asec) -10475.129 -3664.317 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/pP..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/pP.W.271.3MP1AB

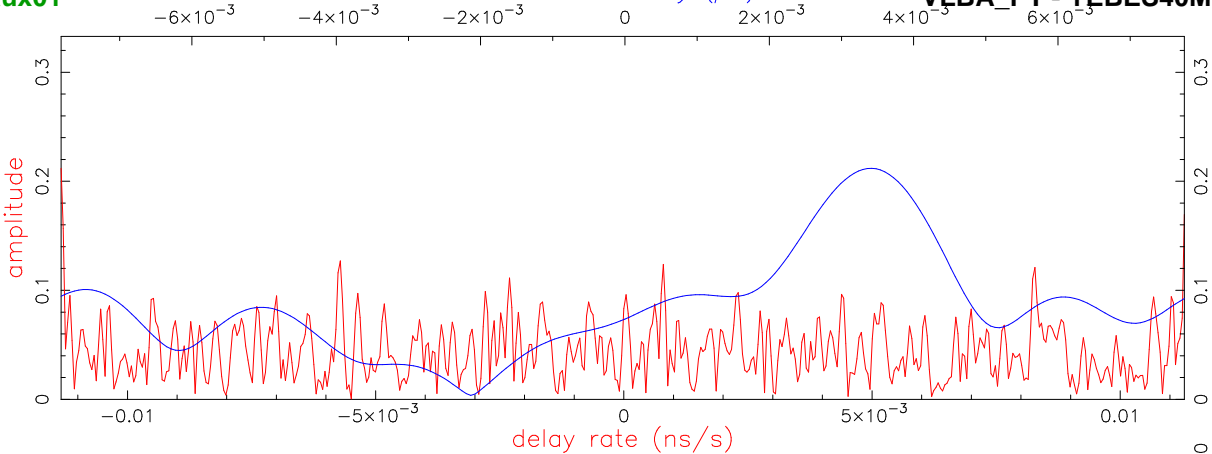
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, pY

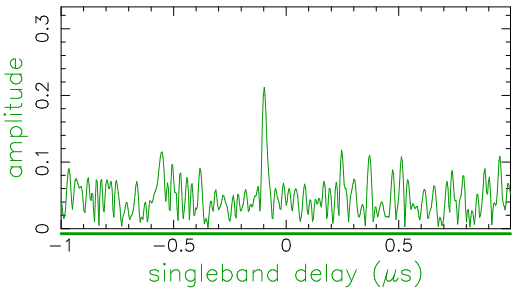
VLBA_PT - YEBES40M, fgroup W, pol LL

multiband delay (μ s)

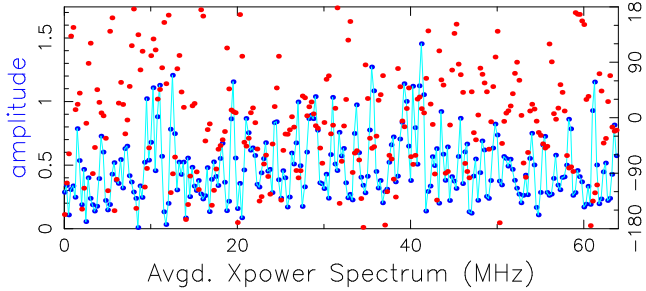


Fringe quality 0

SNR 5.8
 Int time 99.765
 Amp 0.333
 Phase -99.8
 PFD 3.6e-01
 Delays (us)
 SBD -0.097750
 MBD 0.003404
 Fringe rate (Hz)
 -0.976562
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

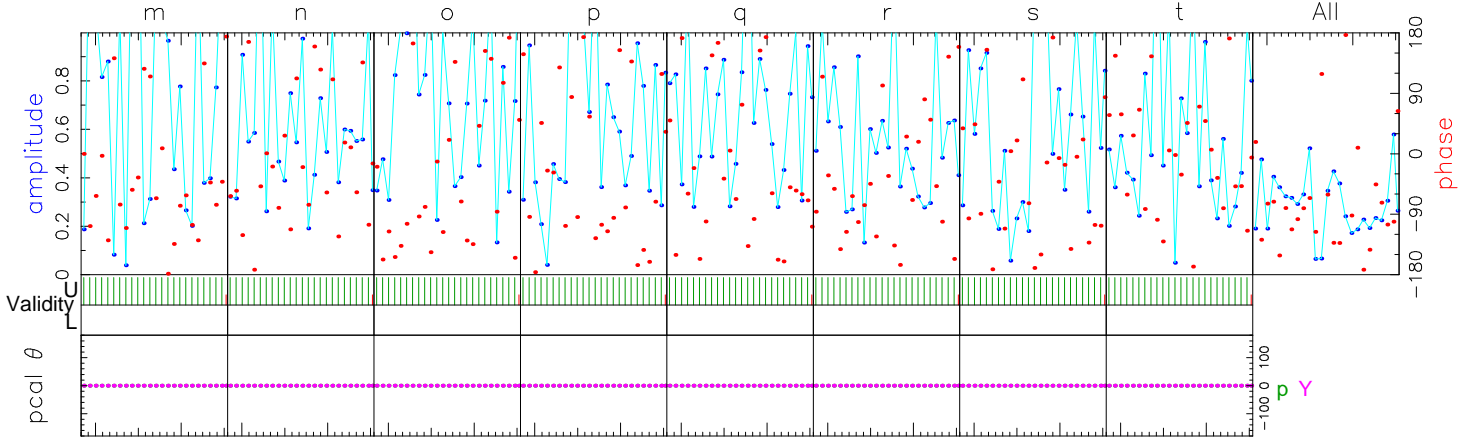


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170449.97
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113141
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 25 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-74.3	-64.2	-149.6	-141.6	-106.2	-93.0	-95.3	-43.8	Phase	-99.8
	0.7	0.3	0.6	0.4	0.4	0.3	0.3	0.2	Ampl.	0.4
	233.4	172.2	232.8	82.4	277.5	481.8	499.7	172.6	Sbd box	232.0
U/L	195/0	195/0	195/0	195/0	195/0	195/0	195/0	195/0	APs used	
p	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
p:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	6.44497314799E+03	Apriori delay (usec)	6.44506349445E+03	Resid mbdelay (usec)	3.40354E-03	+/-	1.9E-04
Sband delay (usec)	6.44496574445E+03	Apriori clock (usec)	1.1625818E+02	Resid sbdelay (usec)	-9.77500E-02	+/-	1.5E-03
Phase delay (usec)	6.44506349123E+03	Apriori clockrate (us/s)	1.5923660E-02	Resid phdelay (usec)	-3.21826E-06	+/-	6.4E-07
Delay rate (us/s)	1.18380089487E+00	Apriori rate (us/s)	1.18381223179E+00	Resid rate (us/s)	-1.13369E-05	+/-	1.1E-08
Total phase (deg)	48.6	Apriori accel (us/s/s)	-4.08698538580E-05	Resid phase (deg)	-99.8	+/-	19.8

ph/seg (deg)	58.8	RMS	58.8	Theor.	49.5	Amplitude	0.333 +/- 0.058	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	71.1	Search (512X32)	0.211	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	39.6	Inc. seg. avg.	0.336	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
amp/frq (%)	53.0	Inc. frq. avg.	0.356	Data rate(Mb/s): 2048								

p: az 49.1 el 64.2 pa -111.4 Y: az 305.2 el 37.5 pa 68.1 u, v (fr/asec) -10157.492 -4031.367 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/pY..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/pY.W.298.3MP1AB

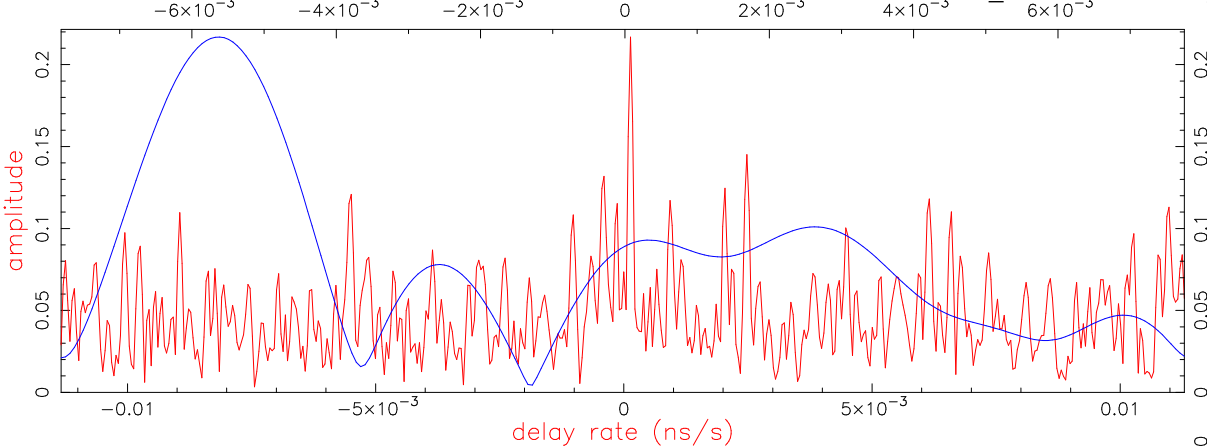
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, pY

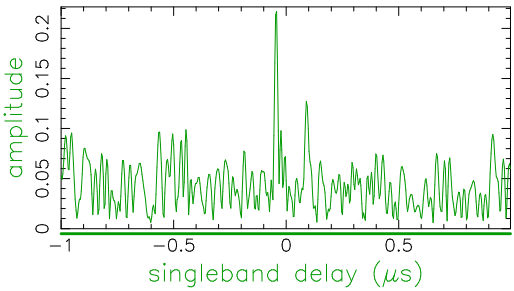
VLBA_PT - YEBES40M, fgroup W, pol RR

multiband delay (μ s)

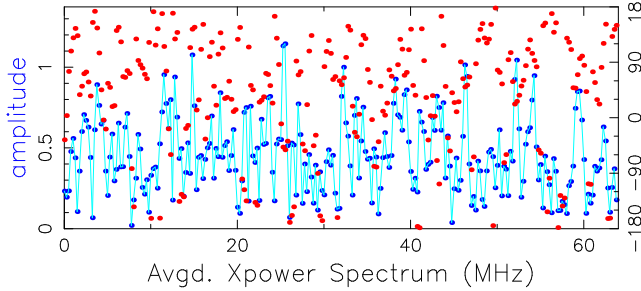


Fringe quality 0

SNR 6.1
 Int time 99.765
 Amp 0.222
 Phase -9.6
 PFD 9.0e-02
 Delays (us)
 SBD -0.044648
 MBD -0.005661
 Fringe rate (Hz)
 0.012627
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

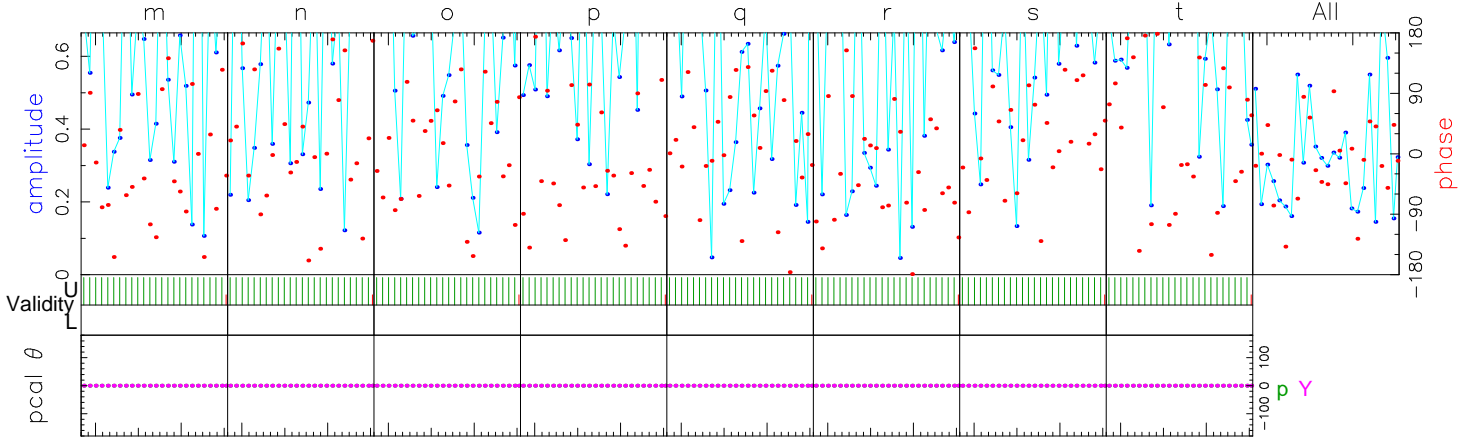


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170449.97
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113142
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 25 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-15.4	-0.5	16.3	-50.2	39.6	-40.6	16.4	-17.7	Phase	-9.6
	0.3	0.2	0.3	0.4	0.2	0.3	0.3	0.0	Ampl.	0.2
	486.9	279.8	59.5	245.8	353.9	143.2	244.0	295.0	Sbd box	245.6
U/L	195/0	195/0	195/0	195/0	195/0	195/0	195/0	195/0	APs used	
p	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	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)	6.44502658382E+03	Apriori delay (usec)	6.44506349445E+03	Resid mbdelay (usec)	-5.66064E-03	+/-	1.8E-04
Sband delay (usec)	6.44501884595E+03	Apriori clock (usec)	1.1625818E+02	Resid sbdelay (usec)	-4.46485E-02	+/-	1.4E-03
Phase delay (usec)	6.44506349414E+03	Apriori clockrate (us/s)	1.5923660E-02	Resid phdelay (usec)	-3.09593E-07	+/-	6.1E-07
Delay rate (us/s)	1.18381237838E+00	Apriori rate (us/s)	1.18381223179E+00	Resid rate (us/s)	1.46589E-07	+/-	1.1E-08
Total phase (deg)	138.8	Apriori accel (us/s/s)	-4.08698538580E-05	Resid phase (deg)	-9.6	+/-	18.9

ph/seg (deg)	56.9	Theor.	47.4	Amplitude	0.222 +/- 0.037	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	88.6	Search (512X32)	0.207	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	33.1	Inc. seg. avg.	0.249	Inc. frq. avg.	0.226	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	45.2	Inc. frq. avg.	0.226			Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	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 49.1 el 64.2 pa -111.4 Y: az 305.2 el 37.5 pa 68.1 u, v (fr/asec) -10157.492 -4031.367 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/pY...3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/pY.W.302.3MP1AB

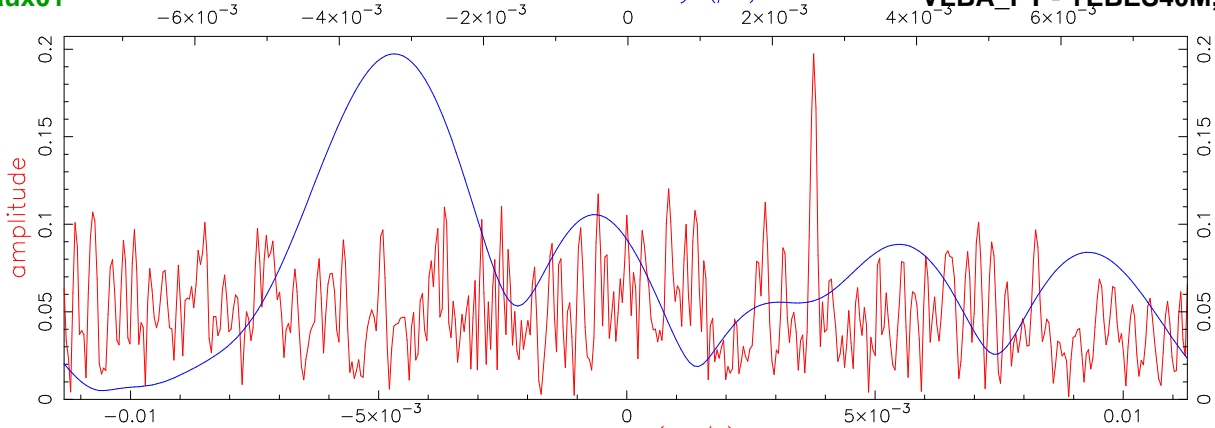
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, pY

VLBA_PT - YEBES40M, fgroup W, pol LR

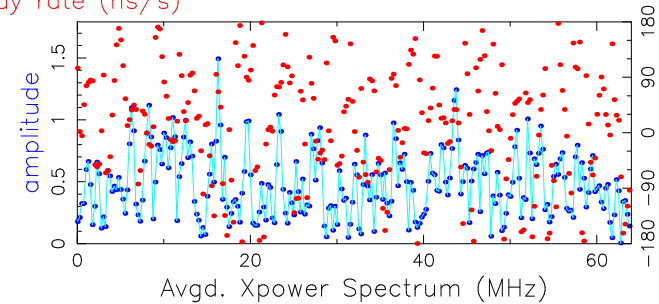
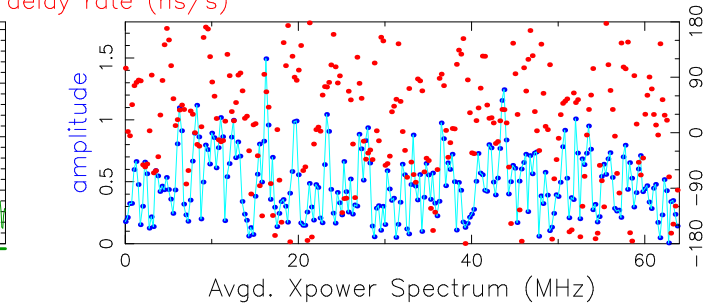
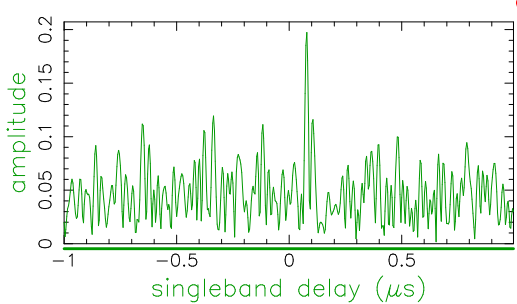
multiband delay (μ s)



Fringe quality 0

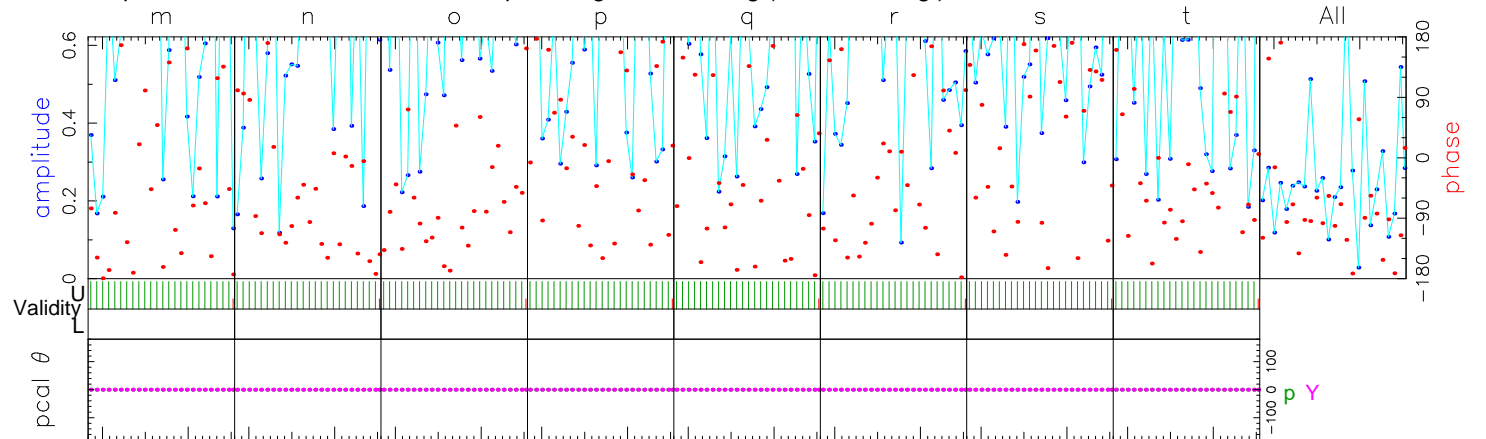
SNR 5.4
Int time 99.765
Amp 0.207
Phase -109.5
PFD 9.8e-01
Delays (us)
SBD 0.077393
MBD -0.003255
Fringe rate (Hz) 0.324521
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c241a
Exper # 1234
Yr:day 2024:109
Start 170449.97
Stop 170629.81
FRT 170540.00
Corr/FF/build
2025:007:183750
2025:041:113143
2024:113:095956
RA & Dec (J2000)
01h36m58.594803s
+47°51'29.10073"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 25 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-134.7	-104.3	-87.6	-99.6	-141.2	-96.8	174.8	-75.8	Phase	-109.5
	0.3	0.2	0.4	0.2	0.1	0.2	0.2	0.2	Ampl.	0.2
	357.4	285.3	276.7	160.0	344.1	214.6	357.6	473.6	Sbd box	276.8
U/L	195/0	195/0	195/0	195/0	195/0	195/0	195/0	195/0	APs used	
p	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
p:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) 6.44513836485E+03 Apriori delay (usec) 6.44506349445E+03 Resid mbdelay (usec) -3.25460E-03 +/- 2.0E-04
 Sband delay (usec) 6.44514088720E+03 Apriori clock (usec) 1.1625818E+02 Resid sbdelay (usec) 7.73927E-02 +/- 1.6E-03
 Phase delay (usec) 6.44506349092E+03 Apriori clockrate (us/s) 1.5923660E-02 Resid phdelay (usec) -3.53119E-06 +/- 6.8E-07
 Delay rate (us/s) 1.18381599916E+00 Apriori rate (us/s) 1.18381223179E+00 Resid rate (us/s) 3.76736E-06 +/- 1.2E-08
 Total phase (deg) 38.9 Apriori accel (us/s/s) -4.08698538580E-05 Resid phase (deg) -109.5 +/- 21.2

ph/seg (deg) 58.8 53.0 Search (512X32) 0.195 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 87.7 92.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 39.3 30.0 Inc. seg. avg. 0.195 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 41.9 52.3 Inc. frq. avg. 0.214 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 p: az 49.1 el 64.2 pa -111.4 Y: az 305.2 el 37.5 pa 68.1 u, v (fr/asec) -10157.492 -4031.367 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/pY..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/pY.W.306.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

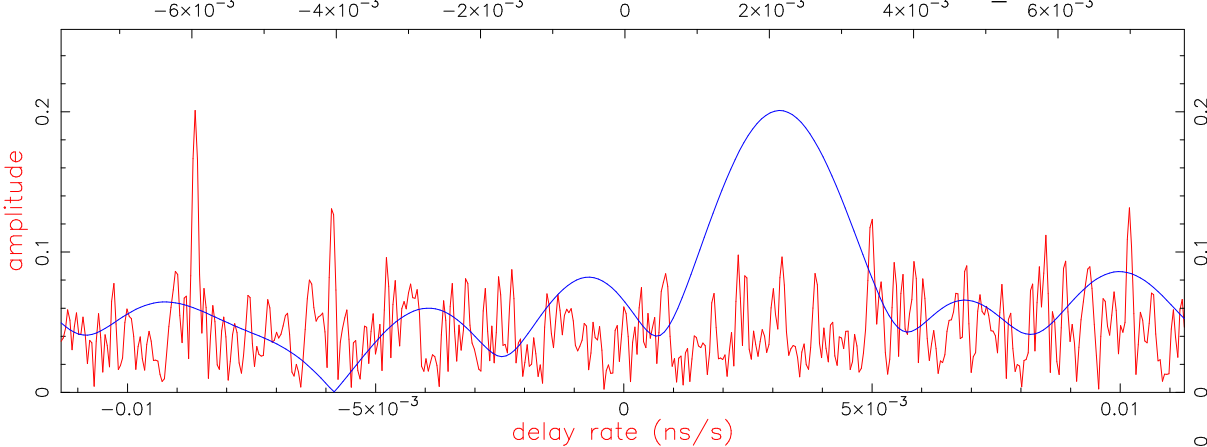
aux01

0133+476.3MP1AB, No0916, pY

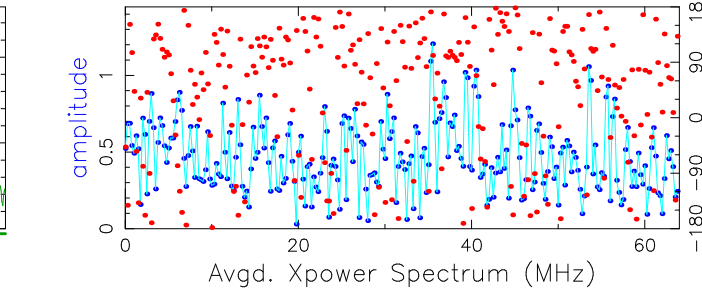
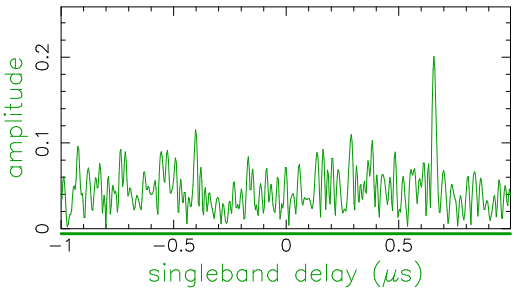
VLBA_PT - YEBES40M, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 0

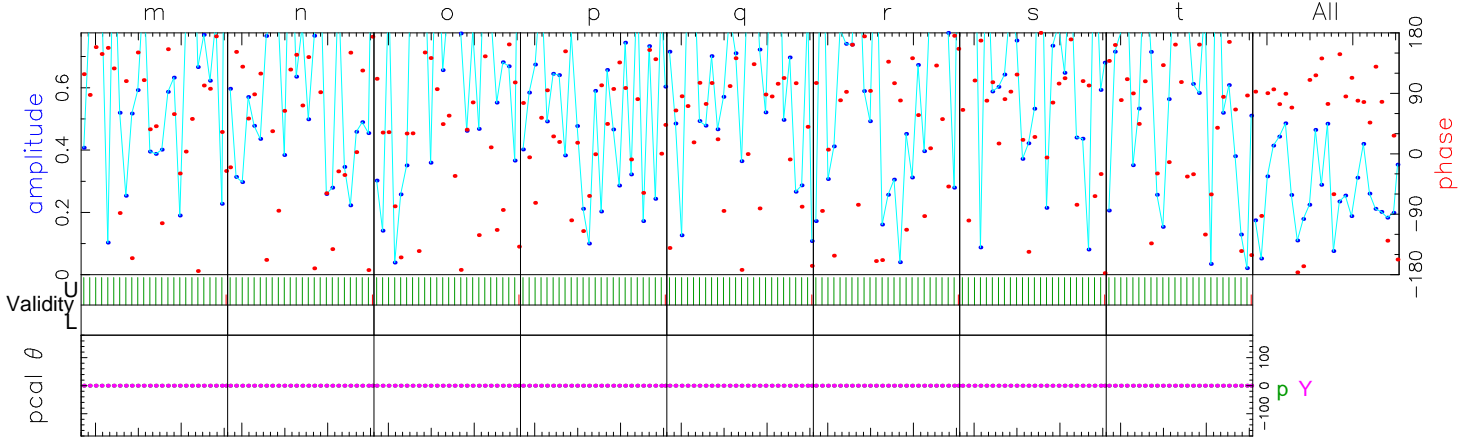


SNR 5.5
 Int time 99.765
 Amp 0.259
 Phase 96.2
 PFD 9.1e-01
 Delays (us)
 SBD 0.656302
 MBD 0.002145
 Fringe rate (Hz)
 -0.746447
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170449.97
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113144
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 25 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	111.4	112.1	94.8	46.1	80.4	156.8	101.0	107.9	Phase	96.2
	0.4	0.2	0.2	0.3	0.4	0.1	0.3	0.3	Ampl.	0.3
	492.2	81.3	269.3	434.5	426.0	11.0	428.0	131.7	Sbd box	425.0
U/L	195/0	195/0	195/0	195/0	195/0	195/0	195/0	195/0	APs used	
p	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	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)	6.44572188966E+03	Apriori delay (usec)	6.44506349445E+03	Resid mbdelay (usec)	2.14520E-03	+/-	2.0E-04
Sband delay (usec)	6.44571979670E+03	Apriori clock (usec)	1.1625818E+02	Resid sbdelay (usec)	6.56302E-01	+/-	1.6E-03
Phase delay (usec)	6.44506349755E+03	Apriori clockrate (us/s)	1.5923660E-02	Resid phdelay (usec)	3.10106E-06	+/-	6.7E-07
Delay rate (us/s)	1.18380356628E+00	Apriori rate (us/s)	1.18381223179E+00	Resid rate (us/s)	-8.66551E-06	+/-	1.2E-08
Total phase (deg)	244.6	Apriori accel (us/s/s)	-4.08698538580E-05	Resid phase (deg)	96.2	+/-	20.9

ph/seg (deg)	67.2	Theor.	52.2	Amplitude	0.259 +/- 0.047	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	70.1	Search (512X32)	0.195	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
ph/frq (deg)	34.3	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	37.3	Inc. seg. avg.	0.245	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	0.252	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

p: az 49.1 el 64.2 pa -111.4 Y: az 305.2 el 37.5 pa 68.1 u,v (fr/asec) -10157.492 -4031.367 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/pY...3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/pY.W.309.3MP1AB

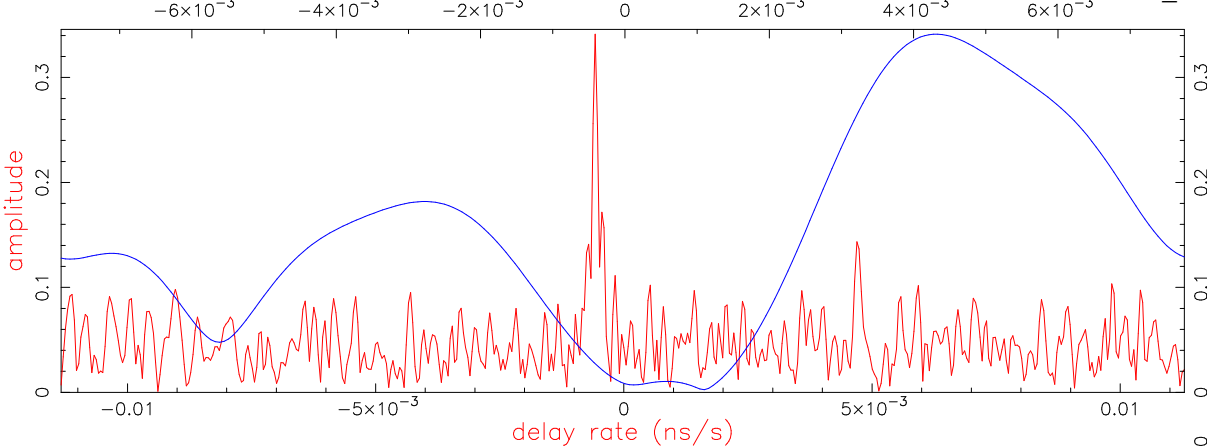
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, Xp

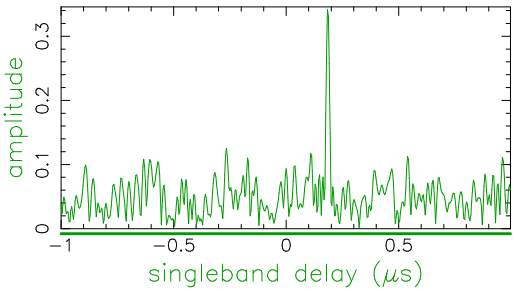
ONSALA60 - VLBA_PT, fgroup W, pol LL

multiband delay (μ s)

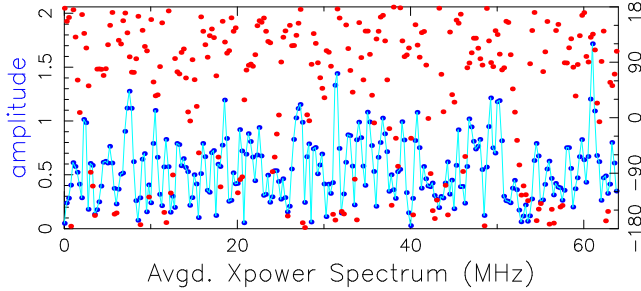


Fringe quality 9

SNR 9.4
 Int time 98.809
 Amp 0.346
 Phase 46.6
 PFD 5.9e-13
 Delays (us)
 SBD 0.184933
 MBD 0.004331
 Fringe rate (Hz)
 -0.049869
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

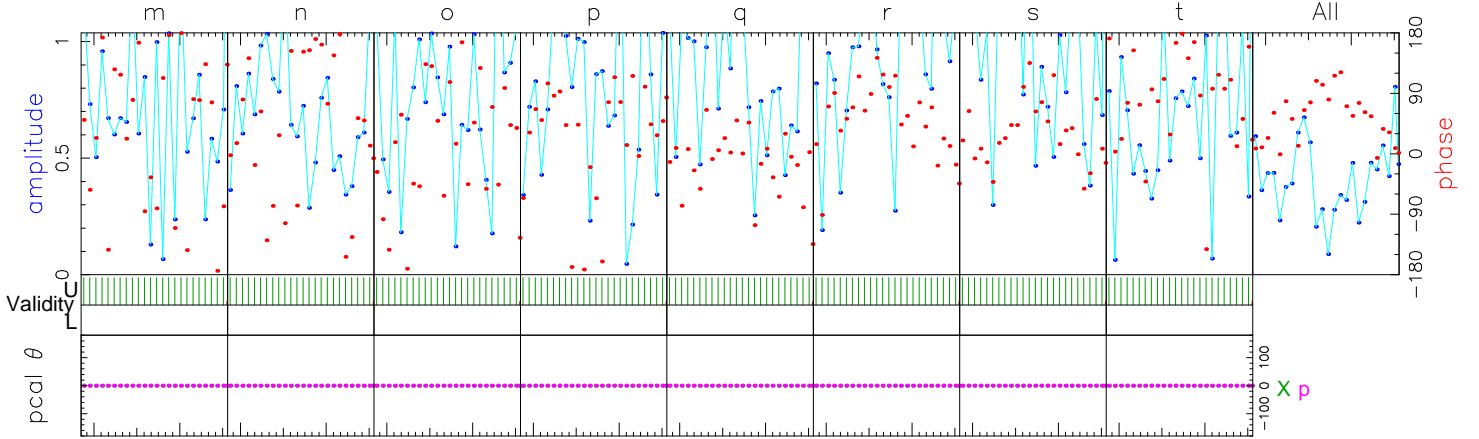


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170450.99
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113245
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 25 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	143.1	91.0	17.2	76.1	-6.4	51.7	34.9	109.0	Phase	46.6
	0.2	0.1	0.2	0.5	0.7	0.7	0.8	0.4	Ampl.	0.4
	141.5	218.3	12.9	304.0	304.5	305.1	304.8	306.1	Sbd box	304.3
U/L	193/0	193/0	193/0	193/0	193/0	193/0	193/0	193/0	APs used	
X	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
X:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-5.93932605215E+03	Apriori delay (usec)	-5.93951788305E+03	Resid mbdelay (usec)	4.33090E-03	+/-	1.2E-04
Sband delay (usec)	-5.93933294980E+03	Apriori clock (usec)	1.0695516E+02	Resid sbdelay (usec)	1.84933E-01	+/-	9.2E-04
Phase delay (usec)	-5.93951788155E+03	Apriori clockrate (us/s)	8.3792608E-07	Resid phdelay (usec)	1.50135E-06	+/-	3.9E-07
Delay rate (us/s)	-9.77396045966E-01	Apriori rate (us/s)	-9.77395467038E-01	Resid rate (us/s)	-5.78928E-07	+/-	6.9E-09
Total phase (deg)	-114.1	Apriori accel (us/s/s)	5.55336888422E-05	Resid phase (deg)	46.6	+/-	12.2

ph/seg (deg)	37.8	Theor.	30.5	Amplitude	0.346 +/- 0.037	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	50.8	Search (512X32)	0.339	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	57.6	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	80.8	Inc. seg. avg.	0.363	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011	
		Inc. frq. avg.	0.422	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

X: az 301.3 el 38.5 pa 43.4 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 8400.805 6460.725 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/Xp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/Xp.W.405.3MP1AB

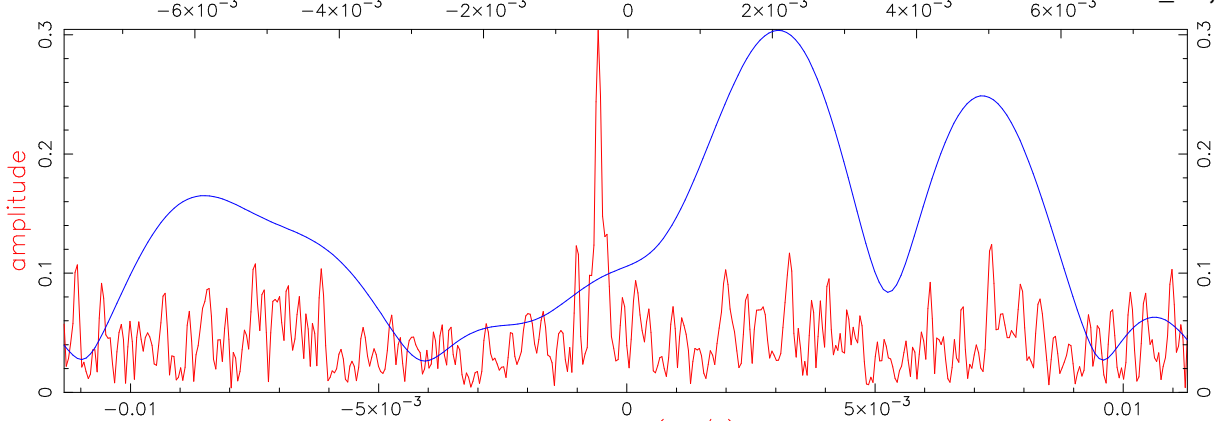
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, Xp

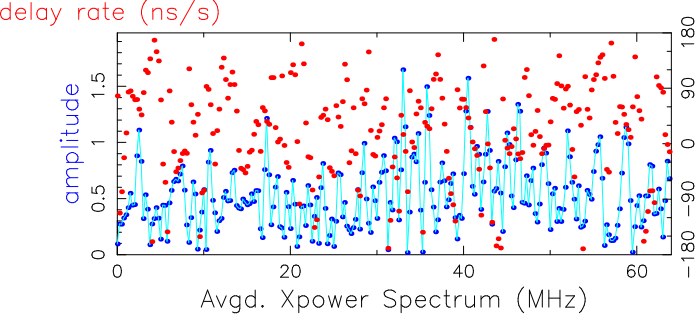
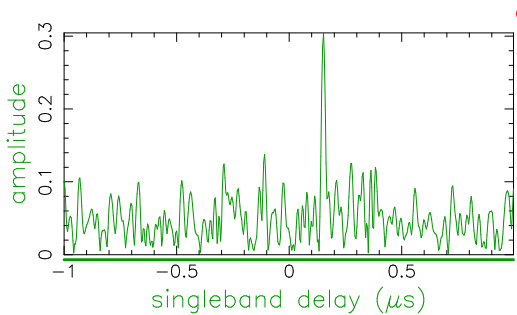
ONSALA60 - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)



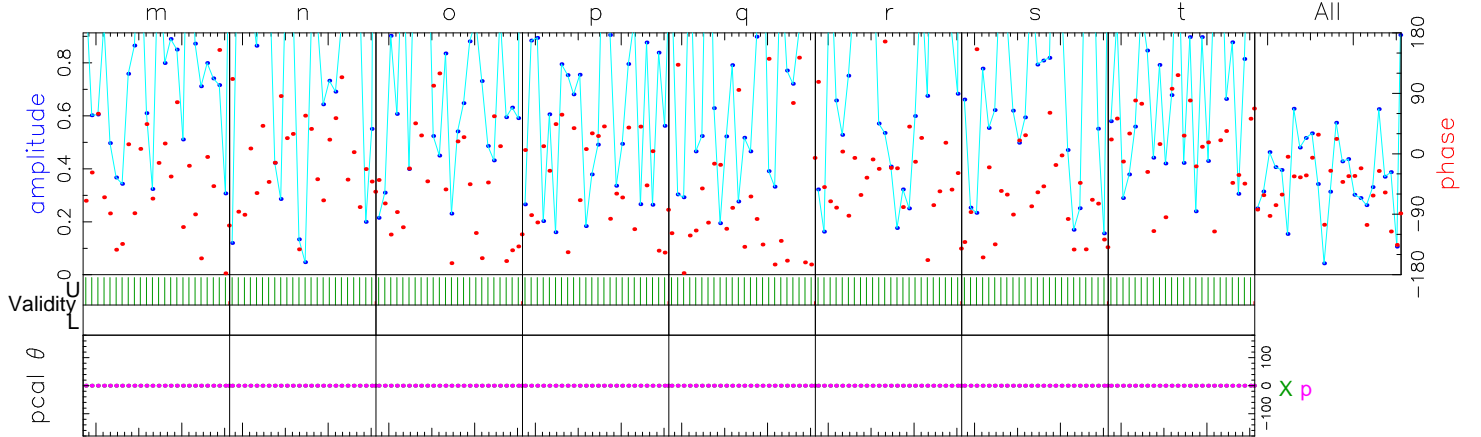
Fringe quality 9

SNR 8.3
 Int time 98.809
 Amp 0.305
 Phase -42.5
 PFD 1.2e-08
 Delays (us)
 SBD 0.151821
 MBD 0.002066
 Fringe rate (Hz)
 -0.050935
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170450.99
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113247
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 25 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-34.8	-16.7	-54.4	-43.1	-129.1	-41.4	-64.5	29.9	Phase	-42.5
	0.4	0.5	0.2	0.2	0.5	0.5	0.4	0.4	Ampl.	0.4
	296.8	295.8	309.9	244.3	296.7	295.5	295.6	297.0	Sbd box	295.9
U/L	193/0	193/0	193/0	193/0	193/0	193/0	193/0	193/0	APs used	
X	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
X:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-5.93935956690E+03	Apriori delay (usec)	-5.93951788305E+03	Resid mbdelay (usec)	2.06615E-03	+/-	1.3E-04
Sband delay (usec)	-5.93936606205E+03	Apriori clock (usec)	1.0695516E+02	Resid sbdelay (usec)	1.51821E-01	+/-	1.0E-03
Phase delay (usec)	-5.93951788442E+03	Apriori clockrate (us/s)	8.3792608E-07	Resid phdelay (usec)	-1.36993E-06	+/-	4.5E-07
Delay rate (us/s)	-9.77396058338E-01	Apriori rate (us/s)	-9.77395467038E-01	Resid rate (us/s)	-5.91300E-07	+/-	7.8E-09
Total phase (deg)	-203.1	Apriori accel (us/s/s)	5.55336888422E-05	Resid phase (deg)	-42.5	+/-	13.9

ph/seg (deg) 41.9 34.6 Search (512X32) 0.294 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 55.2 60.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 48.5 19.6 Inc. seg. avg. 0.318 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 49.4 34.2 Inc. frq. avg. 0.386 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 X: az 301.3 el 38.5 pa 43.4 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 8400.805 6460.725 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/Xp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/Xp.W.407.3MP1AB simultaneous interpolator

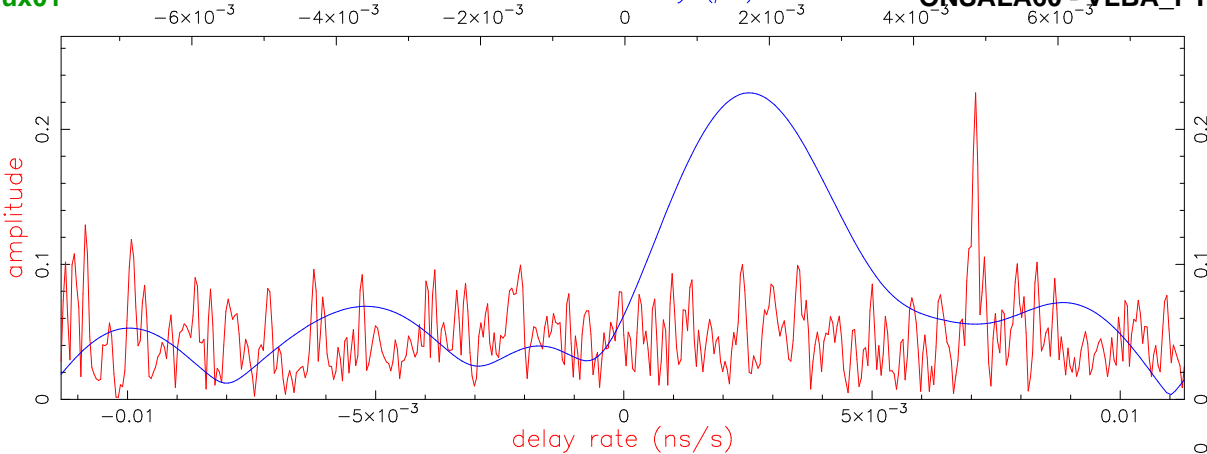
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, Xp

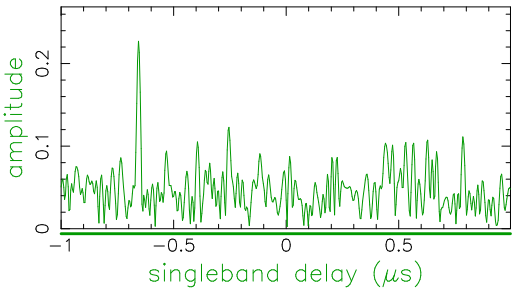
ONSALA60 - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)

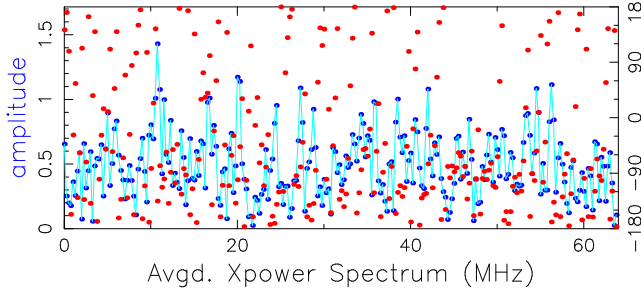


Fringe quality 0

SNR 6.2
 Int time 98.809
 Amp 0.269
 Phase -127.5
 PFD 4.1e-02
 Delays (us)
 SBD -0.655668
 MBD 0.001750
 Fringe rate (Hz)
 0.612198
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

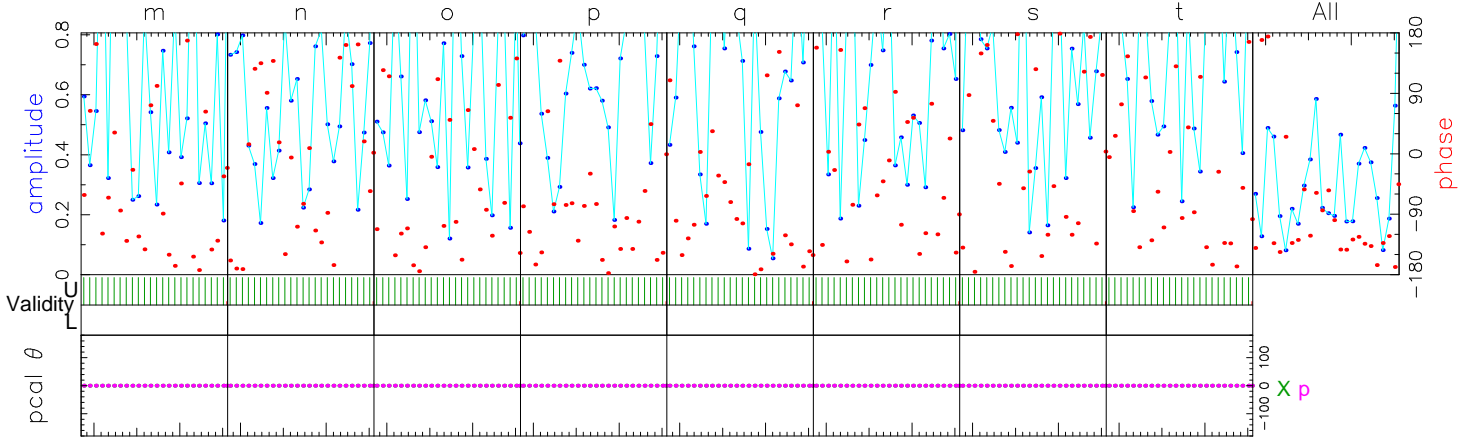


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170450.99
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113248
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 25 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-125.6	-159.1	-135.1	-113.4	-117.3	-87.8	-167.3	-140.9	Phase	-127.5
	0.3	0.2	0.3	0.5	0.4	0.2	0.3	0.1	Ampl.	0.3
	30.4	486.3	218.6	89.2	329.2	497.5	38.7	374.6	Sbd box	89.1
U/L	193/0	193/0	193/0	193/0	193/0	193/0	193/0	193/0	APs used	
X	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
X:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
X	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)	-5.94017238312E+03		Apriori delay (usec)		-5.93951788305E+03		Resid mbdelay (usec)		1.74994E-03	+/- 1.8E-04
Sband delay (usec)	-5.94017355105E+03		Apriori clock (usec)		1.0695516E+02		Resid sbdelay (usec)		-6.55668E-01	+/- 1.4E-03
Phase delay (usec)	-5.93951788717E+03		Apriori clockrate (us/s)		8.3792608E-07		Resid phdelay (usec)		-4.1166E-06	+/- 6.0E-07
Delay rate (us/s)	-9.77388360024E-01		Apriori rate (us/s)		-9.77395467038E-01		Resid rate (us/s)		7.10701E-06	+/- 1.0E-08
Total phase (deg)			Apriori accel (us/s/s)		5.55336888422E-05		Resid phase (deg)		-127.5	+/- 18.5

ph/seg (deg) 47.5 46.3 Search (512X32) 0.214 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 74.4 80.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 28.0 26.2 Inc. seg. avg. 0.263 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 43.4 45.8 Inc. frq. avg. 0.262 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 X: az 301.3 el 38.5 pa 43.4 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 8400.805 6460.725 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916//Xp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916//Xp.W.411.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

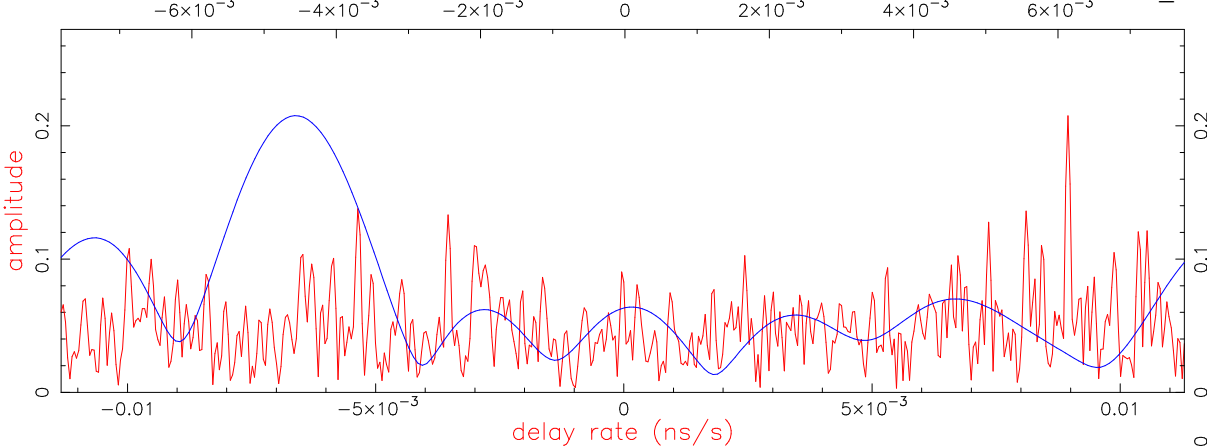
aux01

0133+476.3MP1AB, No0916, Xp

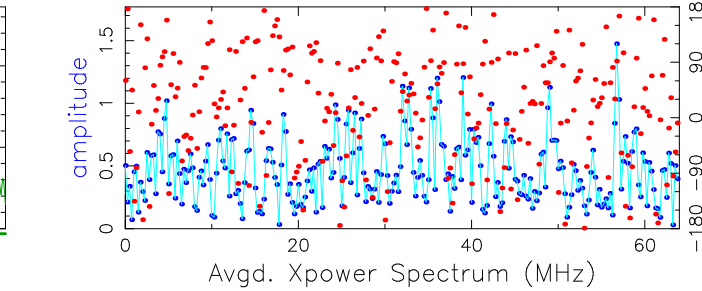
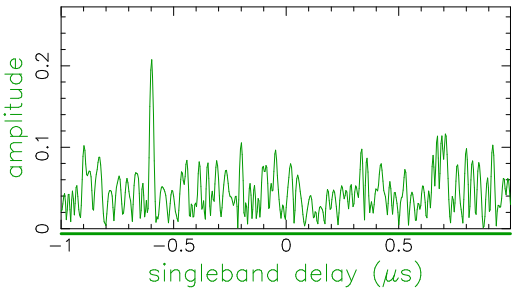
ONSALA60 - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 0

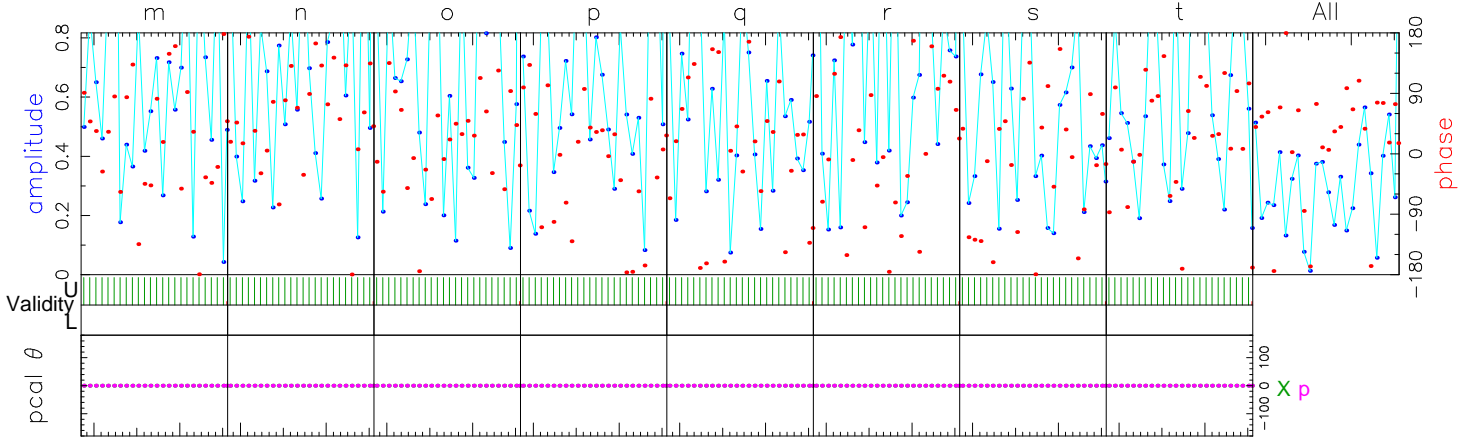


SNR 5.7
 Int time 98.809
 Amp 0.272
 Phase 54.0
 PFD 6.2e-01
 Delays (us)
 SBD -0.598172
 MBD -0.004588
 Fringe rate (Hz)
 0.770221
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170450.99
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113249
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 25 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	54.5	72.0	34.4	22.2	125.1	55.8	57.5	55.9	Phase	54.0
	0.3	0.4	0.4	0.3	0.2	0.2	0.2	0.4	Ampl.	0.3
	250.0	431.9	470.2	94.3	334.2	46.6	90.0	207.6	Sbd box	103.9
U/L	193/0	193/0	193/0	193/0	193/0	193/0	193/0	193/0	APs used	
X	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
X:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) -5.94011622060E+03 Apriori delay (usec) -5.93951788305E+03 Resid mbdelay (usec) -4.58754E-03 +/- 1.9E-04
 Sband delay (usec) -5.94011605480E+03 Apriori clock (usec) 1.0695516E+02 Resid sbdelay (usec) -5.98172E-01 +/- 1.5E-03
 Phase delay (usec) -5.93951788131E+03 Apriori clockrate (us/s) 8.3792608E-07 Resid phdelay (usec) 1.74159E-06 +/- 6.5E-07
 Delay rate (us/s) -9.77386525537E-01 Apriori rate (us/s) -9.77395467038E-01 Resid rate (us/s) 8.94150E-06 +/- 1.1E-08
 Total phase (deg) -106.6 Apriori accel (us/s/s) 5.55336888422E-05 Resid phase (deg) 54.0 +/- 20.3

RMS Theor. Amplitude 0.272 +/- 0.048 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 66.8 50.7 Search (512X32) 0.204 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 90.1 88.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 33.6 28.7 Inc. seg. avg. 0.282 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 39.2 50.1 Inc. frq. avg. 0.263 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

X: az 301.3 el 38.5 pa 43.4 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 8400.805 6460.725 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916//Xp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916//Xp.W.415.3MP1AB

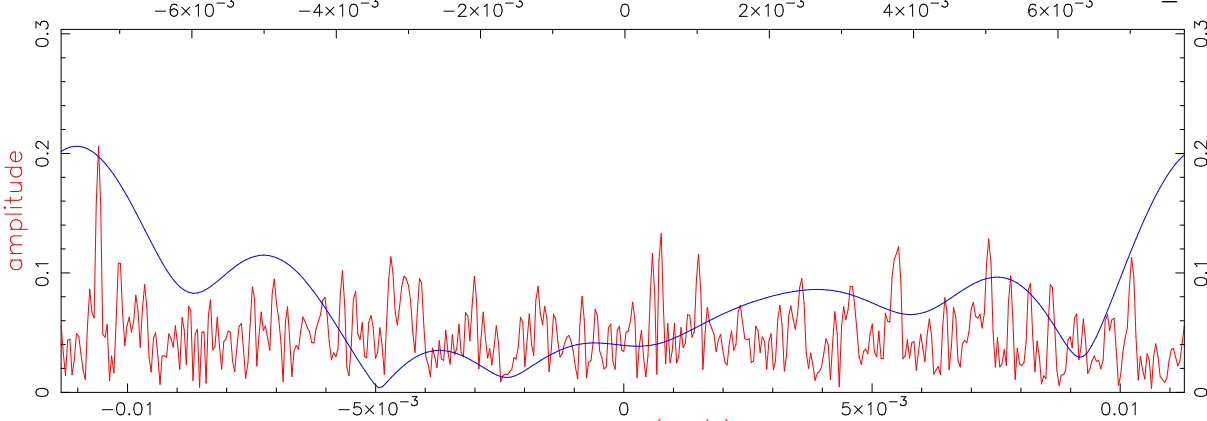
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, Zp

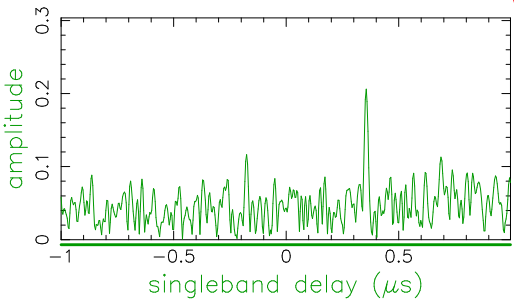
MEṬSAHOV - VLBA_PT, fgroup W, pol LL

multiband delay (μ s)

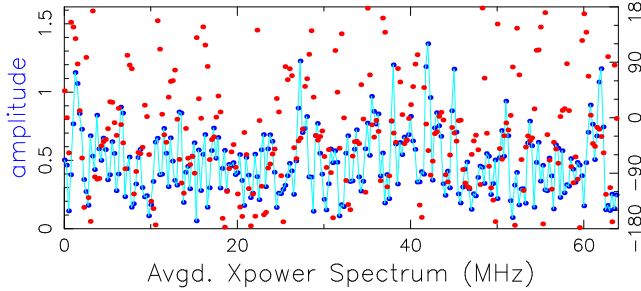


Fringe quality 0

SNR 5.6
 Int time 98.740
 Amp 0.304
 Phase -177.8
 PFD 7.3e-01
 Delays (us)
 SBD 0.355235
 MBD -0.007603
 Fringe rate (Hz)
 -0.911521
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

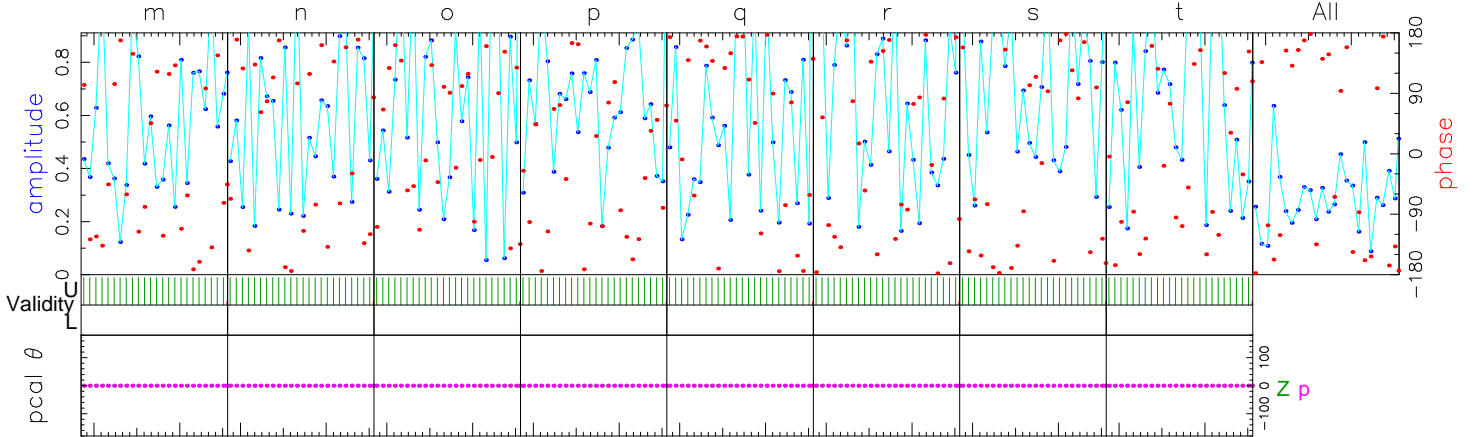


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170450.99
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113232
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 25 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-152.6	171.2	58.1	-131.9	153.4	-174.0	176.0	-149.3	Phase	-177.8
	0.4	0.4	0.1	0.2	0.4	0.4	0.6	0.3	Ampl.	0.3
	235.0	409.0	494.0	301.3	300.6	425.9	348.1	383.8	Sbd box	347.9
U/L	193/0	193/0	193/0	193/0	193/0	193/0	193/0	193/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	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	Manl 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)	-7.16498821494E+03	Apriori delay (usec)	-7.16533998728E+03	Resid mbdelay (usec)	-7.60266E-03	+/-	1.9E-04
Sband delay (usec)	-7.16498475253E+03	Apriori clock (usec)	-5.5949898E+00	Resid sbdelay (usec)	3.55235E-01	+/-	1.5E-03
Phase delay (usec)	-7.16533999302E+03	Apriori clockrate (us/s)	2.3116296E-07	Resid phdelay (usec)	-5.73494E-06	+/-	6.6E-07
Delay rate (us/s)	-9.19417953420E-01	Apriori rate (us/s)	-9.19407371562E-01	Resid rate (us/s)	-1.05819E-05	+/-	1.2E-08
Total phase (deg)	-359.4	Apriori accel (us/s/s)	6.35988770120E-05	Resid phase (deg)	-177.8	+/-	20.5

ph/seg (deg)	50.1	Theor.	51.2	Amplitude	0.304 +/- 0.054	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	73.0	Search (512X32)	0.198	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000			
ph/frq (deg)	57.7	Inc. seg. avg.	0.308	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008		
amp/frq (%)	47.4	Inc. frq. avg.	0.316	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011			
Z:	az 307.5 el 34.7 pa 36.0	p:	az 49.1 el 64.2 pa -111.4	u,v (fr/asec)	7910.409 7317.600	nlags:	256	t_cohere infinite	ion window (TEC)	0.00	0.00

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916//Zp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916//Zp.W.377.3MP1AB

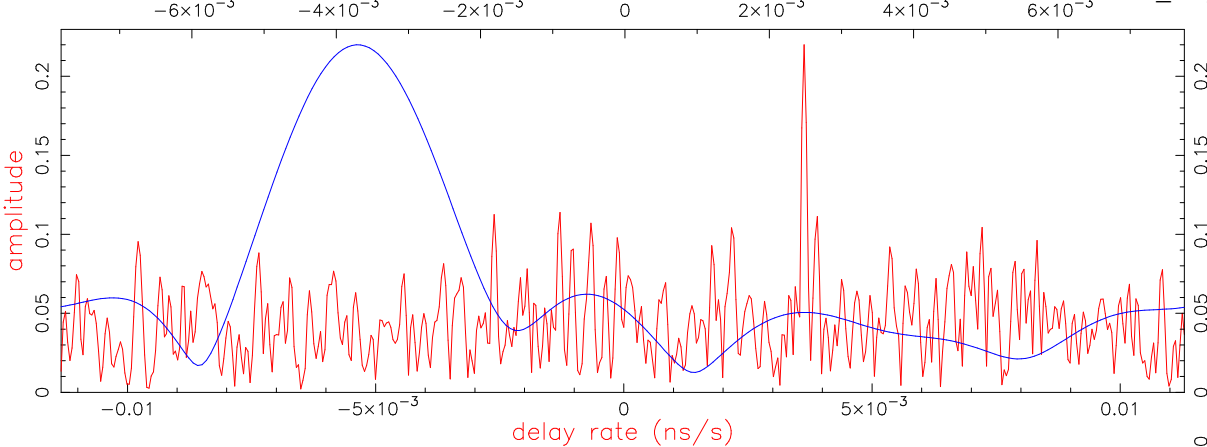
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, Zp

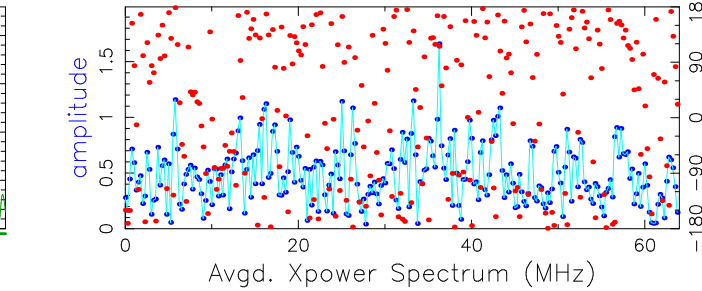
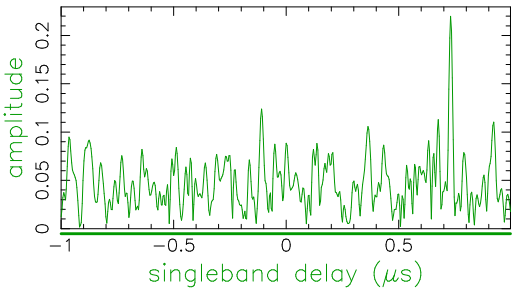
METSAHOV - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)



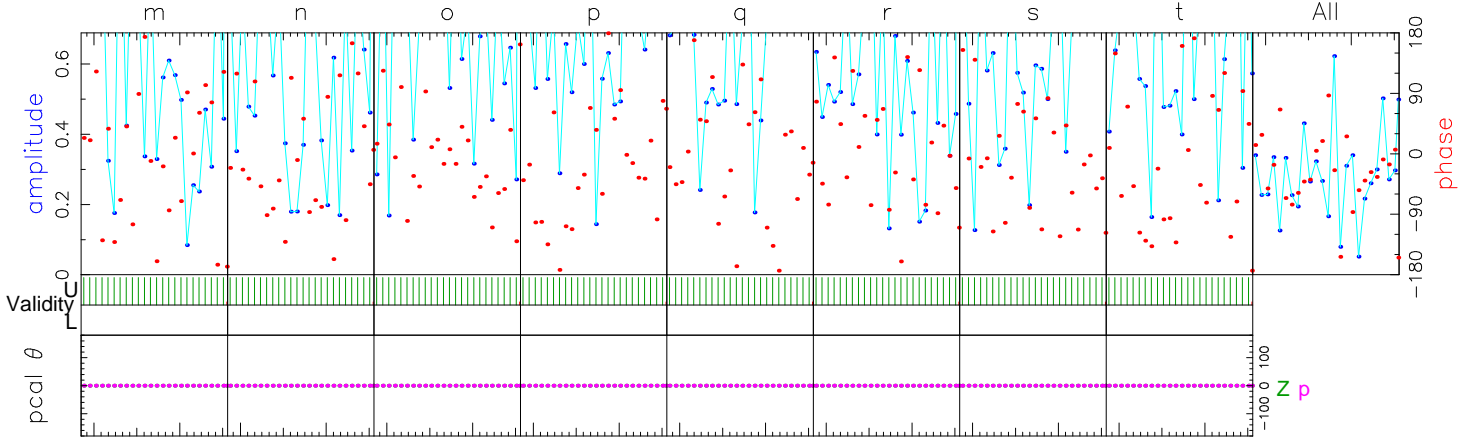
Fringe quality 0

SNR 6.0
 Int time 98.740
 Amp 0.230
 Phase -21.5
 PFD 1.3e-01
 Delays (us)
 SBD 0.730824
 MBD -0.003712
 Fringe rate (Hz)
 0.312957
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170450.99
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113234
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 25 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-12.8	-57.5	-4.8	-27.7	-10.5	3.8	-28.3	-39.5	Phase	-21.5
	0.1	0.2	0.4	0.3	0.2	0.2	0.3	0.2	Ampl.	0.2
	229.2	318.3	271.9	420.6	179.0	131.8	101.6	13.8	Sbd box	444.1
U/L	193/0	193/0	193/0	193/0	193/0	193/0	193/0	193/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	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) -7.16460932443E+03 Apriori delay (usec) -7.16533998728E+03 Resid mbdelay (usec) -3.71215E-03 +/- 1.8E-04
 Sband delay (usec) -7.16460916303E+03 Apriori clock (usec) -5.5949898E+00 Resid sbdelay (usec) 7.30824E-01 +/- 1.4E-03
 Phase delay (usec) -7.16533998797E+03 Apriori clockrate (us/s) 2.3116296E-07 Resid phdelay (usec) -6.93024E-07 +/- 6.2E-07
 Delay rate (us/s) -9.19403738439E-01 Apriori rate (us/s) -9.19407371562E-01 Resid rate (us/s) 3.63312E-06 +/- 1.1E-08
 Total phase (deg) -203.1 Apriori accel (us/s/s) 6.35988770120E-05 Resid phase (deg) -21.5 +/- 19.2

RMS Theor. Amplitude 0.230 +/- 0.038 Pcdl mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 50.5 47.9 Search (512X32) 0.218 Pcdl rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 62.0 83.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 21.7 27.1 Inc. seg. avg. 0.217 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 39.9 47.3 Inc. frq. avg. 0.218 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 307.5 el 34.7 pa 36.0 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 7910.409 7317.600 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/Zp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/Zp.W.383.3MP1AB

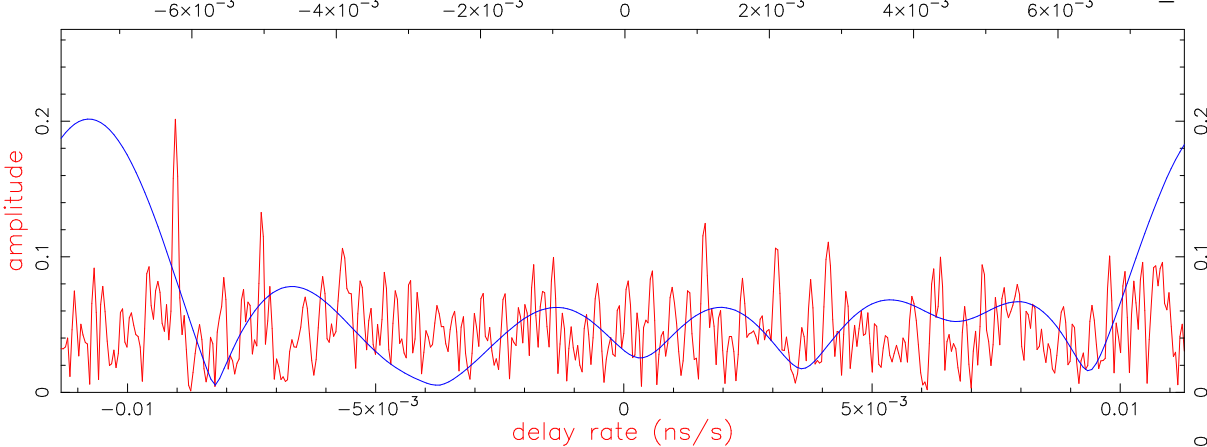
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, Zp

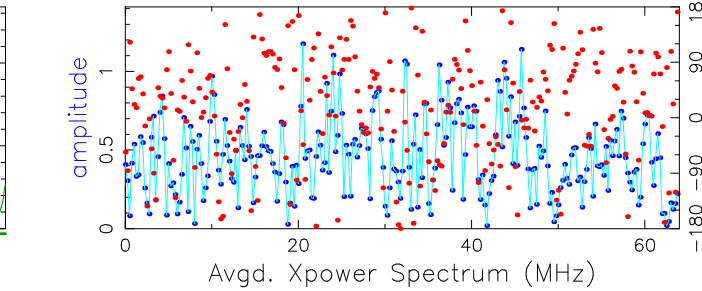
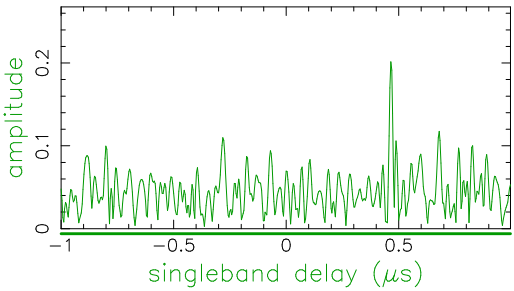
MEṬSAHOV - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)



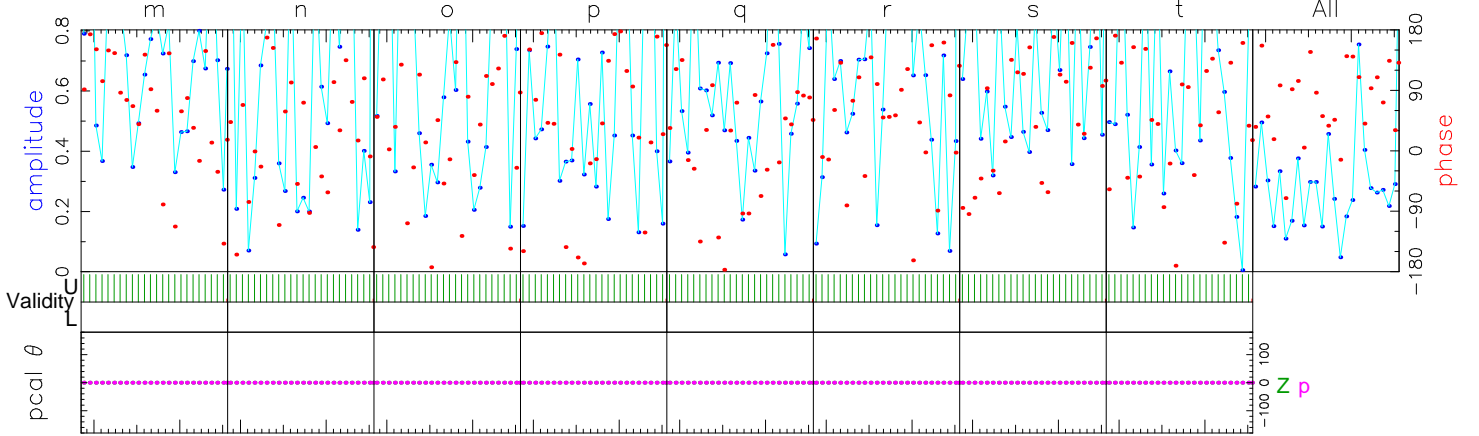
Fringe quality 0

SNR 5.5
 Int time 98.740
 Amp 0.268
 Phase 85.9
 PFD 8.7e-01
 Delays (us)
 SBD 0.465916
 MBD -0.007384
 Fringe rate (Hz)
 -0.777950
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170450.99
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113235
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 25 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	193/0	193/0	193/0	193/0	193/0	193/0	193/0	193/0		
Z	0	0	0	0	0	0	0	0		
p	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:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD) -7.16487862177E+03 Apriori delay (usec) -7.16533998728E+03 Resid mbdelay (usec) -7.38449E-03 +/- 2.0E-04
 Sband delay (usec) -7.16487407103E+03 Apriori clock (usec) -5.5949898E+00 Resid sbdelay (usec) 4.65916E-01 +/- 1.6E-03
 Phase delay (usec) -7.16533998451E+03 Apriori clockrate (us/s) 2.3116296E-07 Resid phdelay (usec) 2.77117E-06 +/- 6.7E-07
 Delay rate (us/s) -9.19416402795E-01 Apriori rate (us/s) -9.19407371562E-01 Resid rate (us/s) -9.03123E-06 +/- 1.2E-08
 Total phase (deg) -95.6 Apriori accel (us/s/s) 6.35988770120E-05 Resid phase (deg) 85.9 +/- 20.8

ph/seg (deg) 57.1 51.9 Search (512X32) 0.198 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 84.6 90.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 18.6 29.4 Inc. seg. avg. 0.267 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 39.4 51.2 Inc. frq. avg. 0.243 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Z: az 307.5 el 34.7 pa 36.0 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 7910.409 7317.600 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/Zp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/Zp.W.385.3MP1AB

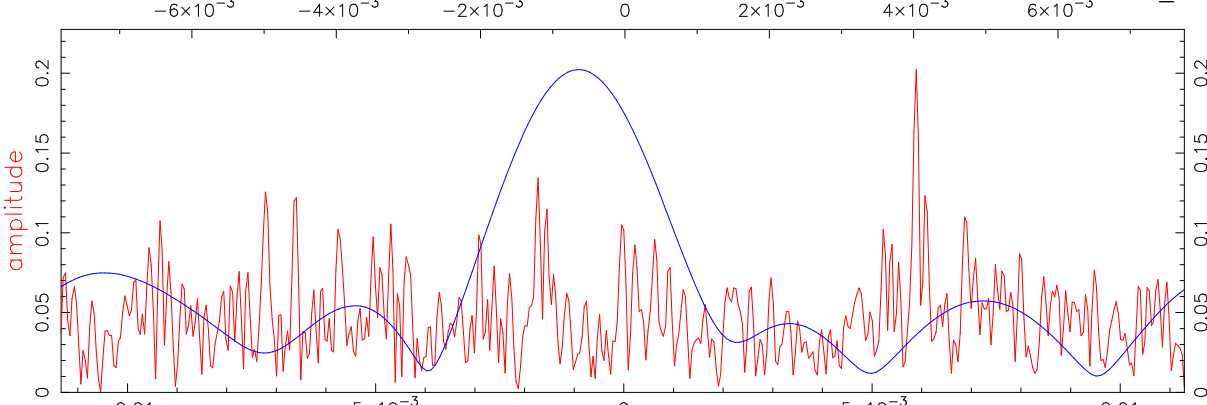
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, Zp

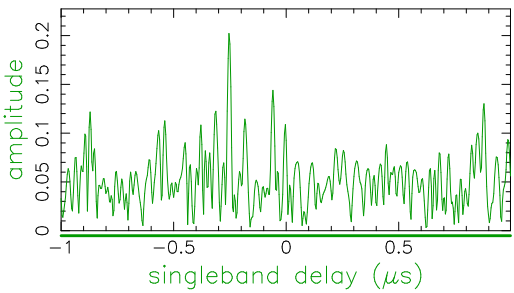
MEṬSAHOV - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

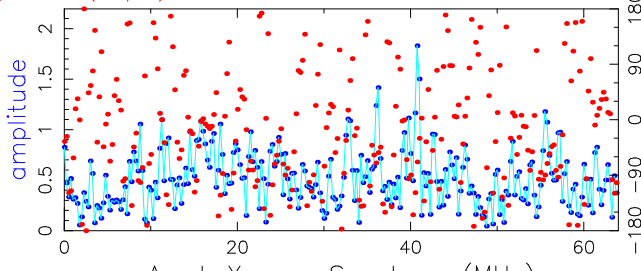


Fringe quality 0

SNR 5.5
Int time 98.740
Amp 0.228
Phase -71.9
PFD 8.7e-01
Delays (us)
SBD -0.253100
MBD -0.000628
Fringe rate (Hz)
0.506982
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

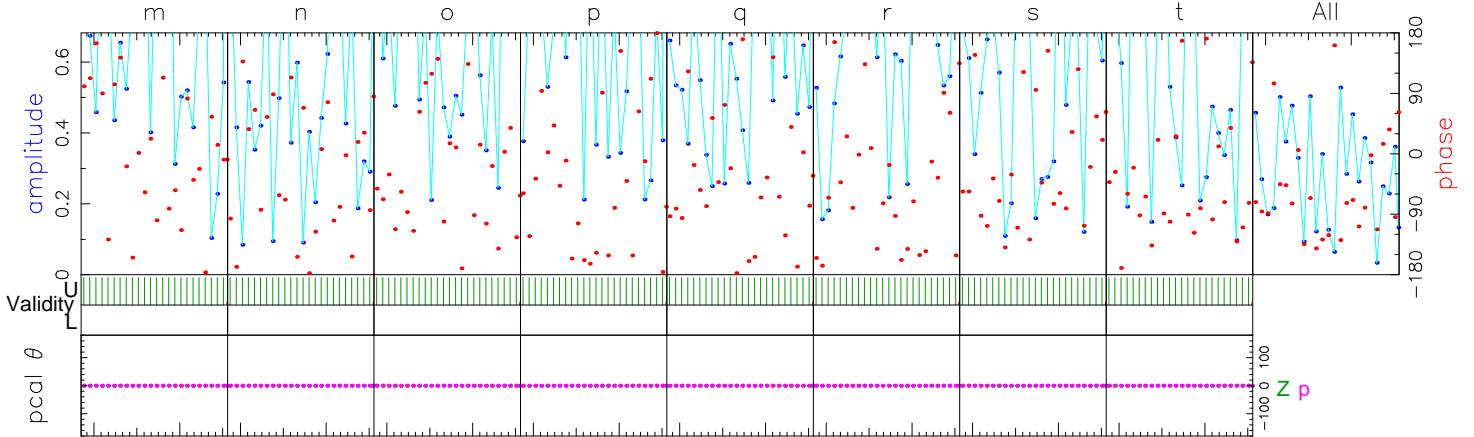


delay rate (ns/s)



Exp. c241a
Exper # 1234
Yr:day 2024:109
Start 170450.99
Stop 170629.81
FRT 170540.00
Corr/FF/build
2025:007:183750
2025:041:113236
2024:113:095956
RA & Dec (J2000)
01h36m58.594803s
+47°51'29.10073"

Amp. and Phase vs. time for each freq., 25 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-59.7	-73.1	-57.8	-110.8	-65.5	-86.7	-58.2	-73.4	Phase	-71.9
	0.1	0.1	0.3	0.2	0.3	0.2	0.2	0.4	Ampl.	0.2
	244.6	39.9	25.9	369.9	381.1	125.8	480.8	191.8	Sbd box	192.2
U/L	193/0	193/0	193/0	193/0	193/0	193/0	193/0	193/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-7.16559061567E+03	Apriori delay (usec)	-7.16533998728E+03	Resid mbdelay (usec)	-6.28388E-04	+/-	2.0E-04
Sband delay (usec)	-7.16559308703E+03	Apriori clock (usec)	-5.5949898E+00	Resid sbdelay (usec)	-2.53100E-01	+/-	1.6E-03
Phase delay (usec)	-7.16533998960E+03	Apriori clockrate (us/s)	2.3116296E-07	Resid phdelay (usec)	-2.32016E-06	+/-	6.7E-07
Delay rate (us/s)	-9.19401486005E-01	Apriori rate (us/s)	-9.19407371562E-01	Resid rate (us/s)	5.88556E-06	+/-	1.2E-08
Total phase (deg)	-253.5	Apriori accel (us/s/s)	6.35988770120E-05	Resid phase (deg)	-71.9	+/-	20.8

ph/seg (deg)	65.0	Theor.	51.9	Amplitude	0.228 +/- 0.041	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	84.7	Search (512X32)	0.200	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	19.6	Inc. seg. avg.	0.235	Inc. frq. avg.	0.207	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	47.3	Inc. frq. avg.	0.207			Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	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

Z: az 307.5 el 34.7 pa 36.0 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) 7910.409 7317.600 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/Zp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/Zp.W.387.3MP1AB