

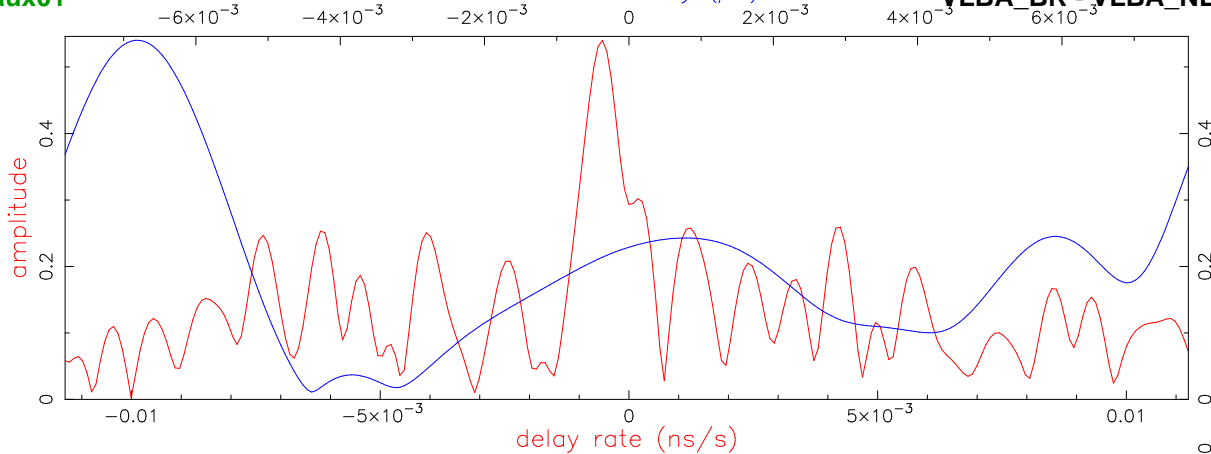
Mk4/DiFX fourfit 3.25 rev 0

aux01

BLLAC.3MP1T4, No1071, bn

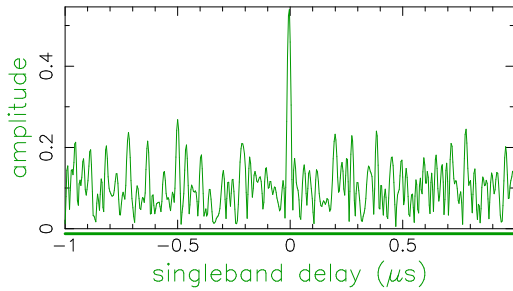
VLBA_BR - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

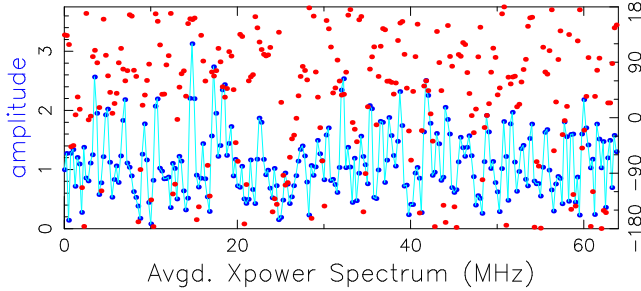


Fringe quality 0

SNR 6.6
 Int time 19.456
 Amp 0.546
 Phase 111.3
 PFD 8.2e-04
 Delays (us)
 SBD -0.005221
 MBD -0.006853
 Fringe rate (Hz)
 -0.042591
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

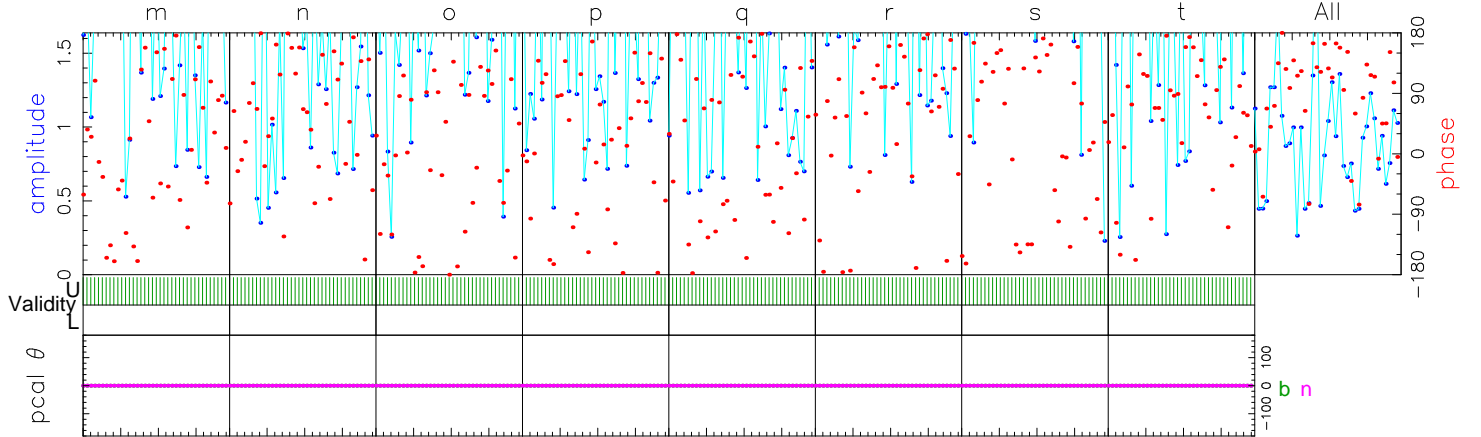


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135406
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0		
b	0	0	0	0	0	0	0	0		
n	0	0	0	0	0	0	0	0		
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	6.53017860059E+03	Apriori delay (usec)	6.53018545348E+03	Resid mbdelay (usec)	-6.85289E-03	+/-	1.6E-04
Sband delay (usec)	6.53018023248E+03	Apriori clock (usec)	4.9222622E+00	Resid sbdelay (usec)	-5.22100E-03	+/-	1.3E-03
Phase delay (usec)	6.53018545707E+03	Apriori clockrate (us/s)	2.7918098E-07	Resid phdelay (usec)	3.58970E-06	+/-	5.6E-07
Delay rate (us/s)	8.73217716715E-02	Apriori rate (us/s)	8.73222661087E-02	Resid rate (us/s)	-4.94437E-07	+/-	5.0E-08
Total phase (deg)	97.9	Apriori accel (us/s/s)	-2.87190081781E-05	Resid phase (deg)	111.3	+/-	17.4

ph/seg (deg)	74.1	Theor.	53.7	Amplitude	0.546 +/- 0.083	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	105.1	Search (128X32)	0.539	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	28.2	Inc. seg. avg.	0.644	Inc. frq. avg.	0.551	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	58.5	Inc. frq. avg.	0.551			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 293.5 el 38.8 pa 55.9 n: az 310.7 el 18.7 pa 49.9 u,v (fr/asec) -707.640 -1539.050 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1071/bn..3MP1T4 Output file: /Exps/c241a/v2/3mm/1234/No1071/bn.W.54.3MP1T4

Mk4/DiFX fourfit 3.25 rev 0

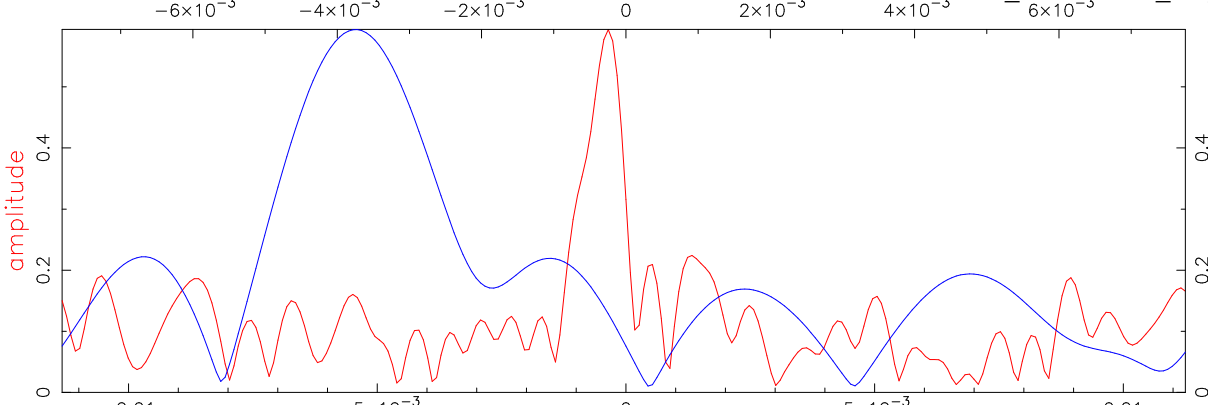
aux01

BLLAC.3MP1T4, No1071, bn

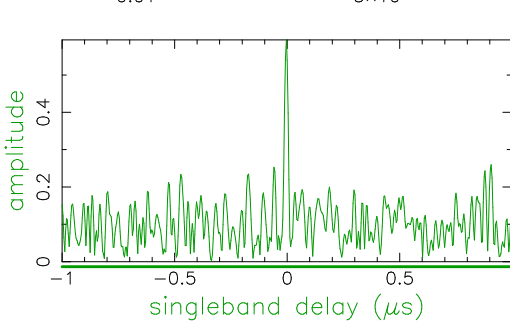
VLBA_BR - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

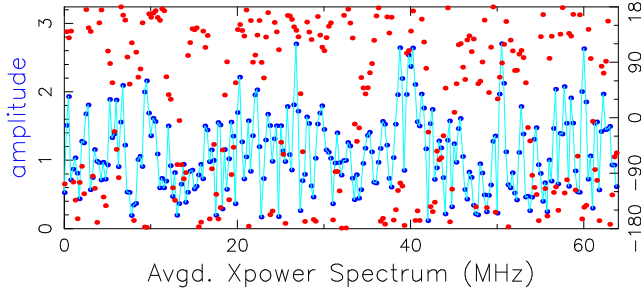
Fringe quality 9



SNR 7.2
 Int time 19.456
 Amp 0.594
 Phase 162.0
 PFD 1.5e-05
 Delays (us)
 SBD -0.003961
 MBD -0.003746
 Fringe rate (Hz)
 -0.034089
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

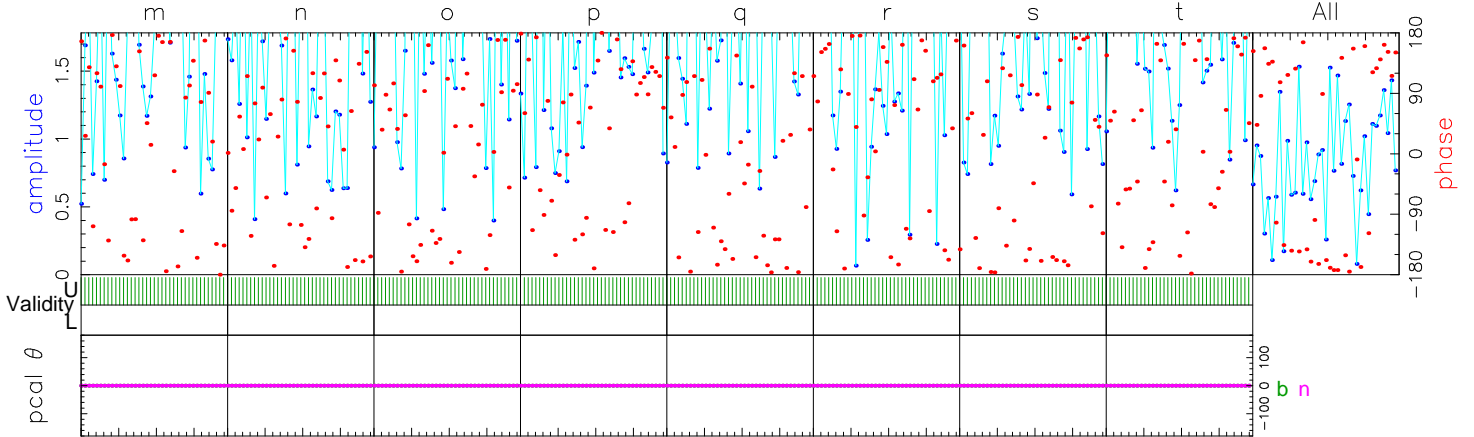


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135407
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-177.6	148.5	148.1	130.1	172.1	152.2	-179.2	167.8	Phase	162.0
	0.9	0.4	0.5	0.6	0.5	1.0	0.8	0.3	Ampl.	0.6
	255.3	247.3	313.4	214.0	204.5	257.1	255.9	409.2	Sbd box	256.0
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	6.53018170717E+03	Apriori delay (usec)	6.53018545348E+03	Resid mbdelay (usec)	-3.74632E-03	+/-	1.5E-04
Sband delay (usec)	6.53018149198E+03	Apriori clock (usec)	4.9222622E+00	Resid sbdelay (usec)	-3.96150E-03	+/-	1.2E-03
Phase delay (usec)	6.53018545870E+03	Apriori clockrate (us/s)	2.7918098E-07	Resid phdelay (usec)	5.22282E-06	+/-	5.2E-07
Delay rate (us/s)	8.73218703707E-02	Apriori rate (us/s)	8.73222661087E-02	Resid rate (us/s)	-3.95738E-07	+/-	4.6E-08
Total phase (deg)	148.6	Apriori accel (us/s/s)	-2.87190081781E-05	Resid phase (deg)	162.0	+/-	16.0

ph/seg (deg)	55.3	RMS	49.3	Theor.	55.3	Amplitude	0.594 +/- 0.083	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	77.6	Search (128X32)	0.581	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	20.0	Inc. seg. avg.	0.615	Inc. frq. avg.	0.579	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	41.7	Inc. frq. avg.	0.579	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 293.5 el 38.8 pa 55.9 n: az 310.7 el 18.7 pa 49.9 u,v (fr/asec) -707.640 -1539.050 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1071/bn..3MP1T4 Output file: /Exps/c241a/v2/3mm/1234/No1071/bn.W.64.3MP1T4

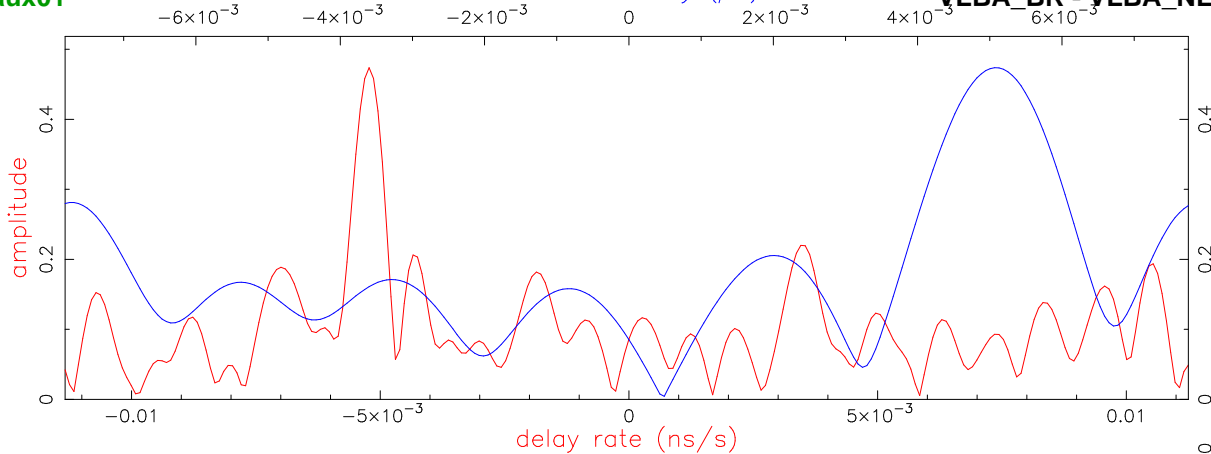
Mk4/DiFX fourfit 3.25 rev 0

aux01

BLLAC.3MP1T4, No1071, bn

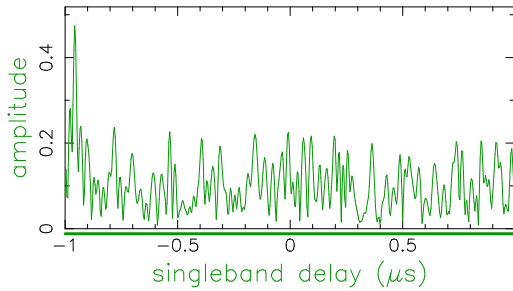
VLBA_BR - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

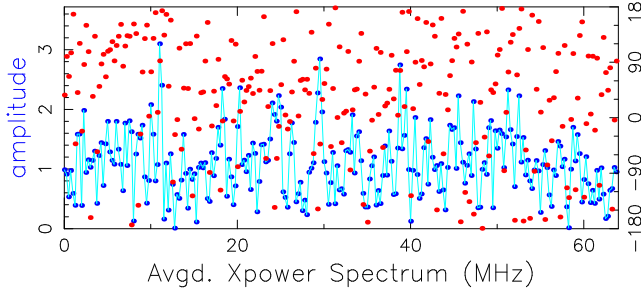


Fringe quality 0

SNR 5.7
 Int time 19.456
 Amp 0.518
 Phase 162.2
 PFD 1.5e-01
 Delays (us)
 SBD -0.956701
 MBD 0.005102
 Fringe rate (Hz)
 -0.451659
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

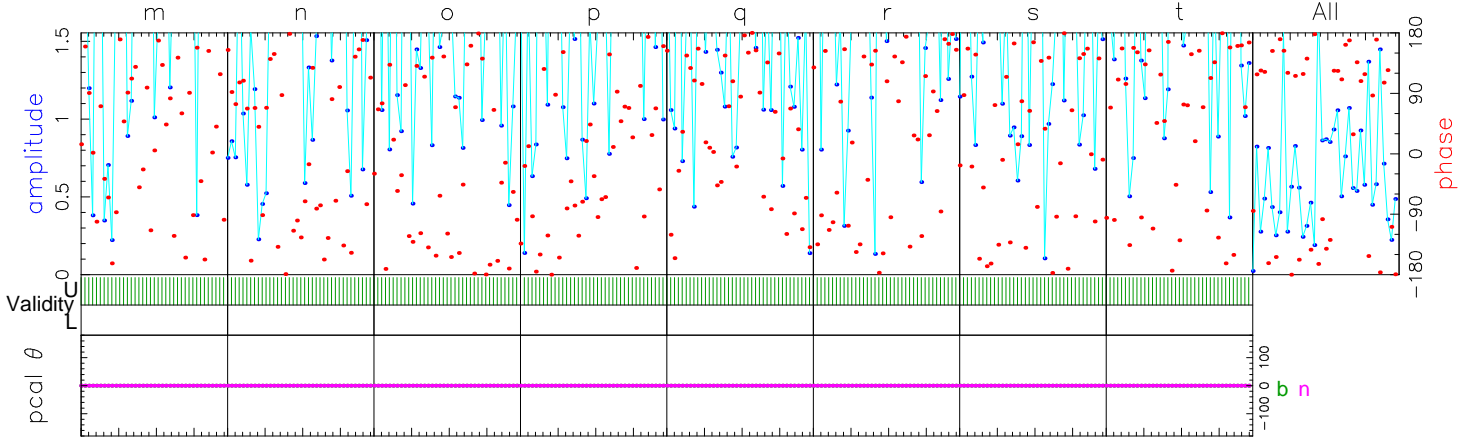


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135408
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	107.4	-173.9	178.9	108.1	111.1	162.8	170.3	163.0	Phase	162.2
	0.3	0.7	0.7	0.1	0.4	0.8	0.5	1.1	Ampl.	0.5
	434.1	193.4	447.8	219.4	422.7	289.9	7.0	11.7	Sbd box	12.1
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	6.52922180591E+03	Apriori delay (usec)	6.53018545348E+03	Resid mbdelay (usec)	5.10243E-03	+/-	1.9E-04
Sband delay (usec)	6.52922875223E+03	Apriori clock (usec)	4.9222622E+00	Resid sbdelay (usec)	-9.56701E-01	+/-	1.5E-03
Phase delay (usec)	6.53018545871E+03	Apriori clockrate (us/s)	2.7918098E-07	Resid phdelay (usec)	5.23009E-06	+/-	6.5E-07
Delay rate (us/s)	8.73170227936E-02	Apriori rate (us/s)	8.73222661087E-02	Resid rate (us/s)	-5.24332E-06	+/-	5.8E-08
Total phase (deg)	148.8	Apriori accel (us/s/s)	-2.87190081781E-05	Resid phase (deg)	162.2	+/-	20.0

ph/seg (deg) 51.8 61.8 Amplitude 0.518 +/- 0.091 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 91.8 107.8 Search (128X32) 0.457 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 39.7 28.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 59.9 49.5 Inc. seg. avg. 0.462 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 0.504 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

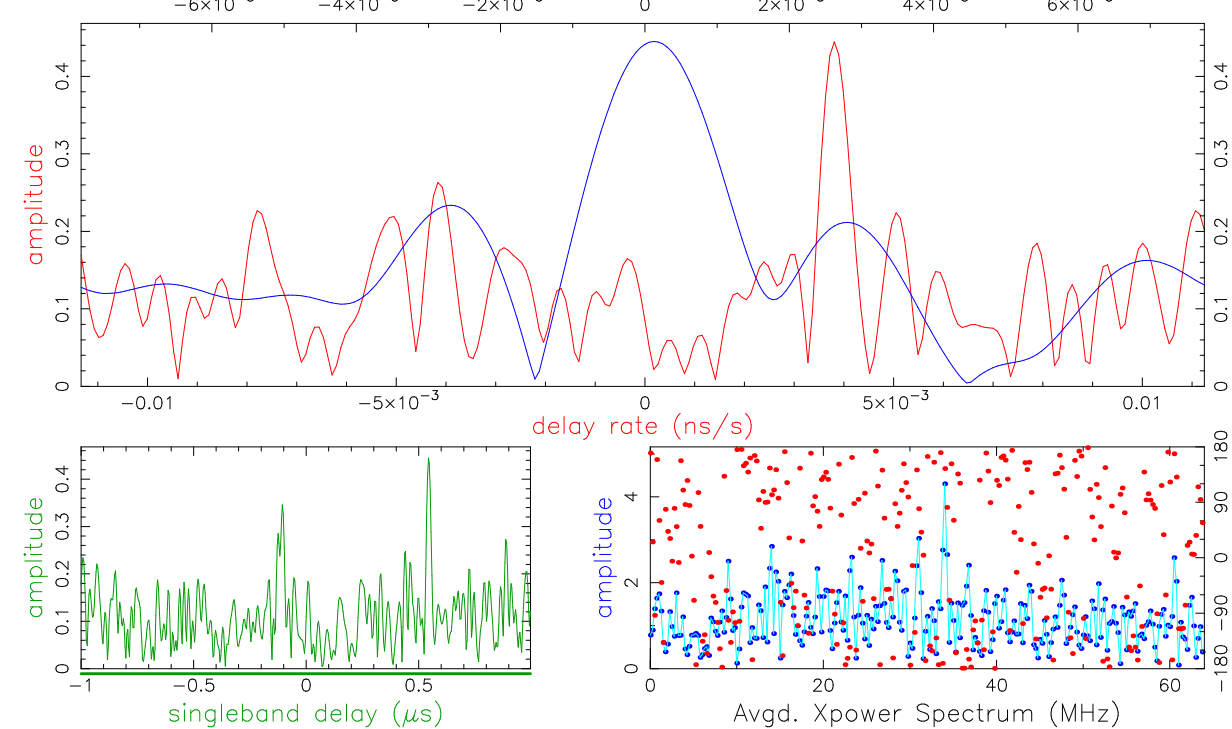
b: az 293.5 el 38.8 pa 55.9 n: az 310.7 el 18.7 pa 49.9 u,v (fr/asec) -707.640 -1539.050 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1071/bn..3MP1T4 Output file: /Exps/c241a/v2/3mm/1234/No1071/bn.W.71.3MP1T4

Mk4/DiFX fourfit 3.25 rev 0

aux01

BLLAC.3MP1T4, No1071, bn

VLBA_BR - VLBA_NL, fgroup W, pol RL

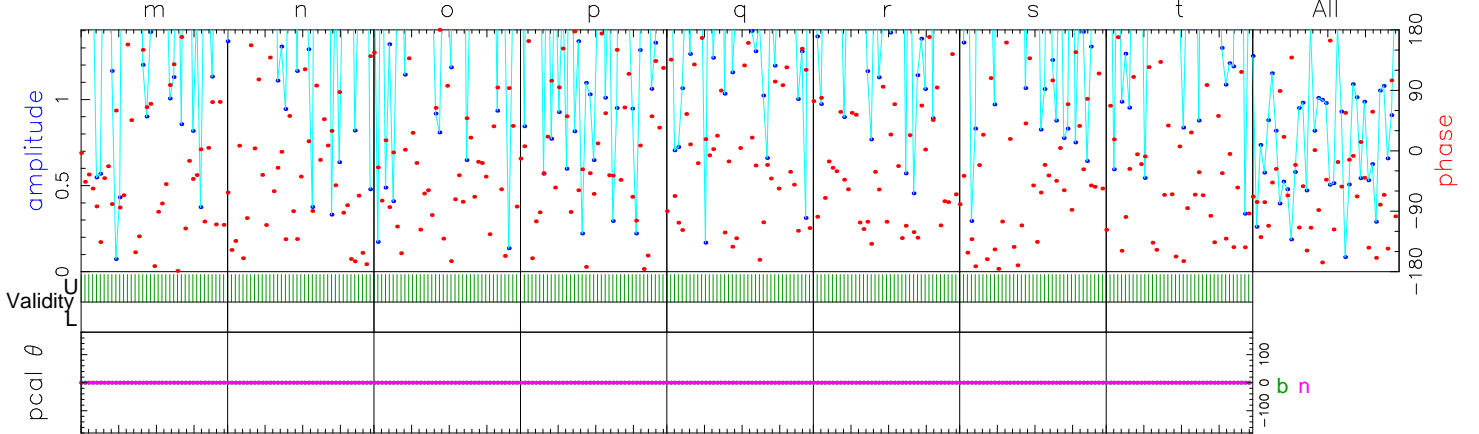


Fringe quality 0

SNR 5.4
 Int time 19.456
 Amp 0.468
 Phase -69.0
 PFD 6.5e-01
 Delays (us)
 SBD 0.544014
 MBD 0.000167
 Fringe rate (Hz)
 0.331126
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135411
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-72.2	-83.1	-58.8	-94.9	-30.0	-36.1	-87.6	-85.6	Phase	-69.0		
	0.7	0.4	1.0	0.1	0.2	0.5	0.6	0.5	Ampl.	0.4		
	223.6	3.8	395.7	162.9	483.4	4.6	260.0	89.3	Sbd box	396.3		
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	APs used			
b	0	0	0	0	0	0	0	0	PC freqs			
n	0	0	0	0	0	0	0	0	PC freqs			
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
b:n	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			
n	1000	1000	1000	1000	1000	1000	1000	1000				
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids			
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
									Tracks			
Group delay (usec) (SBD)	6.53073249585E+03		Apriori delay (usec)		6.53018545348E+03		Resid mbdelay (usec)		1.67374E-04	+/- 2.0E-04		
Sband delay (usec)	6.53072946773E+03		Apriori clock (usec)		4.9222622E+00		Resid sbdelay (usec)		5.44014E-01	+/- 1.6E-03		
Phase delay (usec)	6.53018545125E+03		Apriori clockrate (us/s)		2.7918098E-07		Resid phdelay (usec)		-2.22635E-06	+/- 6.9E-07		
Delay rate (us/s)	8.73261101528E-02		Apriori rate (us/s)		8.73222661087E-02		Resid rate (us/s)		3.84404E-06	+/- 6.1E-08		
Total phase (deg)	277.6		Apriori accel (us/s/s)		-2.87190081781E-05		Resid phase (deg)		-69.0	+/- 21.3		
	RMS	Theor.	Amplitude	0.468 +/- 0.087		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	74.5	65.6	Search (128X32)	0.435		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	110.0	114.5	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	26.5	30.1	Inc. seg. avg.	0.498		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	57.7	52.5	Inc. frq. avg.	0.432		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
b: az 293.5 el 38.8 pa 55.9		n: az 310.7 el 18.7 pa 49.9		u,v (fr/asec) -707.640 -1539.050				simultaneous interpolator				
Control file: cf_1234_gmva		Input file: /Exps/c241a/v2/3mm/1234/No1071/bn..3MP1T4		Output file: /Exps/c241a/v2/3mm/1234/No1071/bn.W.97.3MP1T4								

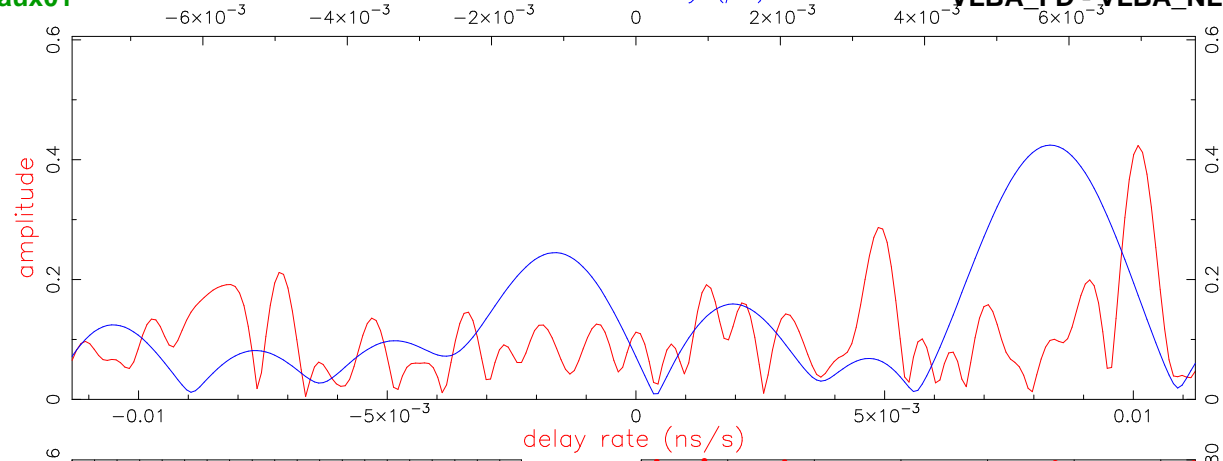
Mk4/DiFX fourfit 3.25 rev 0

aux01

BLLAC.3MP1T4, No1071, fn

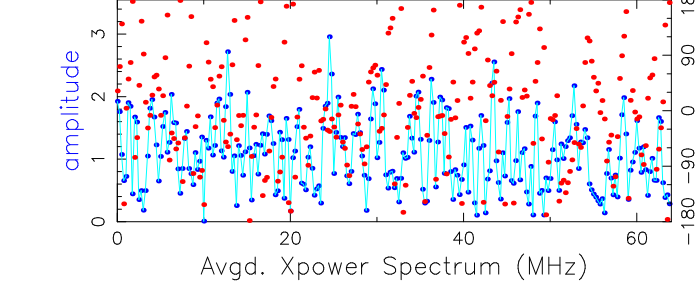
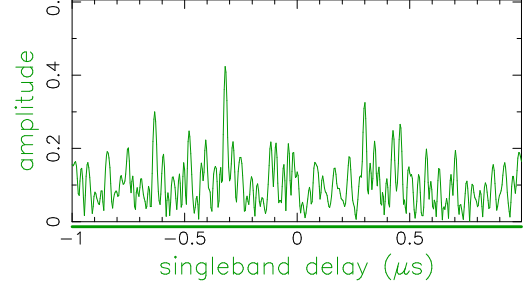
VLBA_FD - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)



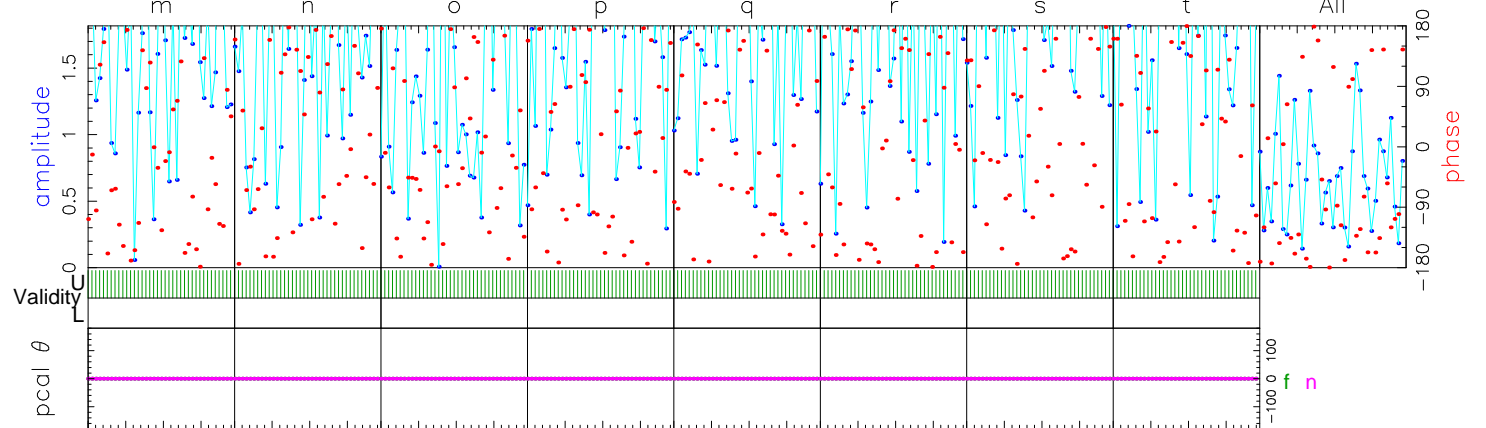
Fringe quality 0

SNR 5.2
 Int time 19.456
 Amp 0.606
 Phase -146.4
 PFD 9.7e-01
 Delays (us)
 SBD -0.319151
 MBD 0.005793
 Fringe rate (Hz)
 0.867671
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
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 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-140.6	-174.3	-110.4	-147.6	-127.9	-167.4	-123.5	-149.5	Phase	-146.4
	0.8	0.5	0.6	0.7	0.5	0.8	0.1	1.0	Ampl.	0.6
	239.9	364.7	53.1	413.0	113.4	492.1	383.4	345.5	Sbd box	175.3
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	2.17139583510E+02	Apriori delay (usec)	2.17461915886E+02	Resid mbdelay (usec)	5.79262E-03	+/-	2.1E-04
Sband delay (usec)	2.17142765386E+02	Apriori clock (usec)	3.3358192E-01	Resid sbdelay (usec)	-3.19151E-01	+/-	1.7E-03
Phase delay (usec)	2.17461911166E+02	Apriori clockrate (us/s)	-2.4704002E-07	Resid phdelay (usec)	-4.71966E-06	+/-	7.2E-07
Delay rate (us/s)	-1.56172504428E-01	Apriori rate (us/s)	-1.56182577226E-01	Resid rate (us/s)	1.00728E-05	+/-	6.4E-08
Total phase (deg)	10.0	Apriori accel (us/s/s)	-1.30514396636E-05	Resid phase (deg)	-146.4	+/-	22.2

ph/seg (deg) 69.3 68.5 Search (128X32) 0.420 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 106.4 119.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 23.9 31.4 Inc. seg. avg. 0.572 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 41.3 54.9 Inc. frq. avg. 0.551 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 f: az 308.5 el 19.3 pa 65.7 n: az 310.7 el 18.7 pa 49.9 u,v (fr/asec) 1194.958 -1968.642 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/No1071/fn..3MP1T4 Output file: /Exps/c241a/v2/3mm/1234/No1071/fn.W.51.3MP1T4 simultaneous interpolator

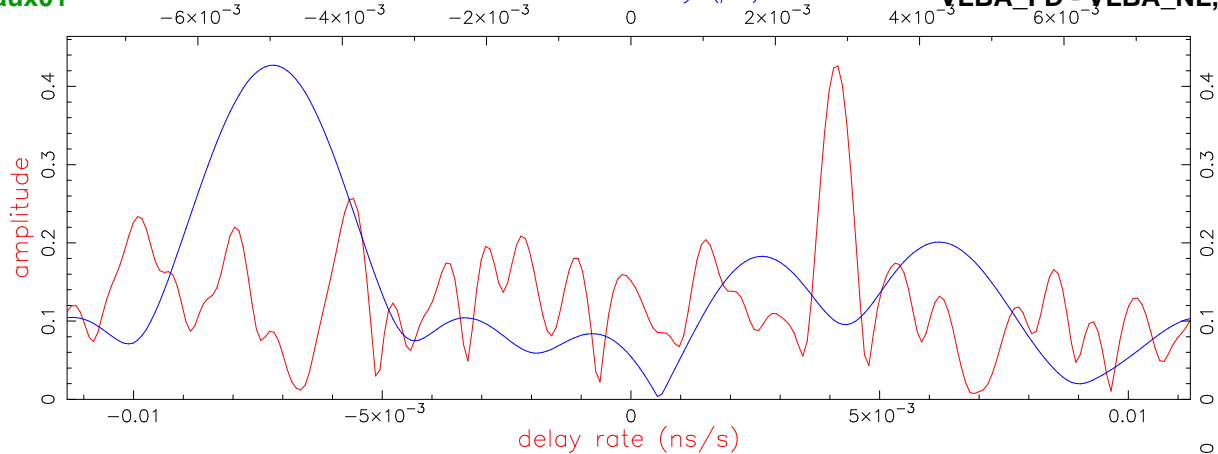
Mk4/DiFX fourfit 3.25 rev 0

aux01

BLLAC.3MP1T4, No1071, fn

VLBA_FD - VLBA_NL, fgroup W, pol RR

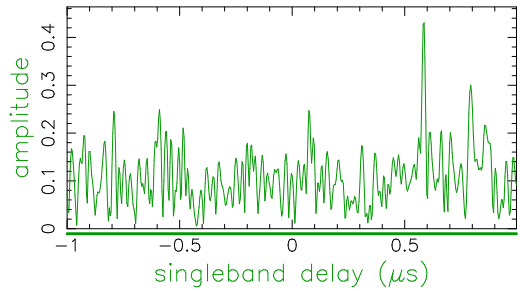
multiband delay (μ s)



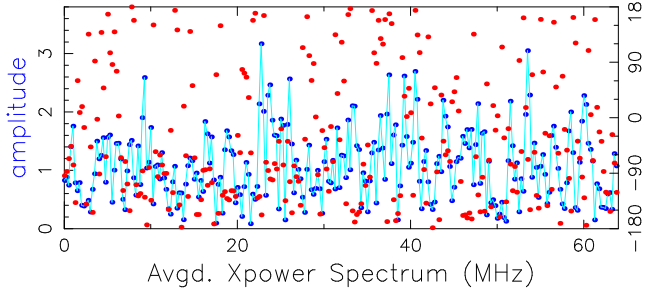
Fringe quality 0

SNR 5.3
 Int time 19.456
 Amp 0.464
 Phase -175.4
 PFD 8.3e-01
 Delays (us)
 SBD 0.584193
 MBD -0.004885
 Fringe rate (Hz)
 0.358023
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

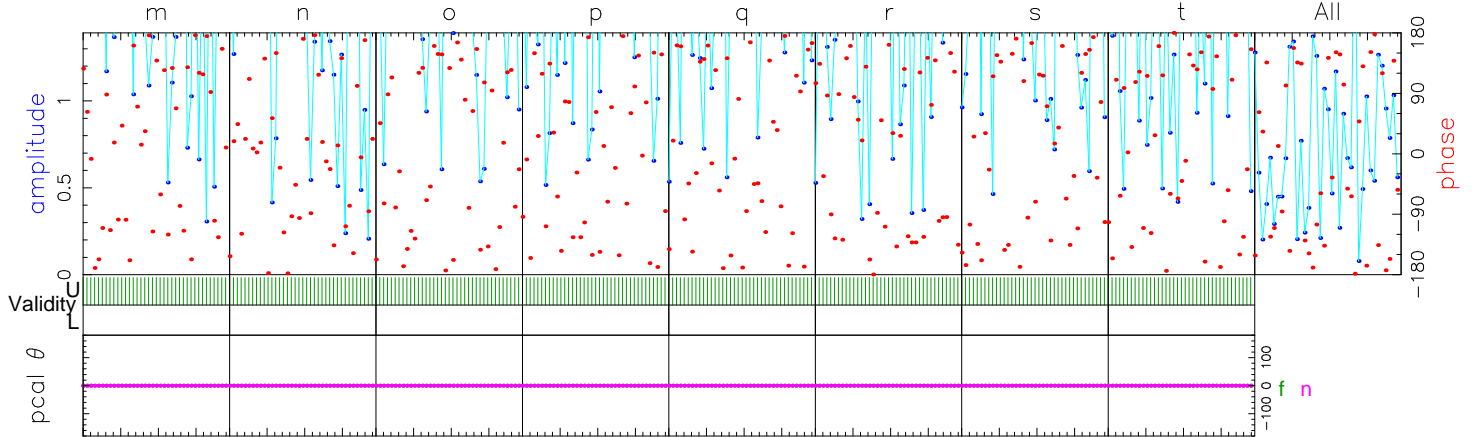
Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135407
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"



delay rate (ns/s)



Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-174.3	-75.9	179.0	178.0	-163.1	179.6	171.7	-175.7	Phase	-175.4	
	0.4	0.1	0.8	0.1	0.5	0.6	0.5	0.7	Ampl.	0.4	
	458.8	462.1	312.4	175.9	238.8	217.3	413.7	312.7	Sbd box	406.6	
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	APs used		
f	0	0	0	0	0	0	0	0	PC freqs		
n	0	0	0	0	0	0	0	0	PC freqs		
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
f:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000			
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	2.18050781371E+02		Apriori delay (usec)		2.17461915886E+02		Resid mbdelay (usec)		-4.88452E-03	+/- 2.1E-04	
Sband delay (usec)	2.18046109136E+02		Apriori clock (usec)		3.3358192E-01		Resid sbdelay (usec)		5.84193E-01	+/- 1.6E-03	
Phase delay (usec)	2.17461910231E+02		Apriori clockrate (us/s)		-2.4704002E-07		Resid phdelay (usec)		-5.65477E-06	+/- 7.0E-07	
Delay rate (us/s)	-1.56178420929E-01		Apriori rate (us/s)		-1.56182577226E-01		Resid rate (us/s)		4.15630E-06	+/- 6.2E-08	
Total phase (deg)			Apriori accel (us/s/s)		-1.30514396636E-05		Resid phase (deg)		-175.4	+/- 21.7	
	RMS	Theor.	Amplitude	0.464 +/- 0.088		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	77.2	66.7	Search (128X32)	0.422		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	124.1	116.5	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	41.4	30.6	Inc. seg. avg.	0.480		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	48.5	53.5	Inc. frq. avg.	0.415		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
f: az 308.5 el 19.3 pa 65.7	n: az 310.7 el 18.7 pa 49.9		u,v (fr/asec) 1194.958 -1968.642						simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No1071/fn..3MP1T4		Output file: /Exps/c241a/v2/3mm/1234/No1071/fn.W.60.3MP1T4								

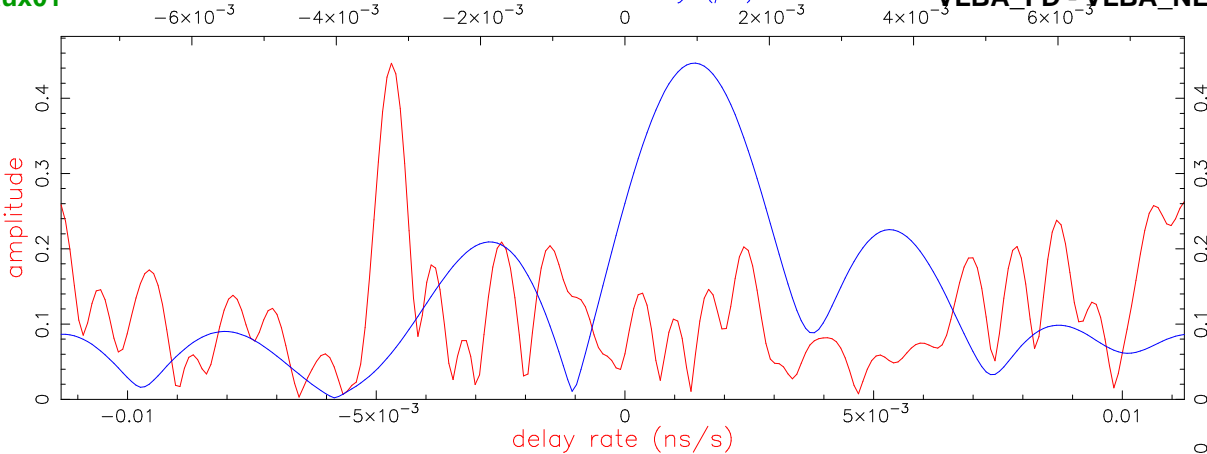
Mk4/DiFX fourfit 3.25 rev 0

aux01

BLLAC.3MP1T4, No1071, fn

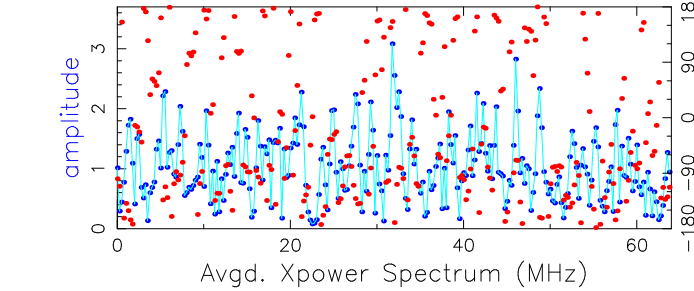
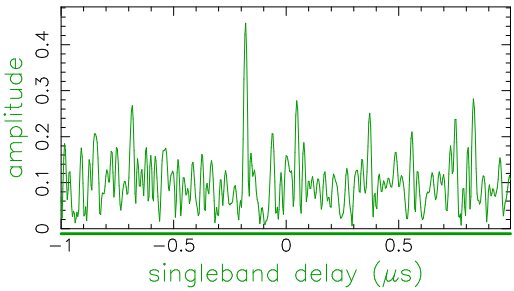
VLBA_FD - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)



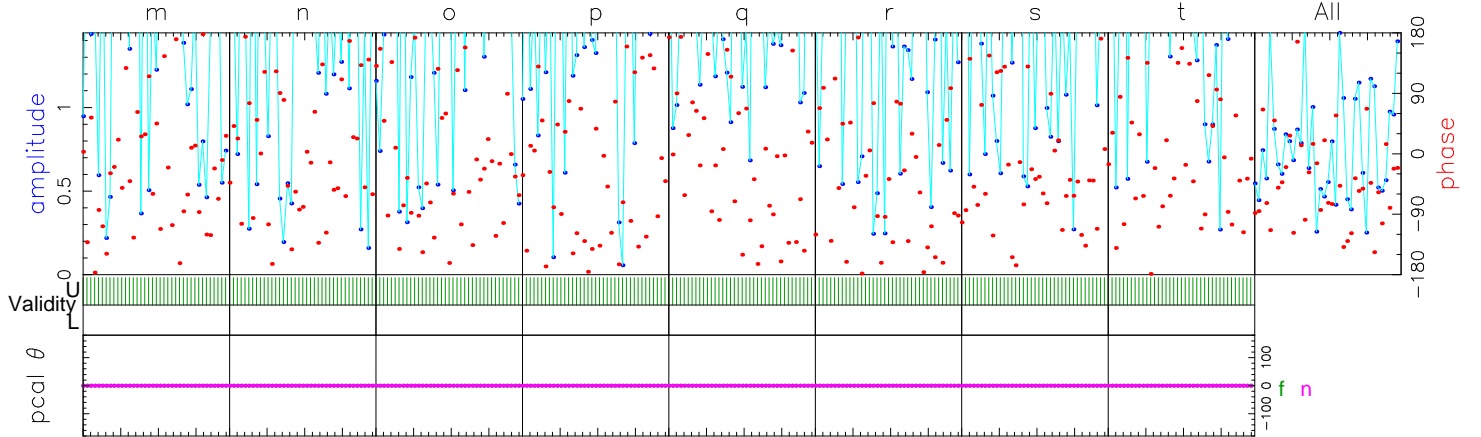
Fringe quality 0

SNR 5.4
 Int time 19.456
 Amp 0.482
 Phase -54.7
 PFD 6.1e-01
 Delays (us)
 SBD -0.180490
 MBD 0.000930
 Fringe rate (Hz)
 -0.408102
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135408
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-56.4	-42.5	-52.4	-113.2	-63.6	-53.7	-59.0	-41.2	Phase	-54.7
	0.4	0.5	0.6	0.2	0.2	0.5	0.8	0.8	Ampl.	0.4
	450.4	170.2	115.4	331.9	420.9	380.3	251.7	254.1	Sbd box	210.8
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) 2.17275345521E+02 Apriori delay (usec) 2.17461915886E+02 Resid mbdelay (usec) 9.29635E-04 +/- 2.0E-04
 Sband delay (usec) 2.17281425386E+02 Apriori clock (usec) 3.3358192E-01 Resid sbdelay (usec) -1.80490E-01 +/- 1.6E-03
 Phase delay (usec) 2.17461914121E+02 Apriori clockrate (us/s) -2.4704002E-07 Resid phdelay (usec) -1.76552E-06 +/- 6.8E-07
 Delay rate (us/s) -1.56187314881E-01 Apriori rate (us/s) -1.56182577226E-01 Resid rate (us/s) -4.73765E-06 +/- 6.1E-08
 Total phase (deg) 101.6 Apriori accel (us/s/s) -1.30514396636E-05 Resid phase (deg) -54.7 +/- 21.2

RMS Theor. Amplitude 0.482 +/- 0.089 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 62.0 65.3 Search (128X32) 0.438 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 105.3 114.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 25.3 30.0 Inc. seg. avg. 0.510 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 38.9 52.3 Inc. frq. avg. 0.440 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

f: az 308.5 el 19.3 pa 65.7 n: az 310.7 el 18.7 pa 49.9 u,v (fr/asec) 1194.958 -1968.642 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1071/fn..3MP1T4 Output file: /Exps/c241a/v2/3mm/1234/No1071/fn.W.67.3MP1T4

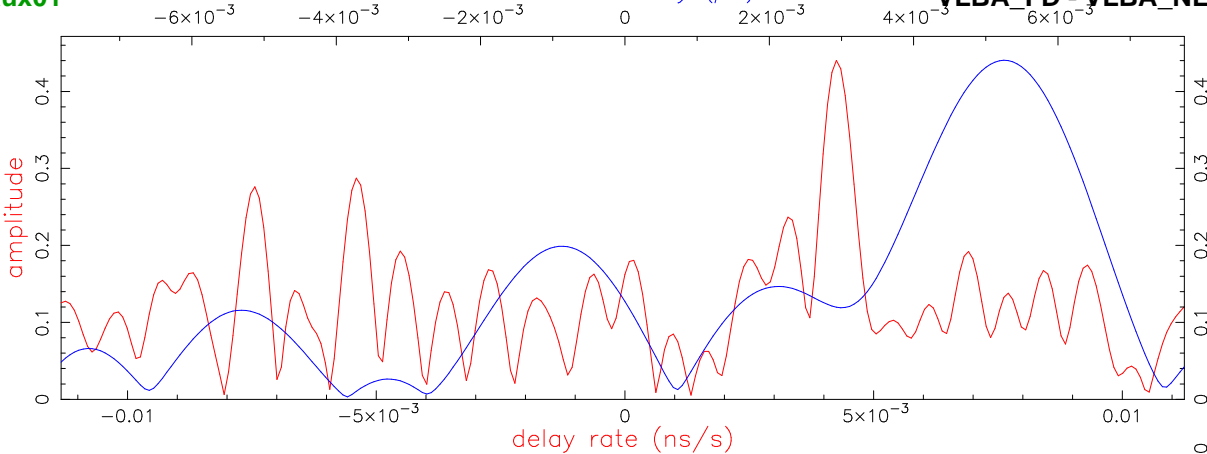
Mk4/DiFX fourfit 3.25 rev 0

aux01

BLLAC.3MP1T4, No1071, fn

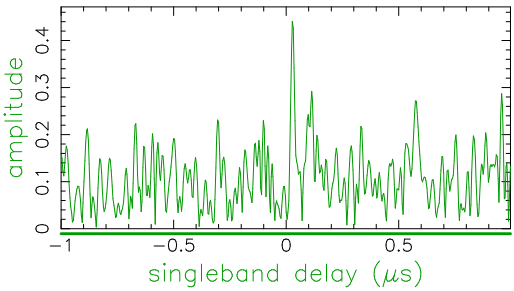
VLBA_FD - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

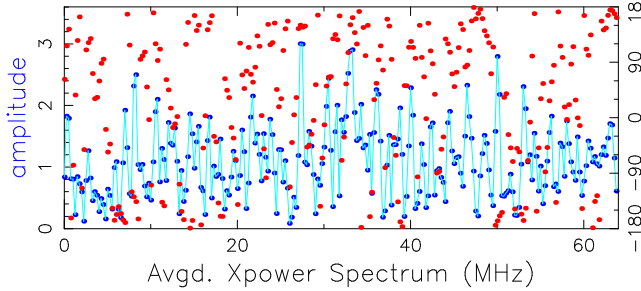


Fringe quality 0

SNR 5.4
 Int time 19.456
 Amp 0.472
 Phase 40.3
 PFD 7.0e-01
 Delays (us)
 SBD 0.028564
 MBD 0.005268
 Fringe rate (Hz)
 0.368504
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

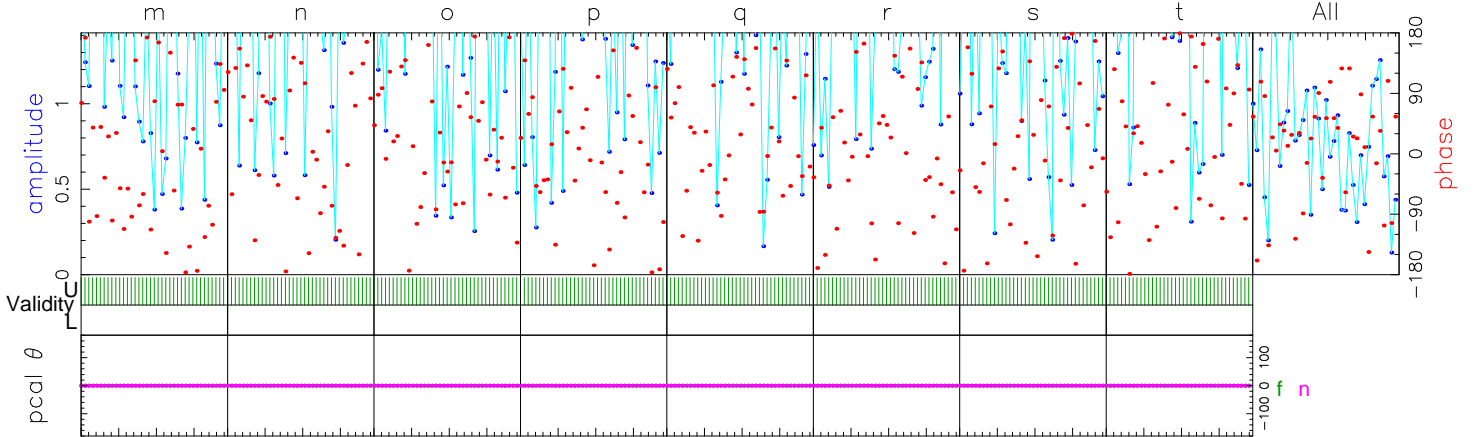


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135410
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-14.8	83.2	44.3	16.2	46.1	7.9	58.5	45.4	Phase	40.3
	0.2	0.5	0.8	0.6	0.7	0.4	0.3	0.6	Ampl.	0.4
	503.7	440.1	264.2	20.2	86.7	340.7	303.1	348.1	Sbd box	264.3
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	2.17482809169E+02	Apriori delay (usec)	2.17461915886E+02	Resid mbdelay (usec)	5.26828E-03	+/-	2.0E-04
Sband delay (usec)	2.17490480136E+02	Apriori clock (usec)	3.3358192E-01	Resid sbdelay (usec)	2.85643E-02	+/-	1.6E-03
Phase delay (usec)	2.17461917185E+02	Apriori clockrate (us/s)	-2.4704002E-07	Resid phdelay (usec)	1.29890E-06	+/-	6.9E-07
Delay rate (us/s)	-1.56178299261E-01	Apriori rate (us/s)	-1.56182577226E-01	Resid rate (us/s)	4.27796E-06	+/-	6.1E-08
Total phase (deg)	196.7	Apriori accel (us/s/s)	-1.30514396636E-05	Resid phase (deg)	40.3	+/-	21.4

ph/seg (deg)	78.8	Theor.	65.9	Amplitude	0.472 +/- 0.088	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	114.8	Search (128X32)	0.437	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000	
ph/frq (deg)	33.9	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	42.3	Inc. seg. avg.	0.510	Data rate(Mb/s): 128 MBpts 32 Amb 0.016 us		nlags: 256	dr window (ns/s)	-0.011	0.011
		Inc. frq. avg.	0.450	Data rate(Mb/s): 2048		t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 308.5 el 19.3 pa 65.7 n: az 310.7 el 18.7 pa 49.9 u,v (fr/asec) 1194.958 -1968.642 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1071/fn..3MP1T4 Output file: /Exps/c241a/v2/3mm/1234/No1071/fn.W.91.3MP1T4

Mk4/DiFX fourfit 3.25 rev 0

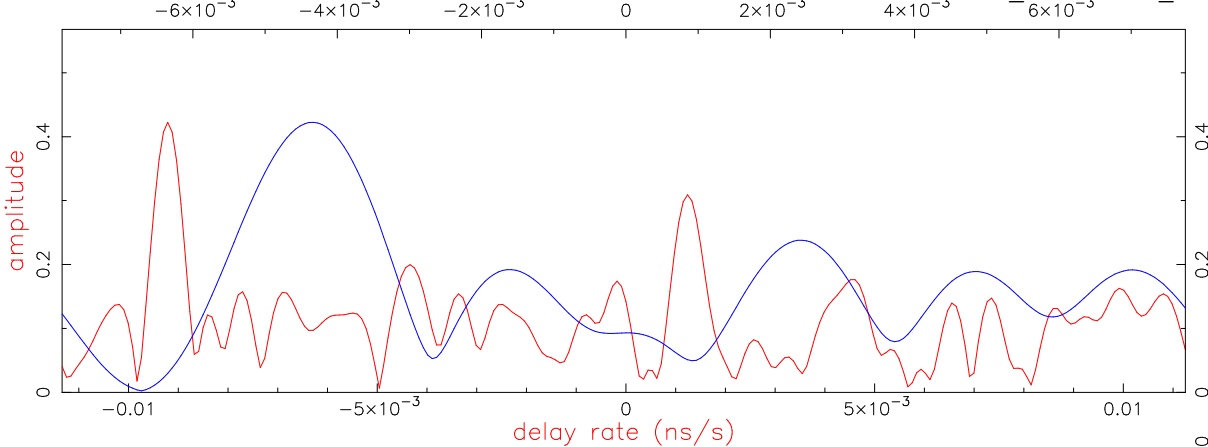
aux01

BLLAC.3MP1T4, No1071, kn

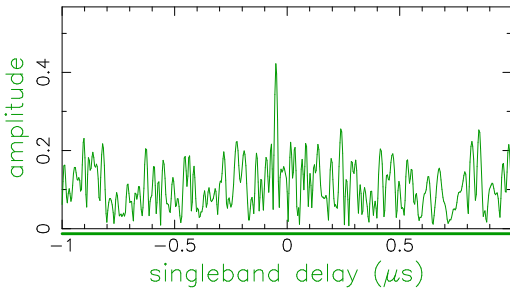
VLBA_KP - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

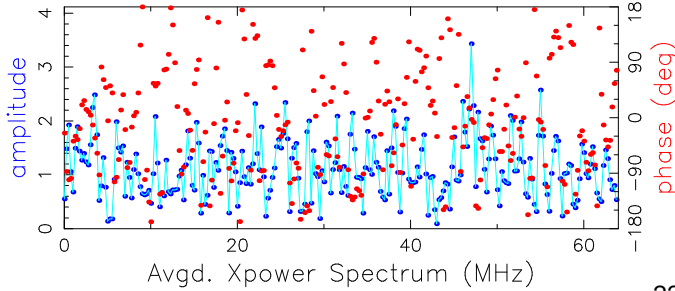
Fringe quality 0



SNR 5.1
 Int time 19.456
 Amp 0.568
 Phase 174.9
 PFD 9.8e-01
 Delays (us)
 SBD -0.049791
 MBD -0.004308
 Fringe rate (Hz)
 -0.793326
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

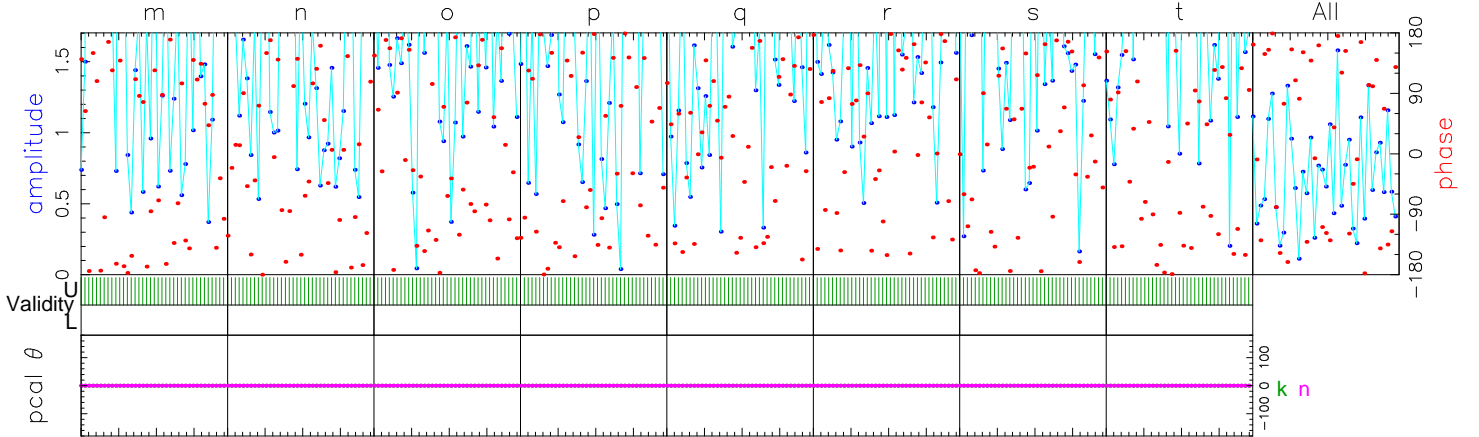


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135411
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	163.9	-163.4	-138.7	-172.1	113.2	167.0	167.6	-179.6	Phase	174.9
	1.2	0.4	0.5	0.9	0.5	0.8	0.1	0.6	Ampl.	0.5
	409.0	323.6	267.4	134.2	404.0	134.8	265.2	13.3	Sbd box	244.3
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	2.28848272913E+03		Apriori delay (usec)		2.28853391226E+03		Resid mbdelay (usec)		-4.30813E-03	+/- 2.1E-04
Sband delay (usec)	2.28848412101E+03		Apriori clock (usec)		4.3073654E-01		Resid sbdelay (usec)		-4.97913E-02	+/- 1.7E-03
Phase delay (usec)	2.28853391790E+03		Apriori clockrate (us/s)		-1.4505389E-07		Resid phdelay (usec)		5.63953E-06	+/- 7.2E-07
Delay rate (us/s)	-1.37570580966E-01		Apriori rate (us/s)		-1.37561371236E-01		Resid rate (us/s)		-9.20973E-06	+/- 6.4E-08
Total phase (deg)	247.6		Apriori accel (us/s/s)		-2.25643147271E-05		Resid phase (deg)		174.9	+/- 22.3

ph/seg (deg) 78.6 Theor. 68.8 Amplitude 0.568 +/- 0.111 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 109.0 120.0 Search (128X32) 0.420 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 33.8 31.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 58.9 55.1 Inc. seg. avg. 0.557 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 k: az 305.7 el 25.4 pa 68.8 n: az 310.7 el 18.7 pa 49.9 u,v (fr/asec) 1040.381 -2520.483 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/No1071/kn..3MP1T4 Output file: /Exps/c241a/v2/3mm/1234/No1071/kn.W.100.3MP1T4 simultaneous interpolator

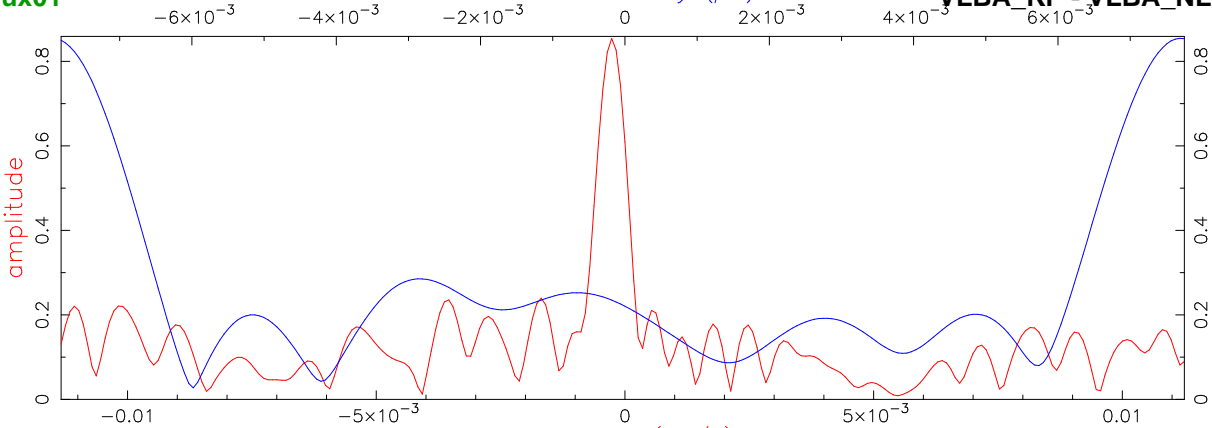
Mk4/DiFX fourfit 3.25 rev 0

aux01

BLLAC.3MP1T4, No1071, kn

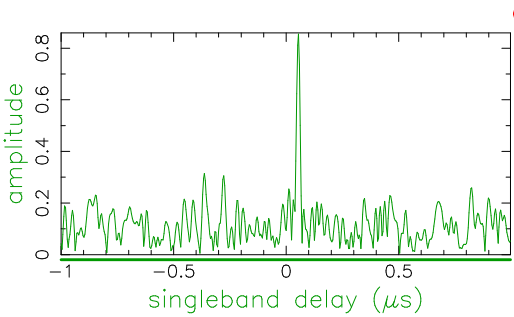
VLBA_KP - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

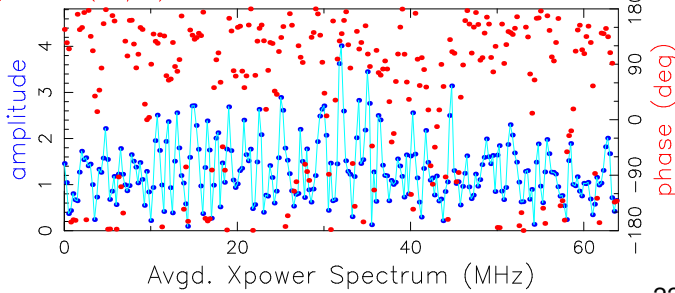


Fringe quality 9

SNR 10.4
Int time 19.456
Amp 0.859
Phase 126.4
PFD 1.0e-17
Delays (us)
SBD 0.053761
MBD -0.007953
Fringe rate (Hz)
-0.020736
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

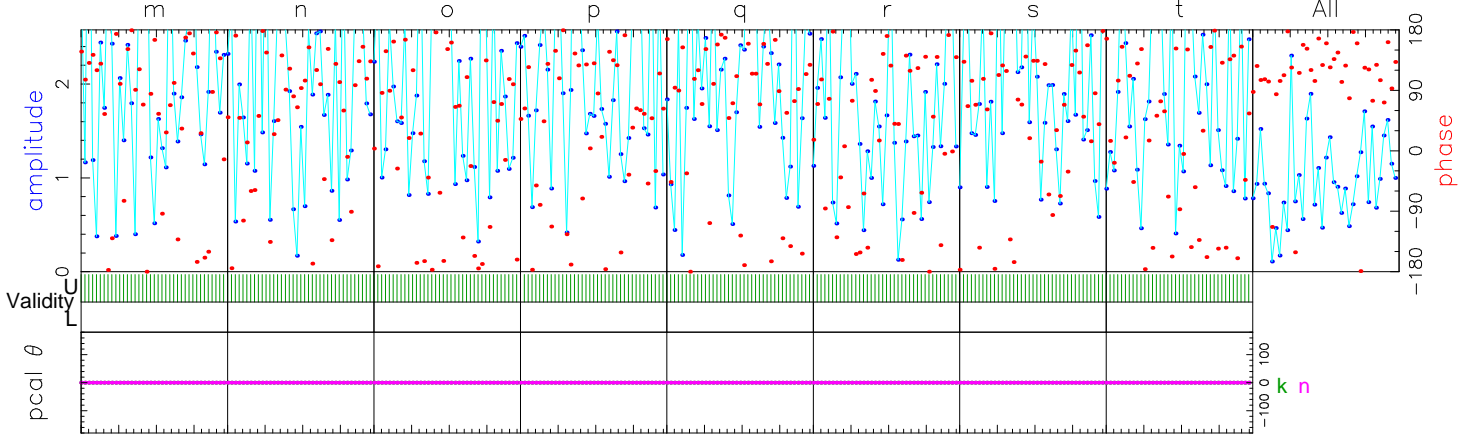


delay rate (ns/s)



Exp. c241a
Exper # 1234
Yr:day 2024:109
Start 211610.00
Stop 211629.45
FRT 211607.00
Corr/FF/build
2025:003:231718
2025:041:135406
2024:113:095956
RA & Dec (J2000)
22h02m43.291370s
+42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0		
k	0	0	0	0	0	0	0	0		
n	0	0	0	0	0	0	0	0		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	2.28858845934E+03	Apriori delay (usec)	2.28853391226E+03	Resid mbdelay (usec)	-7.95292E-03	+/-	1.0E-04
Sband delay (usec)	2.28858767351E+03	Apriori clock (usec)	4.3073654E-01	Resid sbdelay (usec)	5.37613E-02	+/-	8.3E-04
Phase delay (usec)	2.28853391634E+03	Apriori clockrate (us/s)	-1.4505389E-07	Resid phdelay (usec)	4.07674E-06	+/-	3.6E-07
Delay rate (us/s)	-1.37561611964E-01	Apriori rate (us/s)	-1.37561371236E-01	Resid rate (us/s)	-2.40728E-07	+/-	3.2E-08
Total phase (deg)	199.2	Apriori accel (us/s/s)	-2.25643147271E-05	Resid phase (deg)	126.4	+/-	11.1

ph/seg (deg)	37.3	Theor.	34.1	Amplitude	0.859 +/- 0.083	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	57.0	Search (128X32)	0.836	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	19.7	Inc. seg. avg.	0.846	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	33.9	Inc. frq. avg.	0.857	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 305.7 el 25.4 pa 68.8 n: az 310.7 el 18.7 pa 49.9 u,v (fr/asec) 1040.381 -2520.483 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1071/kn..3MP1T4 Output file: /Exps/c241a/v2/3mm/1234/No1071/kn.W.56.3MP1T4

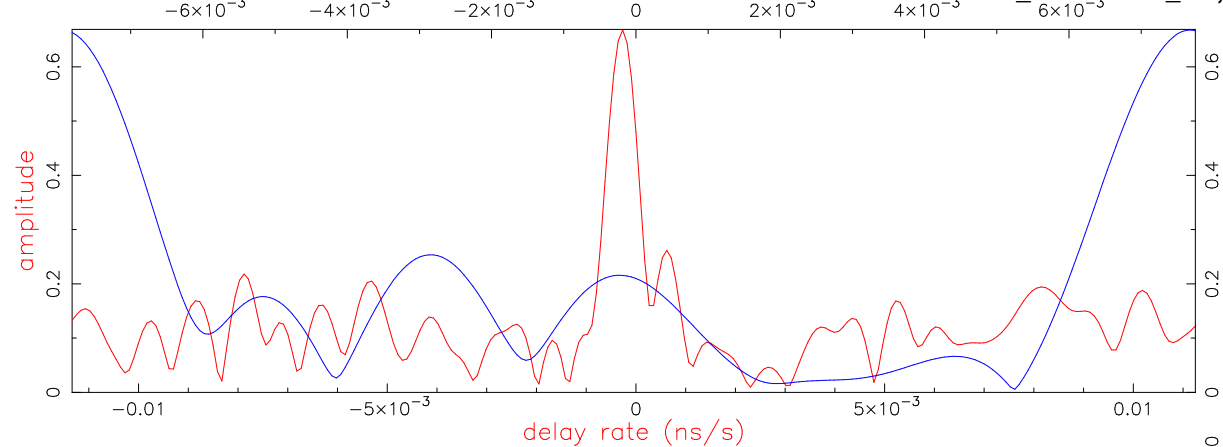
Mk4/DiFX fourfit 3.25 rev 0

aux01

BLLAC.3MP1T4, No1071, kn

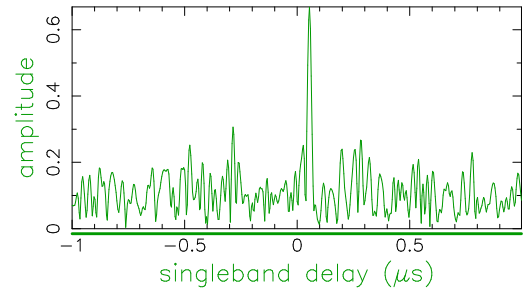
VLBA_KP - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

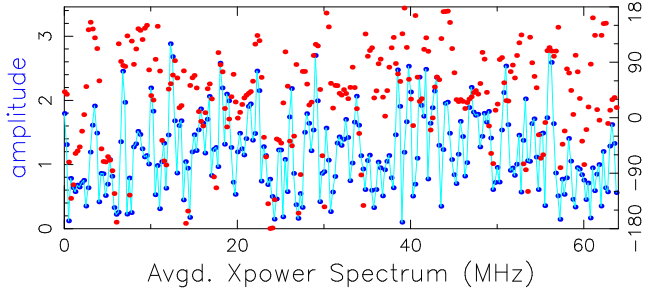


Fringe quality 9

SNR 8.1
 Int time 19.456
 Amp 0.669
 Phase 52.3
 PFD 1.5e-08
 Delays (us)
 SBD 0.054150
 MBD -0.007964
 Fringe rate (Hz)
 -0.025222
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

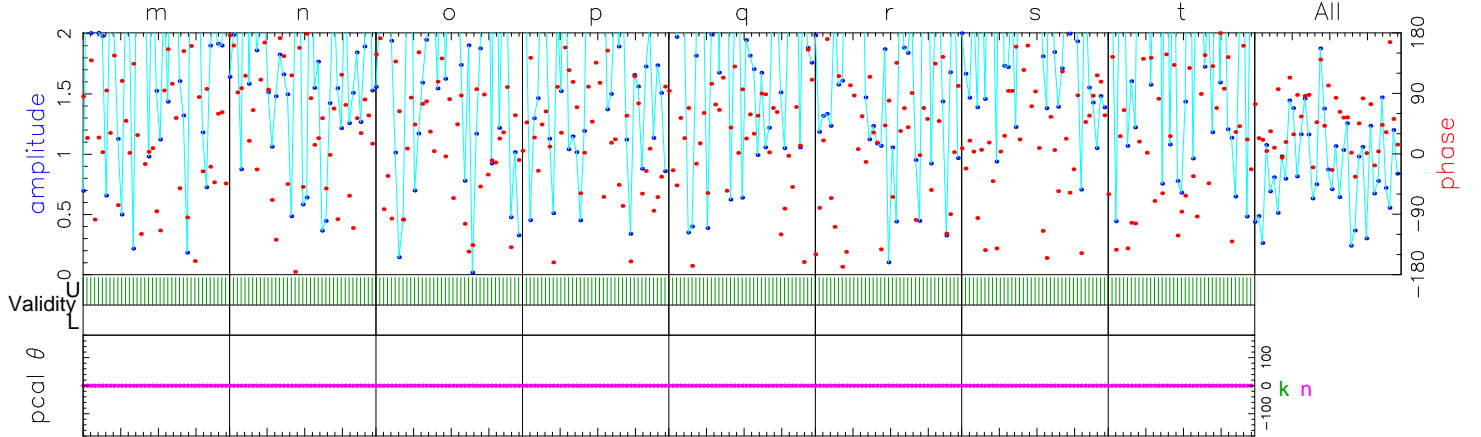


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135407
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	36.1	90.0	39.3	42.9	48.2	56.5	35.1	93.4	Phase	52.3	
	0.6	0.7	0.6	0.7	1.1	0.6	1.0	0.5	Ampl.	0.7	
	482.5	127.6	259.4	21.8	270.9	108.8	270.0	209.5	Sbd box	270.9	
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	APs used		
k	0	0	0	0	0	0	0	0	PC freqs		
n	0	0	0	0	0	0	0	0	PC freqs		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
k:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000			
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	2.28858844785E+03		Apriori delay (usec)		2.28853391226E+03		Resid mbdelay (usec)		-7.96441E-03	+/- 1.3E-04	
Sband delay (usec)	2.28858806276E+03		Apriori clock (usec)		4.3073654E-01		Resid sbdelay (usec)		5.41505E-02	+/- 1.1E-03	
Phase delay (usec)	2.28853391395E+03		Apriori clockrate (us/s)		-1.4505389E-07		Resid phdelay (usec)		1.68753E-06	+/- 4.6E-07	
Delay rate (us/s)	-1.37561664034E-01		Apriori rate (us/s)		-1.37561371236E-01		Resid rate (us/s)		-2.92799E-07	+/- 4.1E-08	
Total phase (deg)			Apriori accel (us/s/s)		-2.25643147271E-05		Resid phase (deg)		52.3	+/- 14.2	
	RMS	Theor.	Amplitude	0.669 +/- 0.083		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	45.9	43.8	Search (128X32)	0.654		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	66.2	76.4	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	25.7	20.1	Inc. seg. avg.	0.696		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	30.6	35.1	Inc. frq. avg.	0.672		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
k: az 305.7 el 25.4 pa 68.8	n: az 310.7 el 18.7 pa 49.9		u, v (fr/asec) 1040.381 -2520.483						simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No1071/kn..3MP1T4		Output file: /Exps/c241a/v2/3mm/1234/No1071/kn.W.63.3MP1T4								

Mk4/DiFX fourfit 3.25 rev 0

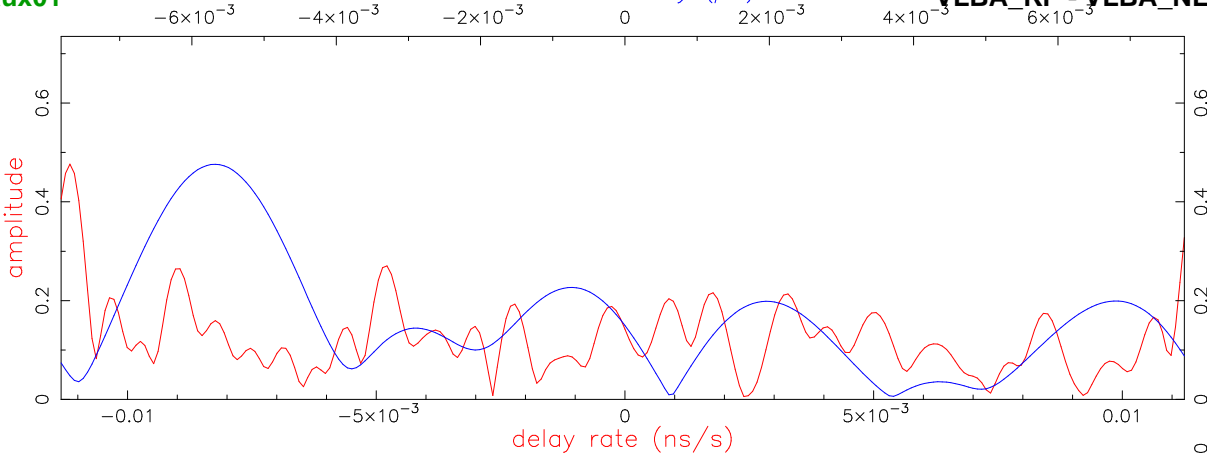
aux01

BLLAC.3MP1T4, No1071, kn

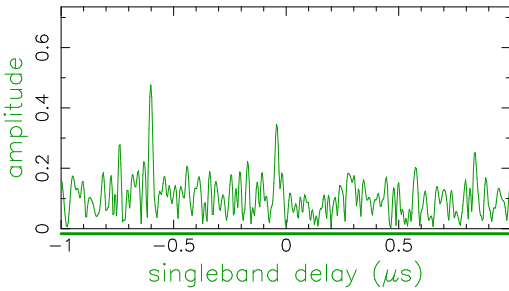
VLBA_KP - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

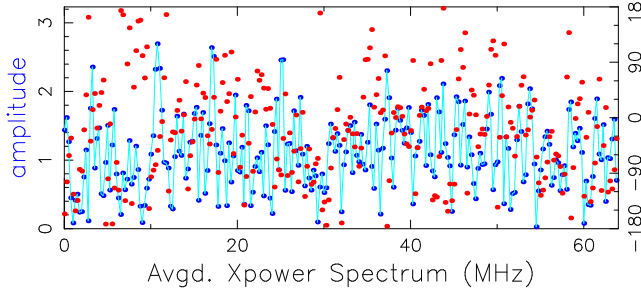
Fringe quality 0



SNR 5.7
 Int time 19.456
 Amp 0.735
 Phase -49.2
 PFD 1.3e-01
 Delays (us)
 SBD -0.601705
 MBD -0.005685
 Fringe rate (Hz)
 -0.959199
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

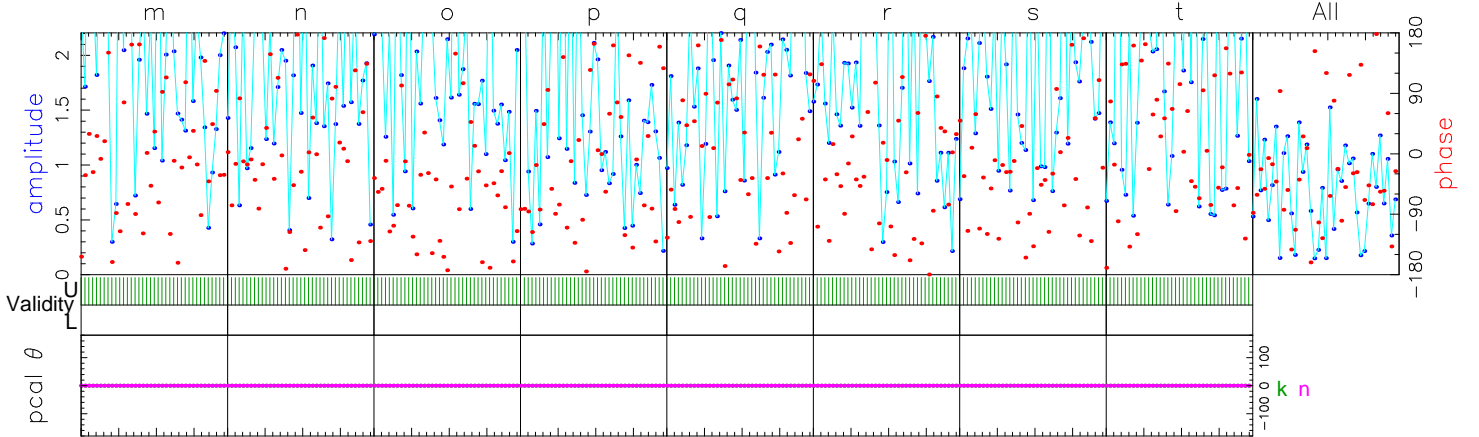


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135410
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-35.1	-34.4	-76.4	-49.1	-30.7	-66.0	-57.6	15.1	Phase	-49.2
	1.0	0.6	1.2	0.5	0.7	0.6	1.5	0.4	Ampl.	0.7
	337.1	66.9	258.1	176.2	16.3	369.0	103.0	155.9	Sbd box	103.0
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	2.28793447769E+03	Apriori delay (usec)		2.28853391226E+03	Resid mbdelay (usec)		-5.68457E-03	+/-	1.9E-04	
Sband delay (usec)	2.28793220676E+03	Apriori clock (usec)		4.3073654E-01	Resid sbdelay (usec)		-6.01705E-01	+/-	1.5E-03	
Phase delay (usec)	2.28853391067E+03	Apriori clockrate (us/s)		-1.4505389E-07	Resid phdelay (usec)		-1.58496E-06	+/-	6.4E-07	
Delay rate (us/s)	-1.37572506587E-01	Apriori rate (us/s)		-1.37561371236E-01	Resid rate (us/s)		-1.11354E-05	+/-	5.7E-08	
Total phase (deg)	23.6		Apriori accel (us/s/s)		-2.25643147271E-05	Resid phase (deg)		-49.2	+/-	19.9

ph/seg (deg)	80.0	Theor. 61.5	Amplitude Search (128X32)	0.467	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	109.4	107.3	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	31.6	28.2	Inc. seg. avg.	0.774	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	49.8	49.2	Inc. frq. avg.	0.707	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 305.7 el 25.4 pa 68.8 n: az 310.7 el 18.7 pa 49.9 u,v (fr/asec) 1040.381 -2520.483 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1071/kn..3MP1T4 Output file: /Exps/c241a/v2/3mm/1234/No1071/kn.W.87.3MP1T4

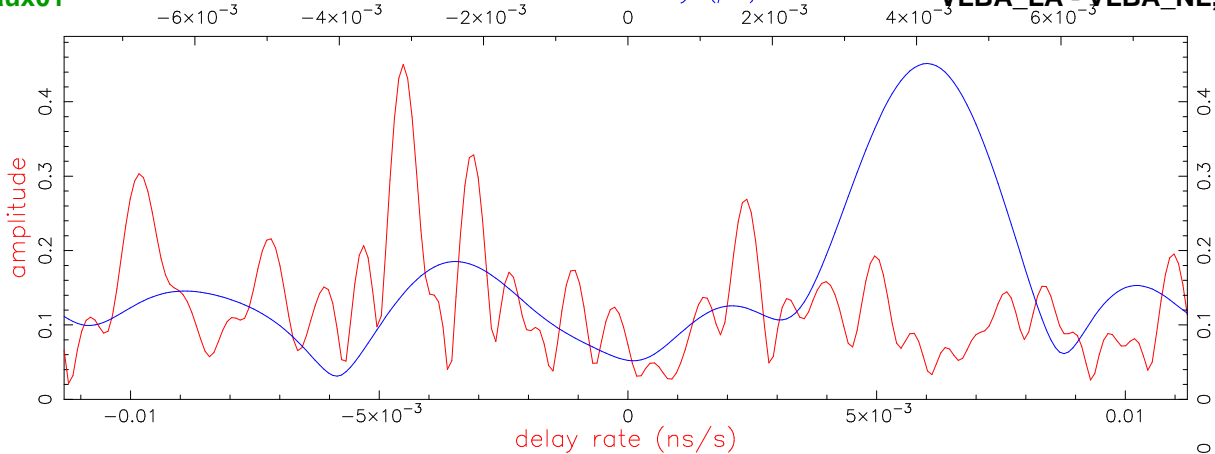
Mk4/DiFX fourfit 3.25 rev 0

aux01

BLLAC.3MP1T4, No1071, In

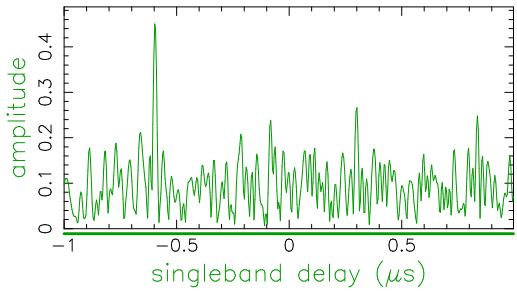
VLBA_LA - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

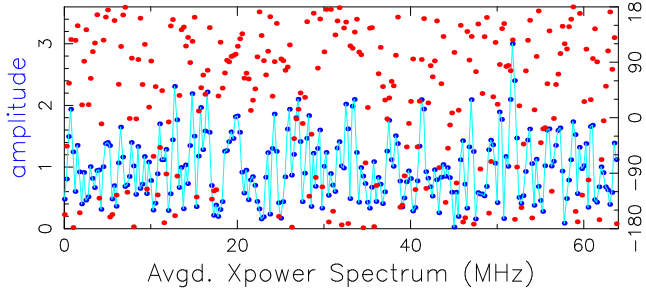


Fringe quality 0

SNR 5.5
 Int time 19.456
 Amp 0.488
 Phase 41.9
 PFD 4.1e-01
 Delays (us)
 SBD -0.596194
 MBD 0.004219
 Fringe rate (Hz)
 -0.387699
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

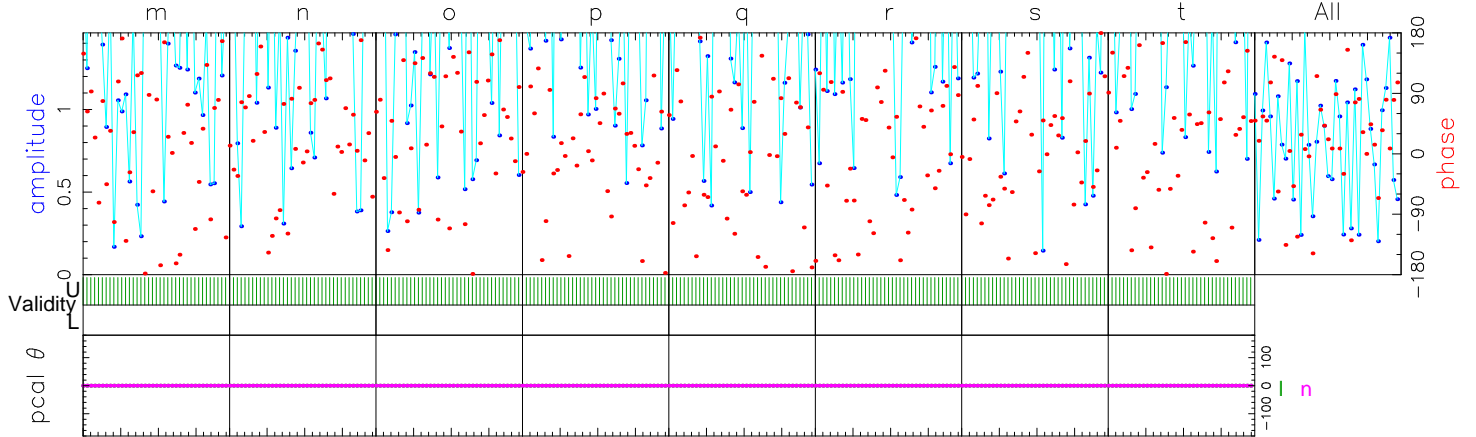


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135414
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0		
l	0	0	0	0	0	0	0	0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	1.81607338175E+03	Apriori delay (usec)	1.81666291311E+03	Resid mbdelay (usec)	4.21864E-03	+/-	2.0E-04
Sband delay (usec)	1.81606671911E+03	Apriori clock (usec)	-8.0363388E+00	Resid sbdelay (usec)	-5.96194E-01	+/-	1.6E-03
Phase delay (usec)	1.81666291446E+03	Apriori clockrate (us/s)	-5.3126102E-07	Resid phdelay (usec)	1.35185E-06	+/-	6.7E-07
Delay rate (us/s)	-1.00493908840E-01	Apriori rate (us/s)	-1.00489408037E-01	Resid rate (us/s)	-4.50080E-06	+/-	6.0E-08
Total phase (deg)	162.6	Apriori accel (us/s/s)	-1.58934362145E-05	Resid phase (deg)	41.9	+/-	20.8

ph/seg (deg) 75.9 Theor. 64.1 Amplitude 0.488 +/- 0.089 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 115.9 111.9 Search (128X32) 0.436 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 26.7 29.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 43.3 51.3 Inc. seg. avg. 0.542 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
 l: az 306.1 el 24.0 pa 62.5 n: az 310.7 el 18.7 pa 49.9 u,v (fr/asec) 760.849 -1678.100 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1071/ln..3MP1T4 Output file: /Exps/c241a/v2/3mm/1234/No1071/ln.W.117.3MP1T4

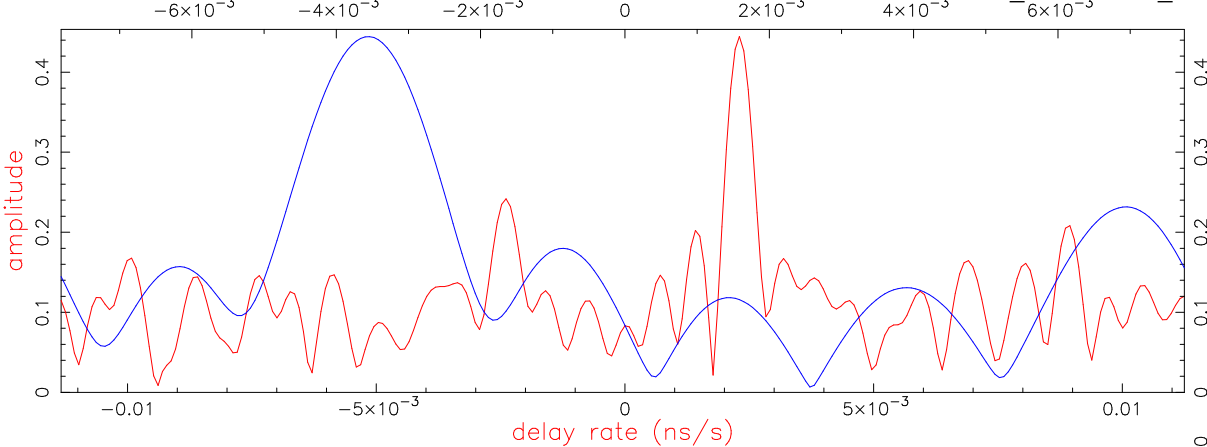
Mk4/DiFX fourfit 3.25 rev 0

aux01

BLLAC.3MP1T4, No1071, In

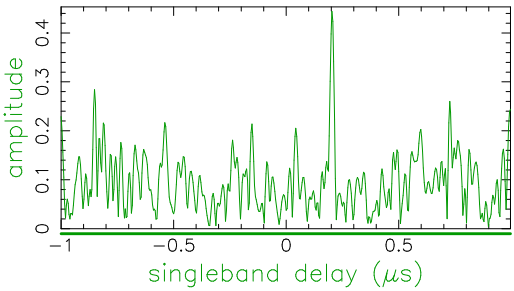
VLBA_LA - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

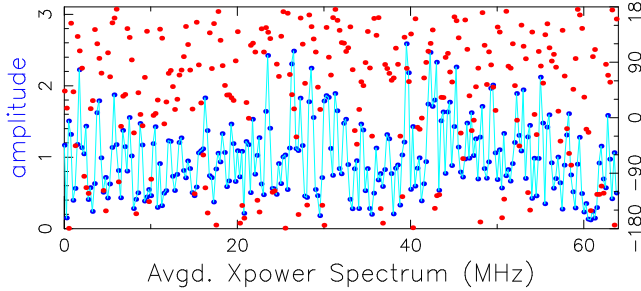


Fringe quality 0

SNR 5.4
 Int time 19.456
 Amp 0.453
 Phase -22.3
 PFD 6.7e-01
 Delays (us)
 SBD 0.203893
 MBD -0.003543
 Fringe rate (Hz)
 0.198350
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

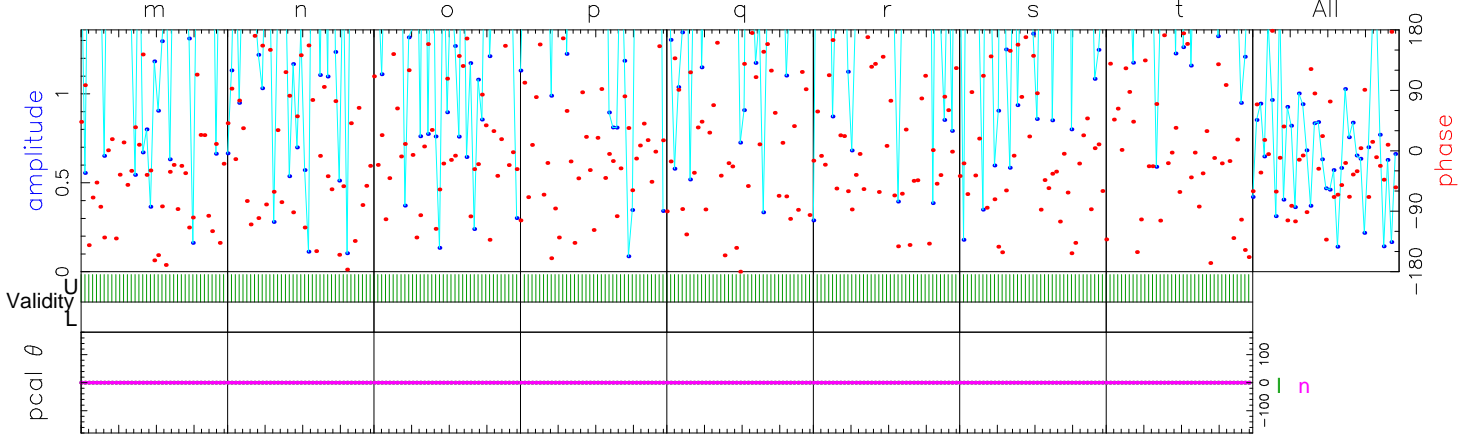


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135415
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-43.1	-23.1	8.4	-13.3	-16.9	16.1	-44.5	-41.6	Phase	-22.3
	0.8	0.3	0.6	0.5	0.2	0.5	0.8	0.3	Ampl.	0.4
	307.1	454.9	179.0	351.7	506.5	479.1	86.9	436.2	Sbd box	309.2
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	APs used	
l	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	1.81686249464E+03		Apriori delay (usec)		1.81666291311E+03		Resid mbdelay (usec)		-3.54347E-03	+/- 2.0E-04
Sband delay (usec)	1.81686680611E+03		Apriori clock (usec)		-8.0363388E+00		Resid sbdelay (usec)		2.03893E-01	+/- 1.6E-03
Phase delay (usec)	1.81666291239E+03		Apriori clockrate (us/s)		-5.3126102E-07		Resid phdelay (usec)		-7.18552E-07	+/- 6.9E-07
Delay rate (us/s)	-1.00487105395E-01		Apriori rate (us/s)		-1.00489408037E-01		Resid rate (us/s)		2.30264E-06	+/- 6.1E-08
Total phase (deg)			Apriori accel (us/s/s)		-1.58934362145E-05		Resid phase (deg)		-22.3	+/- 21.3

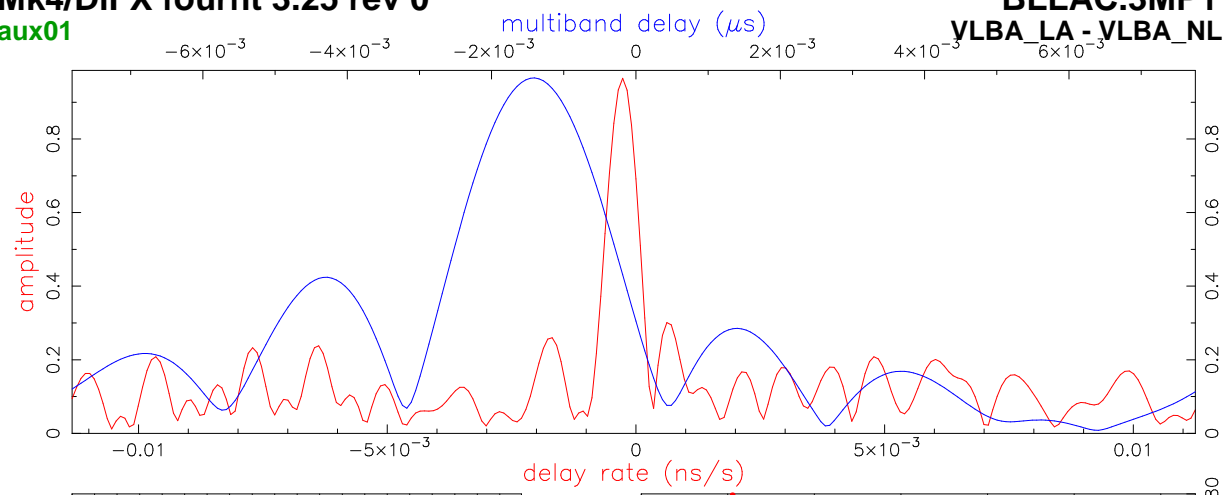
ph/seg (deg) 67.3 65.7 Search (128X32) 0.440 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 100.0 114.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 25.2 30.1 Inc. seg. avg. 0.440 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 45.9 52.6 Inc. frq. avg. 0.432 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 l: az 306.1 el 24.0 pa 62.5 n: az 310.7 el 18.7 pa 49.9 u, v (fr/asec) 760.849 -1678.100 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1071/ln..3MP1T4 Output file: /Exps/c241a/v2/3mm/1234/No1071/ln.W.126.3MP1T4

Mk4/DiFX fourfit 3.25 rev 0

aux01

BLLAC.3MP1T4, No1071, In

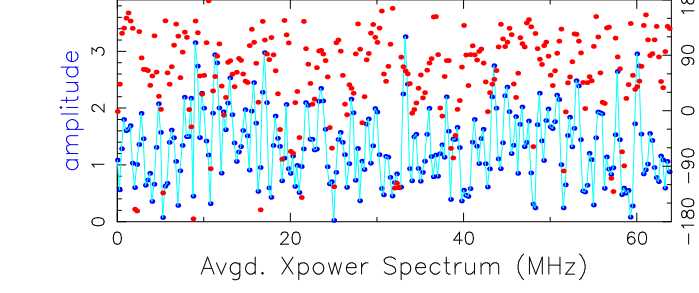
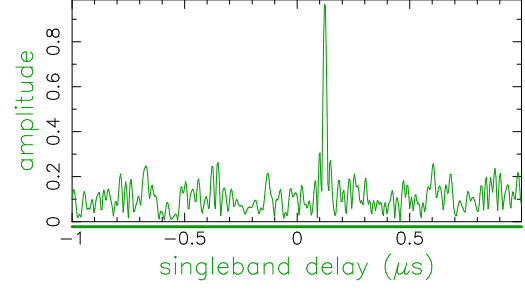
VLBA_LA - VLBA_NL, fgroup W, pol LL



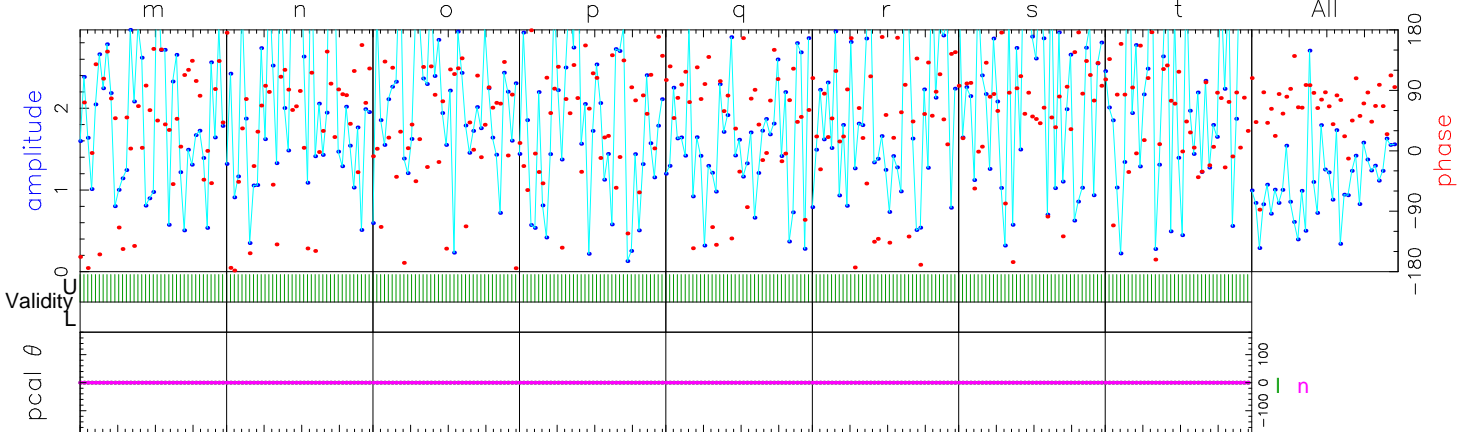
Fringe quality 9

SNR 11.9
Int time 19.456
Amp 0.986
Phase 72.1
PFD 3.9e-25
Delays (us)
SBD 0.122906
MBD -0.001369
Fringe rate (Hz) -0.024399
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c241a
Exper # 1234
Yr:day 2024:109
Start 211610.00
Stop 211629.45
FRT 211607.00
Corr/FF/build
2025:003:231718
2025:041:135408
2024:113:095956
RA & Dec (J2000)
22h02m43.291370s
+42°16'39.979897"



Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0		
l	0	0	0	0	0	0	0	0		
n	0	0	0	0	0	0	0	0		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	1.81678654367E+03	Apriori delay (usec)	1.81666291311E+03	Resid mbdelay (usec)	-1.36944E-03	+/-	9.1E-05
Sband delay (usec)	1.81678581961E+03	Apriori clock (usec)	-8.0363388E+00	Resid sbdelay (usec)	1.22906E-01	+/-	7.2E-04
Phase delay (usec)	1.81666291544E+03	Apriori clockrate (us/s)	-5.3126102E-07	Resid phdelay (usec)	2.32609E-06	+/-	3.1E-07
Delay rate (us/s)	-1.00489691290E-01	Apriori rate (us/s)	-1.00489408037E-01	Resid rate (us/s)	-2.83253E-07	+/-	2.8E-08
Total phase (deg)	192.9	Apriori accel (us/s/s)	-1.58934362145E-05	Resid phase (deg)	72.1	+/-	9.6

ph/seg (deg)	39.2	Theor.	29.7	Amplitude	0.986 +/- 0.083	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	48.1		51.8	Search (128X32)	0.944	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	9.4		13.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	29.9		23.8	Inc. seg. avg.	0.978	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.948	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

l: az 306.1 el 24.0 pa 62.5 n: az 310.7 el 18.7 pa 49.9 u,v (fr/asec) 760.849 -1678.100 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1071/ln..3MP1T4 Output file: /Exps/c241a/v2/3mm/1234/No1071/ln.W.66.3MP1T4

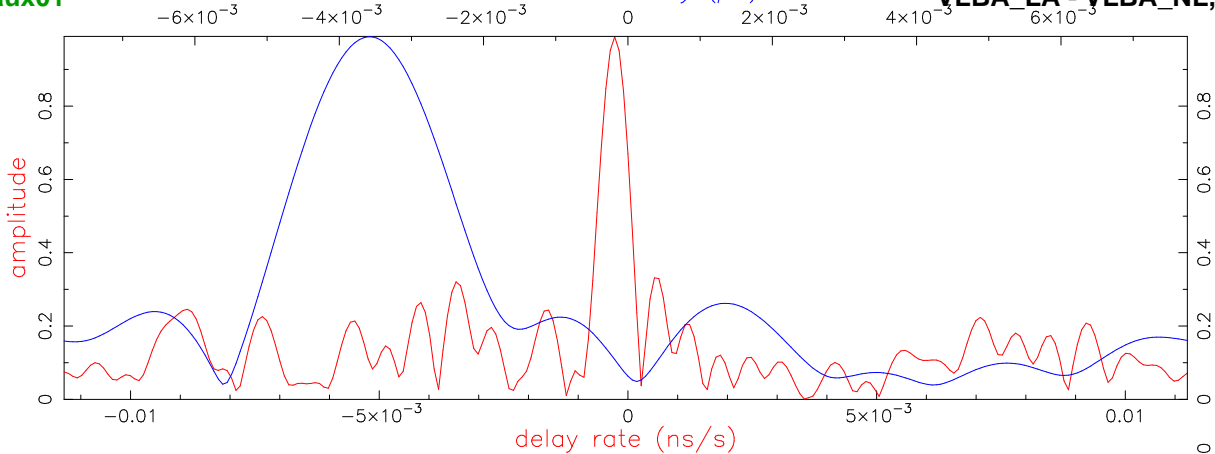
Mk4/DiFX fourfit 3.25 rev 0

aux01

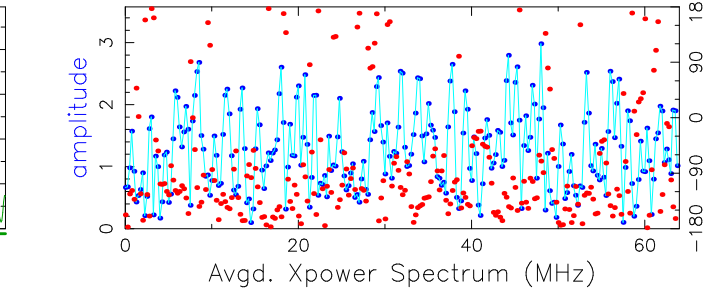
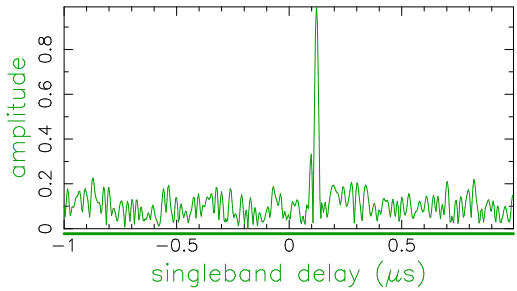
BLLAC.3MP1T4, No1071, In VLBA_LA - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 9

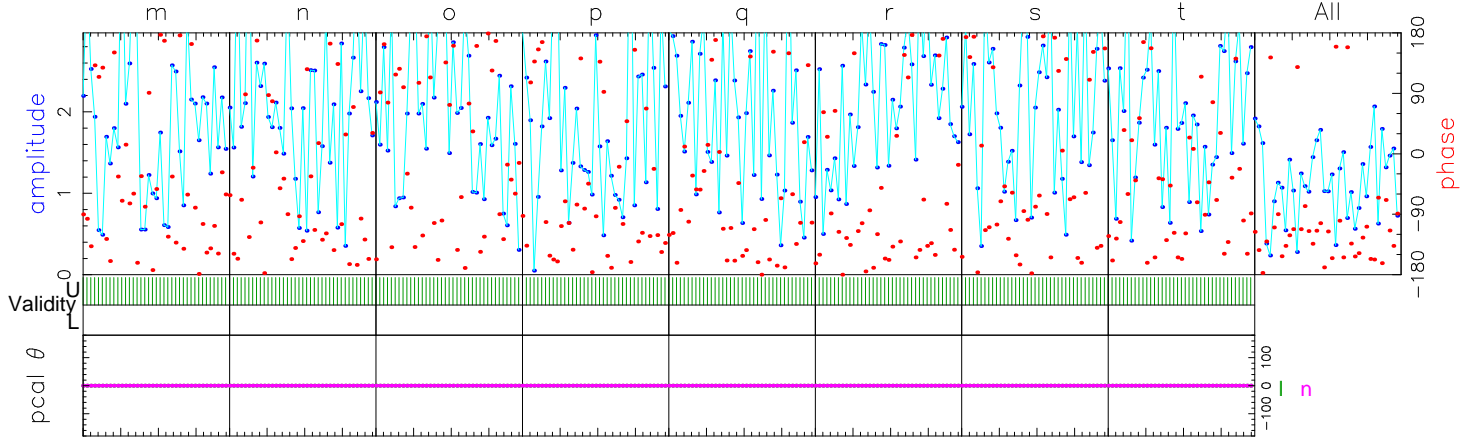


SNR 11.9
 Int time 19.456
 Amp 0.990
 Phase -130.1
 PFD 2.3e-25
 Delays (us)
 SBD 0.121410
 MBD -0.003566
 Fringe rate (Hz)
 -0.023941
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135409
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-108.0	-126.1	-163.3	-133.0	-128.3	-141.2	-132.8	-106.9	Phase	-130.1
	1.0	1.0	0.8	1.2	1.0	1.2	1.2	0.8	Ampl.	1.0
	288.2	287.7	426.5	287.0	288.8	287.7	288.5	400.5	Sbd box	288.1
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	APs used	
l	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	1.81678434714E+03				1.81666291311E+03				Resid mbdelay (usec)	-3.56597E-03 +/- 9.1E-05
Sband delay (usec)	1.81678432336E+03				-8.0363388E+00				Resid sbdelay (usec)	1.21410E-01 +/- 7.2E-04
Phase delay (usec)	1.81666290892E+03				-5.3126102E-07				Resid phdelay (usec)	-4.19396E-06 +/- 3.1E-07
Delay rate (us/s)	-1.00489685973E-01				-1.00489408037E-01				Resid rate (us/s)	-2.77936E-07 +/- 2.8E-08
Total phase (deg)			-9.3		-1.58934362145E-05				Resid phase (deg)	-130.1 +/- 9.6

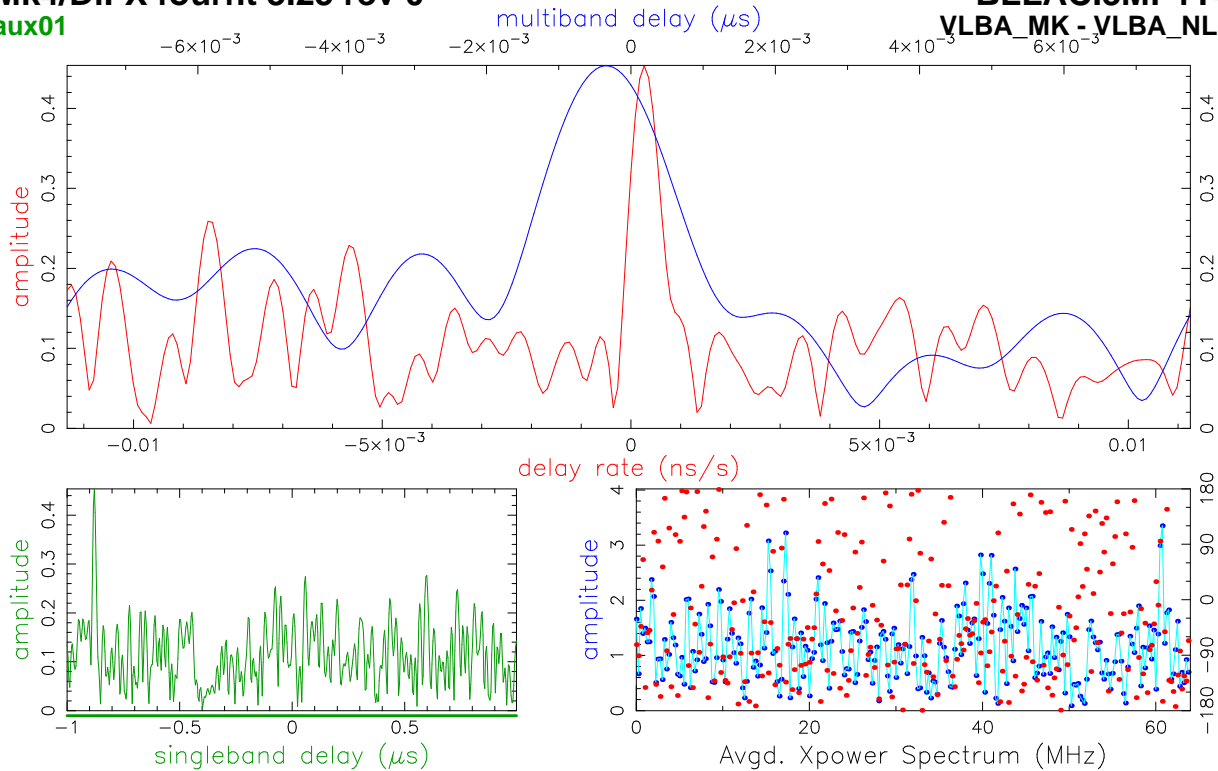
ph/seg (deg) 38.1 29.6 Search (128X32) 0.952 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 50.2 51.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 19.6 13.6 Inc. seg. avg. 1.012 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 16.6 23.7 Inc. frq. avg. 0.999 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 l: az 306.1 el 24.0 pa 62.5 n: az 310.7 el 18.7 pa 49.9 u,v (fr/asec) 760.849 -1678.100 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1071/ln..3MP1T4 Output file: /Exps/c241a/v2/3mm/1234/No1071/ln.W.81.3MP1T4

Mk4/DiFX fourfit 3.25 rev 0

aux01

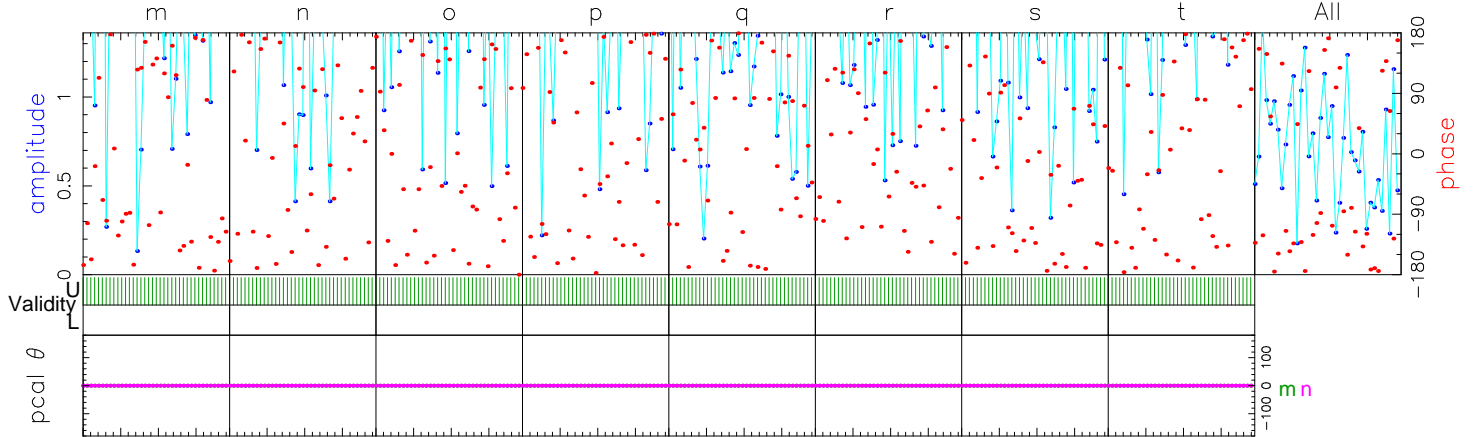
BLLAC.3MP1T4, No1071, mn

VLBA_MK - VLBA_NL, fgroup W, pol LL



Fringe quality 0
 SNR 5.5
 Int time 19.456
 Amp 0.454
 Phase -155.2
 PFD 4.8e-01
 Delays (us)
 SBD -0.879277
 MBD -0.000361
 Fringe rate (Hz)
 0.024049
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135411
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-148.7	173.6	-129.7	-175.9	148.9	-95.3	-128.5	-170.1	Phase	-155.2
	0.8	0.6	0.8	0.6	0.2	0.4	0.2	0.6	Ampl.	0.5
	31.8	430.9	31.6	18.4	201.2	75.3	10.4	448.3	Sbd box	31.9
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	9.48207491388E+03		Apriori delay (usec)		9.48295027516E+03		Resid mbdelay (usec)		-3.61279E-04	+/- 2.0E-04
Sband delay (usec)	9.48207099841E+03		Apriori clock (usec)		8.1692505E-01		Resid sbdelay (usec)		-8.79277E-01	+/- 1.6E-03
Phase delay (usec)	9.48295027016E+03		Apriori clockrate (us/s)		-3.1175995E-07		Resid phdelay (usec)		-5.00499E-06	+/- 6.8E-07
Delay rate (us/s)	1.35004726399E-01		Apriori rate (us/s)		1.35004447216E-01		Resid rate (us/s)		2.79183E-07	+/- 6.0E-08
Total phase (deg)	97.7		Apriori accel (us/s/s)		-7.52757608265E-05		Resid phase (deg)		-155.2	+/- 20.9
ph/seg (deg)	RMS 68.4	Theor. 64.5	Amplitude 0.454 +/- 0.083	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
amp/seg (%)	93.1	112.7	Search (128X32) 0.441	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000				
ph/frq (deg)	40.3	29.6	Interp. 0.000	Bits/sample: 2x2		SampCntNorm: enabled		mb window (us) -0.008 0.008		
amp/frq (%)	51.1	51.7	Inc. seg. avg. 0.447	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s) -0.011 0.011				
			Inc. frq. avg. 0.457	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC) 0.00 0.00		
m: az 313.2 el 49.8 pa 111.4	n: az 310.7 el 18.7 pa 49.9		u,v (fr/asec) -1132.713 -7526.228				simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No1071/mn..3MP1T4		Output file: /Exps/c241a/v2/3mm/1234/No1071/mn.W.102.3MP1T4							

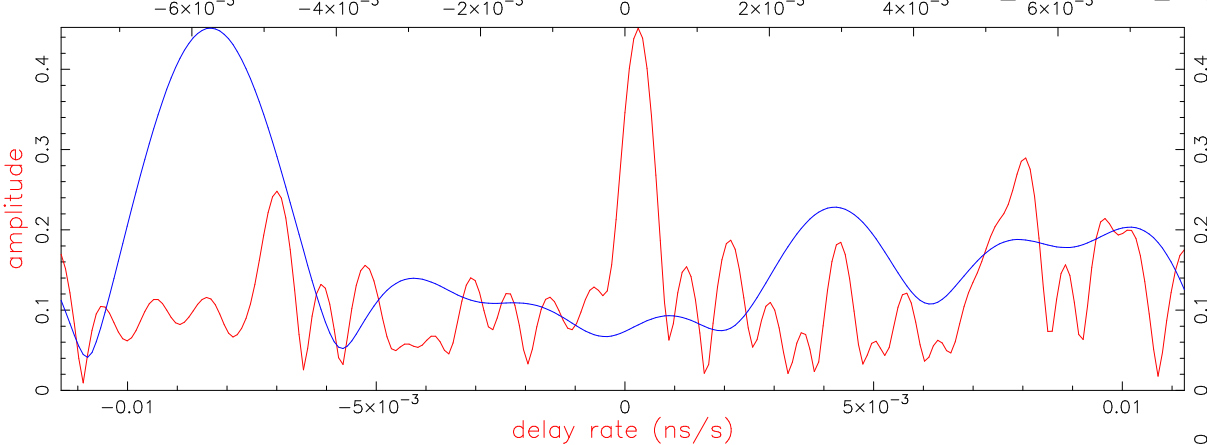
Mk4/DiFX fourfit 3.25 rev 0

aux01

BLLAC.3MP1T4, No1071, mn

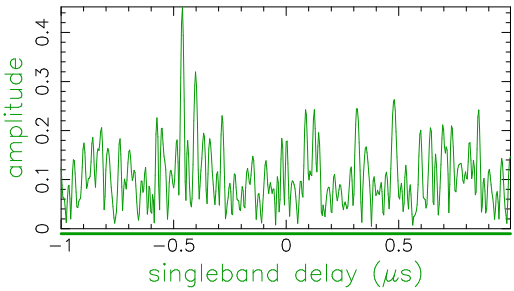
VLBA_MK - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

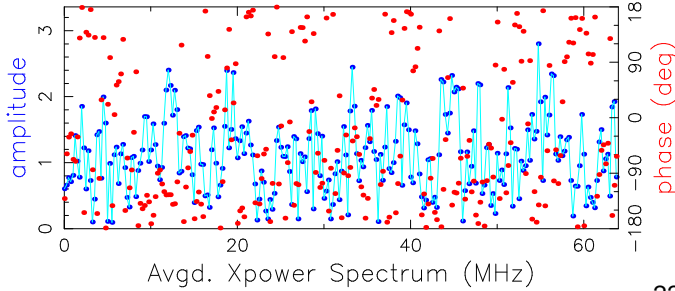


Fringe quality 0

SNR 5.5
 Int time 19.456
 Amp 0.452
 Phase 17.5
 PFD 5.2e-01
 Delays (us)
 SBD -0.461474
 MBD -0.005768
 Fringe rate (Hz)
 0.022764
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

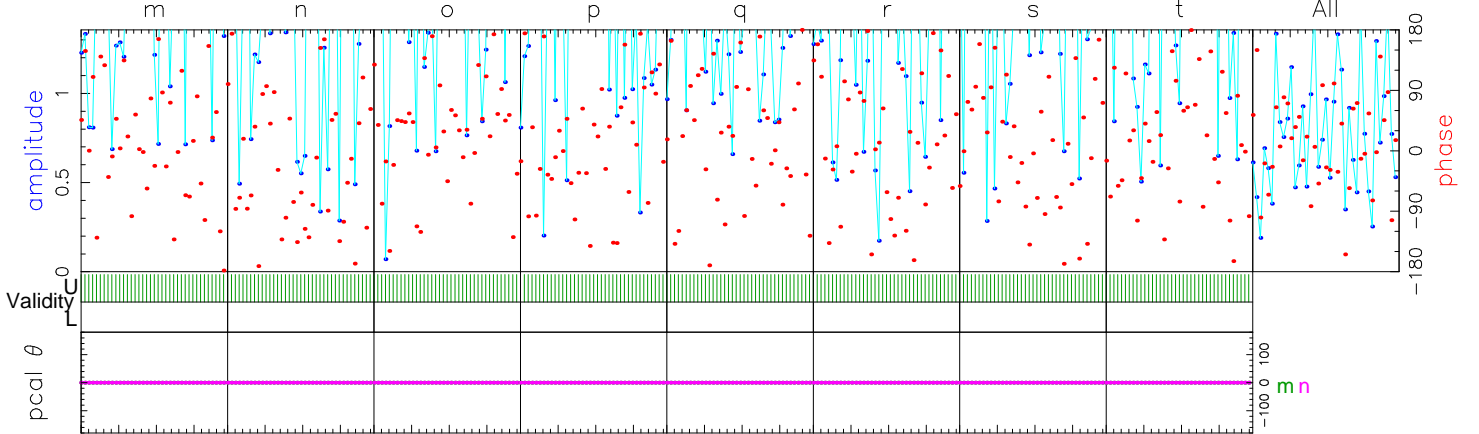


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135415
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	26.6	-27.2	39.5	-14.5	56.4	59.2	23.6	12.8	Phase	17.5
	0.5	0.3	0.8	0.7	0.2	0.2	0.5	0.7	Ampl.	0.4
	13.4	444.1	468.5	132.7	321.4	117.0	36.9	153.5	Sbd box	138.9
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	9.48249138199E+03		Apriori delay (usec)		9.48295027516E+03		Resid mbdelay (usec)		-5.76817E-03	+/- 2.0E-04
Sband delay (usec)	9.48248880141E+03		Apriori clock (usec)		8.1692505E-01		Resid sbdelay (usec)		-4.61474E-01	+/- 1.6E-03
Phase delay (usec)	9.48295027573E+03		Apriori clockrate (us/s)		-3.1175995E-07		Resid phdelay (usec)		5.63868E-07	+/- 6.8E-07
Delay rate (us/s)	1.35004711480E-01		Apriori rate (us/s)		1.35004447216E-01		Resid rate (us/s)		2.64264E-07	+/- 6.0E-08
Total phase (deg)	270.4		Apriori accel (us/s/s)		-7.52757608265E-05		Resid phase (deg)		17.5	+/- 21.0

ph/seg (deg) 67.8 64.8 Amplitude 0.452 +/- 0.083 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 108.3 113.0 Search (128X32) 0.437 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 33.9 29.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 52.1 51.9 Inc. seg. avg. 0.484 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 m: az 313.2 el 49.8 pa 111.4 n: az 310.7 el 18.7 pa 49.9 u,v (fr/asec) -1132.713 -7526.228 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/No1071/mn..3MP1T4 Output file: /Exps/c241a/v2/3mm/1234/No1071/mn.W.121.3MP1T4

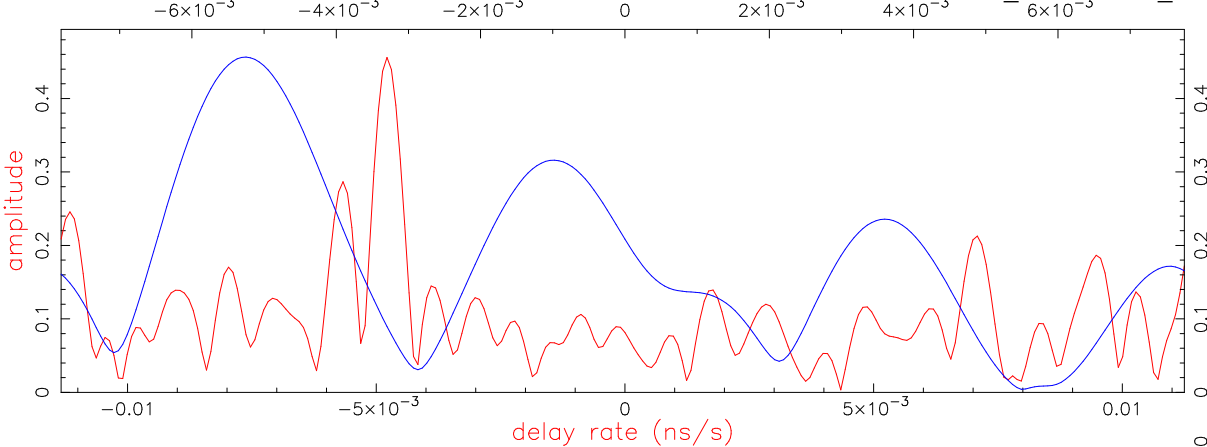
Mk4/DiFX fourfit 3.25 rev 0

aux01

BLLAC.3MP1T4, No1071, mn

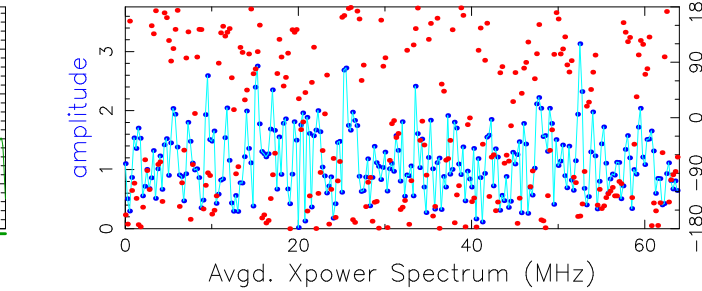
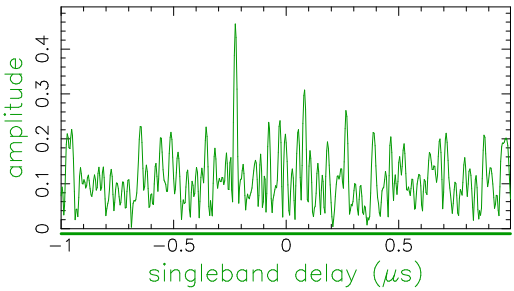
VLBA_MK - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)



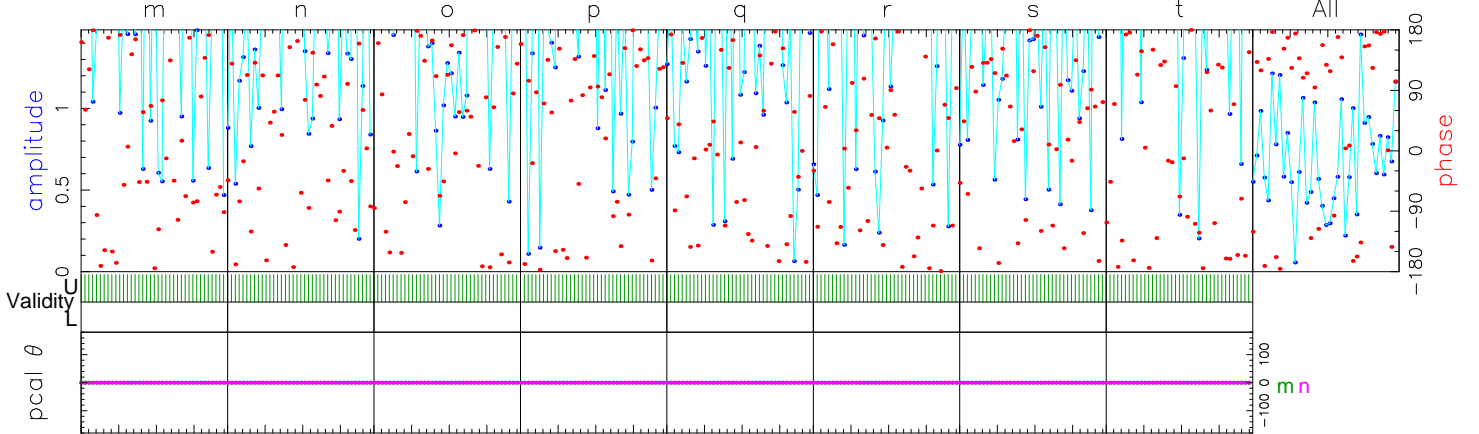
Fringe quality 0

SNR 5.5
 Int time 19.456
 Amp 0.494
 Phase 161.0
 PFD 3.9e-01
 Delays (us)
 SBD -0.225794
 MBD -0.005211
 Fringe rate (Hz)
 -0.416301
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135416
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-147.5	145.3	146.4	131.1	-162.5	-159.8	105.9	175.5	Phase	161.0
	0.5	0.3	0.5	1.1	0.5	0.4	0.6	1.0	Ampl.	0.5
	167.6	132.8	355.7	199.6	277.1	237.0	110.3	200.8	Sbd box	199.2
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) 9.48272631420E+03 Apriori delay (usec) 9.48295027516E+03 Resid mbdelay (usec) -5.21096E-03 +/- 2.0E-04
 Sband delay (usec) 9.48272448141E+03 Apriori clock (usec) 8.1692505E-01 Resid sbdelay (usec) -2.25794E-01 +/- 1.6E-03
 Phase delay (usec) 9.48295028035E+03 Apriori clockrate (us/s) -3.1175995E-07 Resid phdelay (usec) 5.19093E-06 +/- 6.7E-07
 Delay rate (us/s) 1.34999614377E-01 Apriori rate (us/s) 1.35004447216E-01 Resid rate (us/s) -4.83284E-06 +/- 6.0E-08
 Total phase (deg) 53.9 Apriori accel (us/s/s) -7.52757608265E-05 Resid phase (deg) 161.0 +/- 20.7

RMS Theor. Amplitude 0.494 +/- 0.089 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 60.5 63.9 Search (128X32) 0.450 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 86.0 111.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 41.1 29.3 Inc. seg. avg. 0.467 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 57.6 51.2 Inc. frq. avg. 0.524 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 m: az 313.2 el 49.8 pa 111.4 n: az 310.7 el 18.7 pa 49.9 u,v (fr/asec) -1132.713 -7526.228 simultaneous interpolator

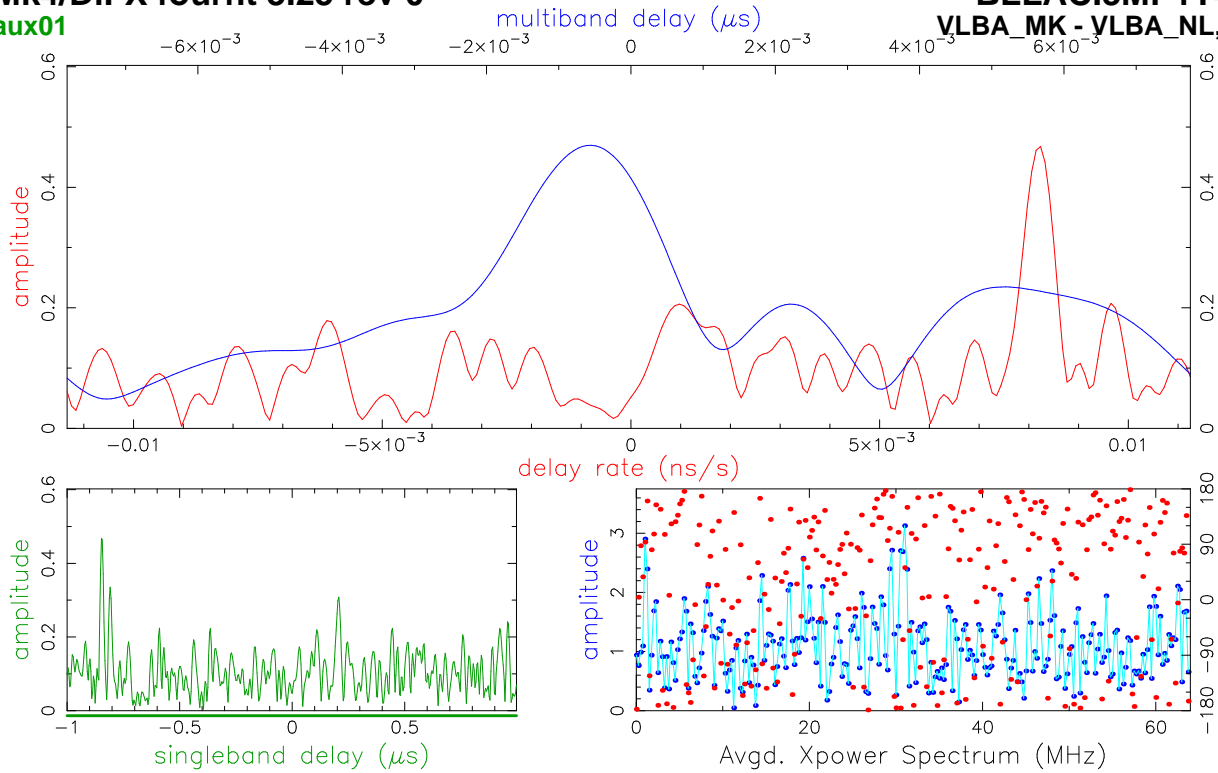
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1071/mn..3MP1T4 Output file: /Exps/c241a/v2/3mm/1234/No1071/mn.W.130.3MP1T4

Mk4/DiFX fourfit 3.25 rev 0

aux01

BLLAC.3MP1T4, No1071, mn

VLBA_MK - VLBA_NL, fgroup W, pol RL

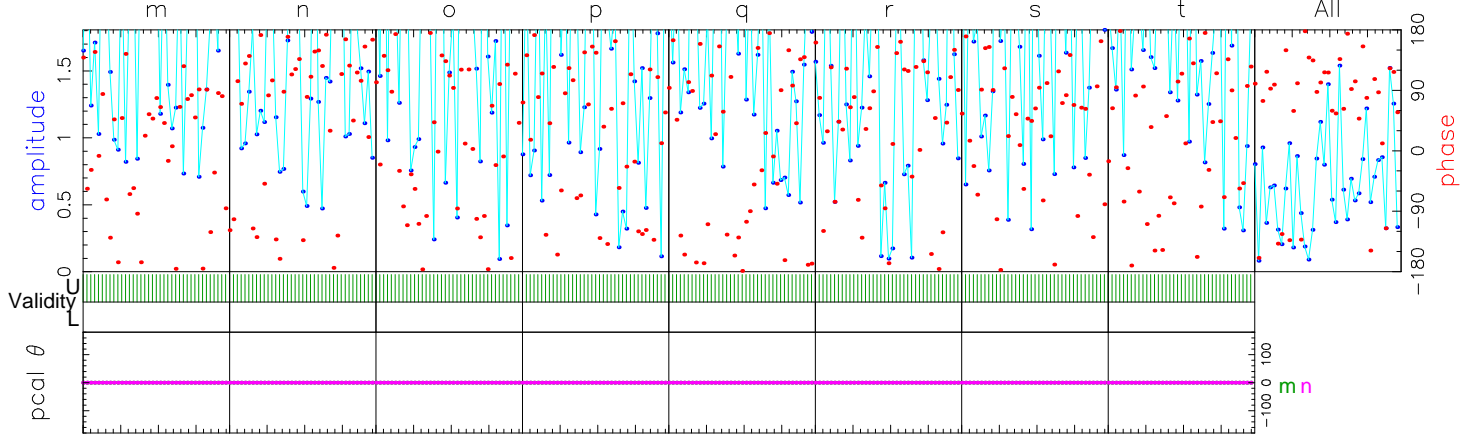


Fringe quality 0

SNR 5.8
 Int time 19.456
 Amp 0.602
 Phase 109.5
 PFD 1.2e-01
 Delays (us)
 SBD -0.845879
 MBD -0.000459
 Fringe rate (Hz)
 0.714388
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135417
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



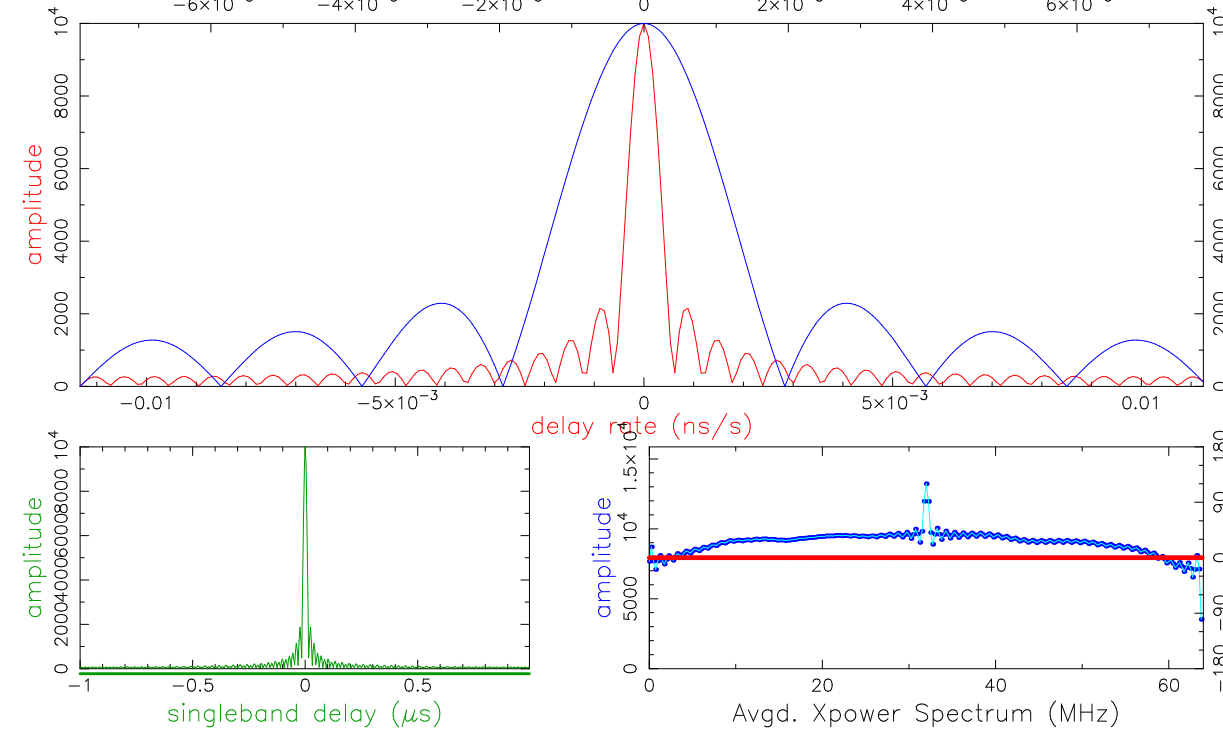
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	48.4	140.9	121.3	126.9	163.4	99.6	76.4	76.4	Phase	109.5	
	0.8	1.1	0.3	0.7	0.8	0.9	0.8	0.4	Ampl.	0.7	
	396.8	40.1	44.7	185.1	237.2	197.5	310.8	123.0	Sbd box	40.5	
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	APs used		
m	0	0	0	0	0	0	0	0	PC freqs		
n	0	0	0	0	0	0	0	0	PC freqs		
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
m:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000			
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks		
									Tracks		
Group delay (usec) (SBD)	9.48210606584E+03		Apriori delay (usec)		9.48295027516E+03		Resid mbdelay (usec)		-4.59327E-04	+/- 1.9E-04	
Sband delay (usec)	9.48210439616E+03		Apriori clock (usec)		8.1692505E-01		Resid sbdelay (usec)		-8.45879E-01	+/- 1.5E-03	
Phase delay (usec)	9.48295027869E+03		Apriori clockrate (us/s)		-3.1175995E-07		Resid phdelay (usec)		3.53217E-06	+/- 6.4E-07	
Delay rate (us/s)	1.35012740549E-01		Apriori rate (us/s)		1.35004447216E-01		Resid rate (us/s)		8.29333E-06	+/- 5.7E-08	
Total phase (deg)			Apriori accel (us/s/s)		-7.52757608265E-05		Resid phase (deg)		109.5	+/- 19.9	
	RMS	Theor.	Amplitude	0.602 +/- 0.104		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	60.5	61.2	Search (128X32)	0.460		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	88.8	106.9	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	41.5	28.1	Inc. seg. avg.	0.538		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	48.5	49.0	Inc. frq. avg.	0.655		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
m: az 313.2 el 49.8 pa 111.4		n: az 310.7 el 18.7 pa 49.9		u, v (fr/asec) -1132.713 -7526.228						simultaneous interpolator	
Control file: cf_1234_gmva		Input file: /Exps/c241a/v2/3mm/1234/No1071/mn..3MP1T4		Output file: /Exps/c241a/v2/3mm/1234/No1071/mn.W.136.3MP1T4							

Mk4/DiFX fourfit 3.25 rev 0

aux01

BLLAC.3MP1T4, No1071, nn

VLBA_NL - VLBA_NL, fgroup W, pol LL

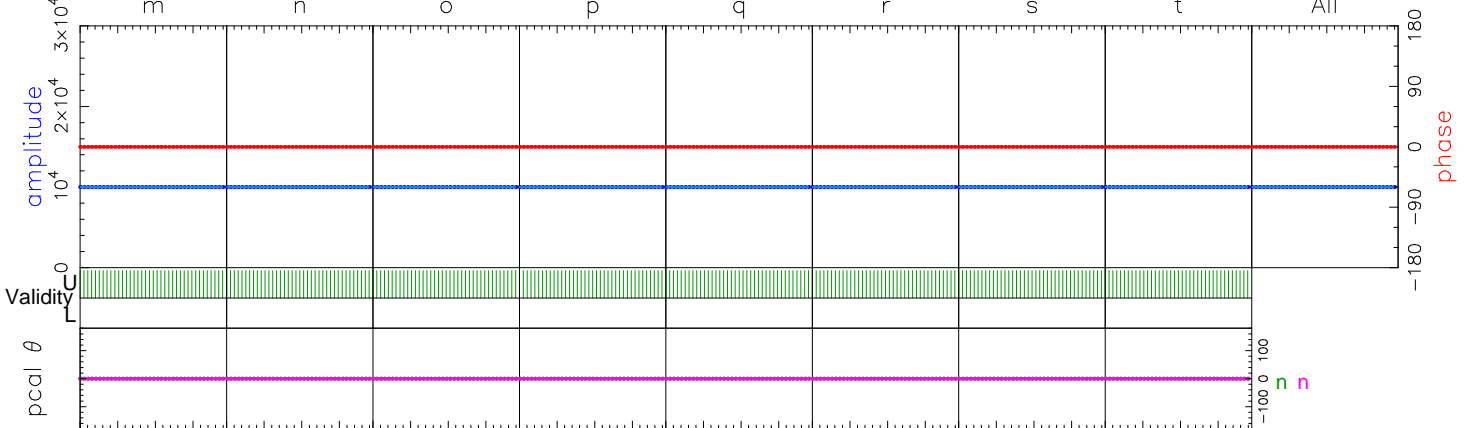


Fringe quality 9

SNR 120621.4
 Int time 19.456
 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

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135416
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0		
n	0	0	0	0	0	0	0	0		
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 9.0E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 7.1E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 3.1E-11
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 2.7E-12
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

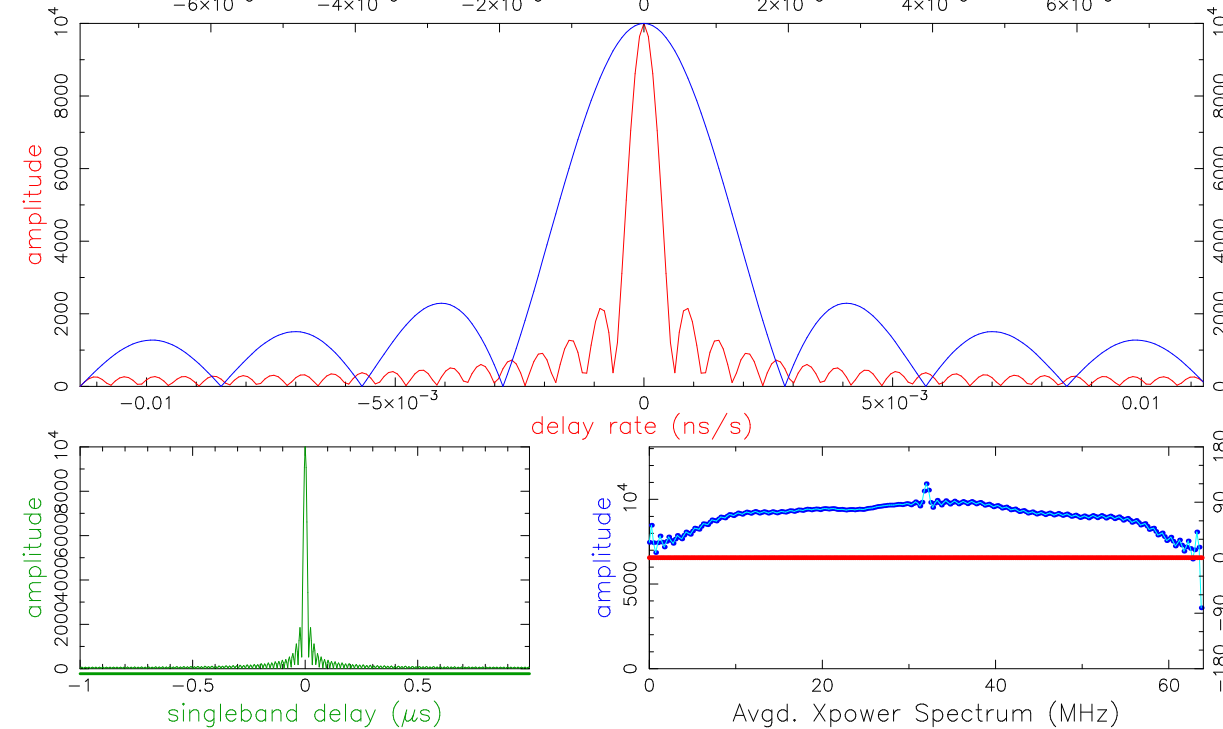
ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.000 +/- 0.083 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (128X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb 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
 n: az 310.7 el 18.7 pa 49.9 n: az 310.7 el 18.7 pa 49.9 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/No1071//nn..3MP1T4 Output file: /Exps/c241a/v2/3mm/1234/No1071//nn.W.133.3MP1T4 simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

BLLAC.3MP1T4, No1071, nn

VLBA_NL - VLBA_NL, fgroup W, pol RR

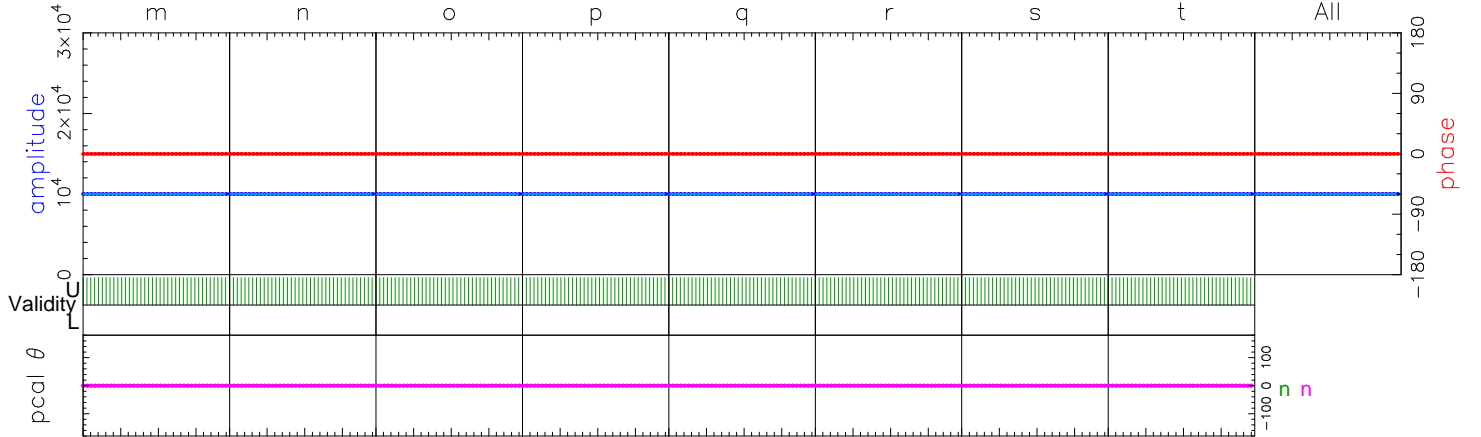


Fringe quality 9

SNR 120621.4
 Int time 19.456
 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

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135417
 2024:113:095956
 RA & Dec (J2000) 22h02m43.291370s +42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0		
n	0	0	0	0	0	0	0	0		
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 9.0E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 7.1E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 3.1E-11
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 2.7E-12
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.000 +/- 0.083 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (128X32) 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
 n: az 310.7 el 18.7 pa 49.9 n: az 310.7 el 18.7 pa 49.9 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/No1071/nn..3MP1T4 Output file: /Exps/c241a/v2/3mm/1234/No1071/nn.W.138.3MP1T4 simultaneous interpolator

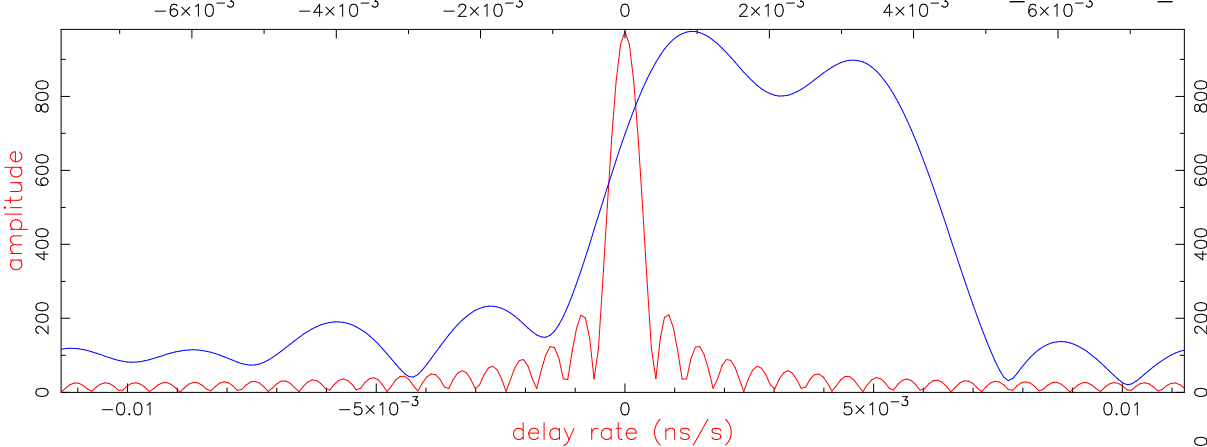
Mk4/DiFX fourfit 3.25 rev 0

aux01

BLLAC.3MP1T4, No1071, nn

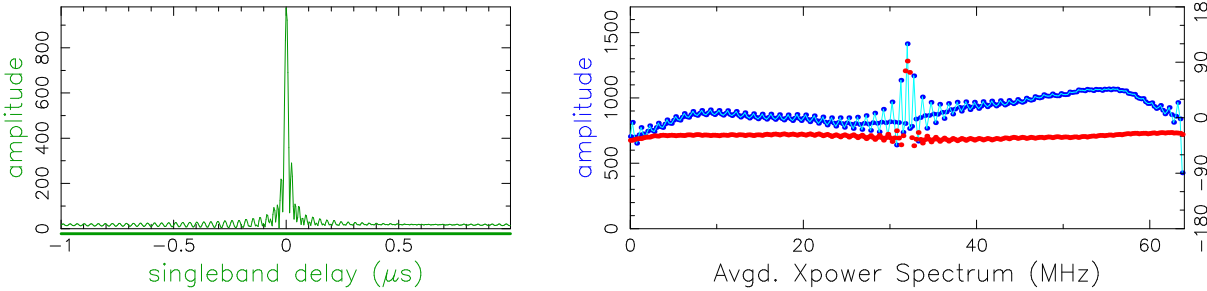
VLBA_NL - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

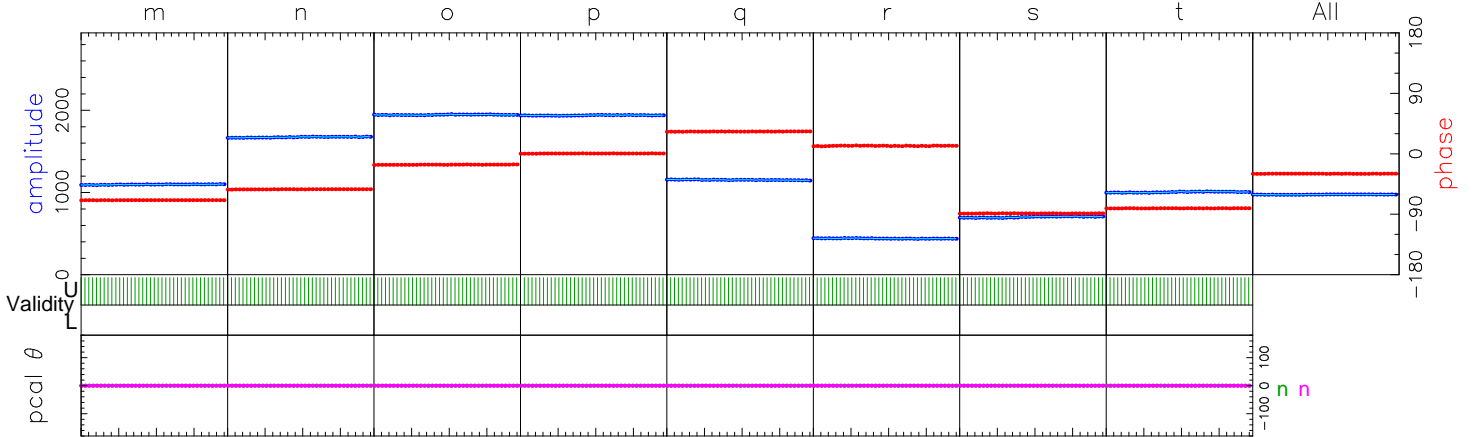


Fringe quality 5
 Error code G
 SNR 11832.9
 Int time 19.456
 Amp 980.996
 Phase -29.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.000921
 MBD 0.000962
 Fringe rate (Hz)
 -0.000073
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135418
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

delay rate (ns/s)

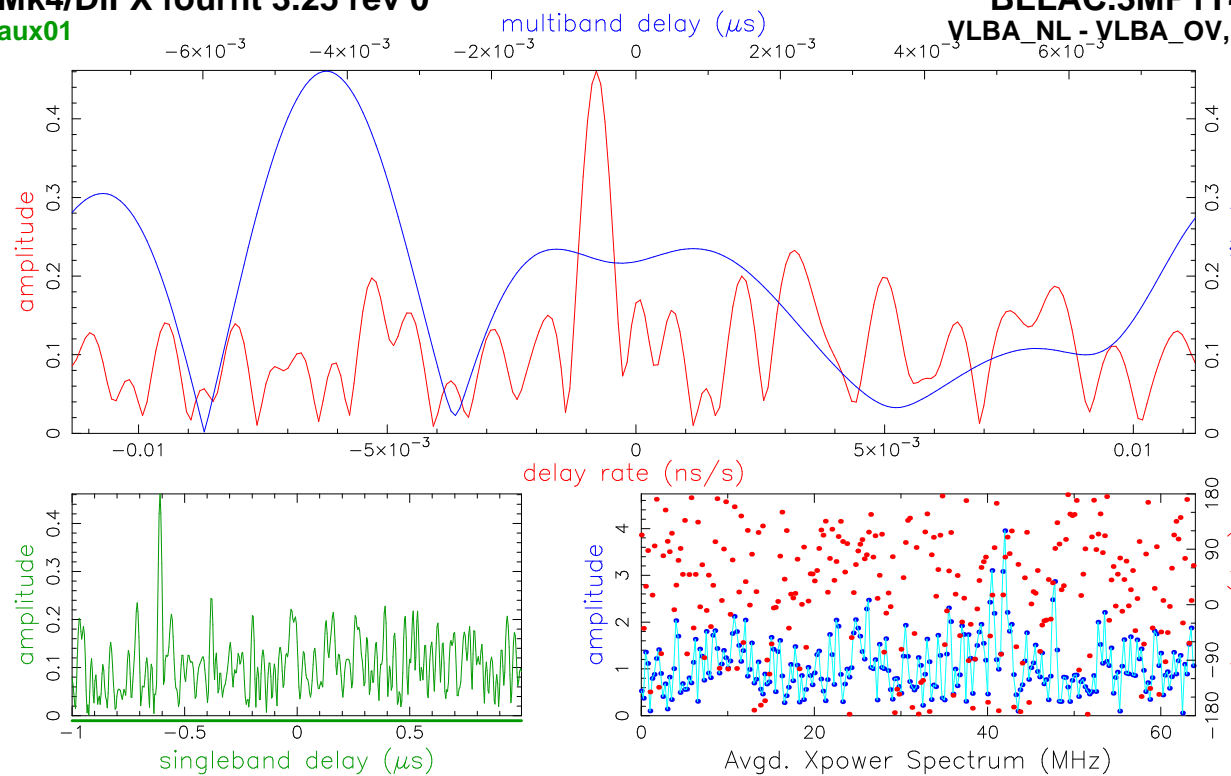


Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



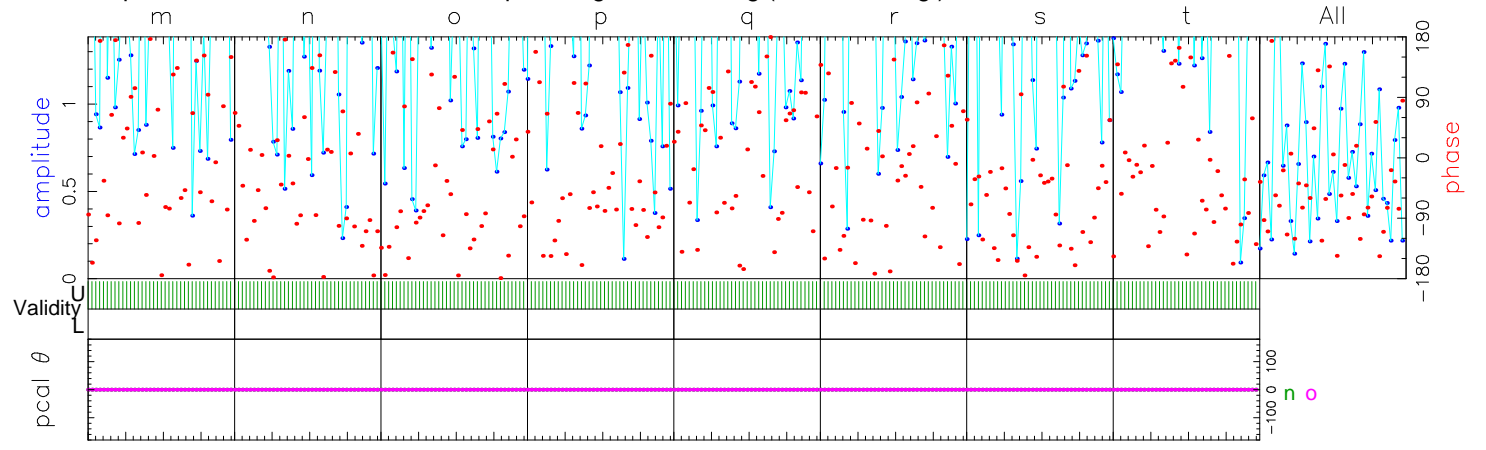
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-69.0	-52.8	-16.2	0.4	33.1	11.8	-88.8	-81.1	Phase	-29.7
	1097.6	1673.5	1945.8	1939.3	1153.9	441.2	701.9	1004.8	Ampl.	1244.7
	257.8	257.3	257.4	257.4	258.0	256.5	257.4	257.3	Sbd box	257.2
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	9.62468750000E-04		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		9.62469E-04	+/- 9.2E-08
Sband delay (usec)	9.21500000000E-04		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		9.21500E-04	+/- 7.3E-07
Phase delay (usec)	-9.56905505559E-07		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-9.56906E-07	+/- 3.1E-10
Delay rate (us/s)	-8.50269143501E-10		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-8.50269E-10	+/- 2.8E-11
Total phase (deg)			Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		-29.7	+/- 0.0

ph/seg (deg) 0.1 0.0 Search (128X32) 975.009 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.6 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) 50.0 0.0 Inc. seg. avg. 975.348 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 59.7 0.0 Inc. frq. avg. 1244.748 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 n: az 310.7 el 18.7 pa 49.9 n: az 310.7 el 18.7 pa 49.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1071/nn..3MP1T4 Output file: /Exps/c241a/v2/3mm/1234/No1071/nn.W.141.3MP1T4



Fringe quality 0
SNR 5.6
Int time 19.456
Amp 0.462
Phase -67.0
PFD 3.4e-01
Delays (us)
SBD -0.609345
MBD -0.004288
Fringe rate (Hz)
-0.072283
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c241a
Exper # 1234
Yr:day 2024:109
Start 211610.00
Stop 211629.45
FRT 211607.00
Corr/FF/build
2025:003:231718
2025:041:135414
2024:113:095956
RA & Dec (J2000)
22h02m43.291370s
+42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-63.8	-56.9	-93.5	-69.0	64.7	-73.1	-68.2	-71.6	Phase	-67.0		
	0.2	0.7	0.6	0.7	0.3	0.1	1.1	0.4	Ampl.	0.5		
	254.7	99.8	310.6	161.5	490.3	357.3	101.7	55.2	Sbd box	101.0		
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	APs used			
n	0	0	0	0	0	0	0	0	PC freqs			
o	0	0	0	0	0	0	0	0	PC freqs			
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
n:o	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			
o	1000	1000	1000	1000	1000	1000	1000	1000				
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids			
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
									Tracks			
Group delay (usec) (SBD)	-4.74729103120E+03		Apriori delay (usec)		-4.74667736812E+03		Resid mbdelay (usec)		-4.28808E-03	+/- 2.0E-04		
Sband delay (usec)	-4.74728671362E+03		Apriori clock (usec)		-2.5348650E+01		Resid sbdelay (usec)		-6.09345E-01	+/- 1.6E-03		
Phase delay (usec)	-4.74667737028E+03		Apriori clockrate (us/s)		-1.8401209E-07		Resid phdelay (usec)		-2.16059E-06	+/- 6.7E-07		
Delay rate (us/s)	6.08172563303E-02		Apriori rate (us/s)		6.08180954666E-02		Resid rate (us/s)		-8.39136E-07	+/- 5.9E-08		
Total phase (deg)			Apriori accel (us/s/s)		2.97476182991E-05		Resid phase (deg)		-67.0	+/- 20.6		
ph/seg (deg)	RMS	Theor.	Amplitude		0.462 +/- 0.083		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
amp/seg (%)	67.7	63.6	Search (128X32)		0.454		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
ph/frq (deg)	100.6	111.0	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	55.1	29.2	Inc. seg. avg.		0.437		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011		
	67.4	50.9	Inc. frq. avg.		0.477		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00
n: az 310.7 el 18.7 pa 49.9	o: az 301.1 el 32.9 pa 67.2		u, v (fr/asec)		-438.314 2535.593				simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No1071//no..3MP1T4		Output file: /Exps/c241a/v2/3mm/1234/No1071//no.W.120.3MP1T4									

Mk4/DiFX fourfit 3.25 rev 0

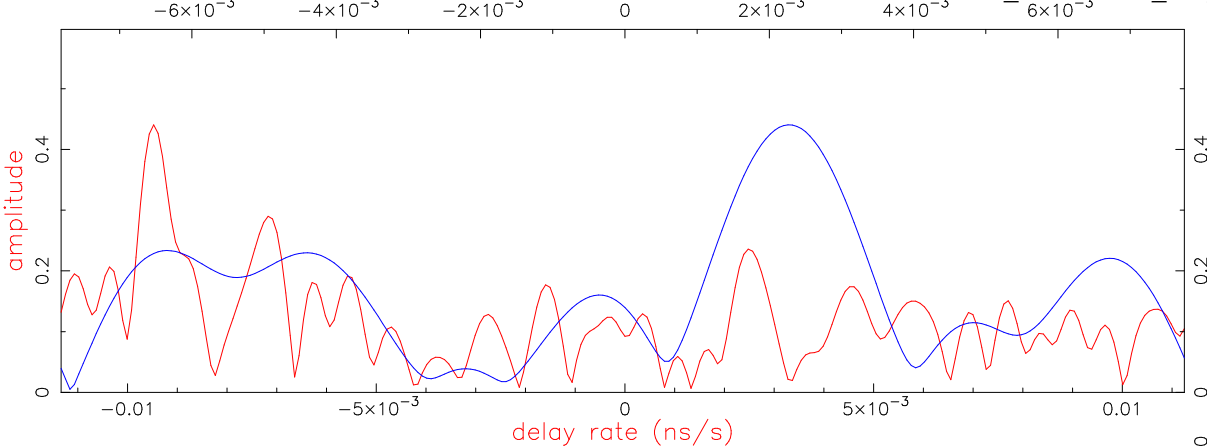
aux01

BLLAC.3MP1T4, No1071, no

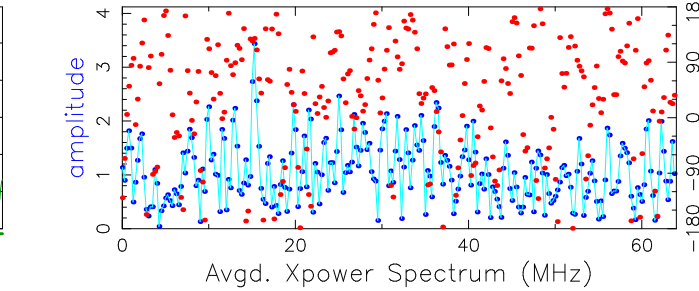
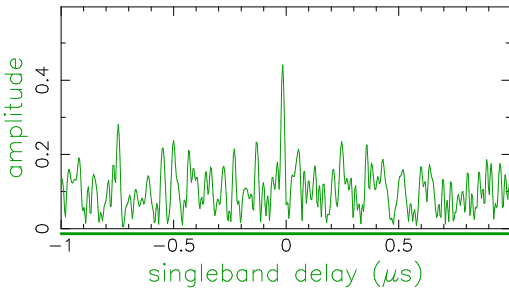
VLBA_NL - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 0

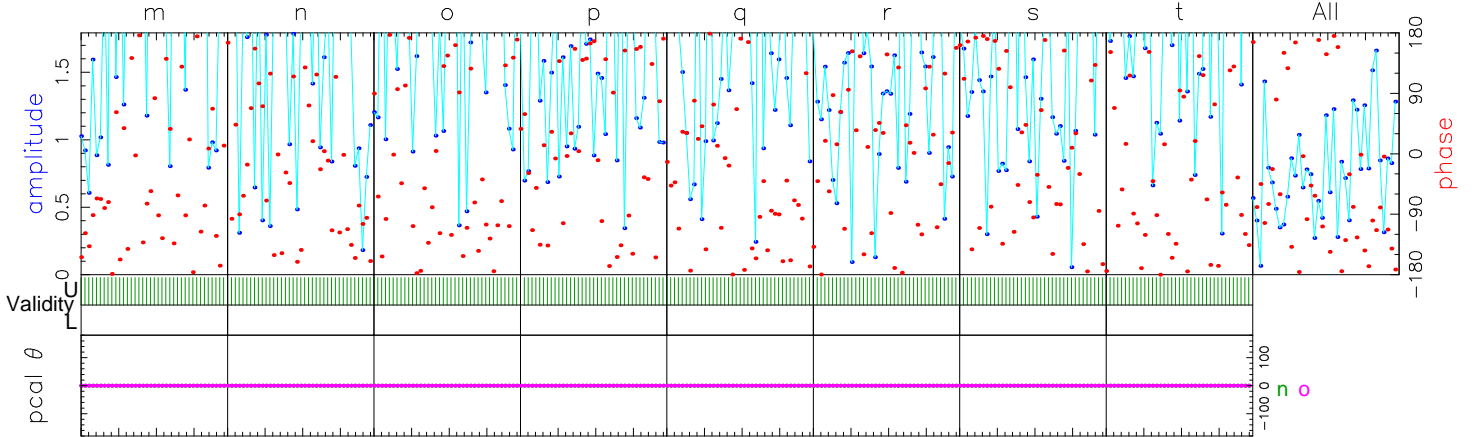


SNR 5.3
 Int time 19.456
 Amp 0.598
 Phase -127.9
 PFD 7.9e-01
 Delays (us)
 SBD -0.015587
 MBD 0.002276
 Fringe rate (Hz)
 -0.815052
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135415
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-125.3	-66.6	-142.8	-148.9	-102.5	-128.2	-149.9	-121.4	Phase	-127.9
	1.0	0.2	1.2	0.3	0.8	0.1	0.5	0.9	Ampl.	0.6
	253.8	388.8	252.9	324.4	365.3	350.8	107.9	453.6	Sbd box	253.0
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	-4.74669071717E+03		Apriori delay (usec)		-4.74667736812E+03		Resid mbdelay (usec)		2.27594E-03	+/- 2.0E-04
Sband delay (usec)	-4.74669295512E+03		Apriori clock (usec)		-2.5348650E+01		Resid sbdelay (usec)		-1.55870E-02	+/- 1.6E-03
Phase delay (usec)	-4.74667737224E+03		Apriori clockrate (us/s)		-1.8401209E-07		Resid phdelay (usec)		-4.12460E-06	+/- 7.0E-07
Delay rate (us/s)	6.08086335242E-02		Apriori rate (us/s)		6.08180954666E-02		Resid rate (us/s)		-9.46194E-06	+/- 6.2E-08
Total phase (deg)			Apriori accel (us/s/s)		2.97476182991E-05		Resid phase (deg)		-127.9	+/- 21.6

ph/seg (deg) 68.9 66.5 Search (128X32) 0.419 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 115.5 116.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 30.5 30.5 Inc. seg. avg. 0.634 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 65.9 53.2 Inc. frq. avg. 0.554 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 n: az 310.7 el 18.7 pa 49.9 o: az 301.1 el 32.9 pa 67.2 u,v (fr/asec) -438.314 2535.593 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/No1071//no..3MP1T4 Output file: /Exps/c241a/v2/3mm/1234/No1071//no.W.123.3MP1T4 simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

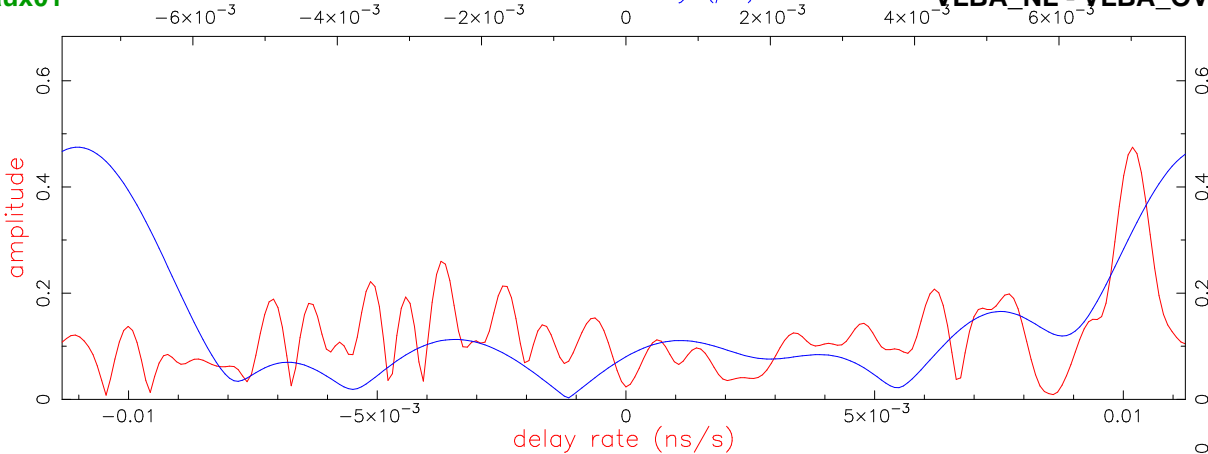
aux01

BLLAC.3MP1T4, No1071, no

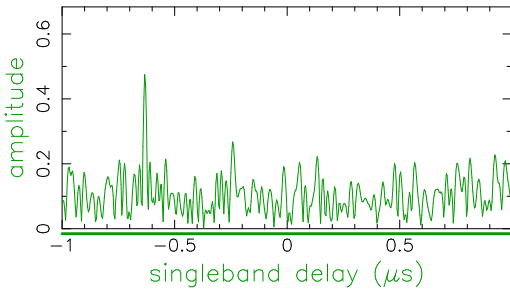
VLBA_NL - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)

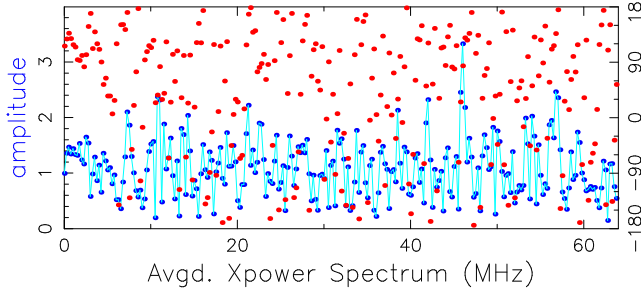
Fringe quality 0



SNR 5.7
 Int time 19.456
 Amp 0.683
 Phase 105.6
 PFD 1.3e-01
 Delays (us)
 SBD -0.632100
 MBD -0.007572
 Fringe rate (Hz)
 0.881036
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

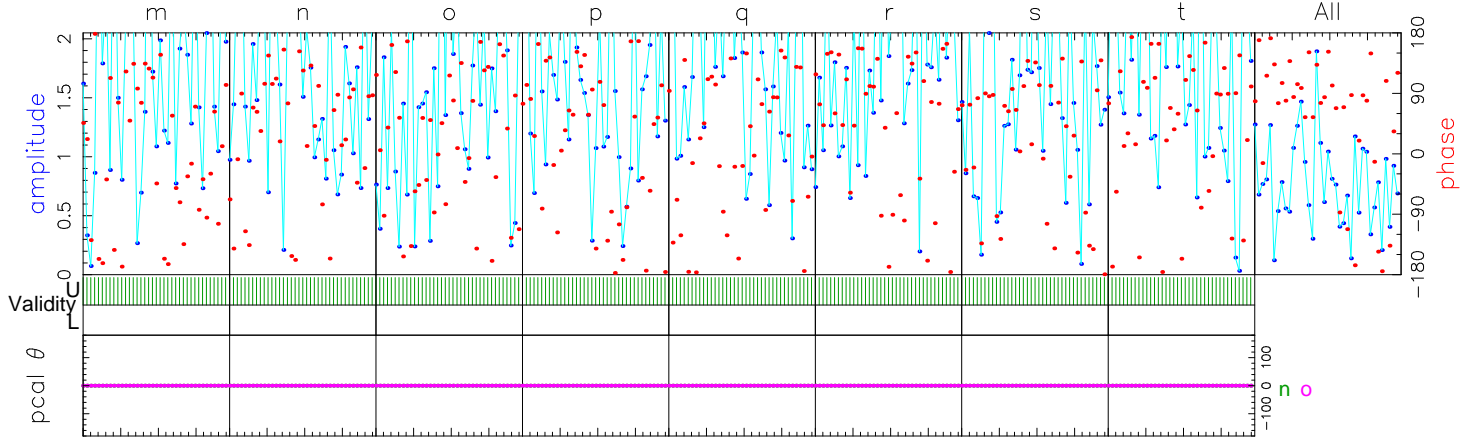


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135417
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	117.7	89.2	134.1	97.3	112.0	125.0	94.8	93.6	Phase	105.6
	0.3	0.8	0.3	0.7	0.7	1.1	0.9	0.8	Ampl.	0.6
	196.1	83.9	447.5	358.5	77.9	95.9	78.5	327.9	Sbd box	95.2
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-4.74730993993E+03	Apriori delay (usec)	-4.74667736812E+03	Resid mbdelay (usec)	-7.57181E-03	+/-	1.9E-04
Sband delay (usec)	-4.74730946837E+03	Apriori clock (usec)	-2.5348650E+01	Resid sbdelay (usec)	-6.32100E-01	+/-	1.5E-03
Phase delay (usec)	-4.74667736471E+03	Apriori clockrate (us/s)	-1.8401209E-07	Resid phdelay (usec)	3.40609E-06	+/-	6.4E-07
Delay rate (us/s)	6.08283234222E-02	Apriori rate (us/s)	6.08180954666E-02	Resid rate (us/s)	1.02280E-05	+/-	5.7E-08
Total phase (deg)	-70.7	Apriori accel (us/s/s)	2.97476182991E-05	Resid phase (deg)	105.6	+/-	19.9

ph/seg (deg)	64.8	Theor.	61.4	Amplitude	0.683 +/- 0.119	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	101.7	Search (128X32)	0.460	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)	18.2	Inc. seg. avg.	0.709	Inc. frq. avg.	0.628	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	Inc. frq. avg.	0.628			Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

n: az 310.7 el 18.7 pa 49.9 o: az 301.1 el 32.9 pa 67.2 u,v (fr/asec) -438.314 2535.593 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1071//no..3MP1T4 Output file: /Exps/c241a/v2/3mm/1234/No1071//no.W.135.3MP1T4

Mk4/DiFX fourfit 3.25 rev 0

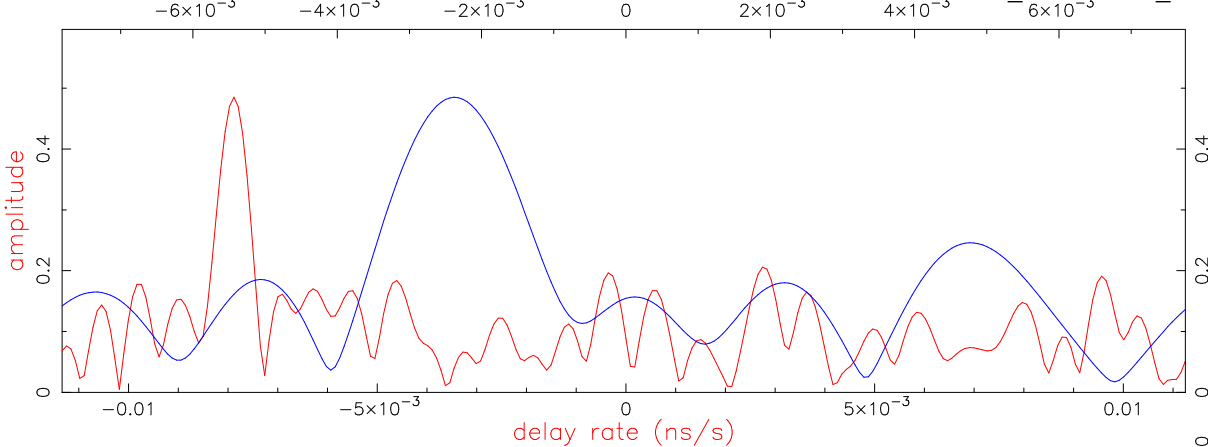
aux01

BLLAC.3MP1T4, No1071, no

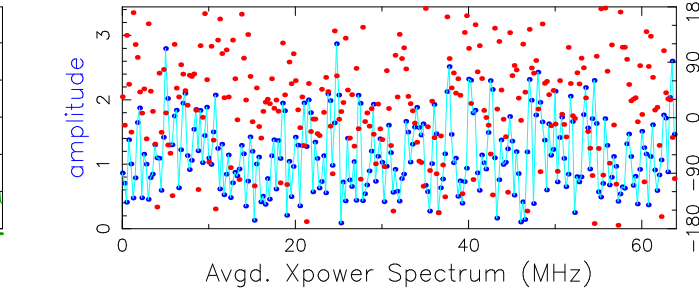
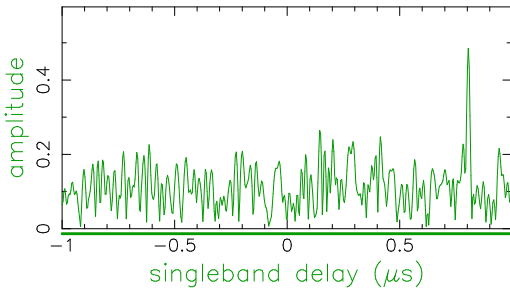
VLBA_NL - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 0

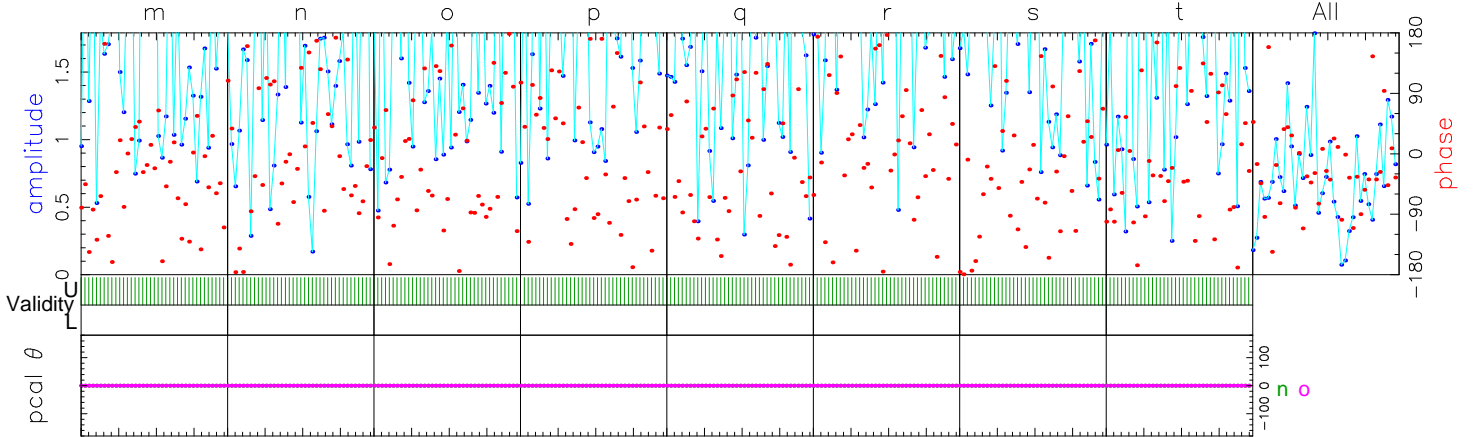


SNR 5.9
 Int time 19.456
 Amp 0.597
 Phase -28.4
 PFD 7.4e-02
 Delays (us)
 SBD 0.804679
 MBD -0.002377
 Fringe rate (Hz)
 -0.678566
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135417
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-34.7	-18.5	-38.7	2.0	-44.7	27.7	-52.4	-36.1	Phase	-28.4
	1.4	0.5	0.6	0.5	0.7	0.5	0.6	0.5	Ampl.	0.6
	463.0	435.6	73.9	71.7	286.1	131.2	70.9	311.2	Sbd box	463.0
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-4.74586724540E+03	Apriori delay (usec)	-4.74667736812E+03	Resid mbdelay (usec)	-2.37728E-03	+/-	1.9E-04
Sband delay (usec)	-4.74587268912E+03	Apriori clock (usec)	-2.5348650E+01	Resid sbdelay (usec)	8.04679E-01	+/-	1.5E-03
Phase delay (usec)	-4.74667736903E+03	Apriori clockrate (us/s)	-1.8401209E-07	Resid phdelay (usec)	-9.15687E-07	+/-	6.3E-07
Delay rate (us/s)	6.08102179837E-02	Apriori rate (us/s)	6.08180954666E-02	Resid rate (us/s)	-7.87748E-06	+/-	5.6E-08
Total phase (deg)	-204.7	Apriori accel (us/s/s)	2.97476182991E-05	Resid phase (deg)	-28.4	+/-	19.6

ph/seg (deg)	62.8	Theor.	60.4	Amplitude	0.597 +/- 0.102	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	88.9		105.3	Search (128X32)	0.468	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	29.5		27.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	46.9		48.3	Inc. seg. avg.	0.571	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.578	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

n: az 310.7 el 18.7 pa 49.9 o: az 301.1 el 32.9 pa 67.2 u,v (fr/asec) -438.314 2535.593 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1071//no..3MP1T4 Output file: /Exps/c241a/v2/3mm/1234/No1071//no.W.140.3MP1T4

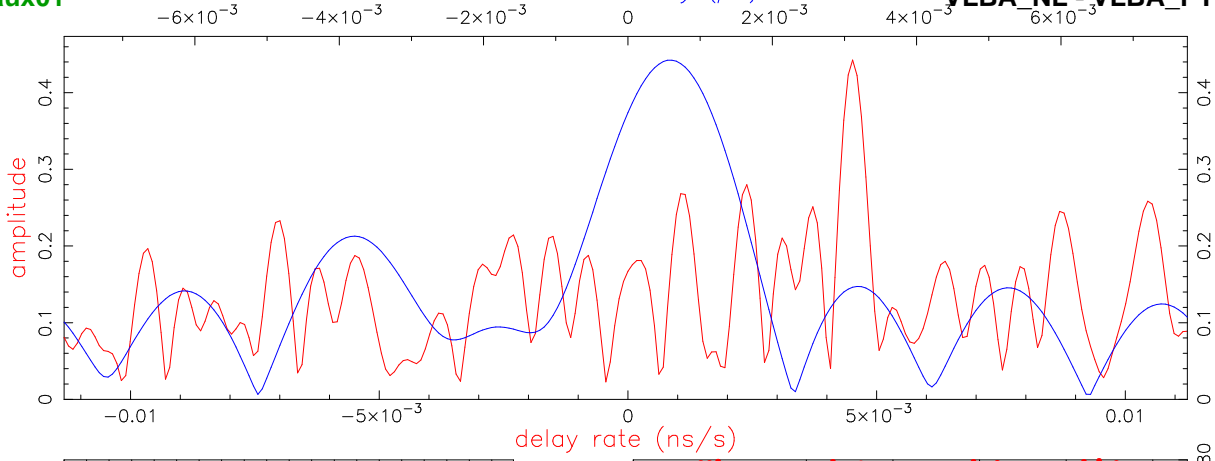
Mk4/DiFX fourfit 3.25 rev 0

aux01

BLLAC.3MP1T4, No1071, np

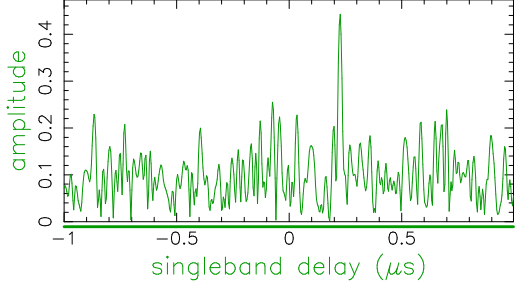
VLBA_NL - VLBA_PT, fgroup W, pol LL

multiband delay (μ s)

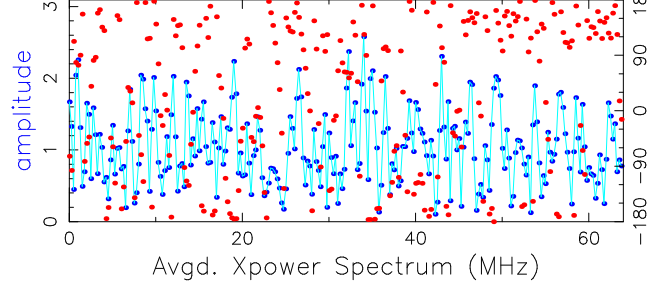


Fringe quality 0

SNR 5.3
 Int time 19.456
 Amp 0.473
 Phase -132.7
 PFD 7.2e-01
 Delays (us)
 SBD 0.225937
 MBD 0.000590
 Fringe rate (Hz)
 0.387137
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

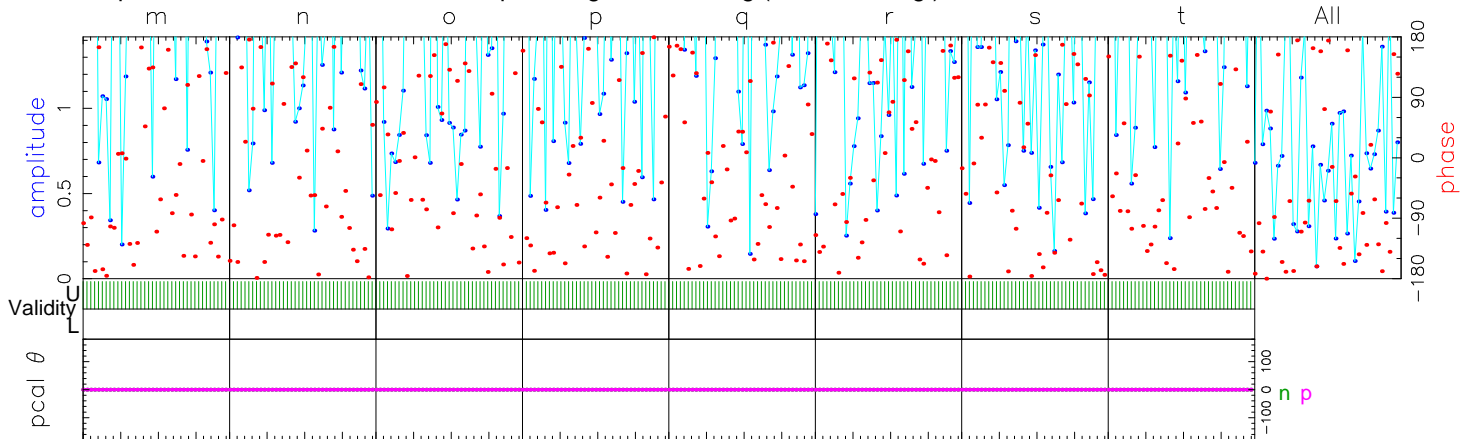


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135415
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-121.9	-139.7	-145.9	-125.5	-134.7	-156.7	-175.6	-109.8	Phase	-132.7
	0.9	0.6	0.3	0.4	0.5	0.5	0.2	0.6	Ampl.	0.4
	314.7	205.6	506.3	502.1	129.2	344.5	307.5	485.9	Sbd box	314.8
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.95738102452E+03	Apriori delay (usec)	-1.95760036495E+03	Resid mbdelay (usec)	5.90425E-04	+/-	2.0E-04
Sband delay (usec)	-1.95737442770E+03	Apriori clock (usec)	-5.9915333E+00	Resid sbdelay (usec)	2.25937E-01	+/-	1.6E-03
Phase delay (usec)	-1.95760036923E+03	Apriori clockrate (us/s)	-8.1437027E-08	Resid phdelay (usec)	-4.27862E-06	+/-	6.9E-07
Delay rate (us/s)	1.16556848809E-01	Apriori rate (us/s)	1.16552354535E-01	Resid rate (us/s)	4.49427E-06	+/-	6.2E-08
Total phase (deg)	-289.8	Apriori accel (us/s/s)	1.81671715830E-05	Resid phase (deg)	-132.7	+/-	21.4

ph/seg (deg) 69.2 66.0 Search (128X32) 0.426 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 137.2 115.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 23.6 30.3 Inc. seg. avg. 0.513 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 41.5 52.9 Inc. frq. avg. 0.433 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 n: az 310.7 el 18.7 pa 49.9 p: az 305.9 el 24.4 pa 64.8 u,v (fr/asec) -882.679 1979.634 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1071//np..3MP1T4 Output file: /Exps/c241a/v2/3mm/1234/No1071//np.W.122.3MP1T4

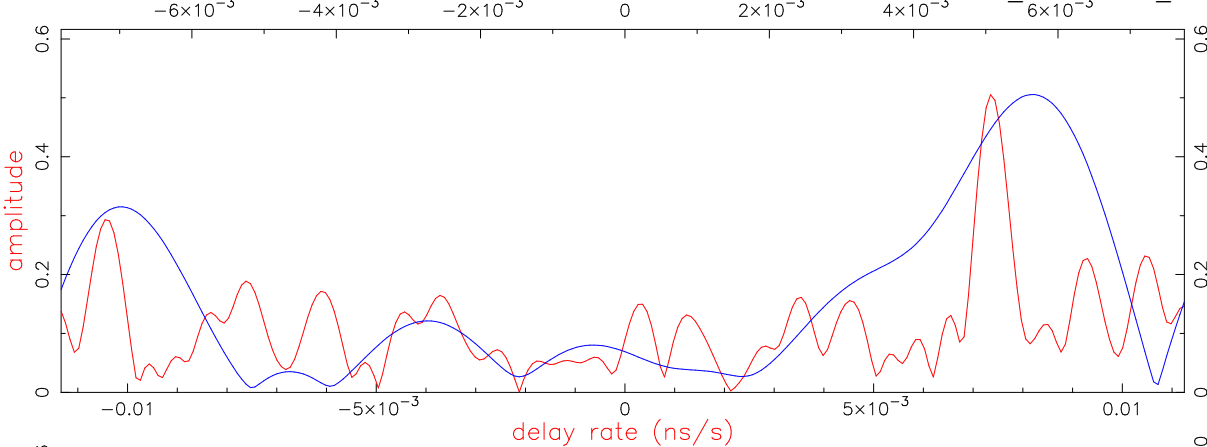
Mk4/DiFX fourfit 3.25 rev 0

aux01

BLLAC.3MP1T4, No1071, np

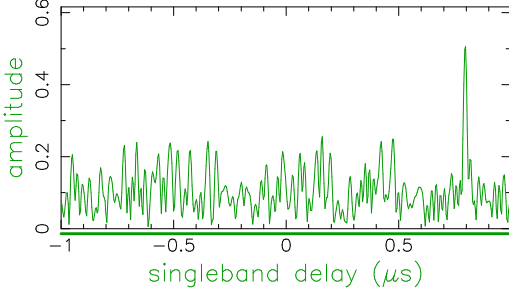
VLBA_NL - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)

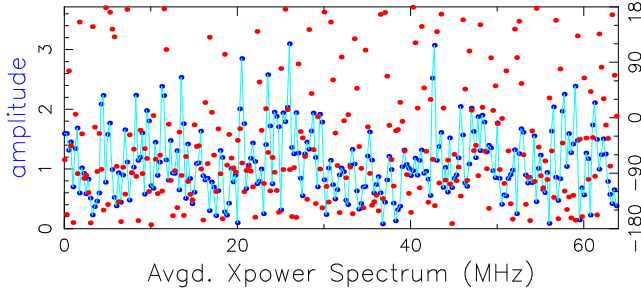


Fringe quality 0

SNR 6.2
 Int time 19.456
 Amp 0.616
 Phase -0.6
 PFD 9.4e-03
 Delays (us)
 SBD 0.795231
 MBD 0.005611
 Fringe rate (Hz)
 0.636615
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

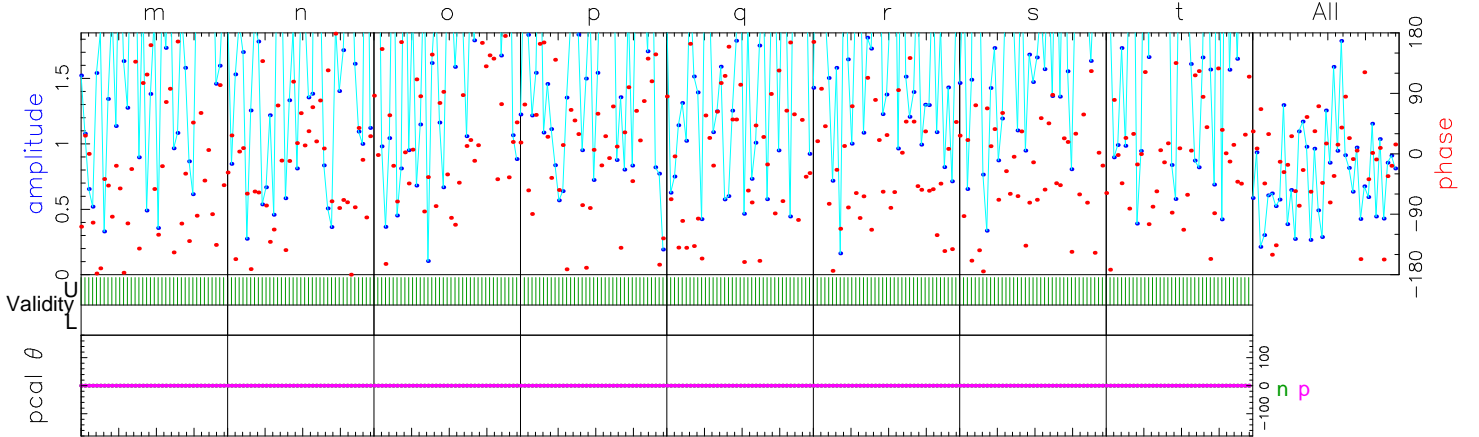


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135415
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-68.6	-12.3	10.1	52.9	35.2	-12.8	-10.1	-5.1		-0.6
	0.4	0.6	0.6	0.7	0.4	0.9	0.9	1.0	Ampl.	0.6
	254.5	290.8	203.6	148.9	55.4	466.6	461.3	461.1	Sbd box	460.6
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-1.95679787936E+03	Apriori delay (usec)	-1.95760036495E+03	Resid mbdelay (usec)	5.61059E-03	+/-	1.8E-04
Sband delay (usec)	-1.95680513395E+03	Apriori clock (usec)	-5.9915333E+00	Resid sbdelay (usec)	7.95231E-01	+/-	1.4E-03
Phase delay (usec)	-1.95760036497E+03	Apriori clockrate (us/s)	-8.1437027E-08	Resid phdelay (usec)	-2.06228E-08	+/-	6.0E-07
Delay rate (us/s)	1.16559745007E-01	Apriori rate (us/s)	1.16552354535E-01	Resid rate (us/s)	7.39047E-06	+/-	5.3E-08
Total phase (deg)	-157.8	Apriori accel (us/s/s)	1.81671715830E-05	Resid phase (deg)	-0.6	+/-	18.5

ph/seg (deg)	64.4	Theor.	57.0	Search (128X32)	0.492	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	86.7		99.4	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		26.1	Inc. seg. avg.	0.619	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	36.9		45.6	Inc. frq. avg.	0.626	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

n: az 310.7 el 18.7 pa 49.9 p: az 305.9 el 24.4 pa 64.8 u,v (fr/asec) -882.679 1979.634 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1071//np..3MP1T4 Output file: /Exps/c241a/v2/3mm/1234/No1071//np.W.127.3MP1T4

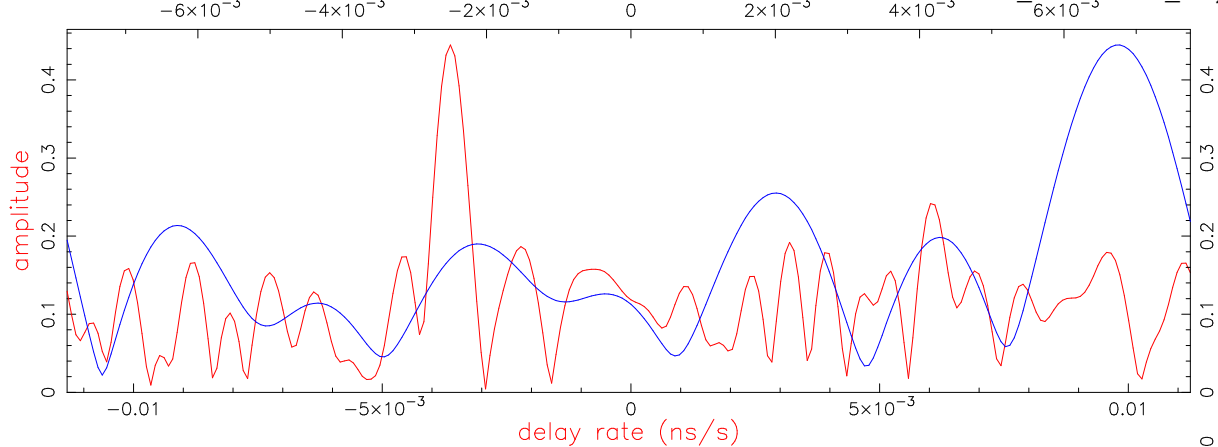
Mk4/DiFX fourfit 3.25 rev 0

aux01

BLLAC.3MP1T4, No1071, np

VLBA_NL - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)

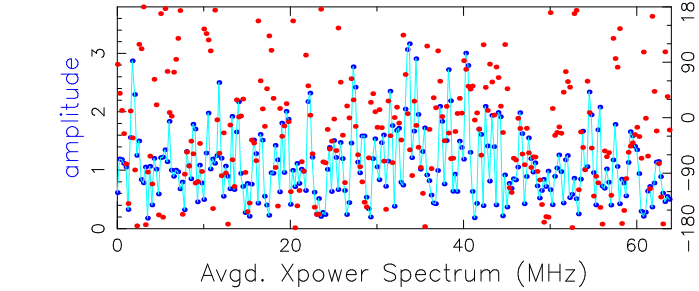
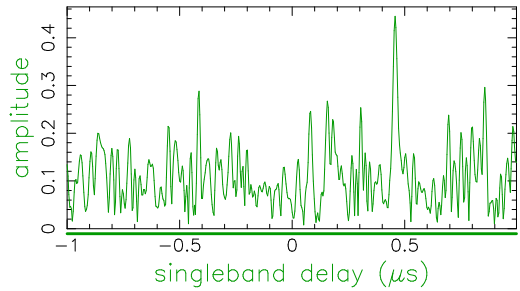


Fringe quality 0

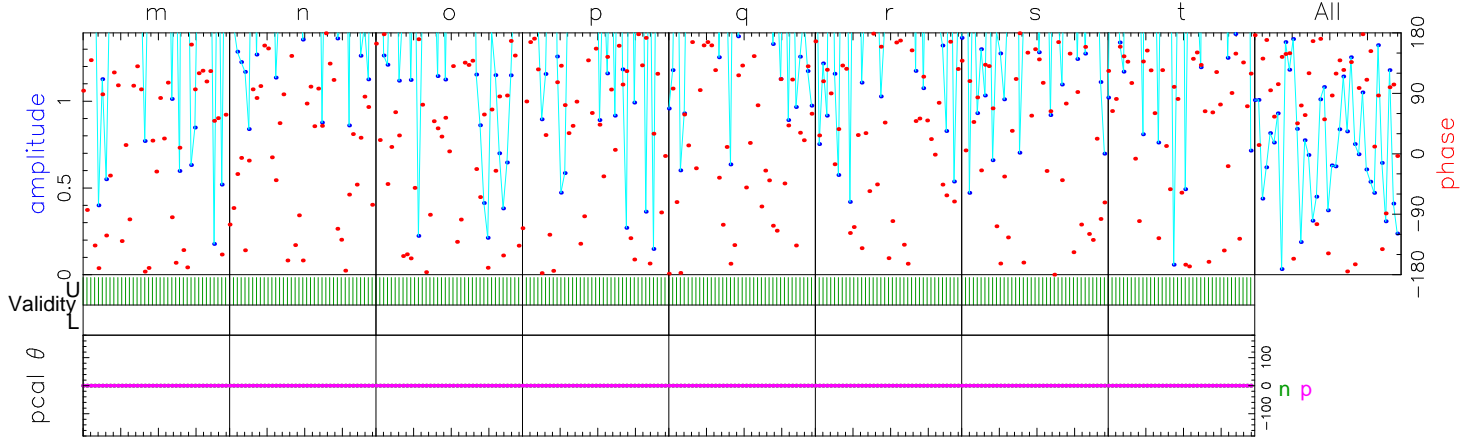
SNR 5.4
 Int time 19.456
 Amp 0.465
 Phase 128.1
 PFD 6.9e-01
 Delays (us)
 SBD 0.457233
 MBD 0.006754
 Fringe rate (Hz)
 -0.316408
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135417
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

delay rate (ns/s)



Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	127.1	106.6	125.1	156.2	50.9	129.1	137.4	119.2	Phase	128.1
	0.7	0.5	0.2	0.7	0.1	0.3	0.5	1.0	Ampl.	0.4
	142.6	459.0	335.7	374.8	279.0	24.1	334.3	374.2	Sbd box	374.1
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	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)	-1.95714048596E+03		Apriori delay (usec)		-1.95760036495E+03		Resid mbdelay (usec)		6.75399E-03	+/- 2.0E-04
Sband delay (usec)	-1.95714313195E+03		Apriori clock (usec)		-5.9915333E+08		Resid sbdelay (usec)		4.57233E-01	+/- 1.6E-03
Phase delay (usec)	-1.95760036082E+03		Apriori clockrate (us/s)		-8.1437027E-08		Resid phdelay (usec)		4.13022E-06	+/- 6.9E-07
Delay rate (us/s)	1.16548681350E-01		Apriori rate (us/s)		1.16552354535E-01		Resid rate (us/s)		-3.67319E-06	+/- 6.1E-08
Total phase (deg)			Apriori accel (us/s/s)		1.81671715830E-05		Resid phase (deg)		128.1	+/- 21.4

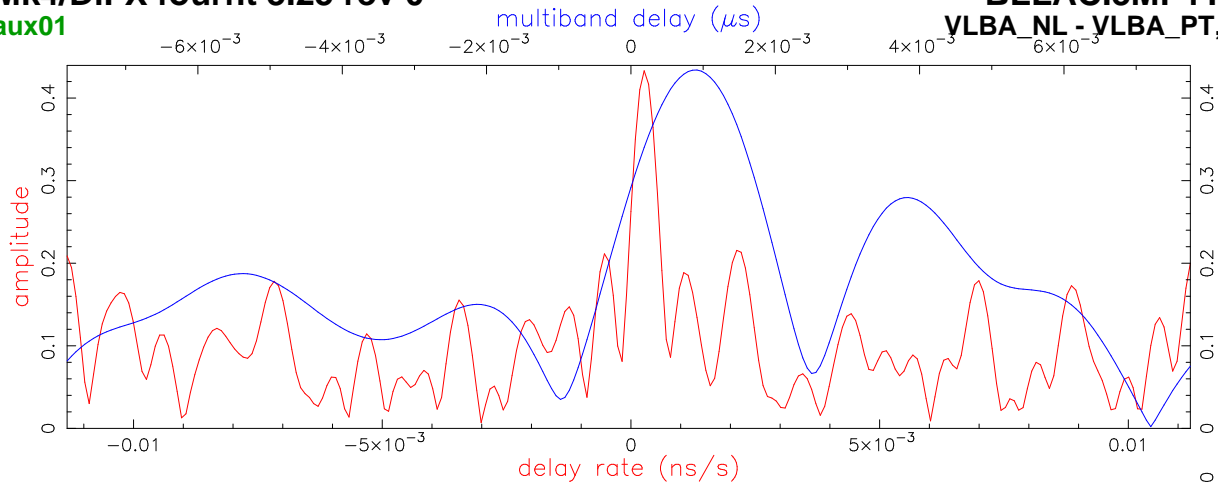
ph/seg (deg) 64.0 65.8 Search (128X32) 0.436 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 103.8 114.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 35.1 30.2 Inc. seg. avg. 0.476 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 59.1 52.7 Inc. frq. avg. 0.430 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 n: az 310.7 el 18.7 pa 49.9 p: az 305.9 el 24.4 pa 64.8 u,v (fr/asec) -882.679 1979.634 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No1071//np..3MP1T4 Output file: /Exps/c241a/v2/3mm/1234/No1071//np.W.139.3MP1T4

Mk4/DiFX fourfit 3.25 rev 0

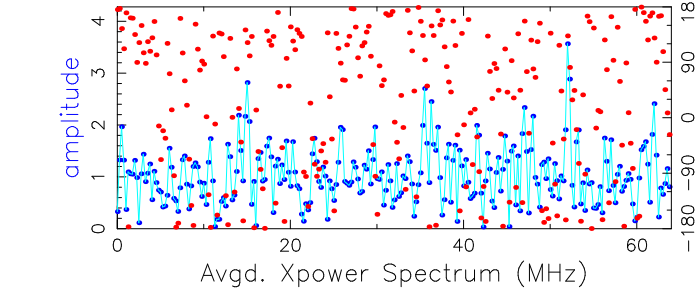
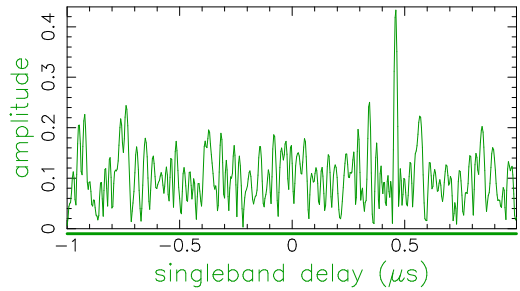
aux01

BLLAC.3MP1T4, No1071, np

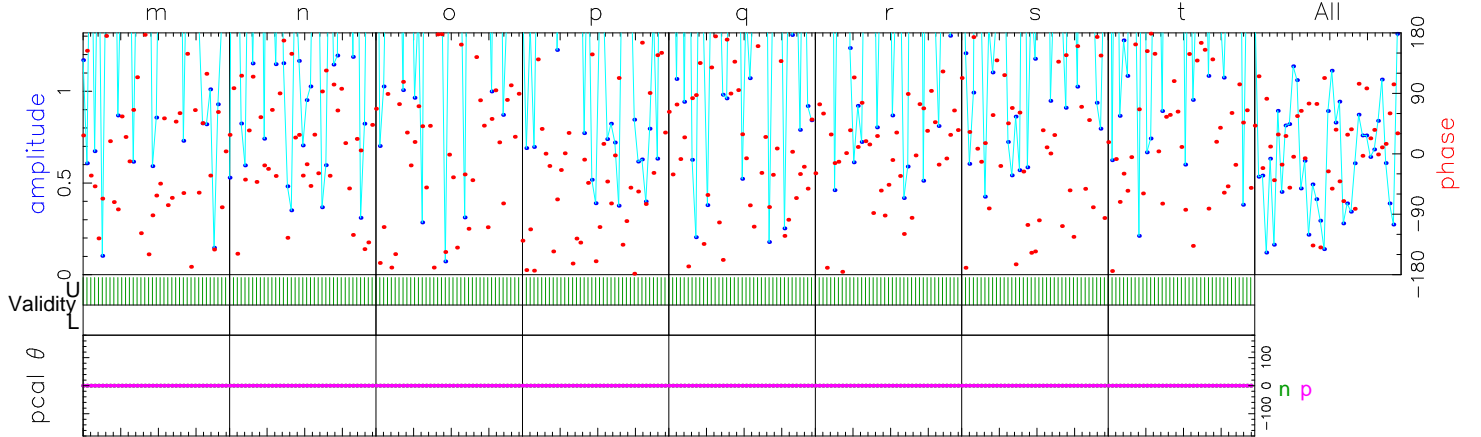
VLBA_NL - VLBA_PT, fgroup W, pol RL



Fringe quality 0
 SNR 5.3
 Int time 19.456
 Amp 0.440
 Phase 16.8
 PFD 8.1e-01
 Delays (us)
 SBD 0.459564
 MBD 0.000827
 Fringe rate (Hz) 0.022756
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 211610.00
 Stop 211629.45
 FRT 211607.00
 Corr/FF/build
 2025:003:231718
 2025:041:135418
 2024:113:095956
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"



Amp. and Phase vs. time for each freq., 38 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All					
	-15.5	28.3	58.5	-72.6	23.8	17.7	6.5	33.0	Phase	16.8					
	0.4	0.7	0.5	0.4	0.2	1.0	0.4	0.5	Ampl.	0.4					
	162.9	139.0	68.3	307.3	312.0	374.3	162.8	118.9	Sbd box	374.6					
U/L	38/0	38/0	38/0	38/0	38/0	38/0	38/0	38/0	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids						
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks						
									Tracks						
Group delay (usec) (SBD)	-1.95714641260E+03								Apriori delay (usec)	-1.95760036495E+03	Resid mbdelay (usec)	8.27346E-04	+/-	2.0E-04	
Sband delay (usec)	-1.95714080120E+03								Apriori clock (usec)	-5.9915333E+00	Resid sbdelay (usec)	4.59564E-01	+/-	1.6E-03	
Phase delay (usec)	-1.95760036441E+03								Apriori clockrate (us/s)	-8.1437027E-08	Resid phdelay (usec)	5.40476E-07	+/-	7.0E-07	
Delay rate (us/s)	1.16552618708E-01								Apriori rate (us/s)	1.16552354535E-01	Resid rate (us/s)	2.64173E-07	+/-	6.2E-08	
Total phase (deg)			-140.4						Apriori accel (us/s/s)	1.81671715830E-05	Resid phase (deg)	16.8	+/-	21.6	
	RMS	Theor.	Amplitude	0.440 +/- 0.083					Pcal mode: MANUAL, MANUAL		PC period (AP's)	5, 5			
ph/seg (deg)	62.1	66.6	Search (128X32)	0.418					Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	90.7	116.3	Interp.	0.000					Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	43.4	30.6	Inc. seg. avg.	0.392					Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	55.9	53.4	Inc. frq. avg.	0.444					Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
n: az 310.7 el 18.7 pa 49.9			p: az 305.9 el 24.4 pa 64.8						u,v (fr/asec) -882.679 1979.634					simultaneous interpolator	
Control file: cf_1234_gmva			Input file: /Exps/c241a/v2/3mm/1234/No1071//np..3MP1T4						Output file: /Exps/c241a/v2/3mm/1234/No1071//np.W.142.3MP1T4						