

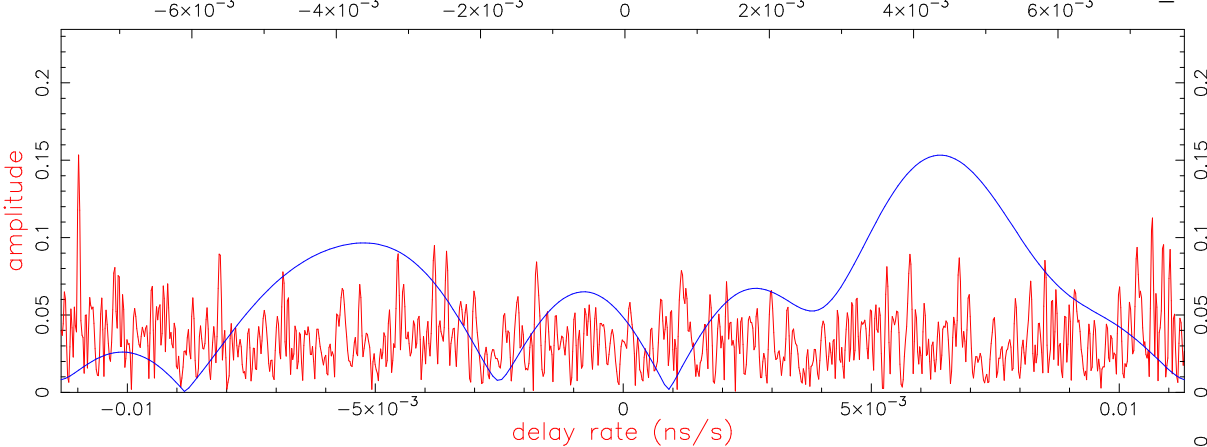
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, Bp

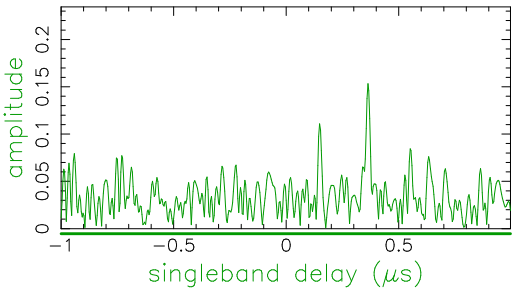
EFLSBERG - VLBA\_PT, fgroup W, pol RL

multiband delay ( $\mu$ s)

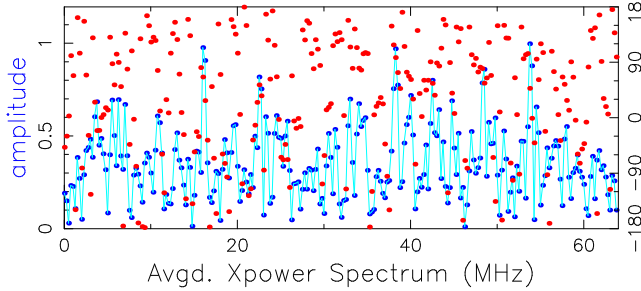


Fringe quality 0

SNR 5.6  
 Int time 179.967  
 Amp 0.235  
 Phase -96.0  
 PFD 8.8e-01  
 Delays (us)  
 SBD 0.364005  
 MBD 0.004382  
 Fringe rate (Hz)  
 -0.947514  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

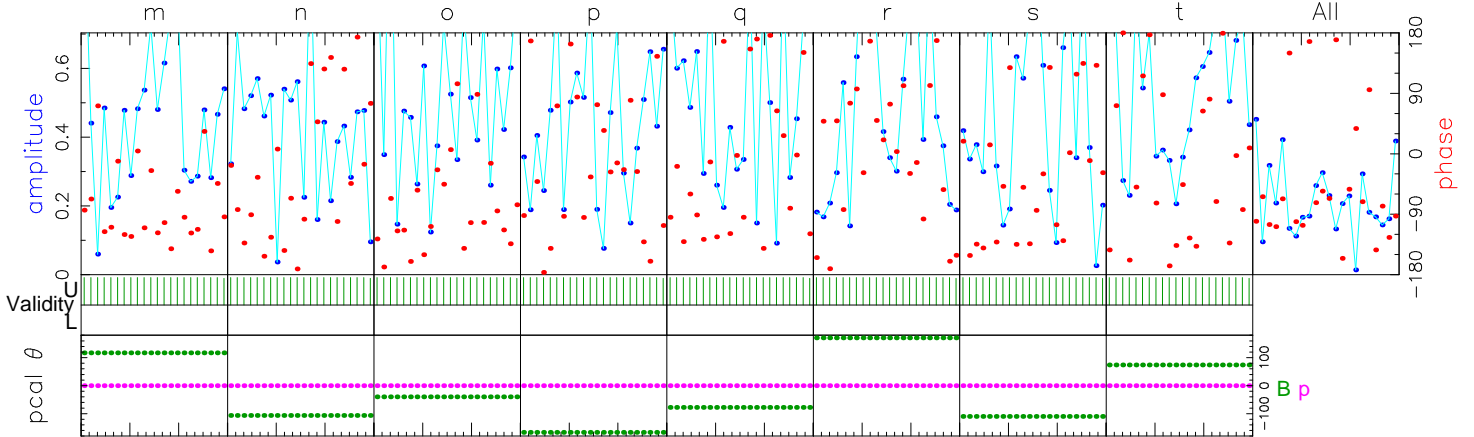


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105008  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-85.8	-128.0	-99.1	-78.1	-104.7	32.7	-86.9	-129.3	Phase	-96.0
	0.5	0.2	0.5	0.1	0.3	0.2	0.2	0.2	Ampl.	0.2
	349.3	63.7	350.4	294.8	101.9	363.0	43.5	492.0	Sbd box	350.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
B:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:p	118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0	ManI PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	9.71531269372E+03	Apriori delay (usec)	9.71494893712E+03	Resid mbdelay (usec)	4.38161E-03	+/-	1.9E-04
Sband delay (usec)	9.71531294187E+03	Apriori clock (usec)	-4.1109184E+01	Resid sbdelay (usec)	3.64005E-01	+/-	1.5E-03
Phase delay (usec)	9.71494893402E+03	Apriori clockrate (us/s)	-5.6823600E-07	Resid phdelay (usec)	-3.09715E-06	+/-	6.6E-07
Delay rate (us/s)	-1.44061857860E+00	Apriori rate (us/s)	-1.44060757891E+00	Resid rate (us/s)	-1.09997E-05	+/-	6.3E-09
Total phase (deg)		Apriori accel (us/s/s)	-3.76513665331E-05	Resid phase (deg)	-96.0	+/-	20.3

ph/seg (deg)	64.8	Theor.	47.7	Amplitude	0.235 +/- 0.042	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	78.8	Search (1024X32)	0.151	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	56.7	Inc. seg. avg.	0.245	Inc. frq. avg.	0.246	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	63.8	Inc. frq. avg.	0.246			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 252.9 el 63.3 pa 49.7 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) 10337.948 -846.439 simultaneous interpolator

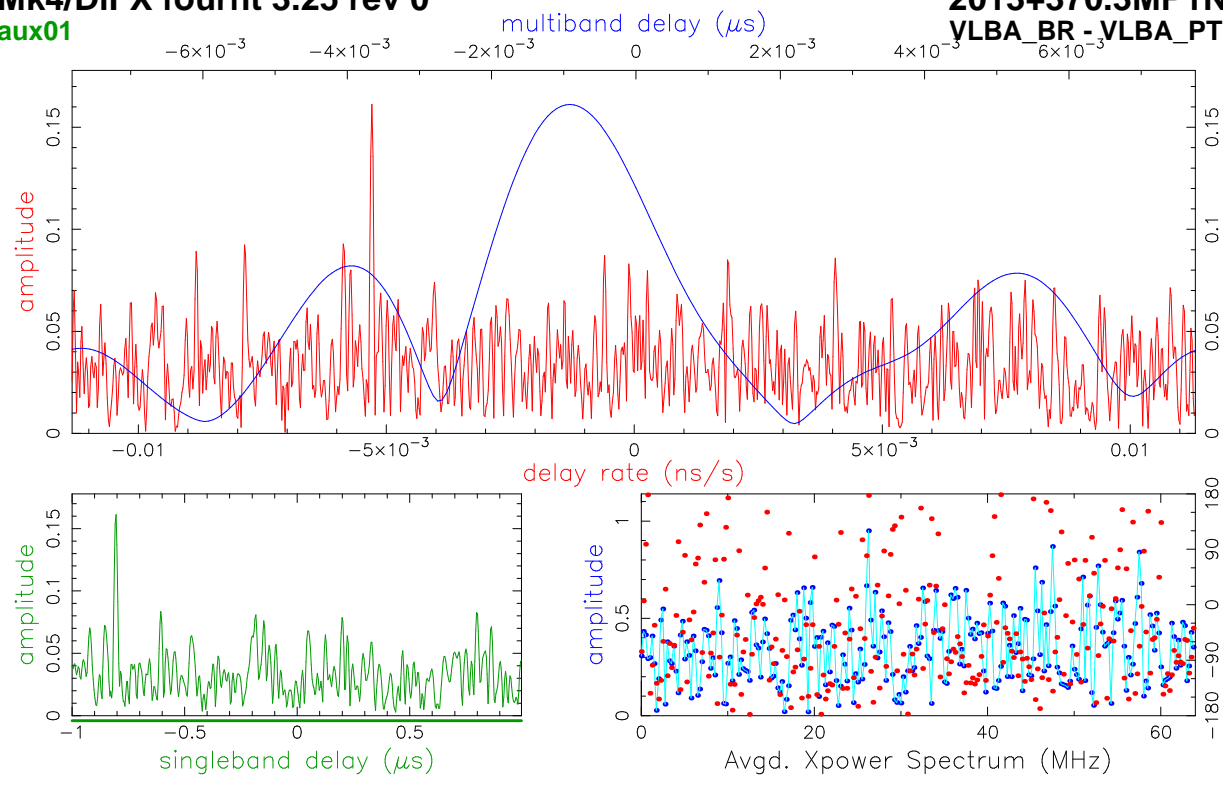
Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/Bp..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/Bp.W.100.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

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2013+370.3MP1N1, No0280, bp

VLBA\_BR - VLBA\_PT, fgroup W, pol LL

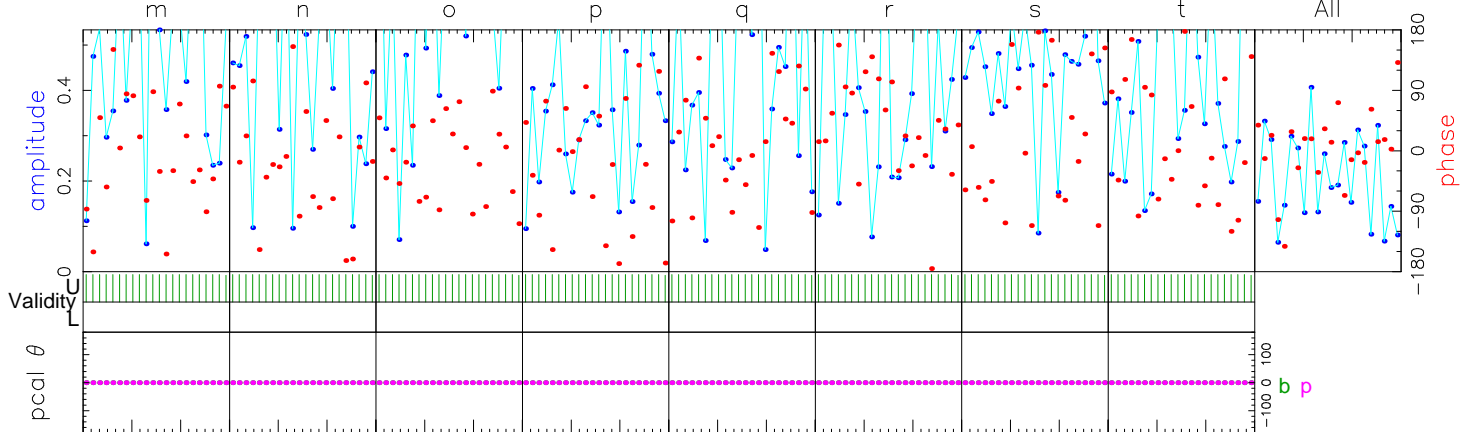


Fringe quality 0

SNR 6.0  
 Int time 179.991  
 Amp 0.178  
 Phase 5.0  
 PFD 2.8e-01  
 Delays (us)  
 SBD -0.805721  
 MBD -0.000915  
 Fringe rate (Hz)  
 -0.456516  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:104951  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
b	0	0	0	0	0	0	0	0		
p	0	0	0	0	0	0	0	0		
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec) (SBD)	-3.33045080146E+02									
Sband delay (usec)	-3.33037385811E+02									
Phase delay (usec)	-3.32231664898E+02									
Delay rate (us/s)	-1.87320617663E-01									
Total phase (deg)			-221.2							
Apriori delay (usec)					-3.32231665061E+02					
Apriori clock (usec)					-1.0729904E+00					
Apriori clockrate (us/s)					1.9774395E-07					
Apriori rate (us/s)					-1.87315317967E-01					
Apriori accel (us/s/s)					1.41230710354E-05					
Resid mbdelay (usec)									-9.15085E-04	+/- 1.8E-04
Resid sbdelay (usec)									-8.05721E-01	+/- 1.4E-03
Resid phdelay (usec)									1.62275E-07	+/- 6.2E-07
Resid rate (us/s)									-5.29970E-06	+/- 6.0E-09
Resid phase (deg)									5.0	+/- 19.2
PCal mode:	MANUAL, MANUAL		PC period (AP's) 5, 5							
PCal rate:	0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000							
Bits/sample:	2x2		SampCntNorm: enabled mb window (us) -0.008 0.008							
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 60.8 el 24.5 pa -47.2	p: az 60.8 el 25.4 pa -65.1		u, v (fr/asec) 1361.907 2111.340						simultaneous interpolator	
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0280/bp..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/bp.W.35.3MP1N1							

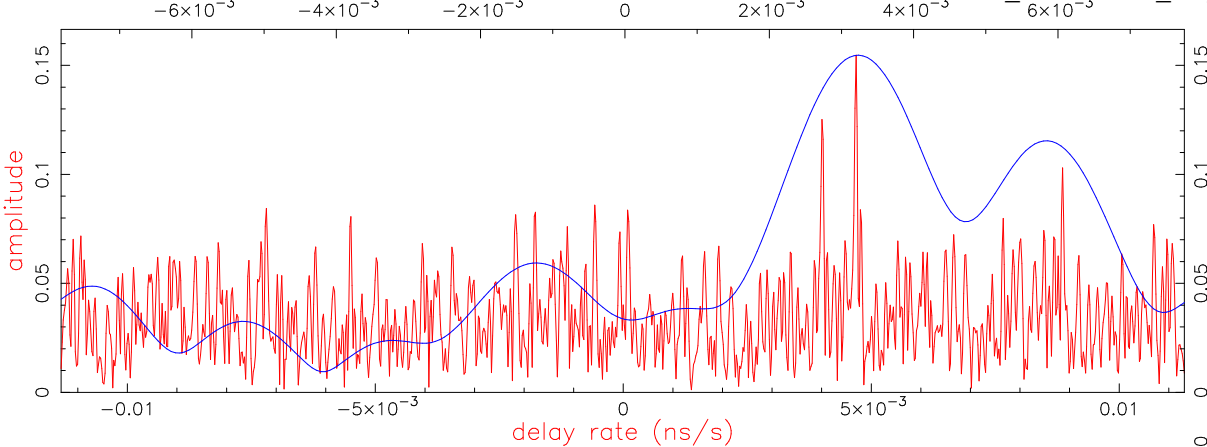
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bp

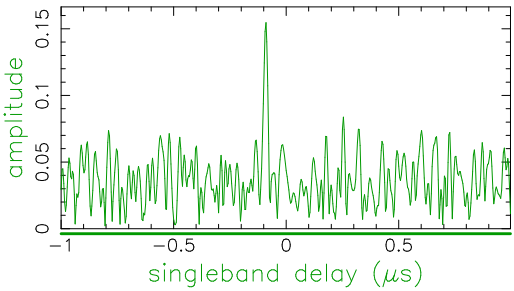
VLBA\_BR - VLBA\_PT, fgroup W, pol RR

multiband delay ( $\mu$ s)

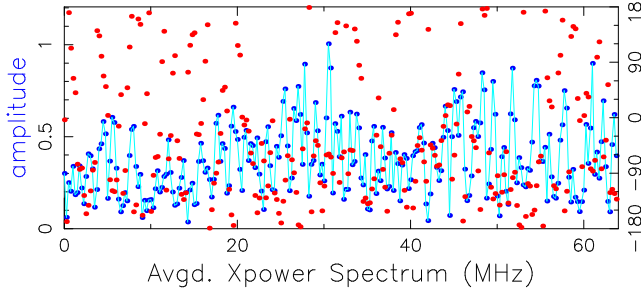


Fringe quality 0

SNR 5.7  
 Int time 179.991  
 Amp 0.166  
 Phase -101.9  
 PFD 8.0e-01  
 Delays (us)  
 SBD -0.090497  
 MBD 0.003231  
 Fringe rate (Hz)  
 0.405198  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

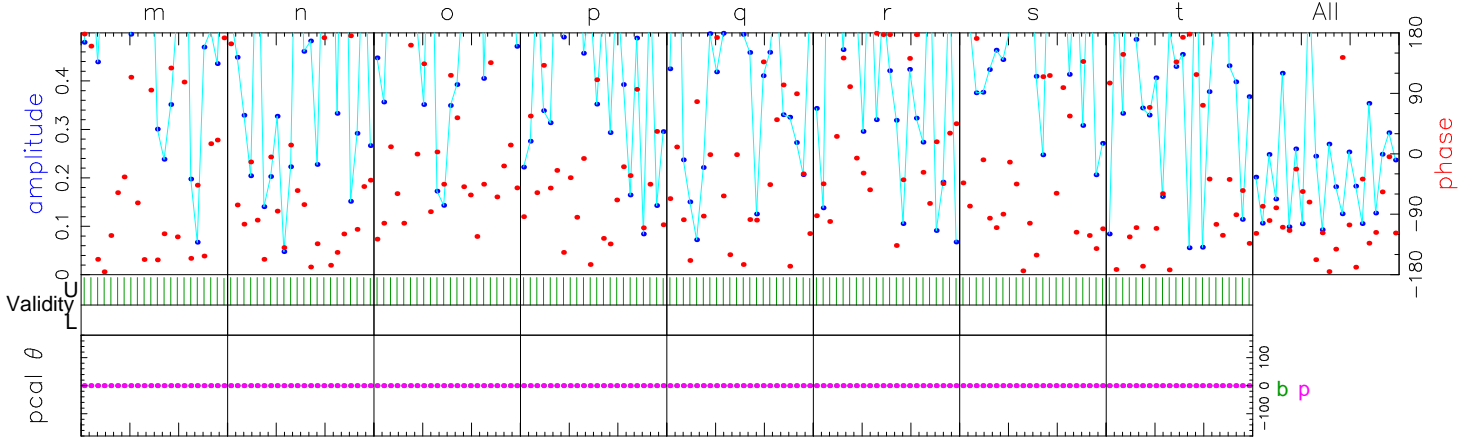


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:104953  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-169.1	-111.7	-66.4	-68.0	-68.1	-74.6	-101.0	-140.5	Phase	-101.9
	0.2	0.3	0.3	0.2	0.1	0.1	0.2	0.2	Ampl.	0.2
	9.1	22.5	291.5	154.0	498.2	322.0	426.6	211.9	Sbd box	233.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	-3.32322184472E+02				-3.32231665061E+02				Resid mbdelay (usec)	3.23059E-03 +/- 1.9E-04
Sband delay (usec)	-3.32322162311E+02				-1.0729904E+00				Resid sbdelay (usec)	-9.04972E-02 +/- 1.5E-03
Phase delay (usec)	-3.32231668346E+02				1.9774395E-07				Resid phdelay (usec)	-3.28500E-06 +/- 6.5E-07
Delay rate (us/s)	-1.87310614021E-01				-1.87315317967E-01				Resid rate (us/s)	4.70395E-06 +/- 6.2E-09
Total phase (deg)			-328.1		1.41230710354E-05				Resid phase (deg)	-101.9 +/- 20.2
	RMS	Theor.	Amplitude	0.166 +/- 0.029					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	50.5	47.3	Search (1024X32)	0.148					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	90.2	82.5	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	41.7	28.5	Inc. seg. avg.	0.180					Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
amp/frq (%)	50.2	49.8	Inc. frq. avg.	0.180					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
b: az 60.8 el 24.5 pa -47.2		p: az 60.8 el 25.4 pa -65.1		u, v (fr/asec) 1361.907 2111.340						ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva		Input file: /Exps/c241c/v2/3mm/1234/No0280/bp..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/bp.W.39.3MP1N1						simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

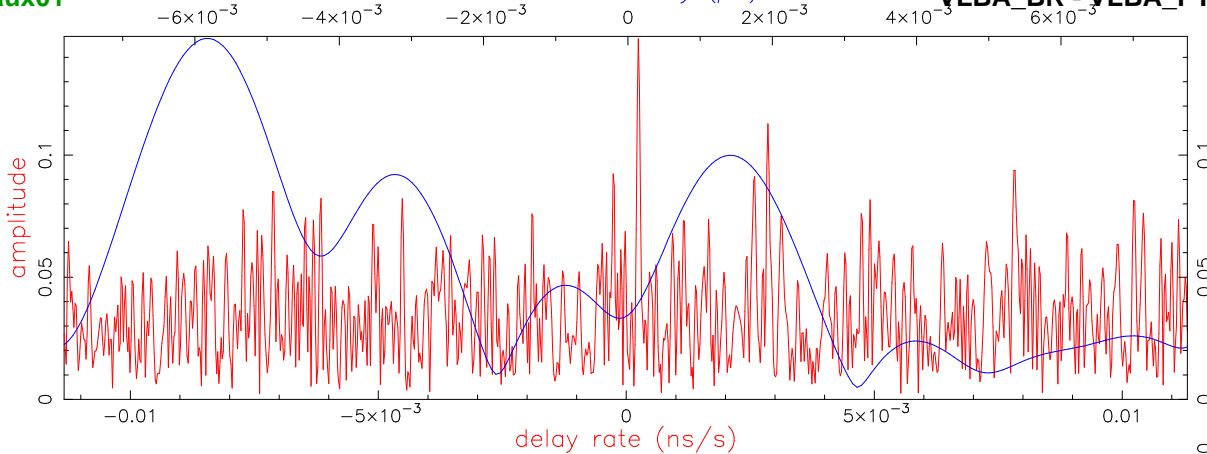
aux01

2013+370.3MP1N1, No0280, bp

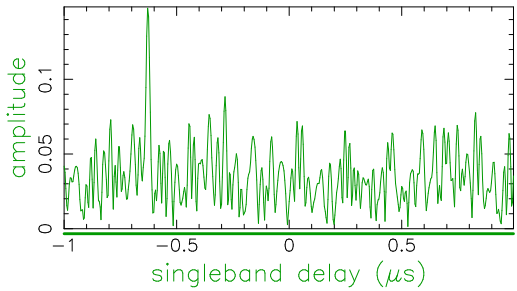
VLBA\_BR - VLBA\_PT, fgroup W, pol LR

multiband delay ( $\mu$ s)

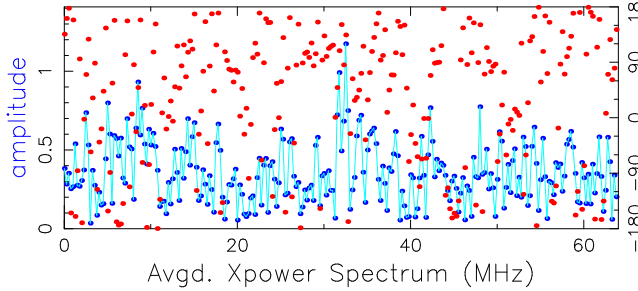
Fringe quality 0



SNR 5.4  
 Int time 179.991  
 Amp 0.149  
 Phase 150.1  
 PFD 1.0e+00  
 Delays (us)  
 SBD -0.627864  
 MBD -0.005787  
 Fringe rate (Hz) 0.020785  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

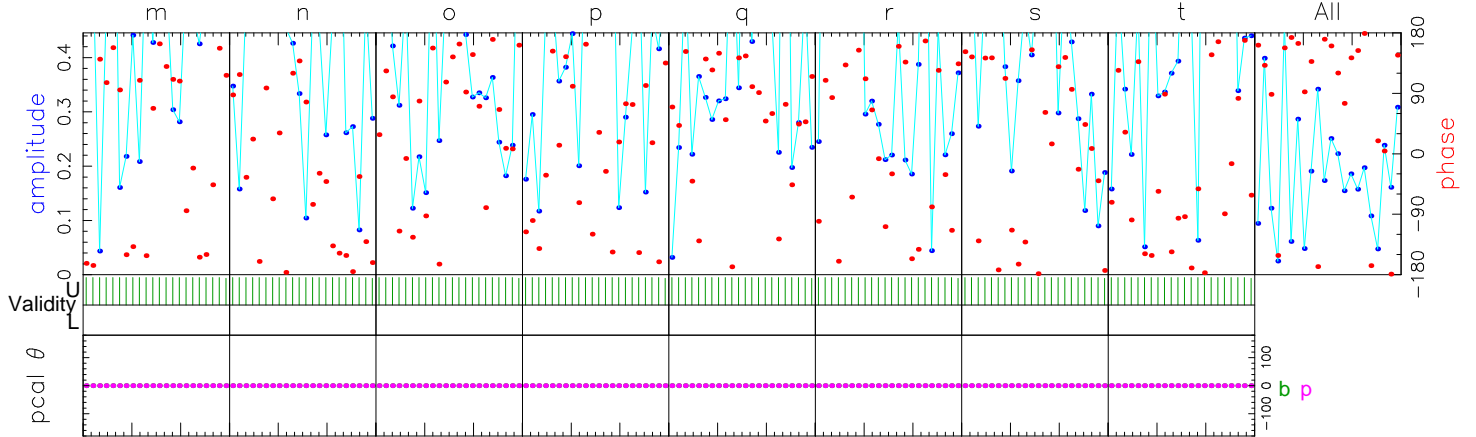


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build 2024:352:054246  
 2025:041:104954  
 2024:113:095956  
 RA & Dec (J2000) 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	167.7	-139.4	125.3	175.2	103.0	150.4	137.4	-150.1	Phase	150.1
	0.3	0.1	0.2	0.1	0.2	0.2	0.2	0.2	Ampl.	0.2
	488.5	278.0	236.2	81.4	365.9	237.0	472.7	484.1	Sbd box	96.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-3.32862452515E+02	Apriori delay (usec)	-3.32231665061E+02	Resid mbdelay (usec)	-5.78745E-03	+/-	2.0E-04
Sband delay (usec)	-3.32859529561E+02	Apriori clock (usec)	-1.0729904E+00	Resid sbdelay (usec)	-6.27864E-01	+/-	1.6E-03
Phase delay (usec)	-3.32231660220E+02	Apriori clockrate (us/s)	1.9774395E-07	Resid phdelay (usec)	4.84107E-06	+/-	6.8E-07
Delay rate (us/s)	-1.87315076677E-01	Apriori rate (us/s)	-1.87315317967E-01	Resid rate (us/s)	2.41289E-07	+/-	6.5E-09
Total phase (deg)	-76.1	Apriori accel (us/s/s)	1.41230710354E-05	Resid phase (deg)	150.1	+/-	21.0

ph/seg (deg)	RMS 53.6	Theor. 49.3	Amplitude Search (1024X32)	0.149 +/- 0.027	0.147	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	81.3	86.1	Interp.	0.000	0.147	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	45.6	29.7	Inc. seg. avg.	0.140	0.147	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	51.0	51.9	Inc. frq. avg.	0.158	0.147	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 60.8 el 24.5 pa -47.2      p: az 60.8 el 25.4 pa -65.1      u,v (fr/asec) 1361.907 2111.340      simultaneous interpolator

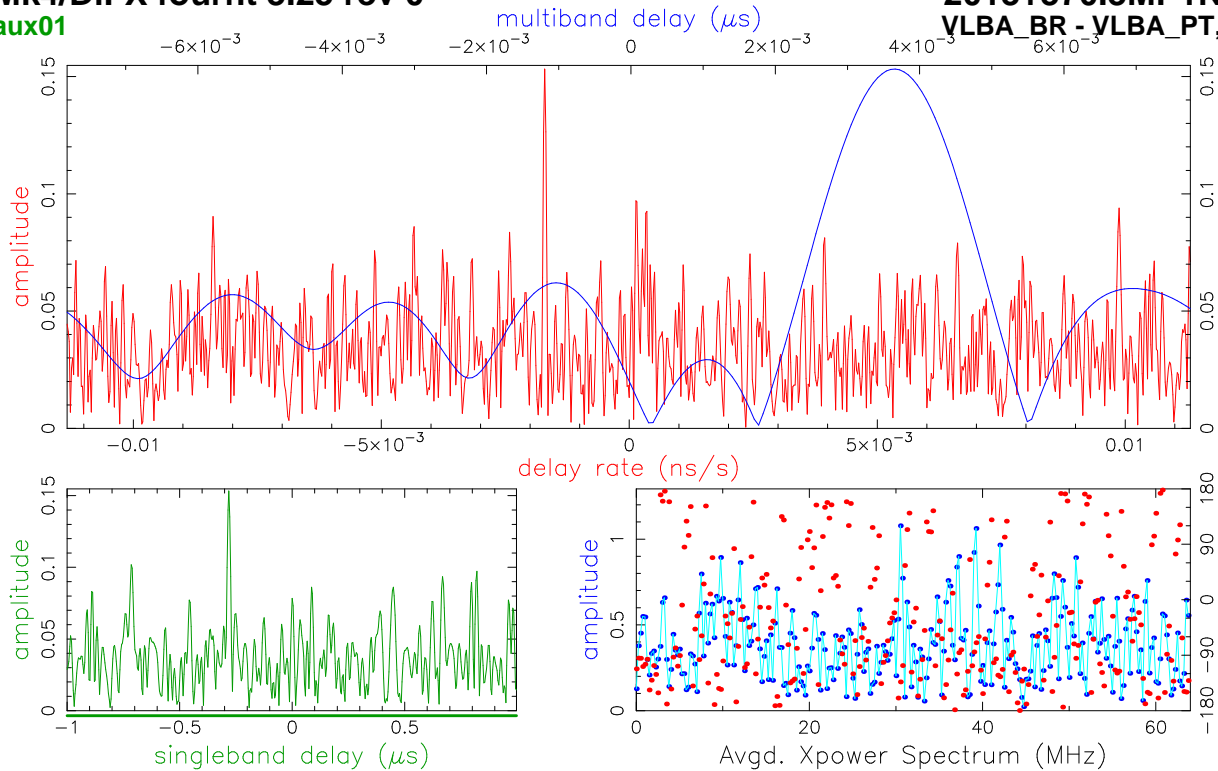
Control file: cf\_1234\_gmva      Input file: /Exps/c241c/v2/3mm/1234/No0280/bp..3MP1N1      Output file: /Exps/c241c/v2/3mm/1234/No0280/bp.W.47.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

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2013+370.3MP1N1, No0280, bp

VLBA\_BR - VLBA\_PT, fgroup W, pol RL

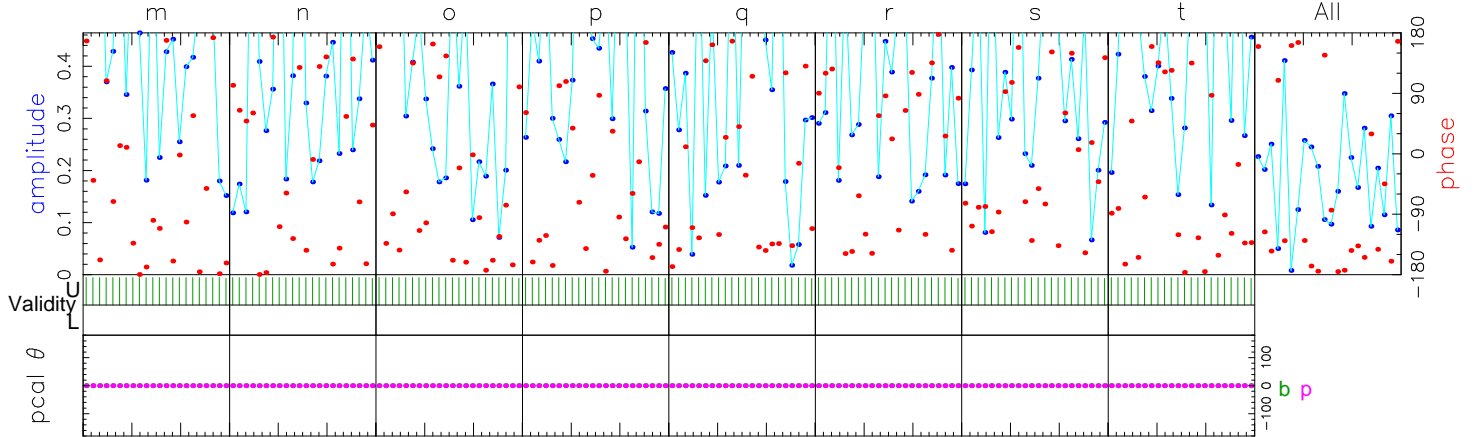


Fringe quality 0

SNR 5.6  
 Int time 179.991  
 Amp 0.155  
 Phase -154.2  
 PFD 9.0e-01  
 Delays (us)  
 SBD -0.281569  
 MBD 0.003641  
 Fringe rate (Hz)  
 -0.146878  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:104959  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-132.4	146.2	-153.9	-110.4	-155.2	163.3	-143.5	-149.7	Phase	-154.2	
	0.2	0.1	0.3	0.1	0.2	0.1	0.2	0.2	Ampl.	0.2	
	275.1	63.4	89.8	201.8	373.7	30.0	357.8	344.9	Sbd box	184.9	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used		
b	0	0	0	0	0	0	0	0	PC freqs		
p	0	0	0	0	0	0	0	0	PC freqs		
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
p	1000	1000	1000	1000	1000	1000	1000	1000			
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks		
									Tracks		
Group delay (usec) (SBD)	-3.32509274165E+02		Apriori delay (usec)		-3.32231665061E+02		Resid mbdelay (usec)		3.64090E-03	+/- 1.9E-04	
Sband delay (usec)	-3.32513233811E+02		Apriori clock (usec)		-1.0729904E+00		Resid sbdelay (usec)		-2.81569E-01	+/- 1.5E-03	
Phase delay (usec)	-3.32231670033E+02		Apriori clockrate (us/s)		1.9774395E-07		Resid phdelay (usec)		-4.97204E-06	+/- 6.6E-07	
Delay rate (us/s)	-1.87317023070E-01		Apriori rate (us/s)		-1.87315317967E-01		Resid rate (us/s)		-1.70510E-06	+/- 6.3E-09	
Total phase (deg)			Apriori accel (us/s/s)		1.41230710354E-05		Resid phase (deg)		-154.2	+/- 20.4	
	RMS	Theor.	Amplitude	0.155 +/- 0.028		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	57.6	47.8	Search (1024X32)	0.152		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	68.0	83.4	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	36.2	28.8	Inc. seg. avg.	0.142		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	30.4	50.3	Inc. frq. avg.	0.155		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
b: az 60.8 el 24.5 pa -47.2	p: az 60.8 el 25.4 pa -65.1		u, v (fr/asec) 1361.907 2111.340						simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0280/bp..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/bp.W.56.3MP1N1								

Mk4/DiFX fourfit 3.25 rev 0

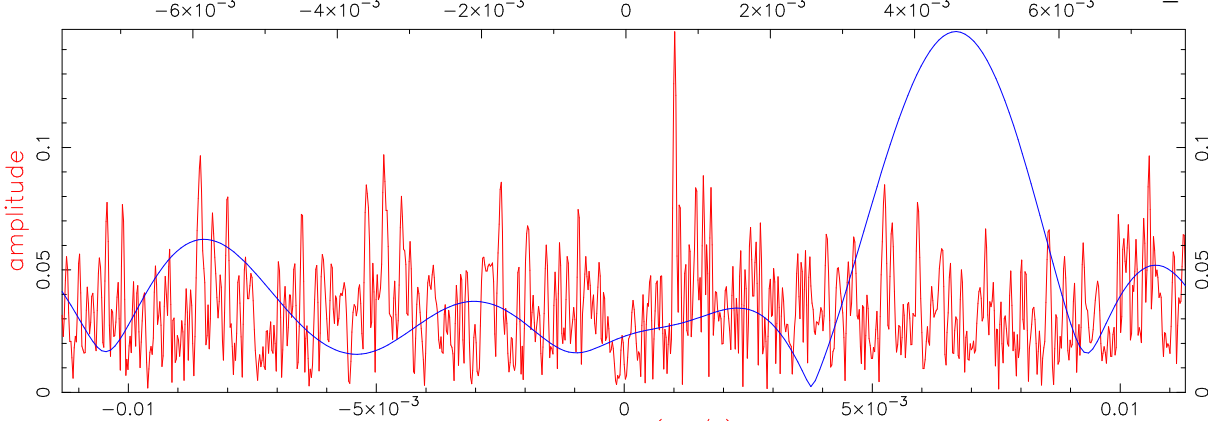
aux01

2013+370.3MP1N1, No0280, Bp

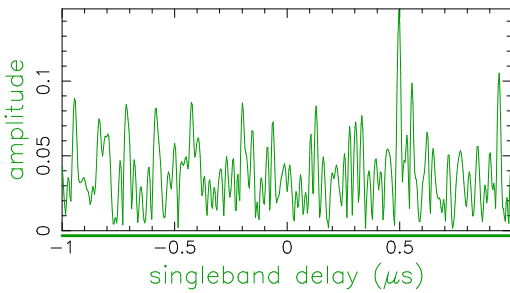
EFLSBERG - VLBA\_PT, fgroup W, pol LL

multiband delay ( $\mu$ s)

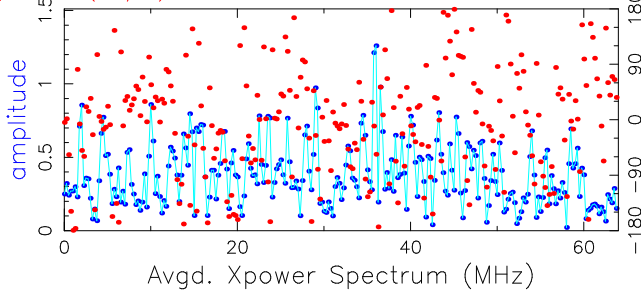
Fringe quality 0



SNR 5.4  
 Int time 179.967  
 Amp 0.148  
 Phase -96.1  
 PFD 1.0e+00  
 Delays (us)  
 SBD 0.496785  
 MBD 0.004590  
 Fringe rate (Hz)  
 0.087530  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

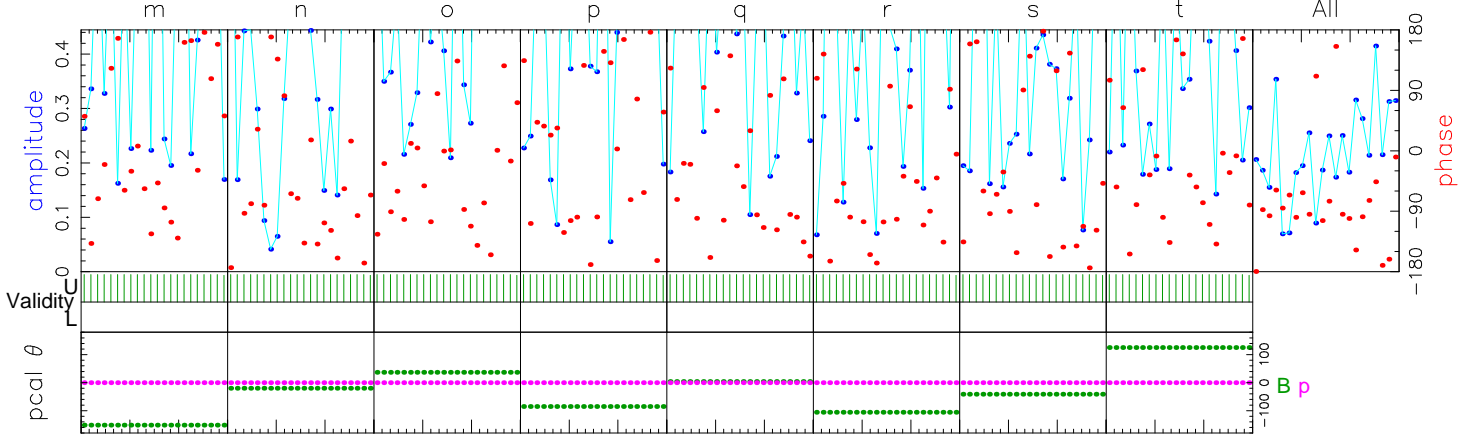


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105001  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
B	0	0	0	0	0	0	0	0		
p	0	0	0	0	0	0	0	0		
B:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:p	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	9.71545352740E+03	Apriori delay (usec)	9.71494893712E+03	Resid mbdelay (usec)	4.59028E-03	+/-	2.0E-04
Sband delay (usec)	9.71544572262E+03	Apriori clock (usec)	-4.1109184E+01	Resid sbdelay (usec)	4.96785E-01	+/-	1.6E-03
Phase delay (usec)	9.71494893402E+03	Apriori clockrate (us/s)	-5.6823600E-07	Resid phdelay (usec)	-3.09872E-06	+/-	6.8E-07
Delay rate (us/s)	-1.44060656278E+00	Apriori rate (us/s)	-1.44060757891E+00	Resid rate (us/s)	1.01613E-06	+/-	6.6E-09
Total phase (deg)		Apriori accel (us/s/s)	-3.76513665331E-05	Resid phase (deg)	-96.1	+/-	21.1

ph/seg (deg)	56.1	Theor.	49.6	Amplitude	0.148 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	76.8		86.5	Search (1024X32)	0.145	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	28.0		29.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	26.6		52.2	Inc. seg. avg.	0.162	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
				Inc. frq. avg.	0.141	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
							ion window (TEC) 0.00 0.00

B: az 252.9 el 63.3 pa 49.7 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) 10337.948 -846.439 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/Bp..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/Bp.W.68.3MP1N1

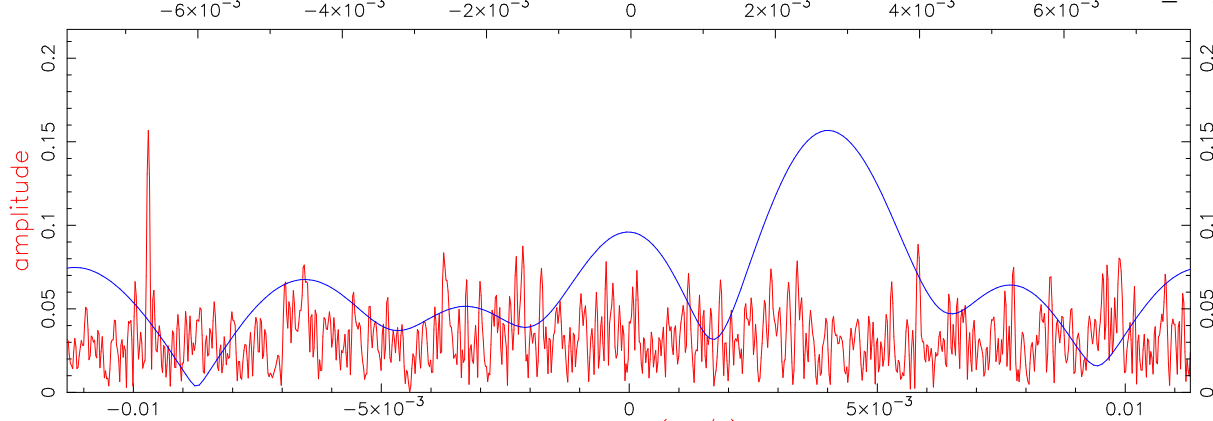
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, Bp

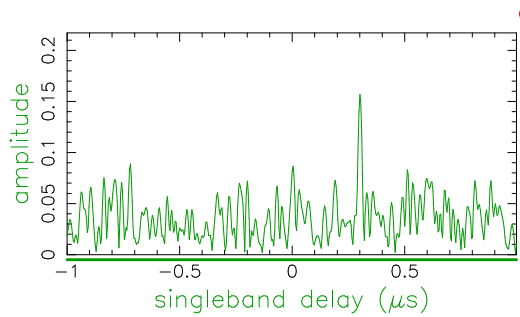
EFLSBERG - VLBA\_PT, fgroup W, pol RR

multiband delay ( $\mu$ s)

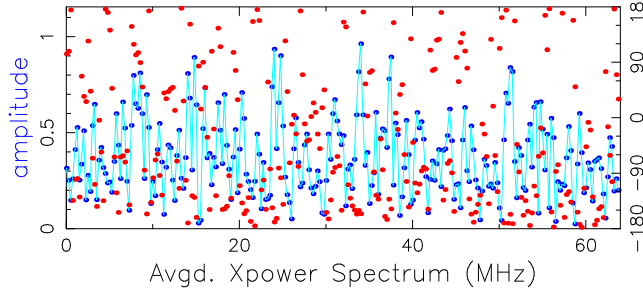


Fringe quality 0

SNR 5.8  
Int time 179.967  
Amp 0.217  
Phase 68.0  
PFD 6.3e-01  
Delays (us)  
SBD 0.301582  
MBD 0.002737  
Fringe rate (Hz)  
-0.837307  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

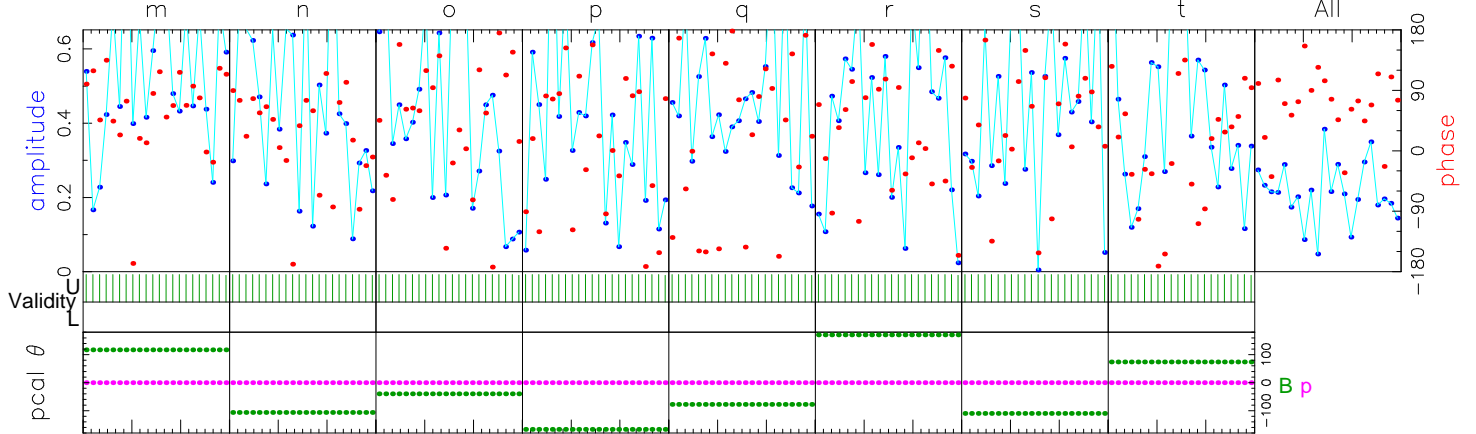


delay rate (ns/s)



Exp. c241c  
Exper # 1234  
Yr:day 2024:112  
Start 080000.00  
Stop 080300.22  
FRT 080130.00  
Corr/FF/build  
2024:352:054246  
2025:041:105003  
2024:113:095956  
RA & Dec (J2000)  
20h15m28.729786s  
+37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
B	0	0	0	0	0	0	0	0		
p	0	0	0	0	0	0	0	0		
B:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:p	118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	9.71524854876E+03	Apriori delay (usec)	9.71494893712E+03	Resid mbdelay (usec)	2.73664E-03	+/-	1.9E-04
Sband delay (usec)	9.71525051887E+03	Apriori clock (usec)	-4.1109184E+01	Resid sbdelay (usec)	3.01582E-01	+/-	1.5E-03
Phase delay (usec)	9.71494893931E+03	Apriori clockrate (us/s)	-5.6823600E-07	Resid phdelay (usec)	2.19290E-06	+/-	6.4E-07
Delay rate (us/s)	-1.44061729921E+00	Apriori rate (us/s)	-1.44060757891E+00	Resid rate (us/s)	-9.72030E-06	+/-	6.2E-09
Total phase (deg)	227.5	Apriori accel (us/s/s)	-3.76513665331E-05	Resid phase (deg)	68.0	+/-	19.9

ph/seg (deg)	RMS 49.0	Theor. 46.6	Amplitude 0.217 +/- 0.038	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	61.6	81.3	Search (1024X32) 0.153	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
ph/frq (deg)	40.3	28.1	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
amp/frq (%)	60.4	49.0	Inc. seg. avg. 0.222	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011	
			Inc. frq. avg. 0.222	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC) 0.00 0.00

B: az 252.9 el 63.3 pa 49.7 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) 10337.948 -846.439 simultaneous interpolator

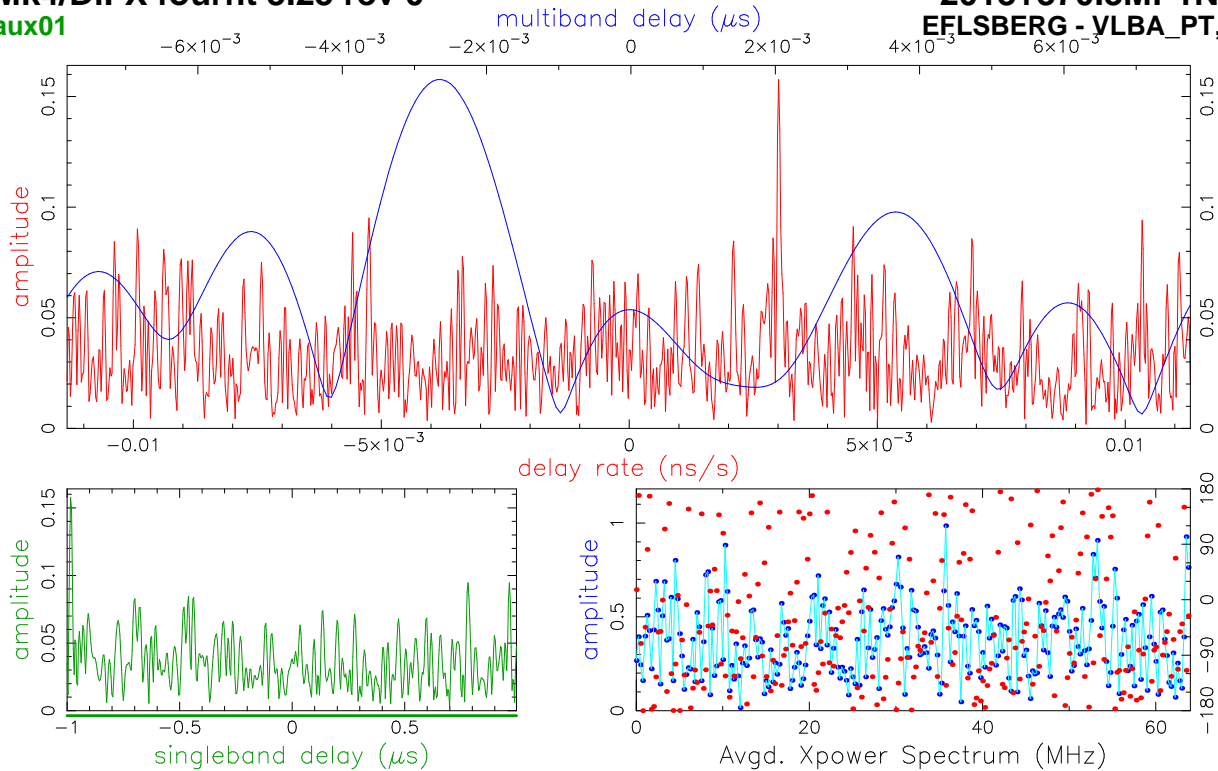
Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/Bp..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/Bp.W.80.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, Bp

EFLSBERG - VLBA\_PT, fgroup W, pol LR

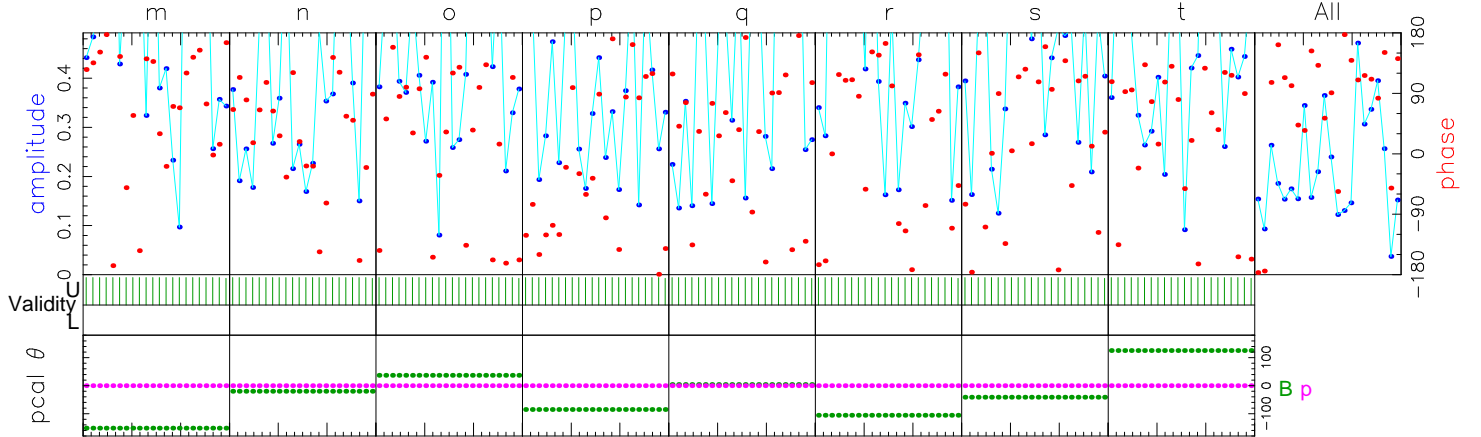


Fringe quality 0

SNR 5.8  
 Int time 179.967  
 Amp 0.164  
 Phase 108.8  
 PFD 4.7e-01  
 Delays (us)  
 SBD -0.983233  
 MBD -0.002612  
 Fringe rate (Hz)  
 0.259581  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105005  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	138.3	62.8	96.7	-160.7	76.6	110.7	120.7	106.0	Phase	108.8		
	0.3	0.2	0.2	0.1	0.1	0.2	0.1	0.3	Ampl.	0.2		
	132.3	493.1	119.8	504.8	456.6	6.7	47.3	286.4	Sbd box	5.3		
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used			
B	0	0	0	0	0	0	0	0	PC freqs			
p	0	0	0	0	0	0	0	0	PC freqs			
B:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
B:p	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0	Manl PC			
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
p	1000	1000	1000	1000	1000	1000	1000	1000				
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids			
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks			
									Tracks			
Group delay (usec) (SBD)	9.71396195021E+03		Apriori delay (usec)		9.71494893712E+03		Resid mbdelay (usec)		-2.61190E-03	+/- 1.9E-04		
Sband delay (usec)	9.71396570412E+03		Apriori clock (usec)		-4.1109184E+01		Resid sbdelay (usec)		-9.83233E-01	+/- 1.5E-03		
Phase delay (usec)	9.71494894062E+03		Apriori clockrate (us/s)		-5.6823600E-07		Resid phdelay (usec)		3.50884E-06	+/- 6.3E-07		
Delay rate (us/s)	-1.44060456543E+00		Apriori rate (us/s)		-1.44060757891E+00		Resid rate (us/s)		3.01348E-06	+/- 6.1E-09		
Total phase (deg)	268.4		Apriori accel (us/s/s)		-3.76513665331E-05		Resid phase (deg)		108.8	+/- 19.6		
	RMS	Theor.	Amplitude	0.164 +/- 0.028		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	64.7	46.0	Search (1024X32)	0.156		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	77.4	80.2	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	45.7	27.7	Inc. seg. avg.	0.172		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	46.2	48.4	Inc. frq. avg.	0.170		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
B: az 252.9 el 63.3 pa 49.7	p: az 60.8 el 25.4 pa -65.1		u,v (fr/asec) 10337.948 -846.439						simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0280/Bp..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/Bp.W.90.3MP1N1									

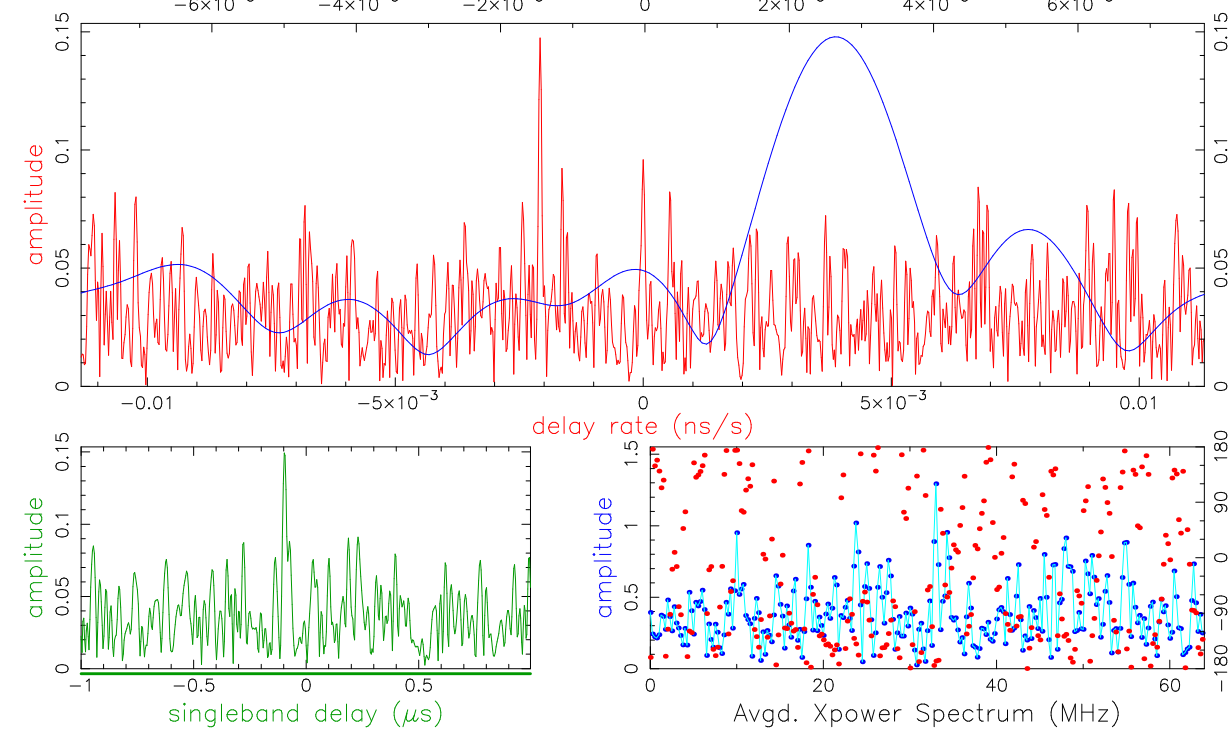


Mk4/DiFX fourfit 3.25 rev 0

aux01

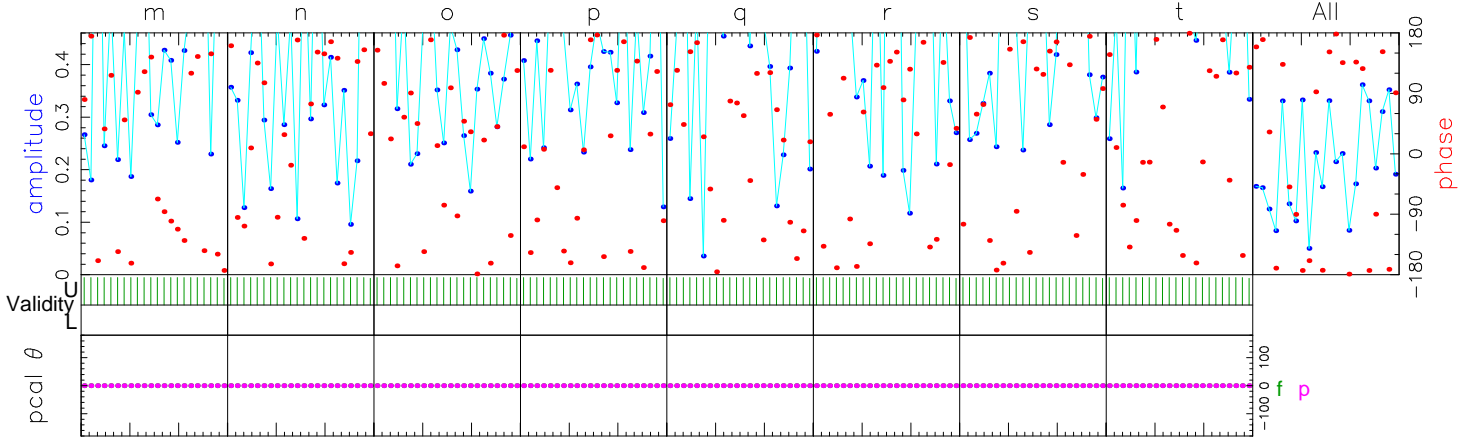
2013+370.3MP1N1, No0280, fp

VLBA\_FD - VLBA\_PT, fgroup W, pol LL



Fringe quality 0  
 SNR 5.6  
 Int time 179.990  
 Amp 0.154  
 Phase 159.9  
 PFD 9.6e-01  
 Delays (us)  
 SBD -0.095996  
 MBD 0.002558  
 Fringe rate (Hz)  
 -0.179243  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105017  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	175.0	154.7	116.9	171.9	110.3	153.5	174.4	-167.0	Phase	159.9
	0.2	0.1	0.1	0.1	0.1	0.3	0.2	0.1	Ampl.	0.1
	362.7	110.3	246.1	415.6	368.9	232.1	327.9	396.6	Sbd box	232.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
f:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	4.27682827434E+02		Apriori delay (usec)		4.27774019258E+02		Resid mbdelay (usec)		2.55818E-03	+/- 2.0E-04
Sband delay (usec)	4.27678023008E+02		Apriori clock (usec)		-5.6517830E+07		Resid sbdelay (usec)		-9.59963E-02	+/- 1.6E-03
Phase delay (usec)	4.27774024413E+02		Apriori clockrate (us/s)		-3.2847705E-07		Resid phdelay (usec)		5.15559E-06	+/- 6.7E-07
Delay rate (us/s)	2.80827551514E-02		Apriori rate (us/s)		2.80848359825E-02		Resid rate (us/s)		-2.08083E-06	+/- 6.4E-09
Total phase (deg)	166.7		Apriori accel (us/s/s)		-5.99222527079E-06		Resid phase (deg)		159.9	+/- 20.6
ph/seg (deg)	RMS 61.1	Theor. 48.4	Amplitude Search (1024X32)	0.154 +/- 0.028	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		sb window (us)	-1.000 1.000
amp/seg (%)	75.2	84.4	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	31.8	29.2	Inc. seg. avg.	0.159	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		nlags: 256 t_cohere infinite		dr window (ns/s)	-0.011 0.011
amp/frq (%)	35.8	50.9	Inc. frq. avg.	0.145	Data rate(Mb/s): 2048		ion window (TEC)		0.00 0.00	
f: az 60.7 el 26.7 pa -70.6	p: az 60.8 el 25.4 pa -65.1		u,v (fr/asec) -207.726 -737.352		simultaneous interpolator					
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0280/fp..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/fp.W.130.3MP1N1							



Mk4/DiFX fourfit 3.25 rev 0

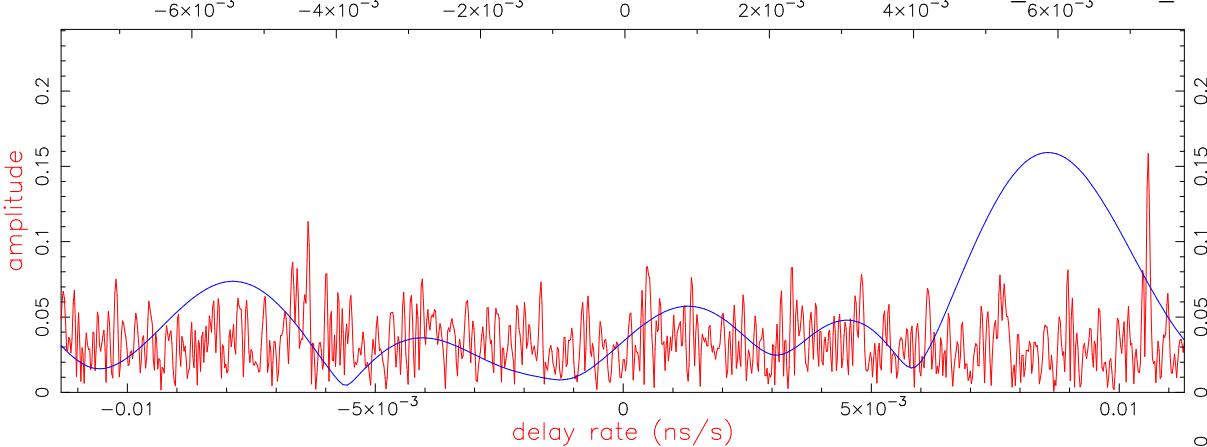
aux01

2013+370.3MP1N1, No0280, fp

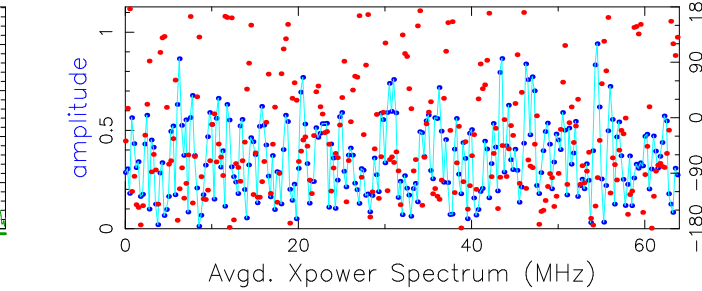
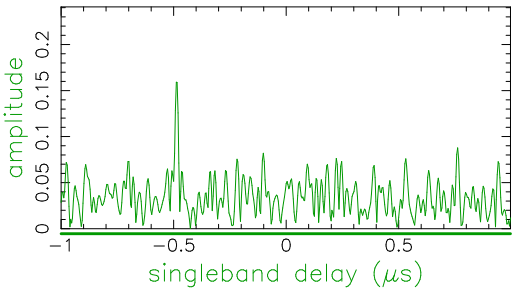
VLBA\_FD - VLBA\_PT, fgroup W, pol LR

multiband delay ( $\mu$ s)

Fringe quality 0

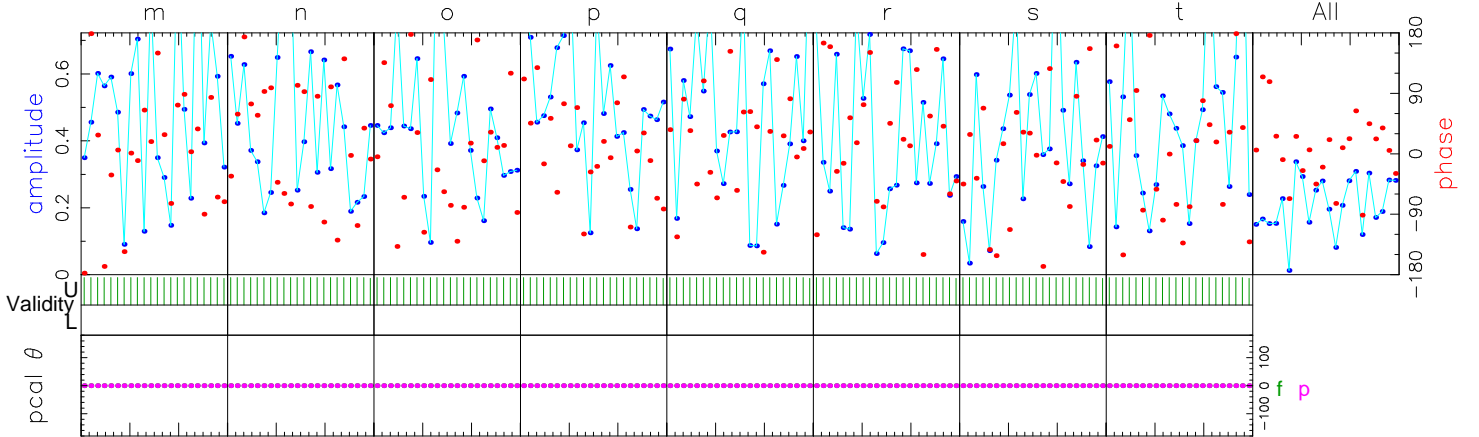


SNR 6.0  
Int time 179.990  
Amp 0.241  
Phase 11.1  
PFD 2.5e-01  
Delays (us)  
SBD -0.486367  
MBD 0.005767  
Fringe rate (Hz) 0.913819  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512



Exp. c241c  
Exper # 1234  
Yr:day 2024:112  
Start 080000.00  
Stop 080300.22  
FRT 080130.00  
Corr/FF/build 2024:352:054246  
2025:041:105022  
2024:113:095956  
RA & Dec (J2000) 20h15m28.729786s +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	0	0	0	0	0	0	0	0		
p	0	0	0	0	0	0	0	0		
f:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
fp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec) (SBD)	25.5	-41.4	-39.0	18.9	25.7	42.4	3.4	15.8	5.76700E-03	+/- 1.8E-04
Sband delay (usec)	0.3	0.1	0.2	0.4	0.4	0.1	0.3	0.2	-4.86367E-01	+/- 1.4E-03
Phase delay (usec)	268.0	366.8	308.4	198.7	295.4	157.9	396.4	201.9	3.59105E-07	+/- 6.2E-07
Delay rate (us/s)									1.06085E-05	+/- 5.9E-09
Total phase (deg)			17.9						11.1	+/- 19.2
Apriori delay (usec)					4.2774019258E+02					
Apriori clock (usec)					-5.6517830E+00					
Apriori clockrate (us/s)					-3.2847705E-07					
Apriori rate (us/s)					2.80848359825E-02					
Apriori accel (us/s/s)					-5.99222527079E-06					
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us										
Data rate(Mb/s): 2048										
nlags: 256 t_cohere infinite										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00
simultaneous interpolator										

ph/seg (deg) 50.8 44.9 Search (1024X32) 0.158 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 57.3 78.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 33.7 27.1 Inc. seg. avg. 0.237 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 35.6 47.3 Inc. frq. avg. 0.231 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
f: az 60.7 el 26.7 pa -70.6 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) -207.726 -737.352 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/c241c/v2/3mm/1234/No0280/fp..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/fp.W.160.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

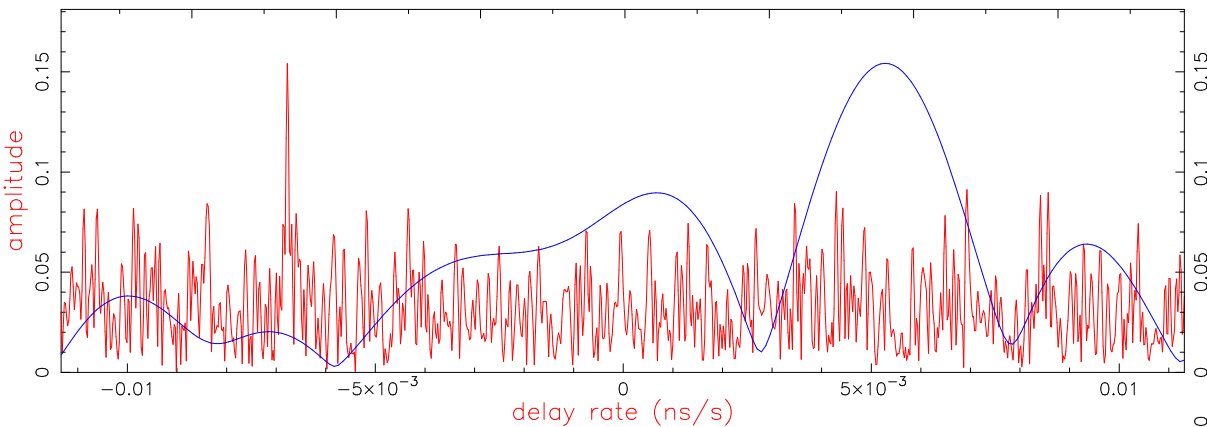
aux01

2013+370.3MP1N1, No0280, fp

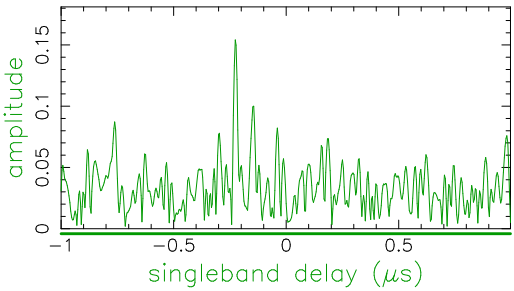
VLBA\_FD - VLBA\_PT, fgroup W, pol RL

multiband delay ( $\mu$ s)

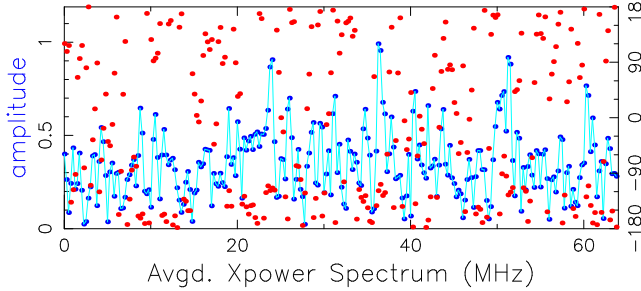
Fringe quality 0



SNR 5.7  
 Int time 179.990  
 Amp 0.181  
 Phase 79.7  
 PFD 7.5e-01  
 Delays (us)  
 SBD -0.225241  
 MBD 0.003646  
 Fringe rate (Hz)  
 -0.584477  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

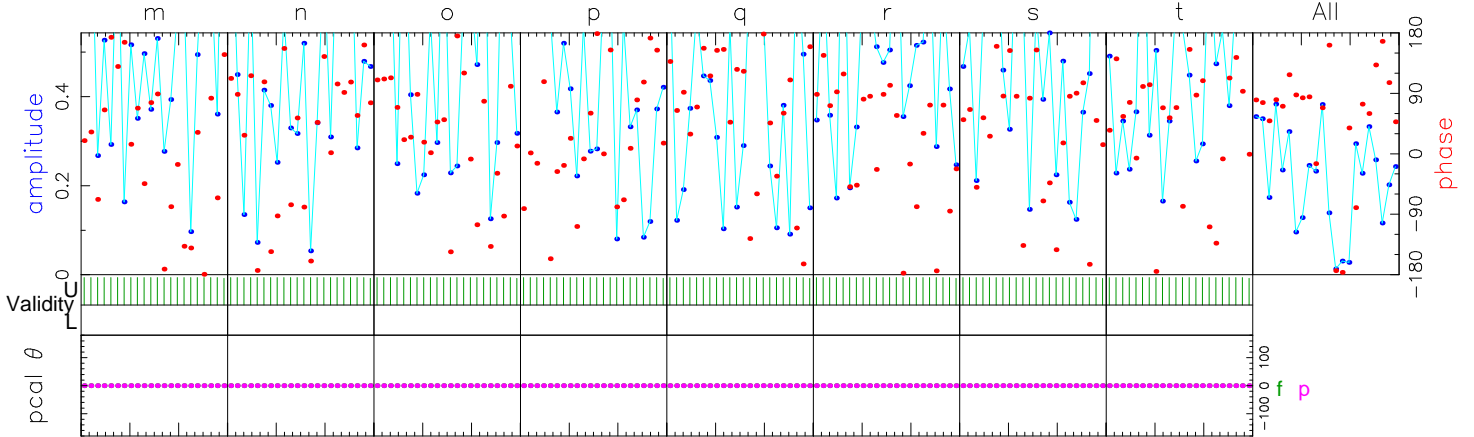


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105025  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	0	0	0	0	0	0	0	0	Ampl.	0.2
p	0	0	0	0	0	0	0	0	Sbd box	199.3
f:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
fp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
p	1000	1000	1000	1000	1000	1000	1000	1000	Manl PC	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC amp	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
									Tracks	
									Tracks	

Group delay (usec) (SBD)	4.27543290659E+02	Apriori delay (usec)	4.27774019258E+02	Resid mbdelay (usec)	3.64640E-03	+/-	1.9E-04
Sband delay (usec)	4.27548778008E+02	Apriori clock (usec)	-5.6517830E+00	Resid sbdelay (usec)	-2.25241E-01	+/-	1.5E-03
Phase delay (usec)	4.27774021828E+02	Apriori clockrate (us/s)	-3.2847705E-07	Resid phdelay (usec)	2.57017E-06	+/-	6.5E-07
Delay rate (us/s)	2.80780507809E-02	Apriori rate (us/s)	2.80848359825E-02	Resid rate (us/s)	-6.78520E-06	+/-	6.2E-09
Total phase (deg)	86.5	Apriori accel (us/s/s)	-5.99222527079E-06	Resid phase (deg)	79.7	+/-	20.1

ph/seg (deg)	60.4	RMS	47.1	Theor.	47.1	Amplitude	0.181 +/- 0.032	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	82.7	Search (1024X32)	0.147	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	43.5	Inc. seg. avg.	0.189	Inc. frq. avg.	0.187	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	37.3	Inc. frq. avg.	0.187	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (ns/s)	-0.011	0.011

f: az 60.7 el 26.7 pa -70.6 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) -207.726 -737.352 simultaneous interpolator

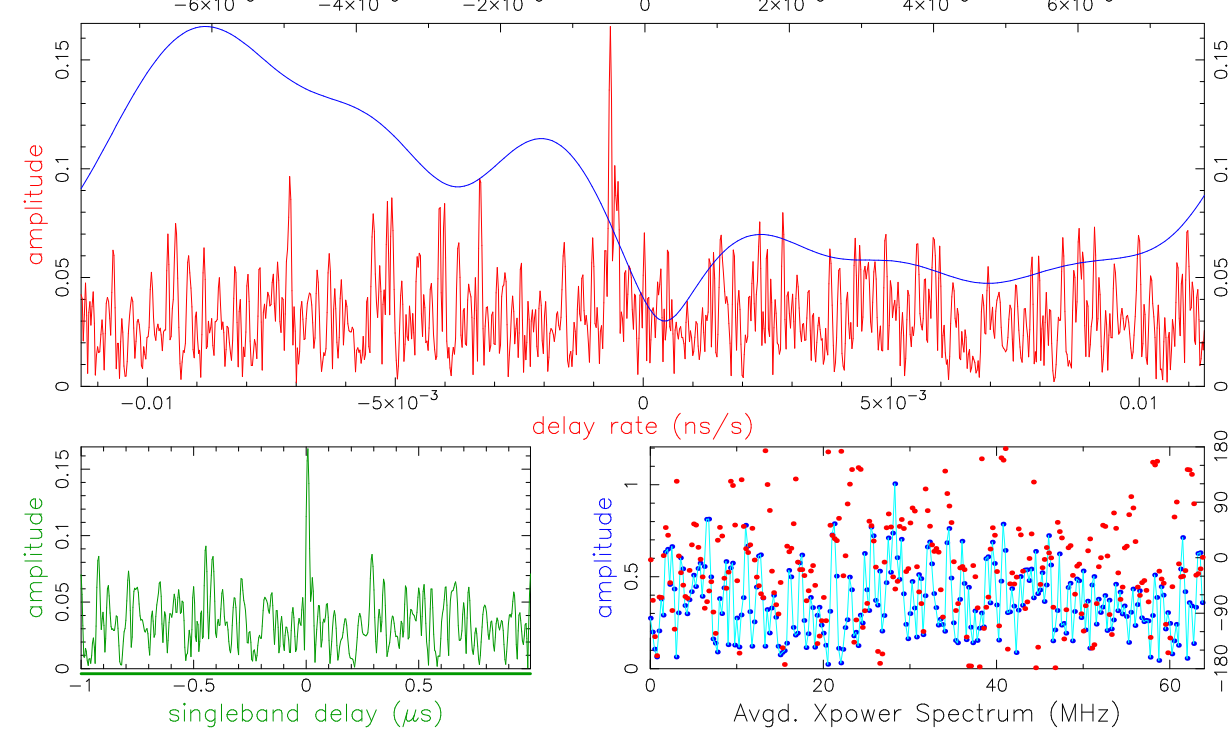
Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/fp..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/fp.W.168.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

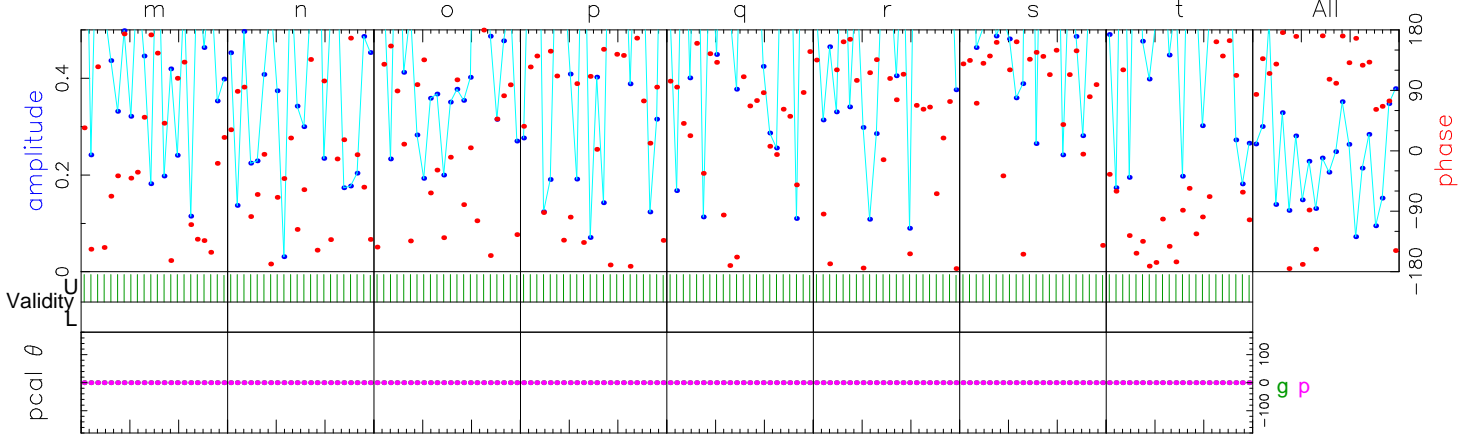
2013+370.3MP1N1, No0280, gp

GLT - VLBA\_PT, fgroup W, pol LL



Fringe quality 0  
 SNR 6.1  
 Int time 179.985  
 Amp 0.167  
 Phase 141.3  
 PFD 1.2e-01  
 Delays (us)  
 SBD 0.006826  
 MBD -0.006060  
 Fringe rate (Hz)  
 -0.057999  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105023  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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

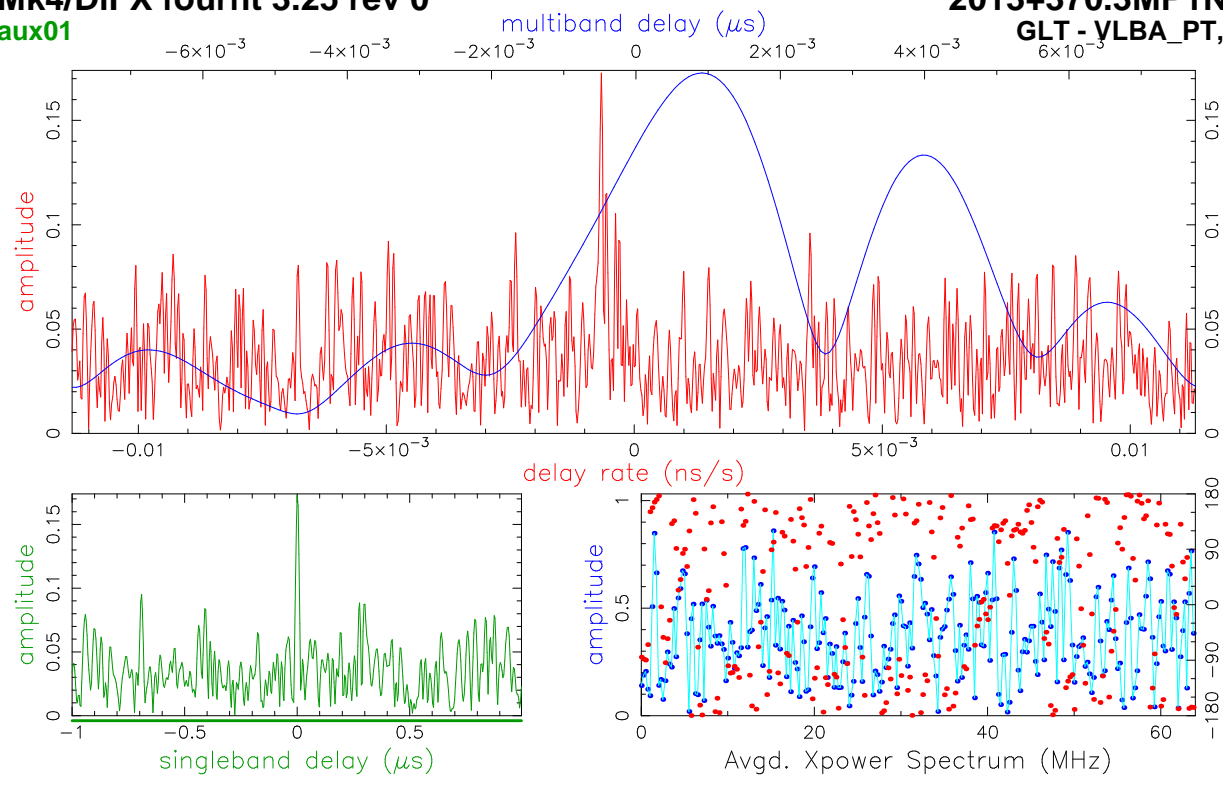


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-179.3	-82.6	169.2	160.1	94.7	96.2	132.5	-145.7	Phase	141.3
	0.1	0.1	0.1	0.3	0.3	0.3	0.5	0.3	Ampl.	0.2
	467.1	20.7	329.2	258.0	259.7	258.9	259.3	262.4	Sbd box	258.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) 6.20962318147E+03 Apriori delay (usec) 6.20961361696E+03 Resid mbdelay (usec) -6.06049E-03 +/- 1.8E-04  
 Sband delay (usec) 6.20962044246E+03 Apriori clock (usec) -5.2678528E+00 Resid sbdelay (usec) 6.82550E-03 +/- 1.4E-03  
 Phase delay (usec) 6.20961362152E+03 Apriori clockrate (us/s) 4.0566400E-07 Resid phdelay (usec) 4.55637E-06 +/- 6.0E-07  
 Delay rate (us/s) -8.16589574630E-01 Apriori rate (us/s) -8.16588901325E-01 Resid rate (us/s) -6.73305E-07 +/- 5.8E-09  
 Total phase (deg) 128.8 Apriori accel (us/s/s) -5.07226327420E-06 Resid phase (deg) 141.3 +/- 18.8

ph/seg (deg) 52.2 44.0 Amplitude 0.167 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 76.9 76.8 Search (1024X32) 0.157 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 71.7 26.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 94.1 46.3 Inc. seg. avg. 0.187 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 Inc. frq. avg. 0.210 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

g: az 128.2 el 46.4 pa -13.2 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) 5877.874 2547.991 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/gp..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/gp.W.161.3MP1N1

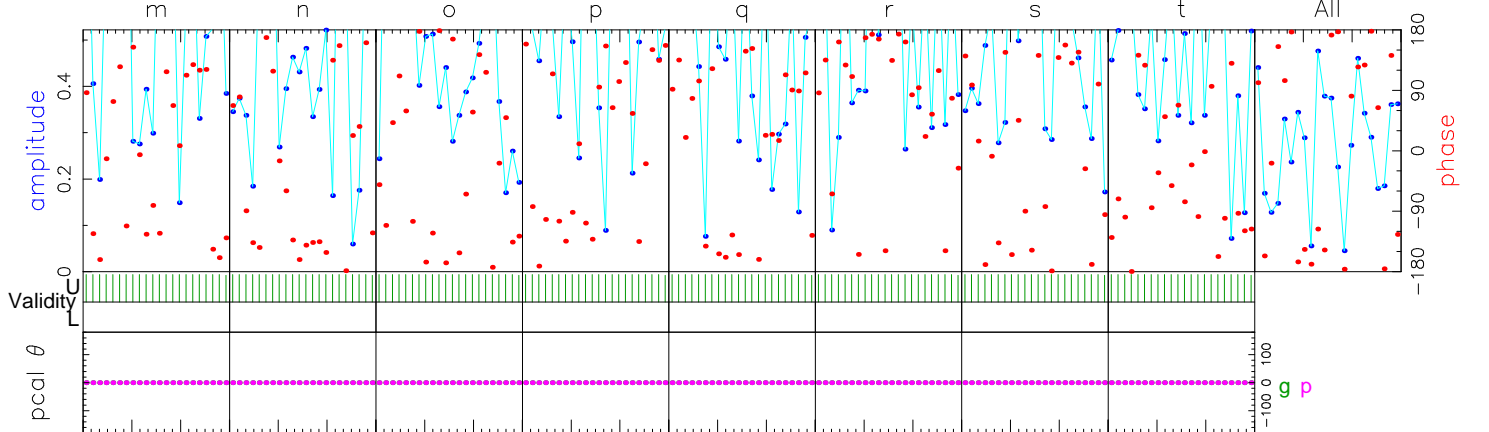


Fringe quality 0

SNR 6.4  
Int time 179.985  
Amp 0.174  
Phase 166.2  
PFD 2.5e-02  
Delays (us)  
SBD 0.000960  
MBD 0.000932  
Fringe rate (Hz)  
-0.058003  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. c241c  
Exper # 1234  
Yr:day 2024:112  
Start 080000.00  
Stop 080300.22  
FRT 080130.00  
Corr/FF/build  
2024:352:054246  
2025:041:105026  
2024:113:095956  
RA & Dec (J2000)  
20h15m28.729786s  
+37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	155.9	-167.8	-178.7	-175.2	119.9	130.5	164.3	-100.8	Phase	166.2	
	0.2	0.3	0.1	0.2	0.2	0.4	0.2	0.2	Ampl.	0.2	
	77.4	256.8	499.8	145.8	318.7	257.5	272.0	261.5	Sbd box	257.2	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used		
g	0	0	0	0	0	0	0	0	PC freqs		
p	0	0	0	0	0	0	0	0	PC freqs		
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
p	1000	1000	1000	1000	1000	1000	1000	1000			
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	6.20961454857E+03		Apriori delay (usec)		6.20961361696E+03		Resid mbdelay (usec)		9.31604E-04	+/- 1.7E-04	
Sband delay (usec)	6.20961457696E+03		Apriori clock (usec)		-5.2678528E+00		Resid sbdelay (usec)		9.60000E-04	+/- 1.4E-03	
Phase delay (usec)	6.20961362232E+03		Apriori clockrate (us/s)		4.0566400E-07		Resid phdelay (usec)		5.36038E-06	+/- 5.8E-07	
Delay rate (us/s)	-8.16589574680E-01		Apriori rate (us/s)		-8.16588901325E-01		Resid rate (us/s)		-6.73355E-07	+/- 5.6E-09	
Total phase (deg)	153.7		Apriori accel (us/s/s)		-5.07226327420E-06		Resid phase (deg)		166.2	+/- 18.0	
	RMS	Theor.	Amplitude	0.174 +/- 0.027	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	60.0	42.2	Search (1024X32)	0.168	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000	1.000	
amp/seg (%)	91.5	73.6	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008	0.008
ph/frq (deg)	47.3	25.4	Inc. seg. avg.	0.218	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011	0.011	
amp/frq (%)	46.4	44.4	Inc. frq. avg.	0.201	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00	0.00
g: az 128.2 el 46.4 pa -13.2	p: az 60.8 el 25.4 pa -65.1		u, v (fr/asec) 5877.874 2547.991						simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0280/gp..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/gp.W.175.3MP1N1								

Mk4/DiFX fourfit 3.25 rev 0

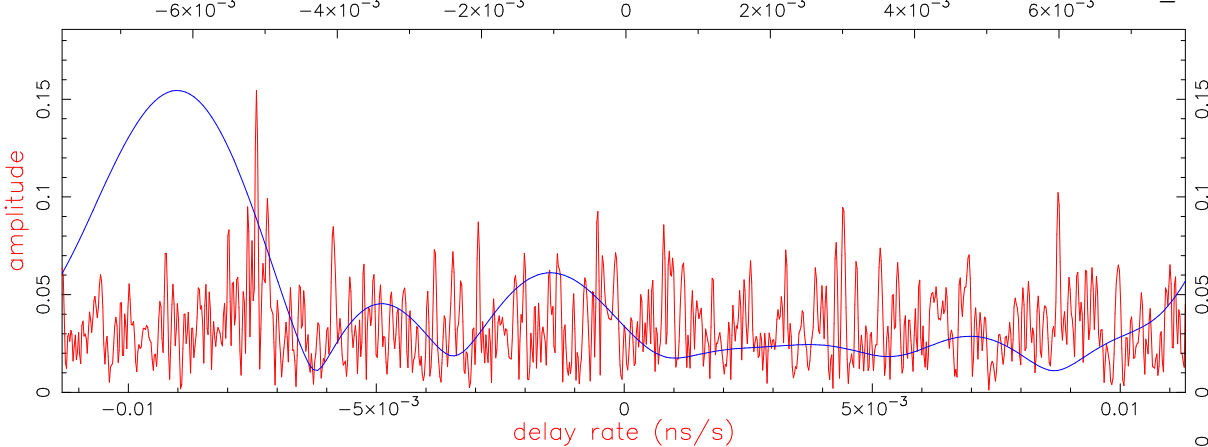
aux01

2013+370.3MP1N1, No0280, gp

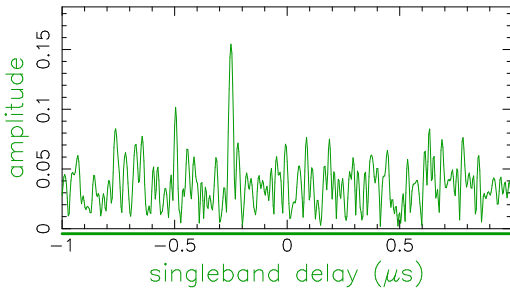
GLT - VLBA\_PT, fgroup W, pol LR

multiband delay ( $\mu$ s)

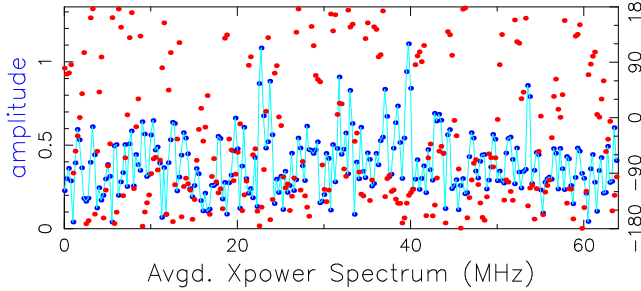
Fringe quality 0



SNR 5.7  
 Int time 179.985  
 Amp 0.186  
 Phase -54.0  
 PFD 8.2e-01  
 Delays (us)  
 SBD -0.249594  
 MBD -0.006232  
 Fringe rate (Hz)  
 -0.640352  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

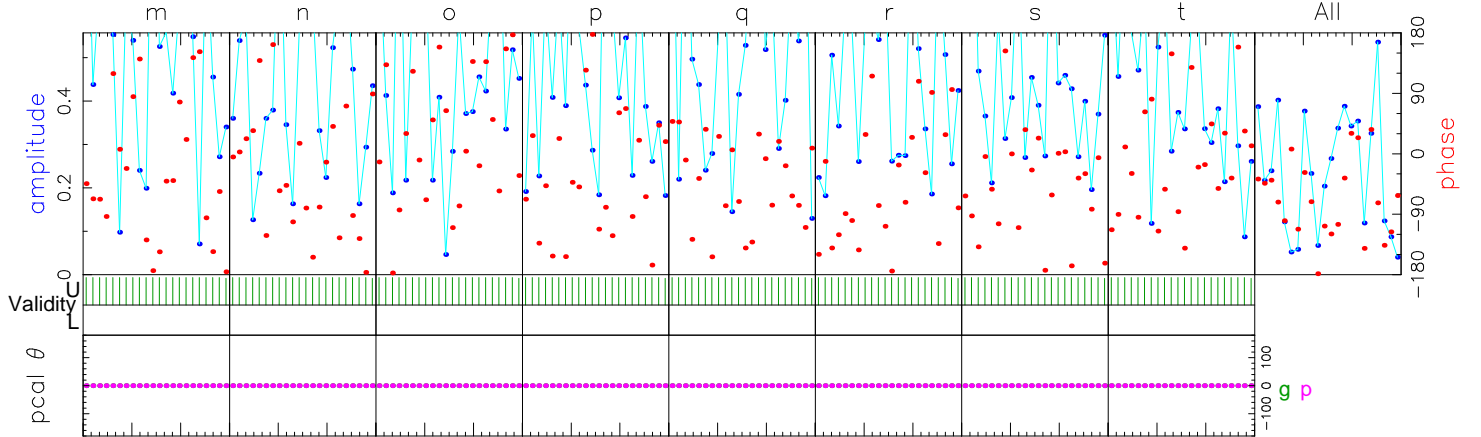


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105030  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-81.8	-45.4	-38.4	-43.3	-41.6	-84.3	-65.6	-43.0	Phase	-54.0
	0.1	0.1	0.1	0.2	0.3	0.1	0.3	0.2	Ampl.	0.2
	141.1	362.9	238.9	279.2	194.1	328.8	255.4	340.8	Sbd box	193.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	6.20935738516E+03		Apriori delay (usec)		6.20961361696E+03		Resid mbdelay (usec)		-6.23181E-03	+/- 1.9E-04
Sband delay (usec)	6.20936402321E+03		Apriori clock (usec)		-5.2678528E+00		Resid sbdelay (usec)		-2.49594E-01	+/- 1.5E-03
Phase delay (usec)	6.20961361522E+03		Apriori clockrate (us/s)		4.0566400E-07		Resid phdelay (usec)		-1.74280E-06	+/- 6.5E-07
Delay rate (us/s)	-8.16596335173E-01		Apriori rate (us/s)		-8.16588901325E-01		Resid rate (us/s)		-7.43385E-06	+/- 6.3E-09
Total phase (deg)	293.5		Apriori accel (us/s/s)		-5.07226327420E-06		Resid phase (deg)		-54.0	+/- 20.2

ph/seg (deg) 59.0 47.4 Search (1024X32) 0.151 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 105.4 82.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 20.6 28.6 Inc. seg. avg. 0.215 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 39.1 49.9 Inc. frq. avg. 0.172 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 g: az 128.2 el 46.4 pa -13.2 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) 5877.874 2547.991 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/gp..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/gp.W.189.3MP1N1

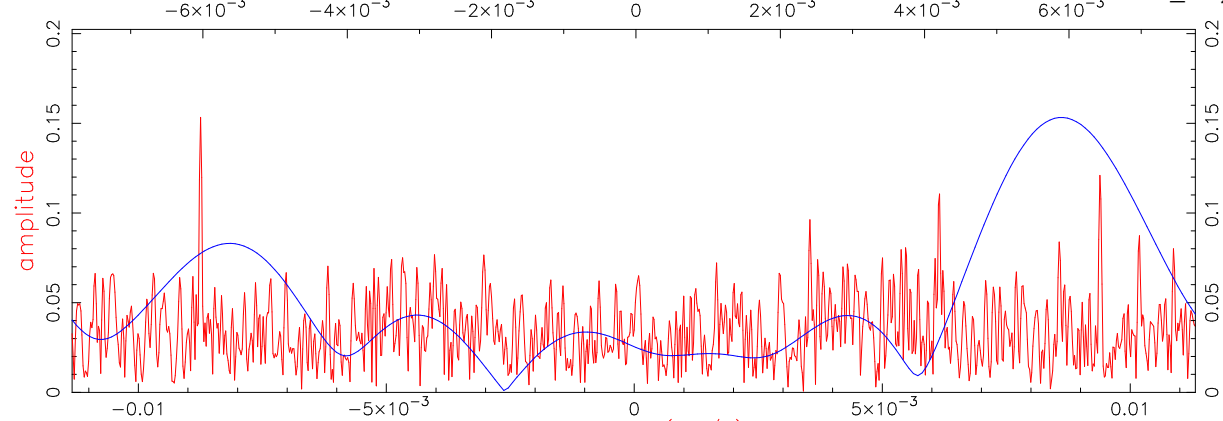
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, gp

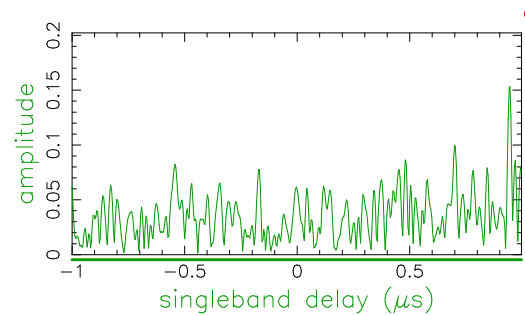
GLT - VLBA\_PT, fgroup W, pol RL

multiband delay ( $\mu$ s)

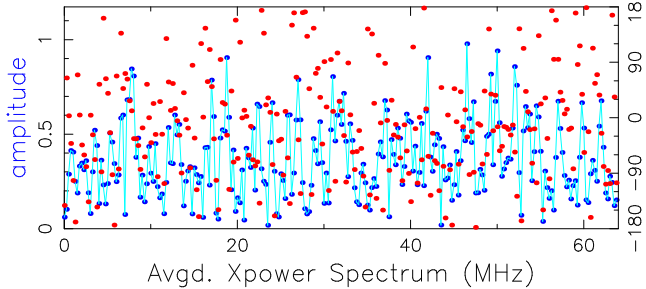


Fringe quality 0

SNR 5.7  
 Int time 179.985  
 Amp 0.202  
 Phase -21.1  
 PFD 7.2e-01  
 Delays (us)  
 SBD 0.943600  
 MBD 0.005883  
 Fringe rate (Hz) -0.755132  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

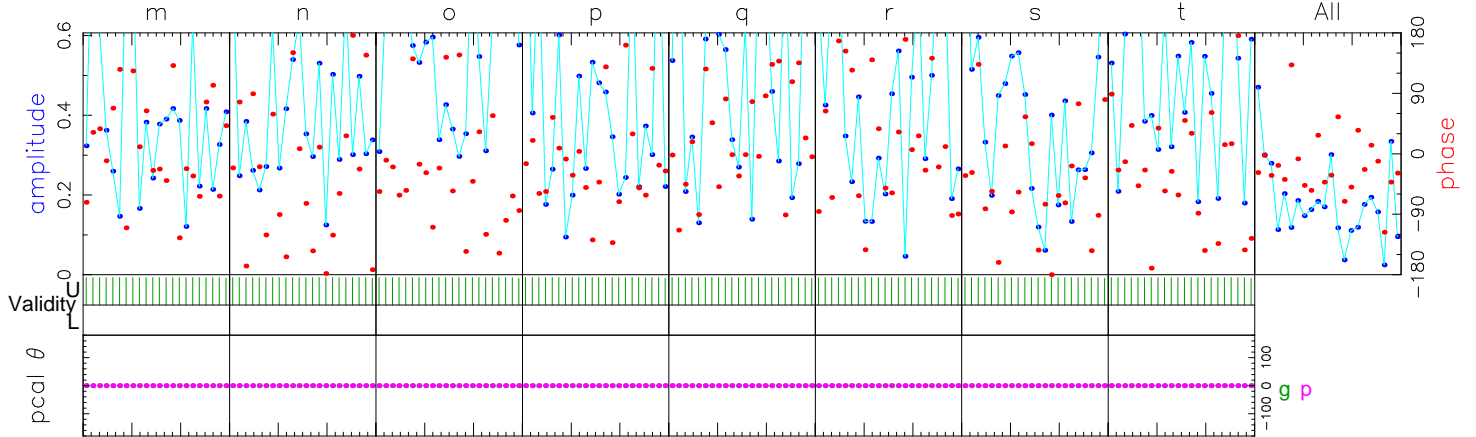


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105032  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	12.3	-31.5	-55.3	-21.8	16.0	-17.6	-46.6	-12.9	Phase	-21.1
	0.2	0.1	0.4	0.3	0.2	0.2	0.2	0.2	Ampl.	0.2
	502.6	31.3	372.0	497.7	12.1	15.5	119.5	353.1	Sbd box	498.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	6.21055700027E+03	Apriori delay (usec)	6.20961361696E+03	Resid mbdelay (usec)	5.88331E-03	+/-	1.9E-04
Sband delay (usec)	6.21055721721E+03	Apriori clock (usec)	-5.2678528E+00	Resid sbdelay (usec)	9.43600E-01	+/-	1.5E-03
Phase delay (usec)	6.20961361628E+03	Apriori clockrate (us/s)	4.0566400E-07	Resid phdelay (usec)	-6.79350E-07	+/-	6.5E-07
Delay rate (us/s)	-8.16597667662E-01	Apriori rate (us/s)	-8.16588901325E-01	Resid rate (us/s)	-8.76634E-06	+/-	6.2E-09
Total phase (deg)	326.4	Apriori accel (us/s/s)	-5.07226327420E-06	Resid phase (deg)	-21.1	+/-	20.0

ph/seg (deg)	48.8	Theor.	46.9	Amplitude	0.202 +/- 0.035	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	66.5	Search (1024X32)	0.151	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	27.4	Inc. seg. avg.	0.177	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	45.1	Inc. frq. avg.	0.195	Data rate(Mb/s): 2048		ion window (TEC)	0.00	0.00		

g: az 128.2 el 46.4 pa -13.2      p: az 60.8 el 25.4 pa -65.1      u,v (fr/asec) 5877.874 2547.991      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c241c/v2/3mm/1234/No0280/gp..3MP1N1      Output file: /Exps/c241c/v2/3mm/1234/No0280/gp.W.202.3MP1N1

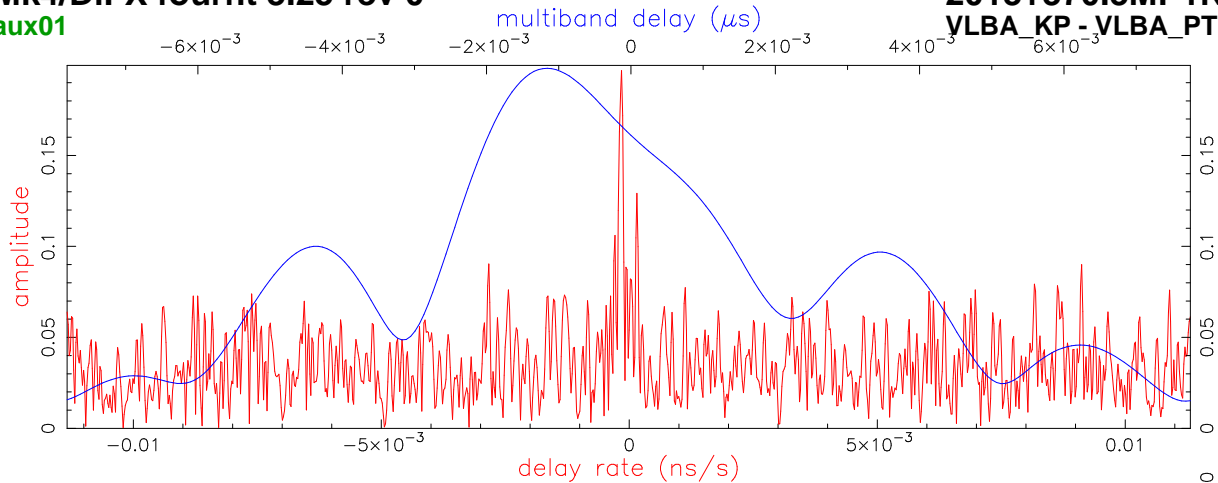


Mk4/DiFX fourfit 3.25 rev 0

aux01

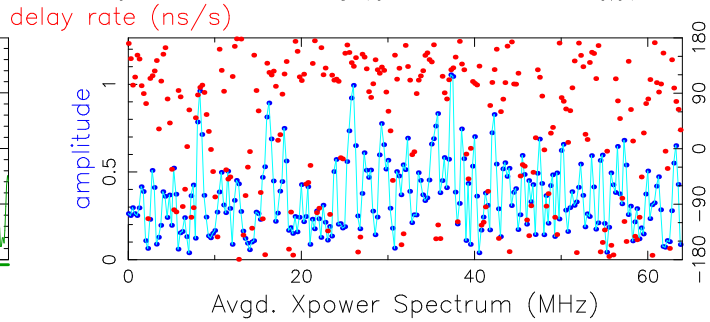
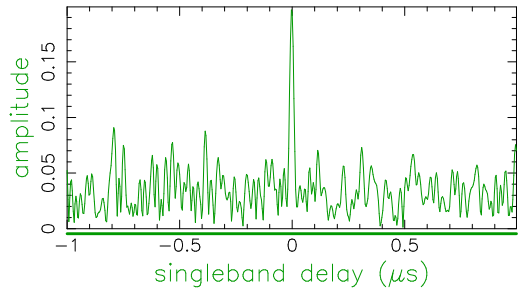
2013+370.3MP1N1, No0280, kp

VLBA\_KP - VLBA\_PT, fgroup W, pol LL



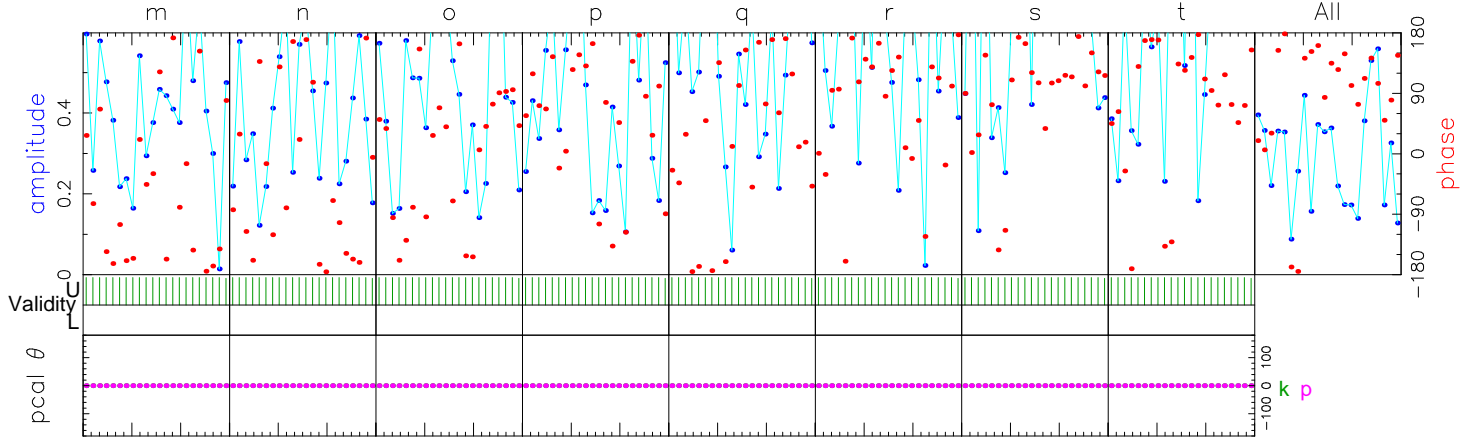
Fringe quality 9

SNR 7.3  
 Int time 179.991  
 Amp 0.200  
 Phase 118.6  
 PFD 3.9e-05  
 Delays (us)  
 SBD -0.002235  
 MBD -0.000999  
 Fringe rate (Hz)  
 -0.013367  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105030  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-164.3	-149.1	72.0	116.4	73.3	110.5	118.9	124.2	Phase	118.6
	0.1	0.1	0.2	0.2	0.1	0.2	0.5	0.4	Ampl.	0.2
	54.3	158.1	330.1	257.6	201.0	227.7	256.1	257.2	Sbd box	256.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
kp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.26484361021E+03	Apriori delay (usec)	-1.26484261101E+03	Resid mbdelay (usec)	-9.99191E-04	+/-	1.5E-04
Sband delay (usec)	-1.26484484626E+03	Apriori clock (usec)	-5.5565453E+00	Resid sbdelay (usec)	-2.23525E-03	+/-	1.2E-03
Phase delay (usec)	-1.26484260719E+03	Apriori clockrate (us/s)	-2.2649092E-07	Resid phdelay (usec)	3.82441E-06	+/-	5.0E-07
Delay rate (us/s)	3.41994851988E-02	Apriori rate (us/s)	3.41996403715E-02	Resid rate (us/s)	-1.55173E-07	+/-	4.9E-09
Total phase (deg)	-66.0	Apriori accel (us/s/s)	4.35449369797E-06	Resid phase (deg)	118.6	+/-	15.7

ph/seg (deg)	52.6	Theor.	36.7	Amplitude	0.200 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	80.6		64.1	Search (1024X32)	0.196	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	56.0		22.1	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	76.4		38.6	Inc. seg. avg.	0.246	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.215	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 58.7 el 21.7 pa -65.8      p: az 60.8 el 25.4 pa -65.1      u,v (fr/asec) -243.198 19.867      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c241c/v2/3mm/1234/No0280/kp..3MP1N1      Output file: /Exps/c241c/v2/3mm/1234/No0280/kp.W.191.3MP1N1

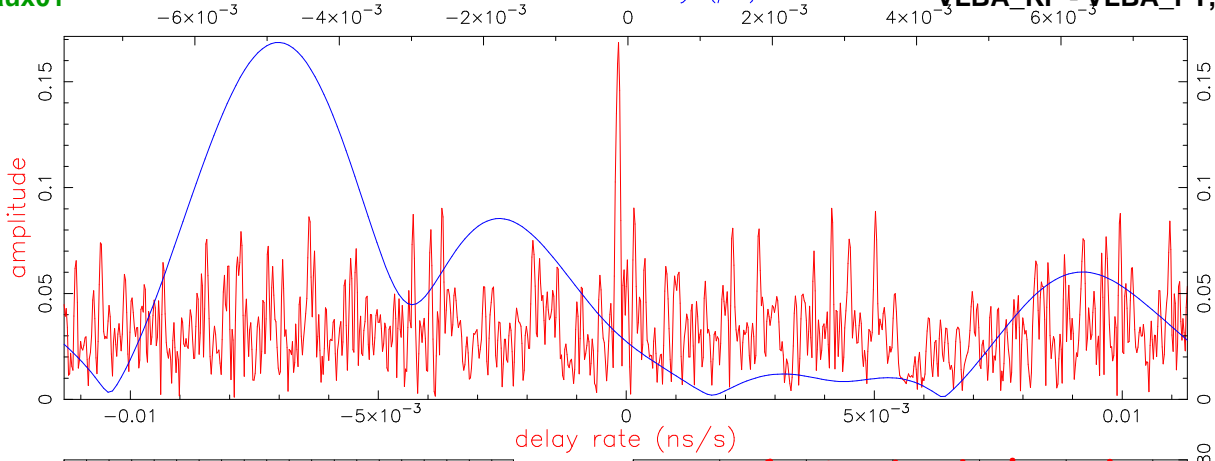
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, kp

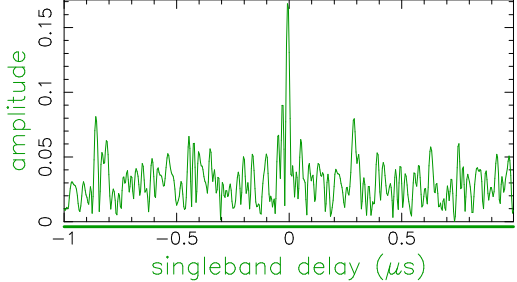
VLBA\_KP - VLBA\_PT, fgroup W, pol RR

multiband delay ( $\mu$ s)

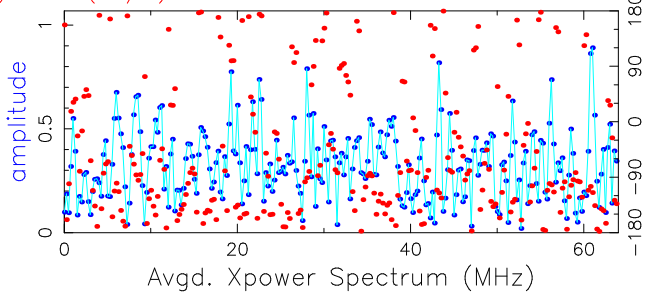


Fringe quality 0

SNR 6.3  
 Int time 179.991  
 Amp 0.171  
 Phase -137.6  
 PFD 4.3e-02  
 Delays (us)  
 SBD -0.006246  
 MBD -0.004811  
 Fringe rate (Hz)  
 -0.013617  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

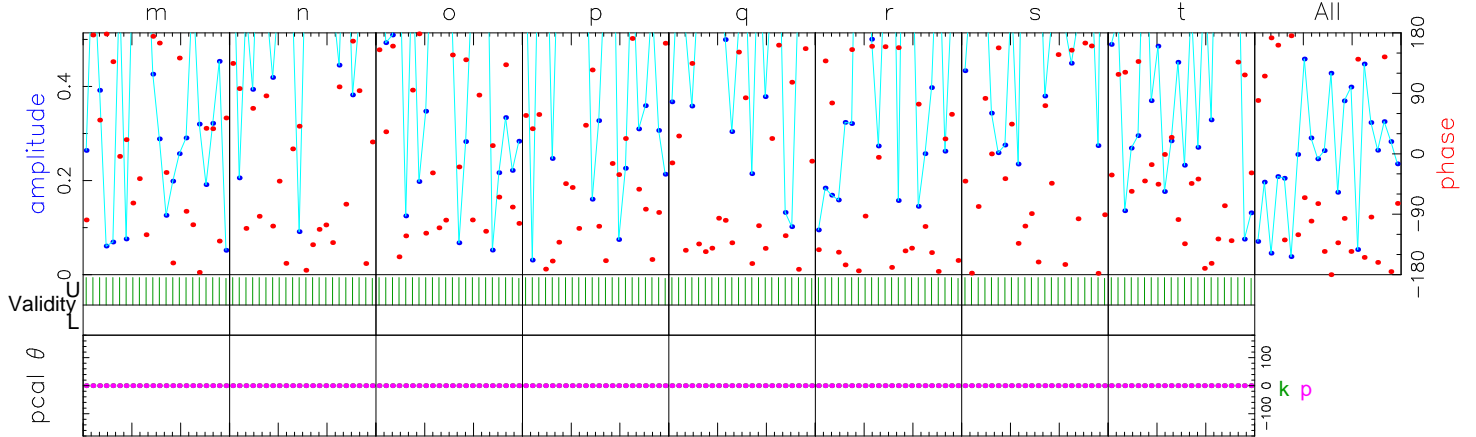


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105032  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All				
	-108.8	-136.2	-144.8	-98.1	-156.0	-165.1	-137.3	-92.6	Phase	-137.6				
	0.1	0.2	0.2	0.1	0.2	0.3	0.2	0.2	Ampl.	0.2				
	369.3	358.0	450.3	71.1	450.0	256.1	329.8	270.7	Sbd box	255.4				
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used					
k	0	0	0	0	0	0	0	0	PC freqs					
p	0	0	0	0	0	0	0	0	PC freqs					
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
kp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC					
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
p	1000	1000	1000	1000	1000	1000	1000	1000						
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids					
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks					
									Tracks					
Group delay (usec) (SBD)	-1.26484742196E+03								Apriori delay (usec)	-1.26484261101E+03	Resid mbdelay (usec)	-4.81094E-03	+/-	1.7E-04
Sband delay (usec)	-1.26484885726E+03								Apriori clock (usec)	-5.5565453E+00	Resid sbdelay (usec)	-6.24625E-03	+/-	1.4E-03
Phase delay (usec)	-1.26484261545E+03								Apriori clockrate (us/s)	-2.2649092E-07	Resid phdelay (usec)	-4.43777E-06	+/-	5.9E-07
Delay rate (us/s)	3.41994822965E-02								Apriori rate (us/s)	3.41996403715E-02	Resid rate (us/s)	-1.58075E-07	+/-	5.6E-09
Total phase (deg)			-322.2						Apriori accel (us/s/s)	4.35449369797E-06	Resid phase (deg)	-137.6	+/-	18.2

ph/seg (deg) 58.7 42.7 Search (1024X32) 0.167 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 86.6 74.6 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 25.8 Inc. seg. avg. 0.199 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 39.2 45.0 Inc. frq. avg. 0.168 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 k: az 58.7 el 21.7 pa -65.8 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) -243.198 19.867 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/kp..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/kp.W.205.3MP1N1 simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

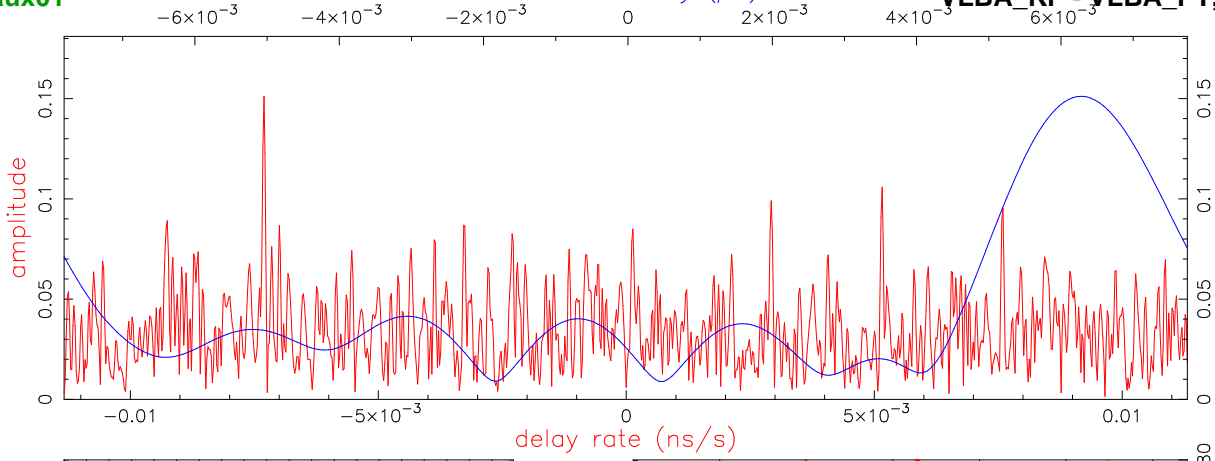
aux01

2013+370.3MP1N1, No0280, kp

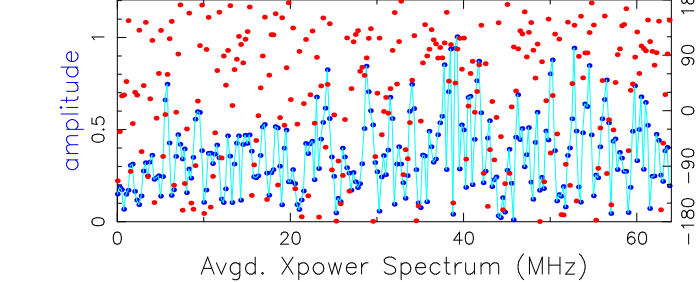
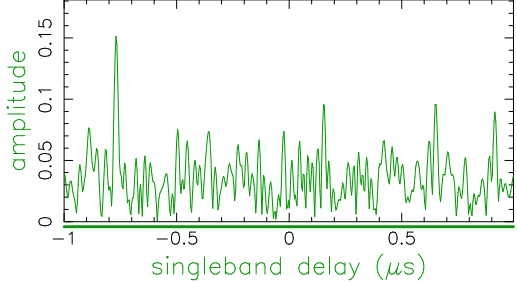
VLBA\_KP - VLBA\_PT, fgroup W, pol LR

multiband delay ( $\mu$ s)

Fringe quality 0

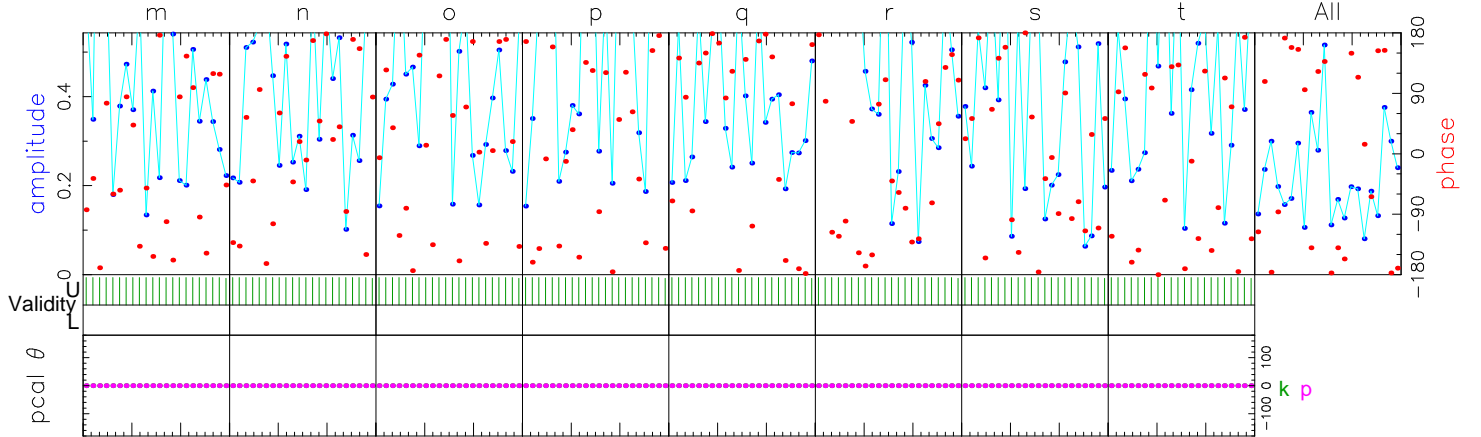


SNR 5.6  
 Int time 179.991  
 Amp 0.181  
 Phase 168.1  
 PFD 9.6e-01  
 Delays (us)  
 SBD -0.768793  
 MBD 0.006275  
 Fringe rate (Hz) -0.630575  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105036  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-155.3	129.3	173.6	149.5	162.1	-174.7	173.6	172.3	Phase	168.1
	0.2	0.1	0.2	0.3	0.3	0.2	0.1	0.2	Ampl.	0.2
	192.5	405.5	289.7	75.0	444.9	57.3	296.3	259.2	Sbd box	60.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
kp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-1.26561758607E+03	Apriori delay (usec)	-1.26484261101E+03	Resid mbdelay (usec)	6.27494E-03	+/-	2.0E-04
Sband delay (usec)	-1.26561140401E+03	Apriori clock (usec)	-5.5565453E+00	Resid sbdelay (usec)	-7.68793E-01	+/-	1.5E-03
Phase delay (usec)	-1.26484260559E+03	Apriori clockrate (us/s)	-2.2649092E-07	Resid phdelay (usec)	5.42145E-06	+/-	6.6E-07
Delay rate (us/s)	3.41923200161E-02	Apriori rate (us/s)	3.41996403715E-02	Resid rate (us/s)	-7.32036E-06	+/-	6.4E-09
Total phase (deg)	-16.5	Apriori accel (us/s/s)	4.35449369797E-06	Resid phase (deg)	168.1	+/-	20.6

ph/seg (deg)	RMS 60.6	Theor. 48.3	Amplitude Search (1024X32)	0.181 +/- 0.033	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	60.6	48.3	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)	82.3	84.4	Inc. seg. avg.	0.195	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	24.5	29.1	Inc. frq. avg.	0.169	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00
	38.6	50.9							

k: az 58.7 el 21.7 pa -65.8 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) -243.198 19.867 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/kp..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/kp.W.213.3MP1N1

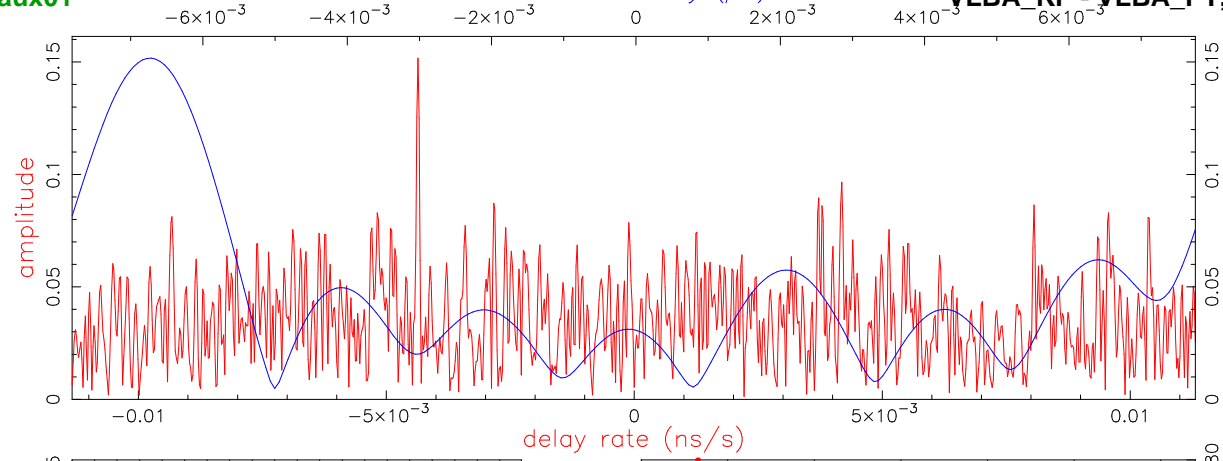
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, kp

VLBA\_KP - VLBA\_PT, fgroup W, pol RL

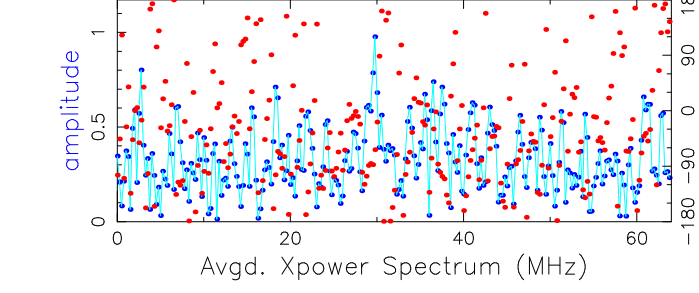
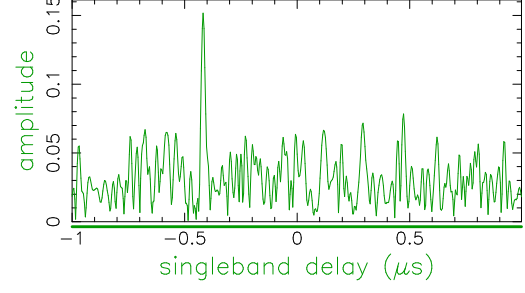
multiband delay ( $\mu$ s)



Fringe quality 0

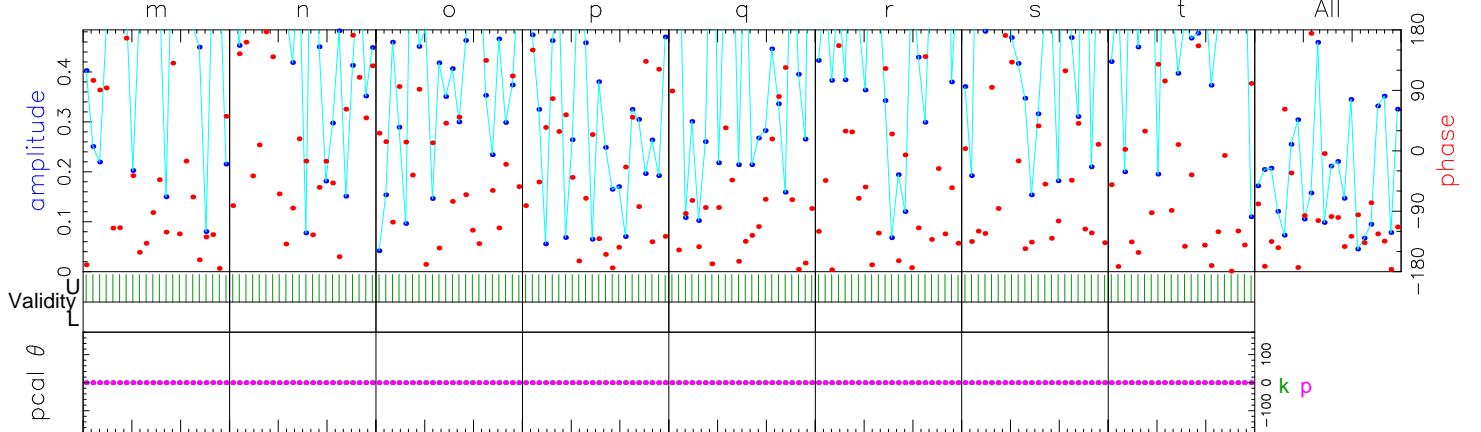
SNR 5.6  
 Int time 179.991  
 Amp 0.161  
 Phase -120.7  
 PFD 9.6e-01  
 Delays (us)  
 SBD -0.418032  
 MBD -0.006736  
 Fringe rate (Hz)  
 -0.376088  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105043  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-132.5	-141.0	-83.4	-118.0	-106.8	-118.7	-119.7	-133.2	Phase	-120.7
	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	Ampl.	0.1
	332.1	403.7	353.3	232.4	90.0	231.1	285.7	149.1	Sbd box	150.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
kp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.26525559717E+03	Apriori delay (usec)	-1.26484261101E+03	Resid mbdelay (usec)	-6.73616E-03	+/-	1.9E-04
Sband delay (usec)	-1.26526064326E+03	Apriori clock (usec)	-5.5565453E+00	Resid sbdelay (usec)	-4.18032E-01	+/-	1.5E-03
Phase delay (usec)	-1.26484261491E+03	Apriori clockrate (us/s)	-2.2649092E-07	Resid phdelay (usec)	-3.89341E-06	+/-	6.6E-07
Delay rate (us/s)	3.41952743641E-02	Apriori rate (us/s)	3.41996403715E-02	Resid rate (us/s)	-4.36601E-06	+/-	6.4E-09
Total phase (deg)	-305.3	Apriori accel (us/s/s)	4.35449369797E-06	Resid phase (deg)	-120.7	+/-	20.6

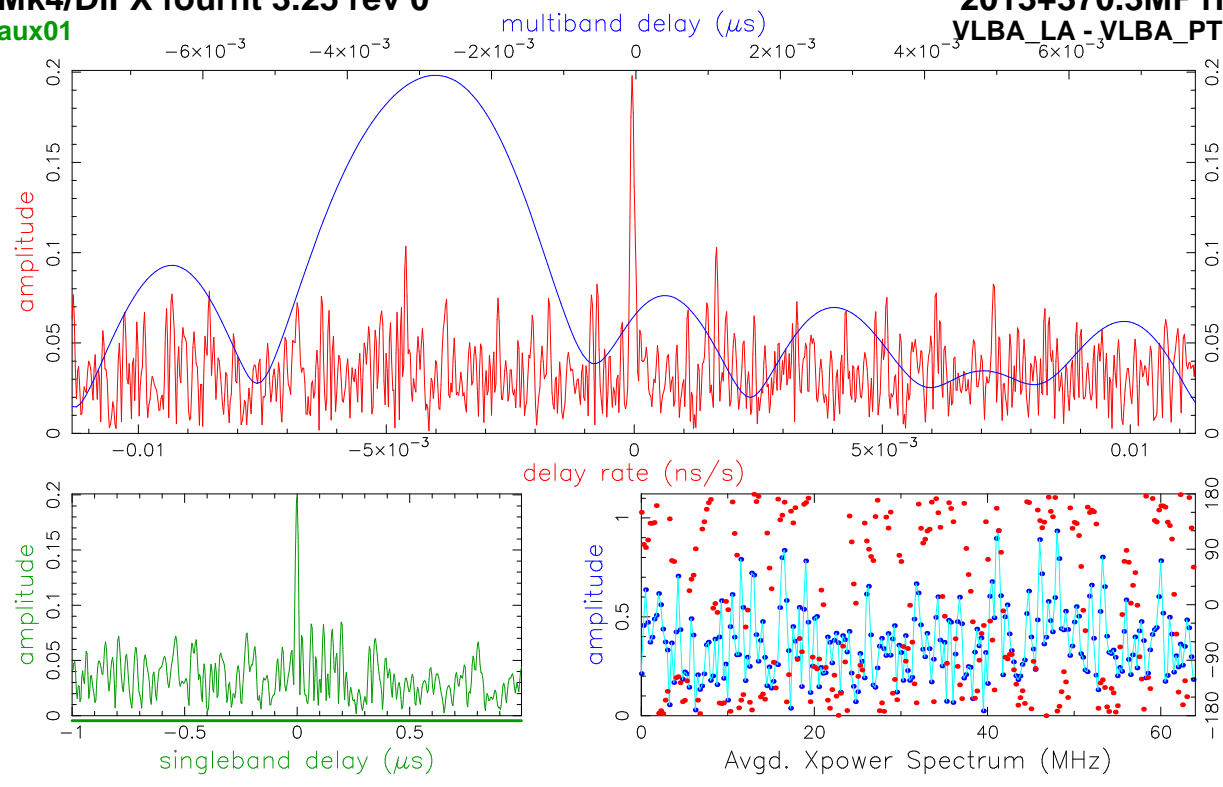
ph/seg (deg) 57.8 48.3 Search (1024X32) 0.150 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 79.7 84.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 19.6 29.1 Inc. seg. avg. 0.156 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 36.9 50.8 Inc. frq. avg. 0.148 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 k: az 58.7 el 21.7 pa -65.8 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) -243.198 19.867 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/kp..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/kp.W.224.3MP1N1 simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

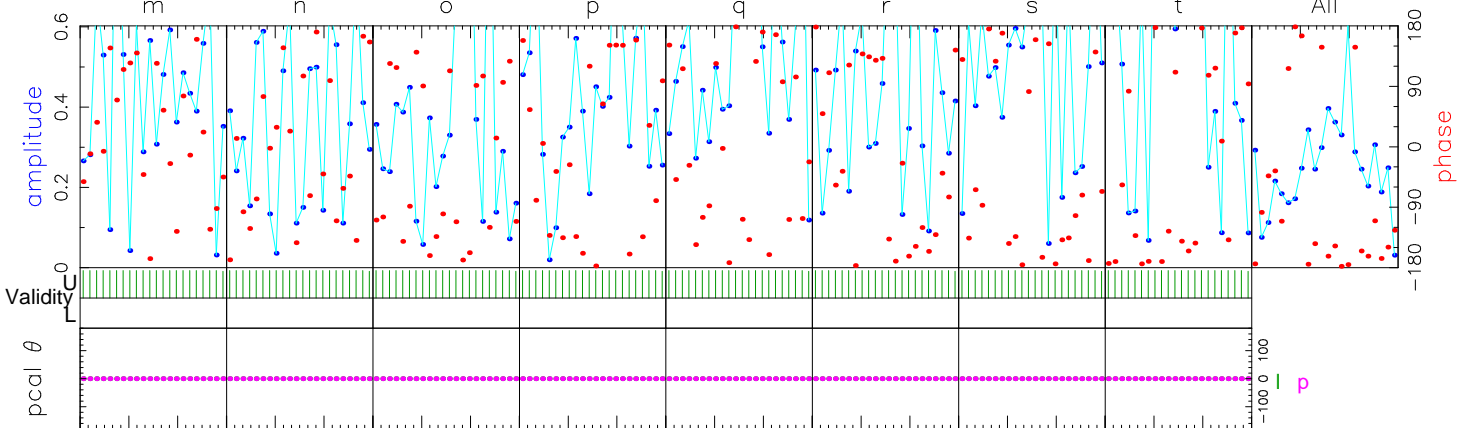
2013+370.3MP1N1, No0280, lp

VLBA\_LA - VLBA\_PT, fgroup W, pol LL



Fringe quality 9  
 SNR 7.4  
 Int time 179.990  
 Amp 0.201  
 Phase -164.6  
 PFD 2.7e-05  
 Delays (us)  
 SBD -0.001440  
 MBD -0.002868  
 Fringe rate (Hz)  
 -0.004132  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105046  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	44.1	-146.2	-151.0	-176.9	-168.2	-160.9	-163.0	-164.0	Phase	-164.6
	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.5	Ampl.	0.2
	244.4	239.5	152.9	263.2	382.8	211.8	256.0	256.9	Sbd box	256.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
l	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) 6.65312802947E+02 Apriori delay (usec) 6.65315670484E+02 Resid mbdelay (usec) -2.86754E-03 +/- 1.5E-04  
 Sband delay (usec) 6.65314230734E+02 Apriori clock (usec) -1.4016365E+01 Resid sbdelay (usec) -1.43975E-03 +/- 1.2E-03  
 Phase delay (usec) 6.65315665176E+02 Apriori clockrate (us/s) -6.1269804E-07 Resid phdelay (usec) -5.30756E-06 +/- 5.0E-07  
 Delay rate (us/s) -2.31939189616E-02 Apriori rate (us/s) -2.31938709979E-02 Resid rate (us/s) -4.79637E-08 +/- 4.8E-09  
 Total phase (deg) 143.4 Apriori accel (us/s/s) -2.17666134063E-06 Resid phase (deg) -164.6 +/- 15.5

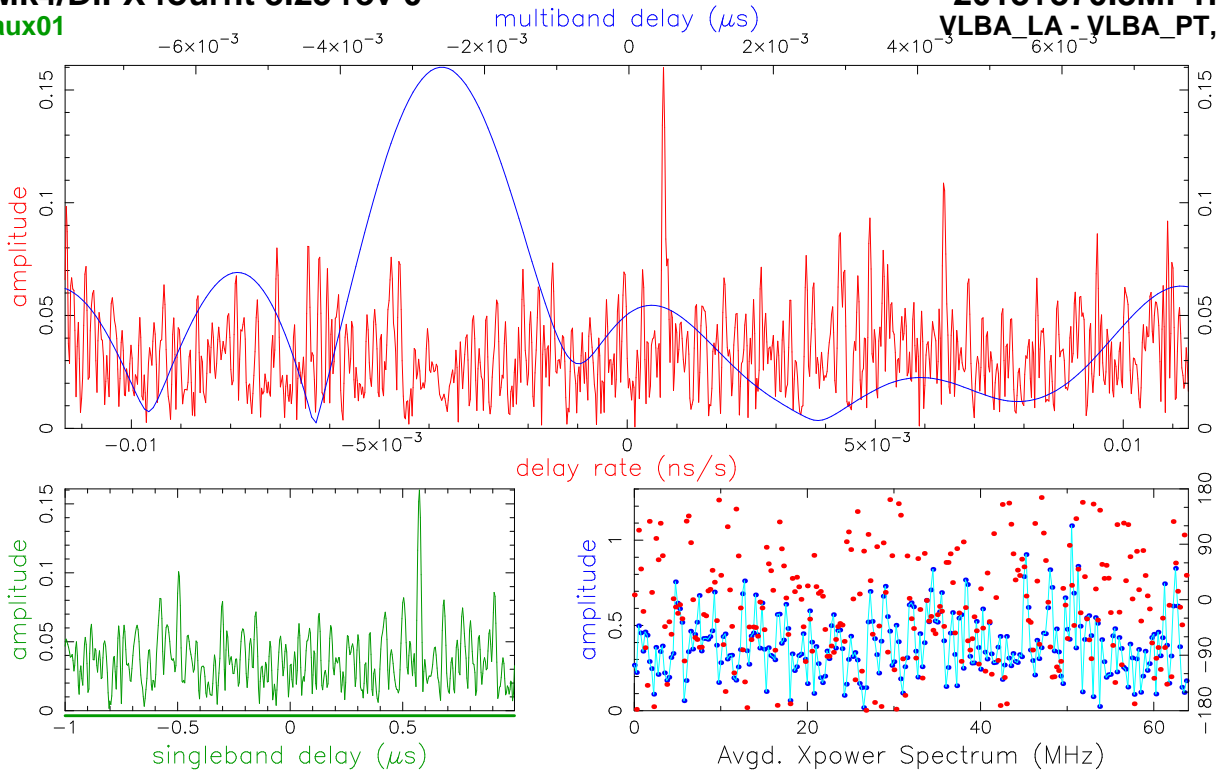
ph/seg (deg) 50.8 36.5 Amplitude 0.201 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 64.2 63.6 Search (1024X32) 0.196 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 62.7 22.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 61.4 38.4 Inc. seg. avg. 0.211 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 l: az 62.2 el 27.5 pa -64.5 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) 165.506 17.175 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/lp..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/lp.W.239.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, lp

VLBA\_LA - VLBA\_PT, fgroup W, pol RR

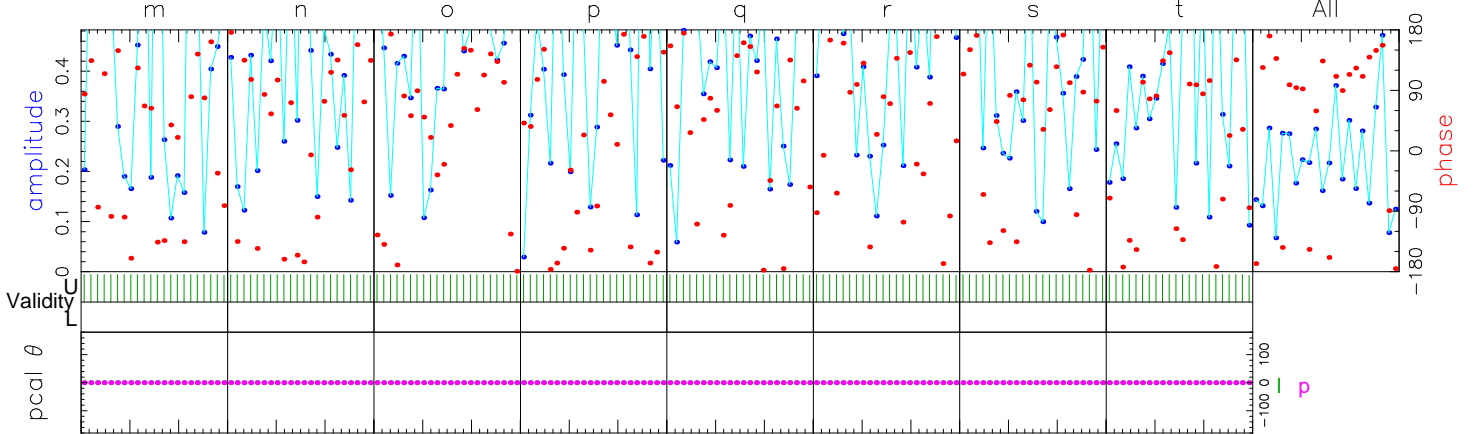


Fringe quality 0

SNR 5.9  
 Int time 179.990  
 Amp 0.161  
 Phase 136.8  
 PFD 3.8e-01  
 Delays (us)  
 SBD 0.573396  
 MBD -0.002642  
 Fringe rate (Hz)  
 0.062535  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105049  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec) (SBD)	6.65891153809E+02					6.65315670484E+02			Resid mbdelay (usec)	-2.64167E-03 +/- 1.8E-04
Sband delay (usec)	6.65889066484E+02					-1.4016365E+01			Resid sbdelay (usec)	5.73396E-01 +/- 1.5E-03
Phase delay (usec)	6.65315674894E+02					-6.1269804E-07			Resid phdelay (usec)	4.41045E-06 +/- 6.3E-07
Delay rate (us/s)	-2.31931450338E-02					-2.31938709979E-02			Resid rate (us/s)	7.25964E-07 +/- 6.0E-09
Total phase (deg)			84.7			-2.17666134063E-06			Resid phase (deg)	136.8 +/- 19.4
	RMS	Theor.	Amplitude	0.161 +/- 0.027					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	51.0	45.6	Search (1024X32)	0.154					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	71.7	79.6	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	24.5	27.5	Inc. seg. avg.	0.170					Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
amp/frq (%)	32.4	48.0	Inc. frq. avg.	0.153					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
										ion window (TEC) 0.00 0.00
l: az 62.2 el 27.5 pa -64.5			p: az 60.8 el 25.4 pa -65.1			u, v (fr/asec) 165.506 17.175				simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c241c/v2/3mm/1234/No0280/lp..3MP1N1			Output file: /Exps/c241c/v2/3mm/1234/No0280/lp.W.253.3MP1N1				

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, lp

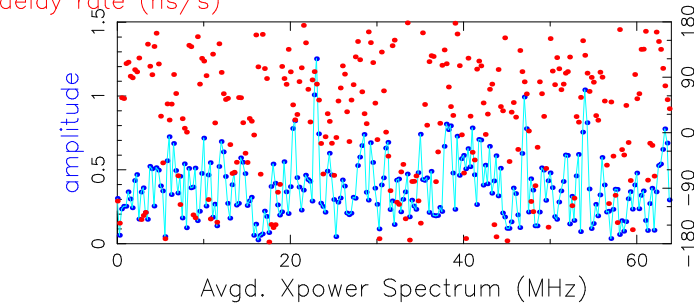
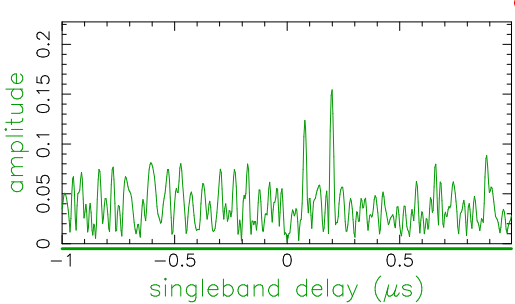
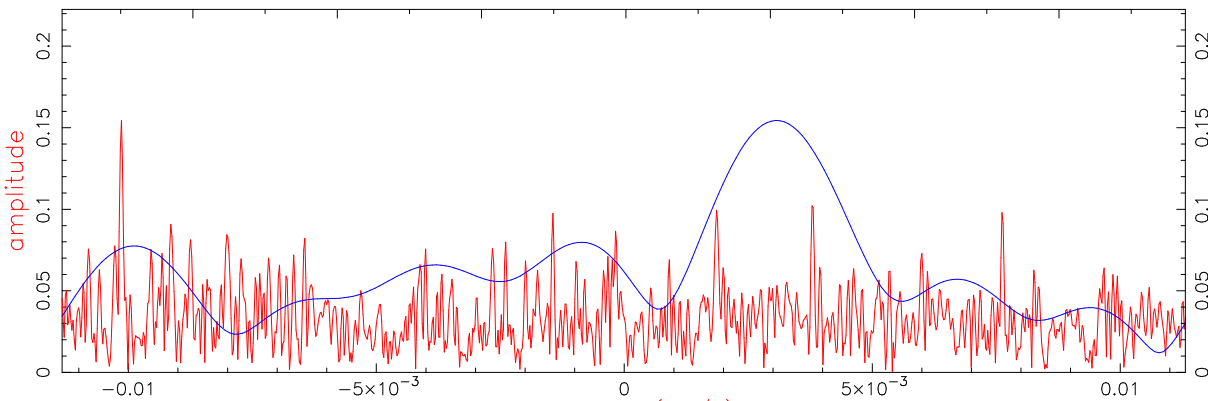
VLBA\_LA - VLBA\_PT, fgroup W, pol LR

multiband delay ( $\mu$ s)

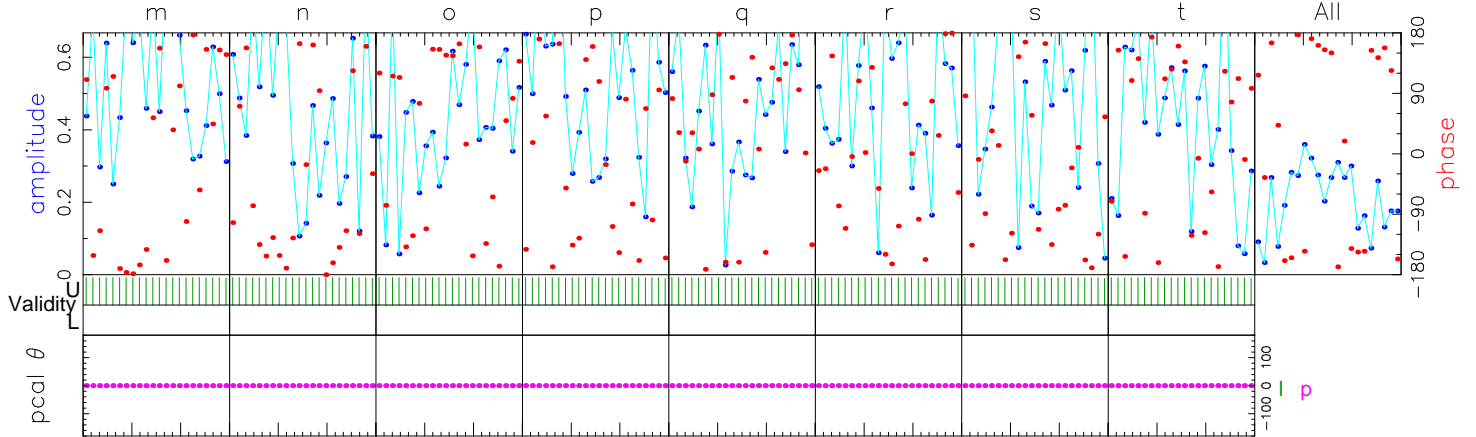
Fringe quality 0

SNR 5.7  
 Int time 179.990  
 Amp 0.223  
 Phase 177.6  
 PFD 7.3e-01  
 Delays (us)  
 SBD 0.197983  
 MBD 0.002049  
 Fringe rate (Hz)  
 -0.875728  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105051  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	157.3	-157.3	161.2	-165.9	113.8	-118.9	-130.3	154.3	Phase	177.6
	0.3	0.4	0.3	0.3	0.2	0.1	0.2	0.3	Ampl.	0.2
	164.4	307.5	448.0	235.7	469.7	70.6	143.6	307.1	Sbd box	307.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
l	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
lp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	6.65520844413E+02	Apriori delay (usec)	6.65315670484E+02	Resid mbdelay (usec)	2.04893E-03	+/-	1.9E-04
Sband delay (usec)	6.65513653234E+02	Apriori clock (usec)	-1.4016365E+01	Resid sbdelay (usec)	1.97983E-01	+/-	1.5E-03
Phase delay (usec)	6.65315676209E+02	Apriori clockrate (us/s)	-6.1269804E-07	Resid phdelay (usec)	5.72552E-06	+/-	6.5E-07
Delay rate (us/s)	-2.32040373273E-02	Apriori rate (us/s)	-2.31938709979E-02	Resid rate (us/s)	-1.01663E-05	+/-	6.2E-09
Total phase (deg)	125.5	Apriori accel (us/s/s)	-2.17666134063E-06	Resid phase (deg)	177.6	+/-	20.0

ph/seg (deg)	61.6	Theor.	47.0	Amplitude	0.223 +/- 0.039	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	67.6	Search (1024X32)	0.152	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	46.4	Inc. seg. avg.	0.225	Inc. frq. avg.	0.237	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	43.3	Inc. frq. avg.	0.237			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 62.2 el 27.5 pa -64.5 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) 165.506 17.175 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/lp..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/lp.W.256.3MP1N1

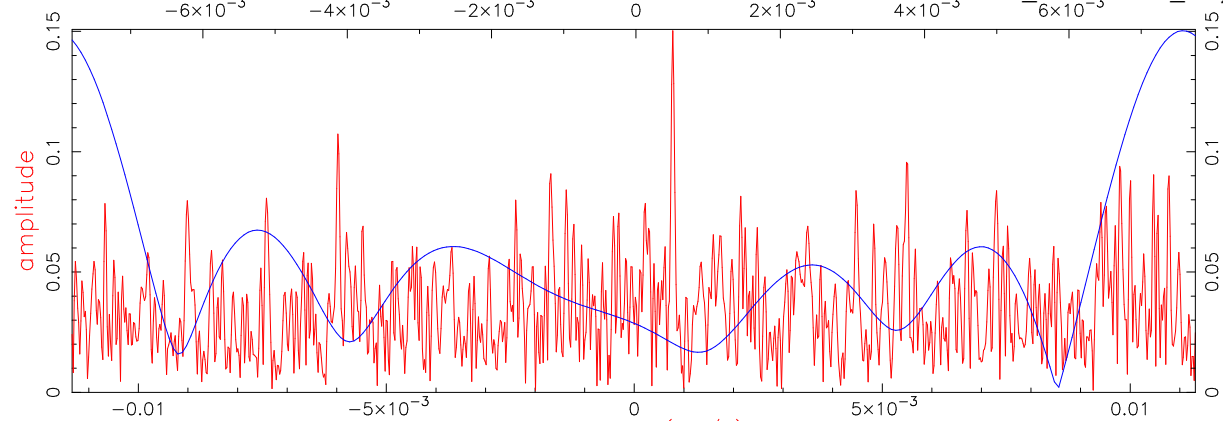
Mk4/DiFX fourfit 3.25 rev 0

aux01

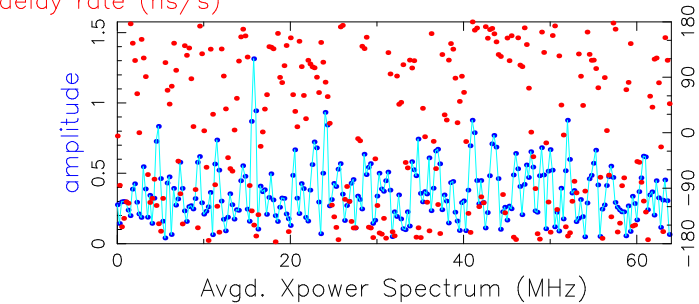
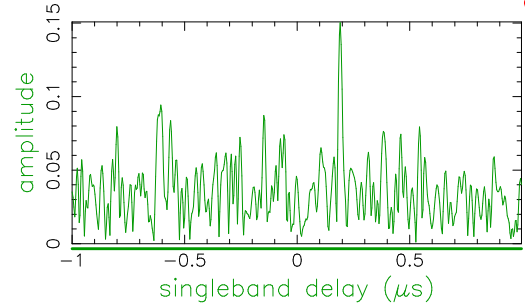
2013+370.3MP1N1, No0280, lp

VLBA\_LA - VLBA\_PT, fgroup W, pol RL

multiband delay ( $\mu$ s)

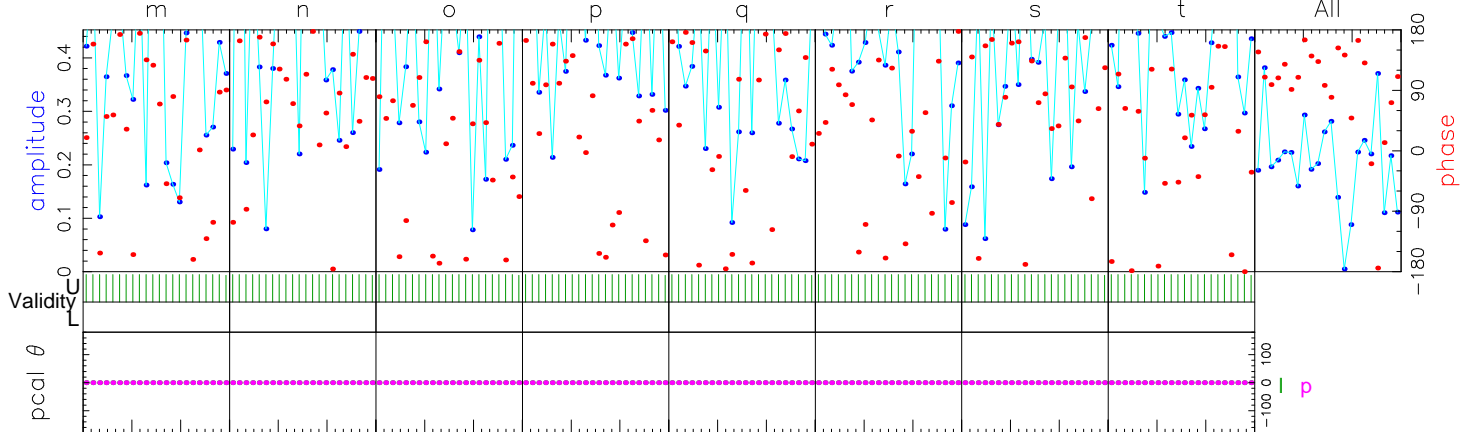


Fringe quality 0  
 SNR 5.5  
 Int time 179.990  
 Amp 0.151  
 Phase 119.0  
 PFD 9.8e-01  
 Delays (us)  
 SBD 0.190777  
 MBD 0.007551  
 Fringe rate (Hz) 0.066617  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105054  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	0	0	0	0	0	0	0	0	APs used	
p	0	0	0	0	0	0	0	0	PC freqs	
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
lp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
Group delay (usec) (SBD)	6.65510721659E+02					6.65315670484E+02			Resid mbdelay (usec)	7.55118E-03 +/- 2.0E-04
Sband delay (usec)	6.65506447984E+02					-1.4016365E+01			Resid sbdelay (usec)	1.90777E-01 +/- 1.6E-03
Phase delay (usec)	6.65315674320E+02					-6.1269804E-07			Resid phdelay (usec)	3.83632E-06 +/- 6.7E-07
Delay rate (us/s)	-2.31930976384E-02					-2.31938709979E-02			Resid rate (us/s)	7.73359E-07 +/- 6.4E-09
Total phase (deg)			66.9			-2.17666134063E-06			Resid phase (deg)	119.0 +/- 20.7
ph/seg (deg)	49.3	48.7							PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	67.4	84.9							PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	26.8	29.3							Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%)	49.6	51.2							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 62.2 el 27.5 pa -64.5										simultaneous interpolator
Control file: cf_1234_gmva										

Input file: /Exps/c241c/v2/3mm/1234/No0280/lp..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/lp.W.270.3MP1N1



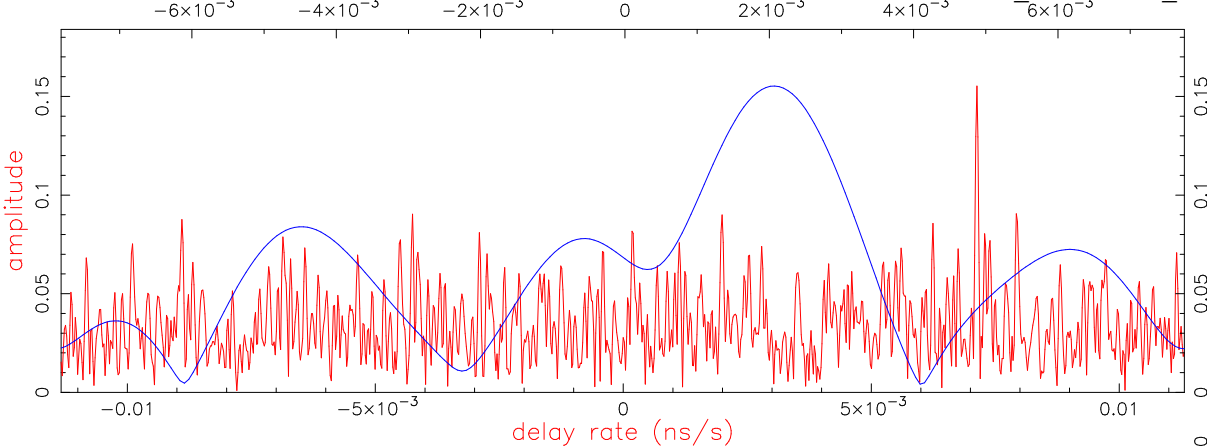
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, np

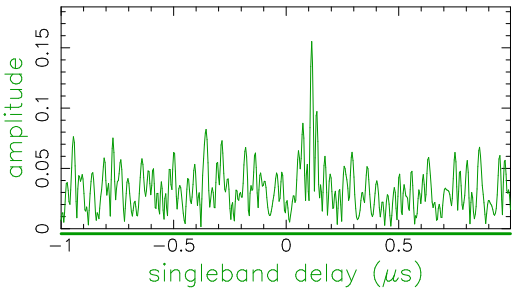
VLBA\_NL - VLBA\_PT, fgroup W, pol LL

multiband delay ( $\mu$ s)

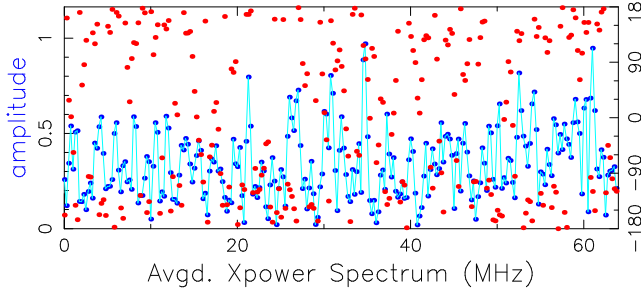


Fringe quality 0

SNR 5.7  
 Int time 179.986  
 Amp 0.184  
 Phase 17.5  
 PFD 7.7e-01  
 Delays (us)  
 SBD 0.113435  
 MBD 0.002073  
 Fringe rate (Hz)  
 0.615836  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

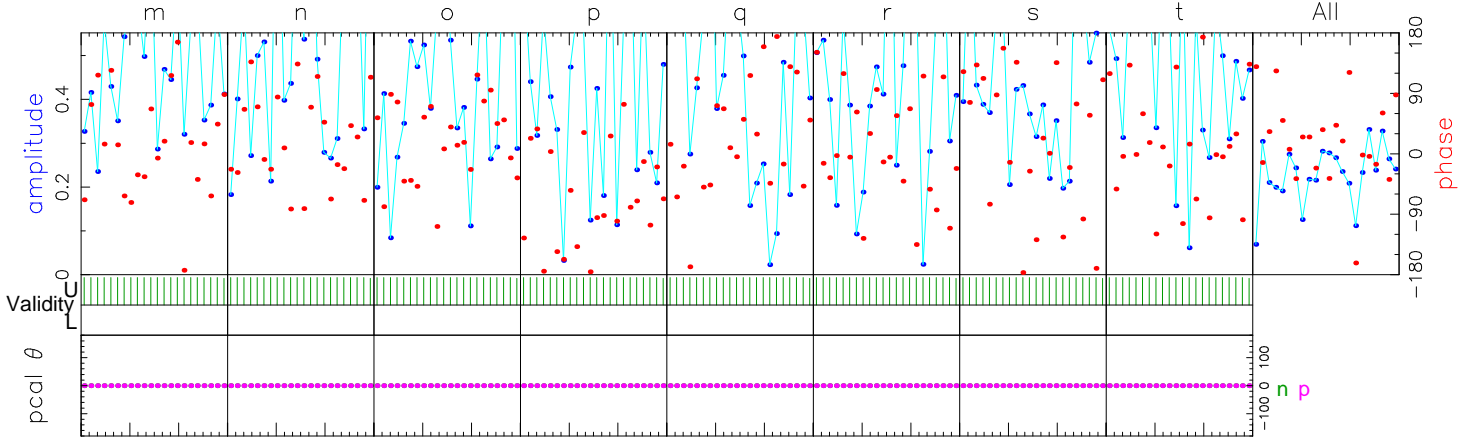


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105056  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	13.3	45.9	18.4	-51.5	2.3	11.4	109.7	-1.8	Phase	17.5
	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.2	Ampl.	0.2
	224.2	302.2	285.9	129.5	354.1	99.1	290.4	7.5	Sbd box	286.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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)	4.61225364410E+03	Apriori delay (usec)	4.61214219656E+03	Resid mbdelay (usec)	2.07254E-03	+/-	1.9E-04
Sband delay (usec)	4.61225563181E+03	Apriori clock (usec)	-5.9900055E+00	Resid sbdelay (usec)	1.13435E-01	+/-	1.5E-03
Phase delay (usec)	4.61214219713E+03	Apriori clockrate (us/s)	-8.1437027E-08	Resid phdelay (usec)	5.65421E-07	+/-	6.5E-07
Delay rate (us/s)	-1.72812025379E-01	Apriori rate (us/s)	-1.72819174626E-01	Resid rate (us/s)	7.14925E-06	+/-	6.2E-09
Total phase (deg)	309.9	Apriori accel (us/s/s)	-1.75623403808E-05	Resid phase (deg)	17.5	+/-	20.1

ph/seg (deg)	63.7	Theor.	47.2	Amplitude	0.184 +/- 0.032	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	63.5	Search (1024X32)	0.154	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	49.5	Inc. seg. avg.	0.204	Inc. frq. avg.	0.206	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	38.4	Inc. frq. avg.	0.206			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 72.1 el 40.3 pa -63.2      p: az 60.8 el 25.4 pa -65.1      u, v (fr/asec) 1231.220 -334.631      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c241c/v2/3mm/1234/No0280/np..3MP1N1      Output file: /Exps/c241c/v2/3mm/1234/No0280/np.W.283.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

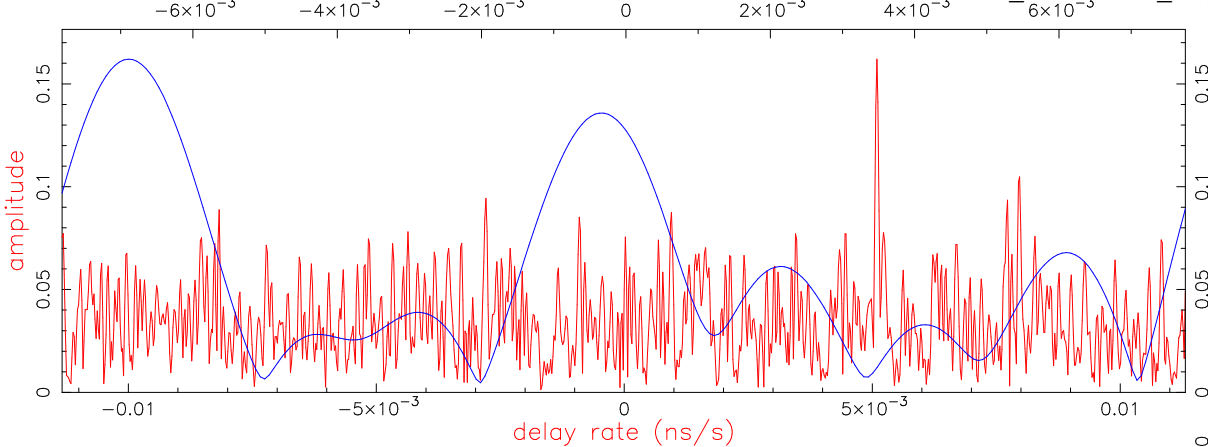
aux01

2013+370.3MP1N1, No0280, np

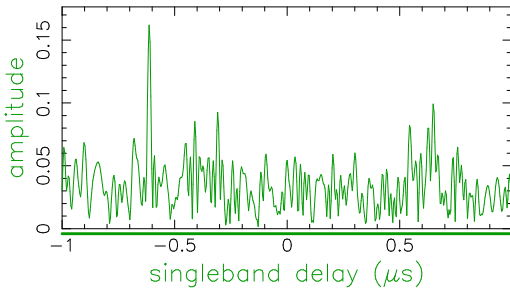
VLBA\_NL - VLBA\_PT, fgroup W, pol RR

multiband delay ( $\mu$ s)

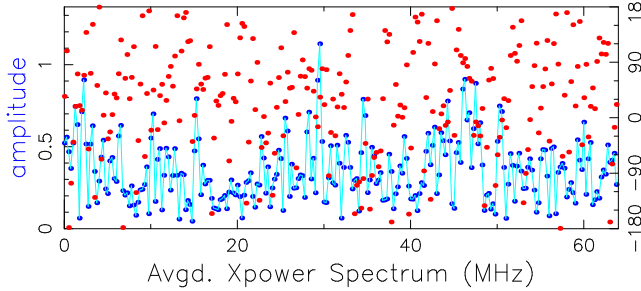
Fringe quality 0



SNR 5.9  
Int time 179.986  
Amp 0.176  
Phase -97.2  
PFD 2.9e-01  
Delays (us)  
SBD -0.612902  
MBD -0.006875  
Fringe rate (Hz) 0.439561  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512

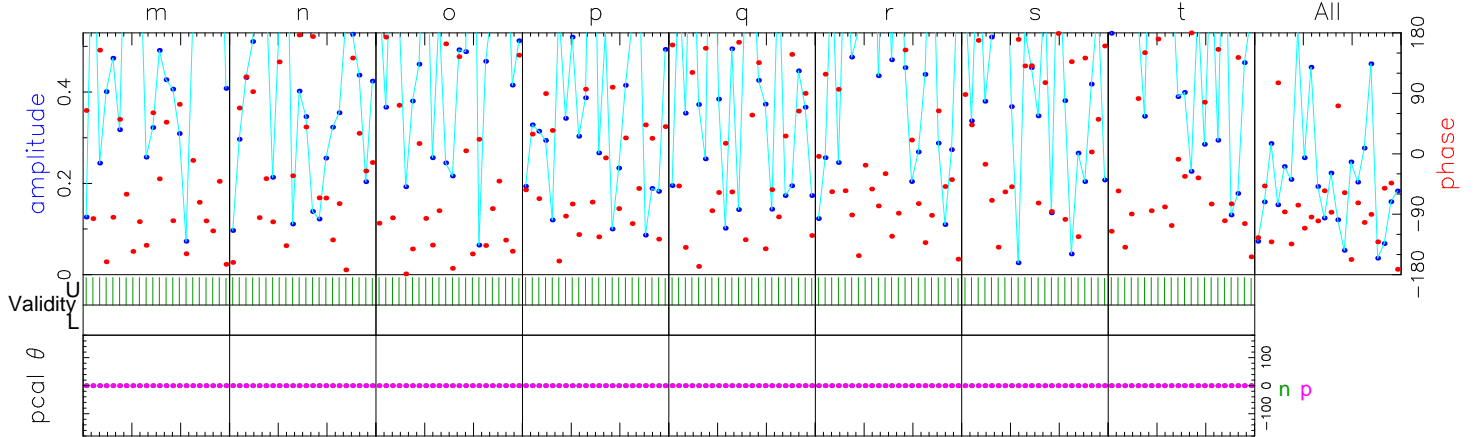


delay rate (ns/s)



Exp. c241c  
Exper # 1234  
Yr:day 2024:112  
Start 080000.00  
Stop 080300.22  
FRT 080130.00  
Corr/FF/build  
2024:352:054246  
2025:041:105059  
2024:113:095956  
RA & Dec (J2000)  
20h15m28.729786s  
+37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-83.0	-135.0	-124.5	-56.8	-123.2	-76.8	179.0	-101.2	Phase	-97.2
	0.3	0.1	0.3	0.2	0.1	0.3	0.1	0.3	Ampl.	0.2
	101.5	318.7	100.7	417.3	213.3	100.4	280.5	99.9	Sbd box	100.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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)	4.61152594658E+03	Apriori delay (usec)	4.61214219656E+03	Resid mbdelay (usec)	-6.87499E-03	+/-	1.8E-04
Sband delay (usec)	4.61152929456E+03	Apriori clock (usec)	-5.9900055E+00	Resid sbdelay (usec)	-6.12902E-01	+/-	1.4E-03
Phase delay (usec)	4.61214219343E+03	Apriori clockrate (us/s)	-8.1437027E-08	Resid phdelay (usec)	-3.13439E-06	+/-	6.2E-07
Delay rate (us/s)	-1.72814071761E-01	Apriori rate (us/s)	-1.72819174626E-01	Resid rate (us/s)	5.10286E-06	+/-	6.0E-09
Total phase (deg)	195.1	Apriori accel (us/s/s)	-1.75623403808E-05	Resid phase (deg)	-97.2	+/-	19.3

ph/seg (deg)	59.9	Theor.	45.2	Amplitude	0.176 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	85.5		78.9	Search (1024X32)	0.156	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	45.0		27.2	Inc. seg. avg.	0.178	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	62.5		47.5	Inc. frq. avg.	0.178	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

n: az 72.1 el 40.3 pa -63.2      p: az 60.8 el 25.4 pa -65.1      u, v (fr/asec) 1231.220 -334.631      simultaneous interpolator

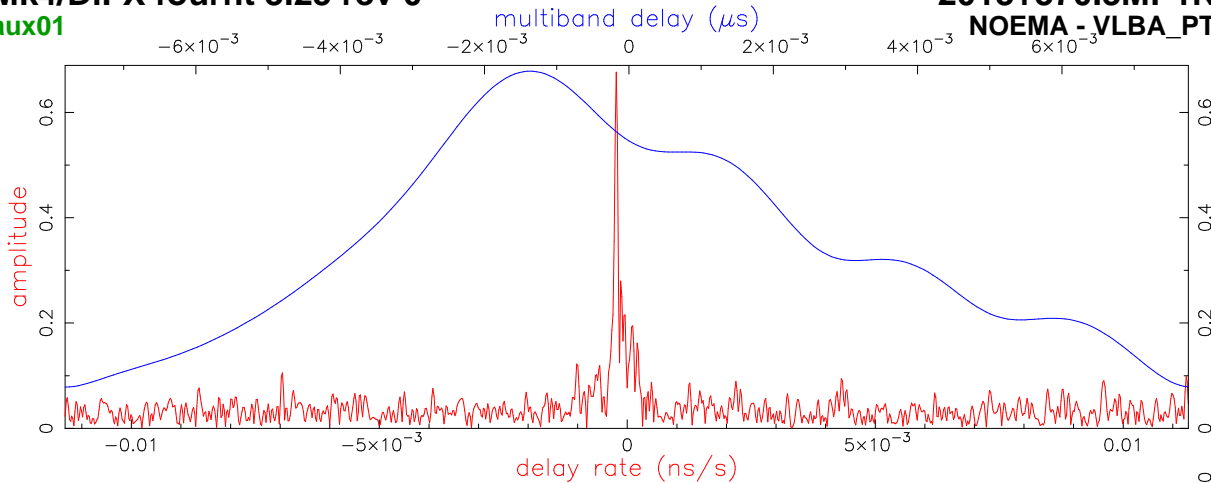
Control file: cf\_1234\_gmva      Input file: /Exps/c241c/v2/3mm/1234/No0280/np..3MP1N1      Output file: /Exps/c241c/v2/3mm/1234/No0280/np.W.291.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

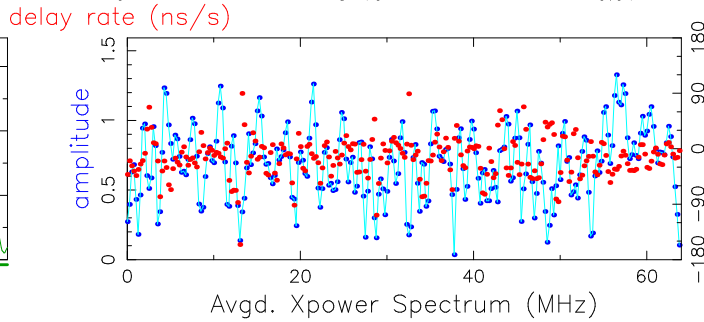
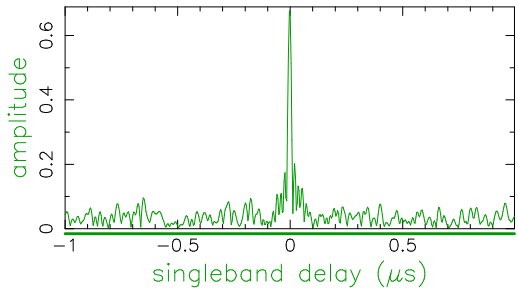
aux01

2013+370.3MP1N1, No0280, Np

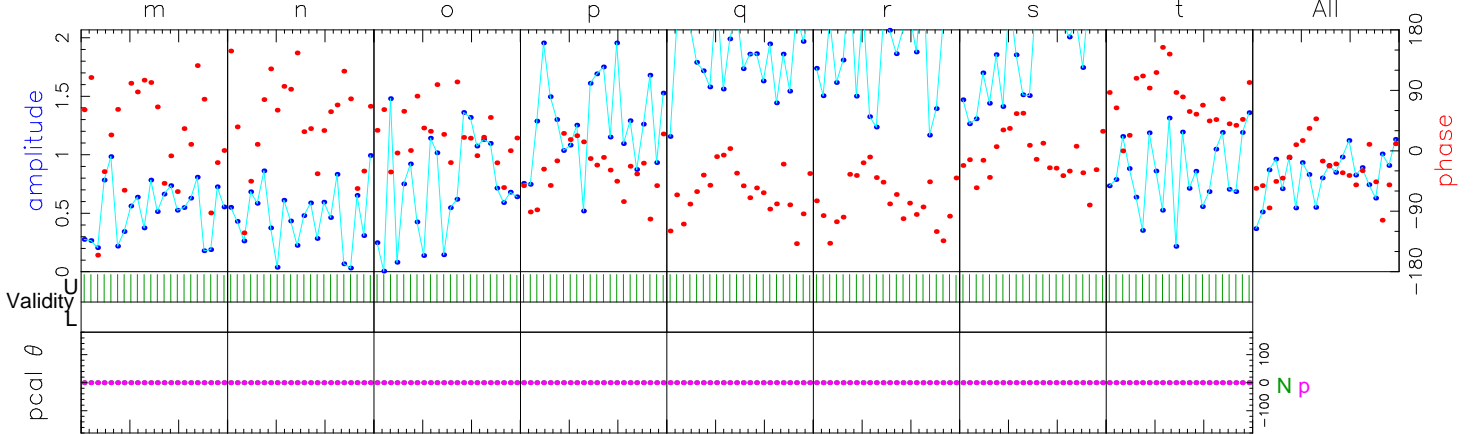
NOEMA - VLBA\_PT, fgroup W, pol LL



Fringe quality 6  
 Error code G  
 SNR 25.3  
 Int time 179.981  
 Amp 0.689  
 Phase -26.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.002300  
 MBD -0.001247  
 Fringe rate (Hz)  
 -0.019771  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105059  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"



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



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

Group delay (usec) (SBD)	1.00383005406E+04	Apriori delay (usec)	1.00383017880E+04	Resid mbdelay (usec)	-1.24743E-03	+/-	4.3E-05
Sband delay (usec)	1.00382994875E+04	Apriori clock (usec)	-1.9064697E+01	Resid sbdelay (usec)	-2.30050E-03	+/-	3.4E-04
Phase delay (usec)	1.00383017872E+04	Apriori clockrate (us/s)	-3.6439796E-07	Resid phdelay (usec)	-8.53770E-07	+/-	1.5E-07
Delay rate (us/s)	-1.47915224722E+00	Apriori rate (us/s)	-1.47915201770E+00	Resid rate (us/s)	-2.29520E-07	+/-	1.4E-09
Total phase (deg)	-19.2	Apriori accel (us/s/s)	-4.39782798720E-05	Resid phase (deg)	-26.5	+/-	4.5

ph/seg (deg) 35.9 10.6 Amplitude 0.689 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 34.0 18.6 Interp. 0.658 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 64.1 6.4 Inc. seg. avg. 0.807 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 86.7 11.2 Inc. frq. avg. 0.939 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 N: az 263.8 el 65.1 pa 62.6 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) 10609.042 -1713.982 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/Np..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/Np.W.295.3MP1N1

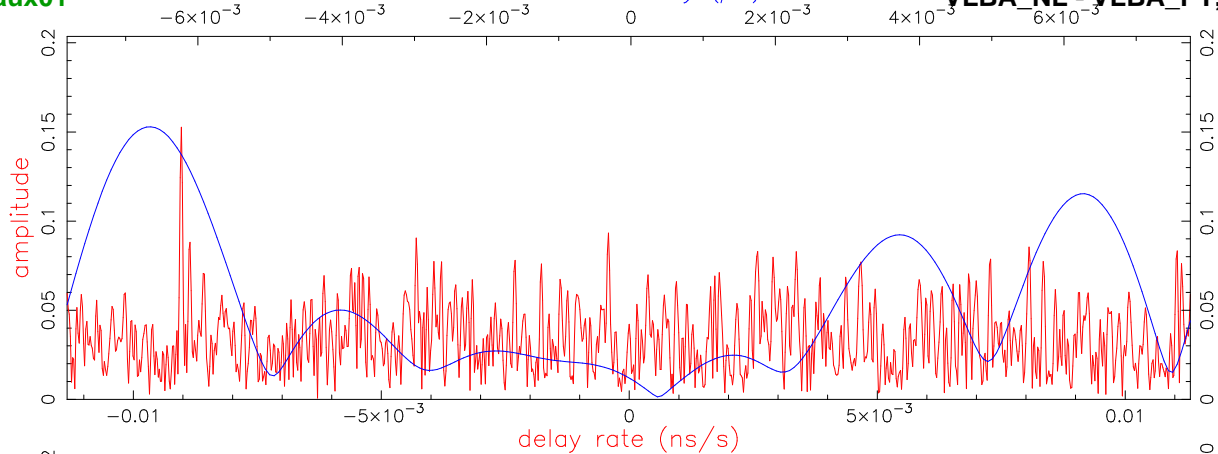
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, np

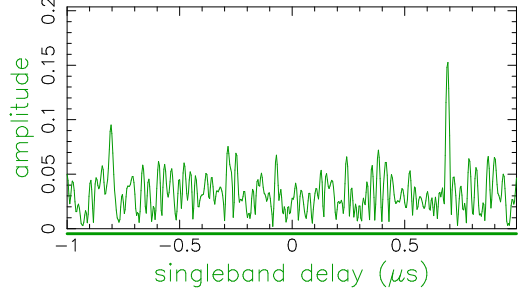
VLBA\_NL - VLBA\_PT, fgroup W, pol LR

multiband delay ( $\mu$ s)

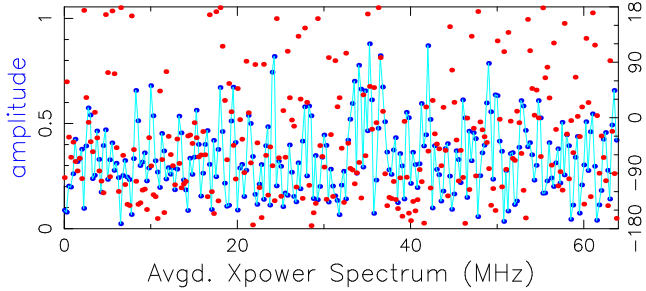


Fringe quality 0

SNR 5.7  
 Int time 179.986  
 Amp 0.204  
 Phase 22.6  
 PFD 8.4e-01  
 Delays (us)  
 SBD 0.690060  
 MBD -0.006727  
 Fringe rate (Hz)  
 -0.778646  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

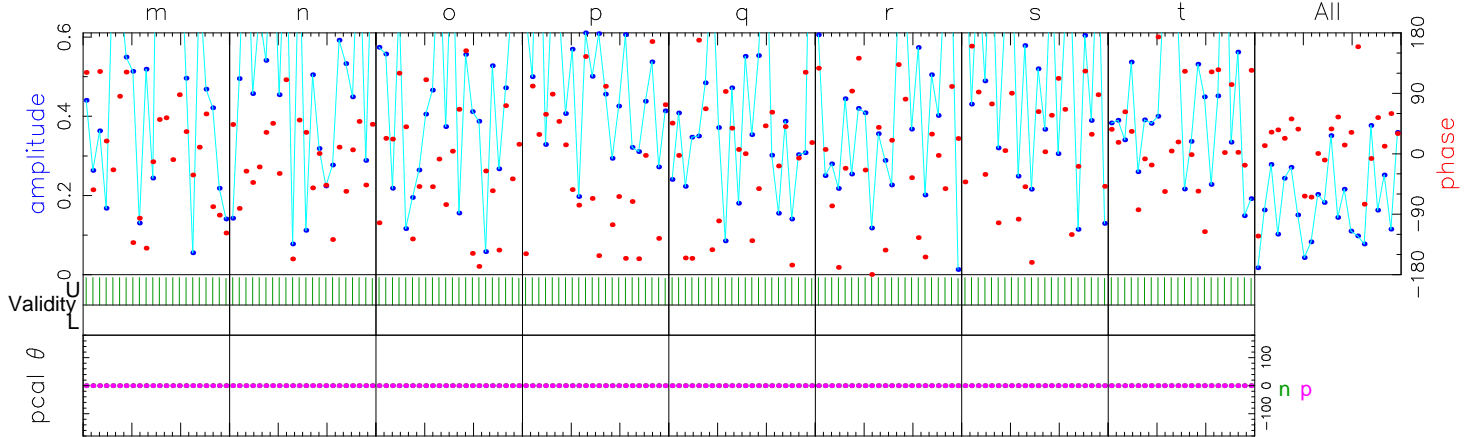


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105101  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	41.2	6.9	-13.7	84.2	17.7	56.4	54.2	6.5	Phase	22.6
	0.3	0.4	0.2	0.0	0.2	0.1	0.3	0.3	Ampl.	0.2
	325.1	435.1	201.0	106.5	508.7	32.1	392.1	432.8	Sbd box	433.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	

Group delay (usec) (SBD)	4.61283859440E+03	Apriori delay (usec)	4.61214219656E+03	Resid mbdelay (usec)	-6.72716E-03	+/-	1.9E-04
Sband delay (usec)	4.61283225631E+03	Apriori clock (usec)	-5.9900055E+00	Resid sbdelay (usec)	6.90060E-01	+/-	1.5E-03
Phase delay (usec)	4.61214219729E+03	Apriori clockrate (us/s)	-8.1437027E-08	Resid phdelay (usec)	7.28867E-07	+/-	6.5E-07
Delay rate (us/s)	-1.72828213934E-01	Apriori rate (us/s)	-1.72819174626E-01	Resid rate (us/s)	-9.03931E-06	+/-	6.3E-09
Total phase (deg)	314.9	Apriori accel (us/s/s)	-1.75623403808E-05	Resid phase (deg)	22.6	+/-	20.2

ph/seg (deg)	57.2	Theor.	47.4	Amplitude	0.204 +/- 0.036	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	66.9	Search (1024X32)	0.150	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)	36.8	Inc. seg. avg.	0.179	Inc. frq. avg.	0.196	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011	0.011
amp/frq (%)	58.0	Inc. frq. avg.	0.196			Data rate(Mb/s): 2048	ion window (TEC)	0.00	0.00	

n: az 72.1 el 40.3 pa -63.2      p: az 60.8 el 25.4 pa -65.1      u,v (fr/asec) 1231.220 -334.631      simultaneous interpolator

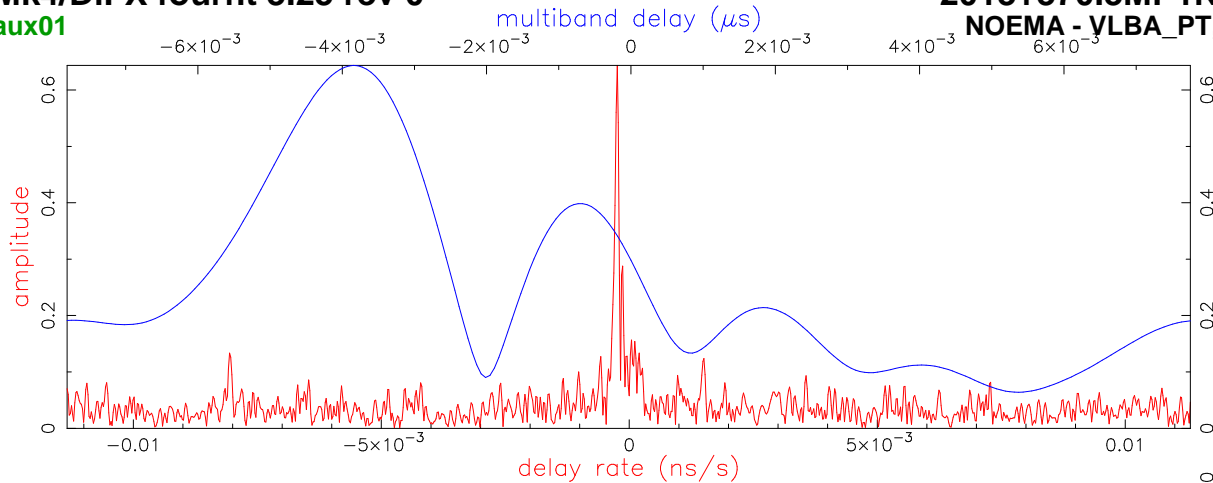
Control file: cf\_1234\_gmva      Input file: /Exps/c241c/v2/3mm/1234/No0280/np..3MP1N1      Output file: /Exps/c241c/v2/3mm/1234/No0280/np.W.307.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

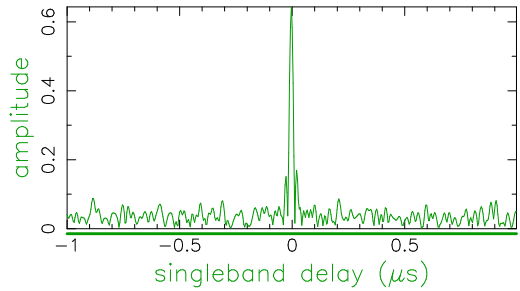
2013+370.3MP1N1, No0280, Np

NOEMA - VLBA\_PT, fgroup W, pol RR

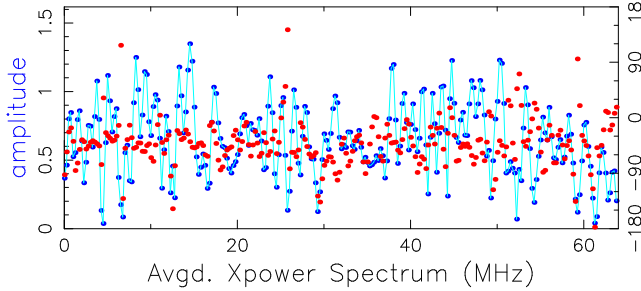


Fringe quality 7

SNR 23.6  
 Int time 179.981  
 Amp 0.644  
 Phase -44.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.003905  
 MBD -0.003841  
 Fringe rate (Hz)  
 -0.020147  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

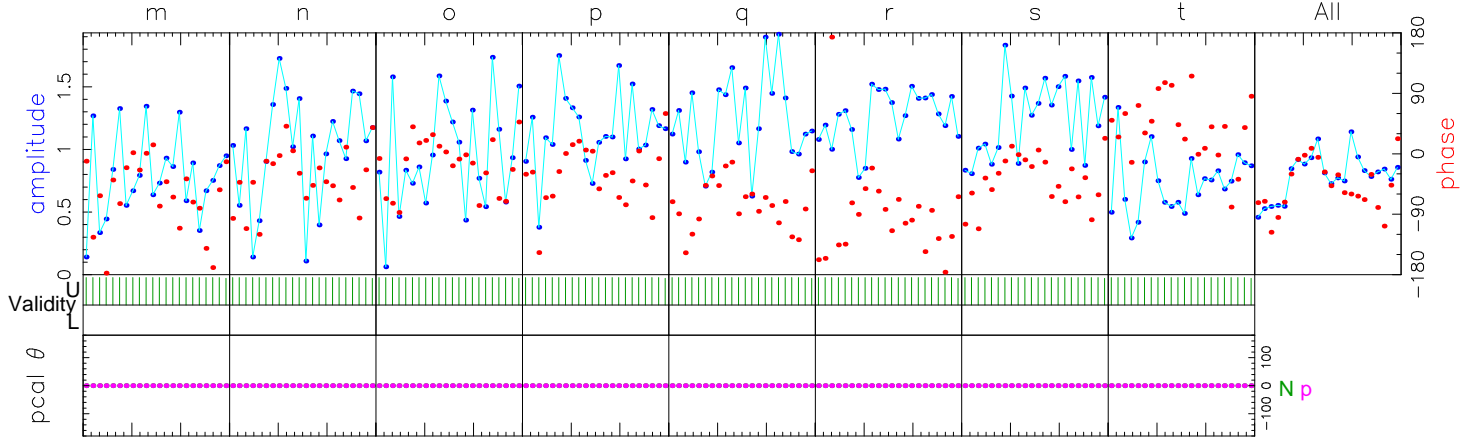


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105101  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-59.8	-32.9	-9.1	-28.5	-73.9	-104.5	-36.9	40.0	Phase	-44.1
	0.5	0.7	0.8	0.9	1.0	1.0	1.0	0.5	Ampl.	0.8
	258.3	256.2	256.0	256.0	255.4	255.8	256.6	258.4	Sbd box	256.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	
									Tracks	
Group delay (usec) (SBD)	1.00382979474E+04		Apriori delay (usec)		1.00383017880E+04		Resid mbdelay (usec)		-3.84061E-03	+/- 4.6E-05
Sband delay (usec)	1.00382978833E+04		Apriori clock (usec)		-1.9064697E+01		Resid sbdelay (usec)		-3.90475E-03	+/- 3.6E-04
Phase delay (usec)	1.00383017866E+04		Apriori clockrate (us/s)		-3.6439796E-07		Resid phdelay (usec)		-1.42246E-06	+/- 1.6E-07
Delay rate (us/s)	-1.47915225158E+00		Apriori rate (us/s)		-1.47915201770E+00		Resid rate (us/s)		-2.33884E-07	+/- 1.5E-09
Total phase (deg)			Apriori accel (us/s/s)		-4.39782798720E-05		Resid phase (deg)		-44.1	+/- 4.9

ph/seg (deg) 36.5 11.4 Amplitude 0.644 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 34.9 19.9 Search (1024X32) 0.622 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 47.5 6.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 38.8 12.0 Inc. seg. avg. 0.773 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 N: az 263.8 el 65.1 pa 62.6 p: az 60.8 el 25.4 pa -65.1 u, v (fr/asec) 10609.042 -1713.982 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/Np..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/Np.W.308.3MP1N1

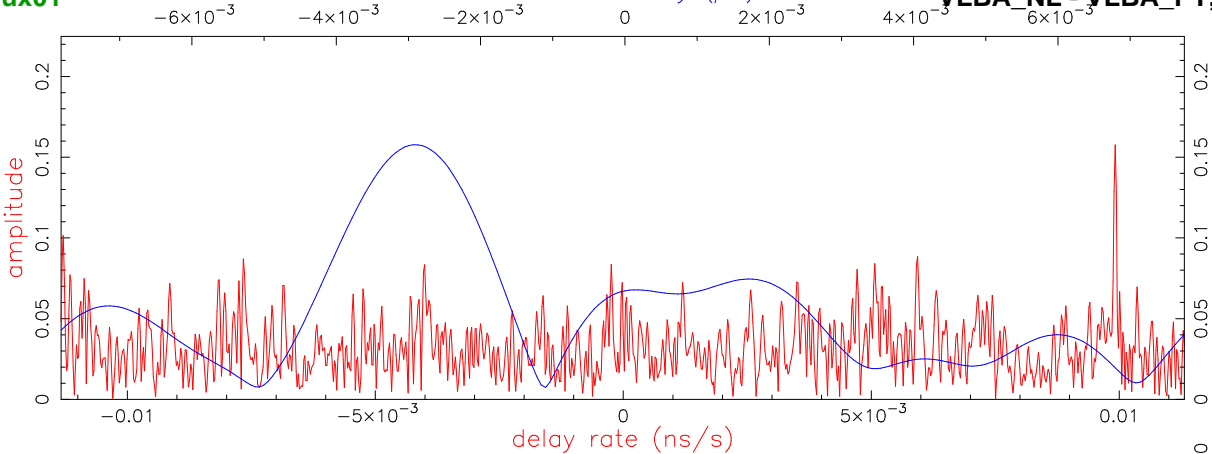
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, np

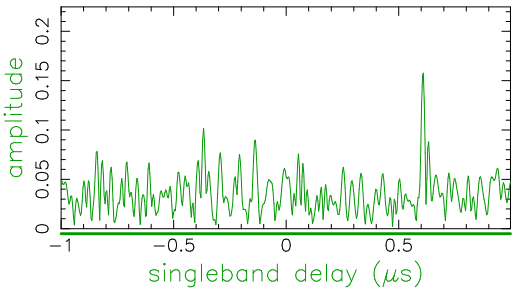
VLBA\_NL - VLBA\_PT, fgroup W, pol RL

multiband delay ( $\mu$ s)

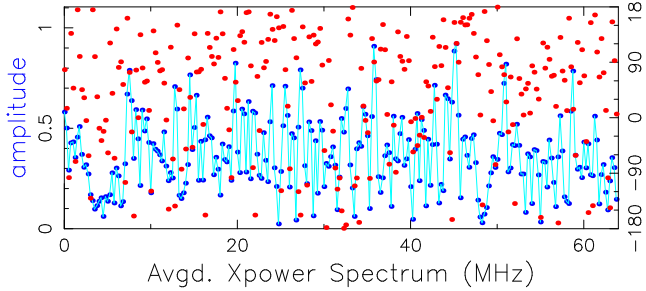


Fringe quality 0

SNR 5.9  
 Int time 179.986  
 Amp 0.225  
 Phase -69.2  
 PFD 4.1e-01  
 Delays (us)  
 SBD 0.607798  
 MBD -0.002944  
 Fringe rate (Hz)  
 0.855936  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

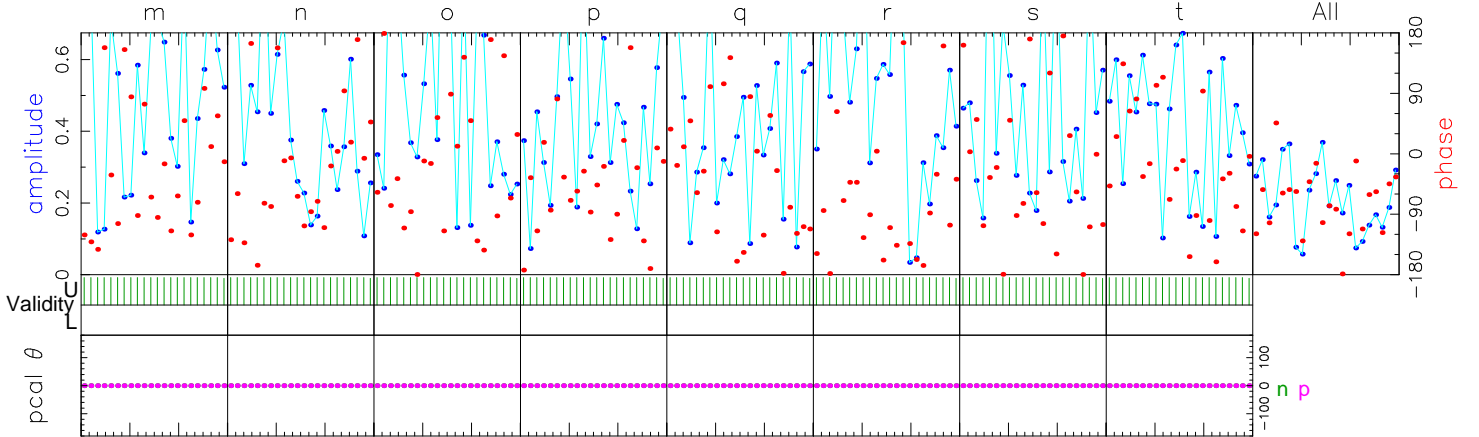


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105103  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-56.3	-81.2	-95.4	-44.8	-31.3	-108.2	-92.4	-25.4	Phase	-69.2
	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	Ampl.	0.2
	329.5	275.6	255.5	156.9	221.9	112.9	360.2	134.1	Sbd box	412.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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	

Group delay (usec) (SBD)	4.61274862729E+03	Apriori delay (usec)	4.61214219656E+03	Resid mbdelay (usec)	-2.94427E-03	+/-	1.8E-04
Sband delay (usec)	4.61274999456E+03	Apriori clock (usec)	-5.9900055E+00	Resid sbdelay (usec)	6.07798E-01	+/-	1.5E-03
Phase delay (usec)	4.61214219433E+03	Apriori clockrate (us/s)	-8.1437027E-08	Resid phdelay (usec)	-2.23309E-06	+/-	6.3E-07
Delay rate (us/s)	-1.72809238061E-01	Apriori rate (us/s)	-1.72819174626E-01	Resid rate (us/s)	9.93657E-06	+/-	6.0E-09
Total phase (deg)	223.1	Apriori accel (us/s/s)	-1.75623403808E-05	Resid phase (deg)	-69.2	+/-	19.5

ph/seg (deg)	47.9	Theor.	45.7	Amplitude	0.225 +/- 0.038	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	66.6	Search (1024X32)	0.155	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
ph/frq (deg)	34.2	Inc. seg. avg.	0.225	Bits/sample: 2x2		mb window (us)	-0.008 0.008
amp/frq (%)	29.6	Inc. frq. avg.	0.228	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
				Data rate(Mb/s): 2048		ion window (TEC)	0.00 0.00

n: az 72.1 el 40.3 pa -63.2      p: az 60.8 el 25.4 pa -65.1      u,v (fr/asec) 1231.220 -334.631      simultaneous interpolator  
 Control file: cf\_1234\_gmva      Input file: /Exps/c241c/v2/3mm/1234/No0280/np..3MP1N1      Output file: /Exps/c241c/v2/3mm/1234/No0280/np.W.315.3MP1N1

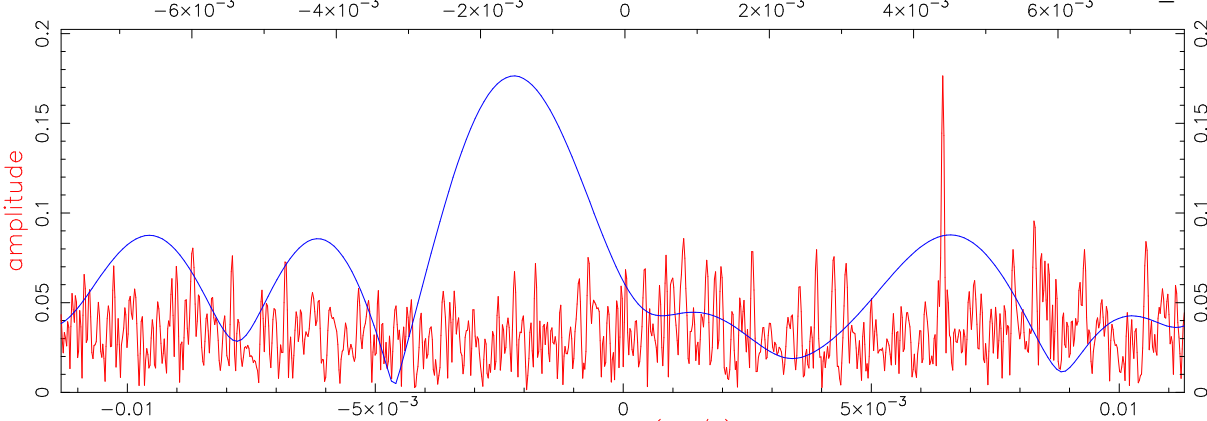
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, Np

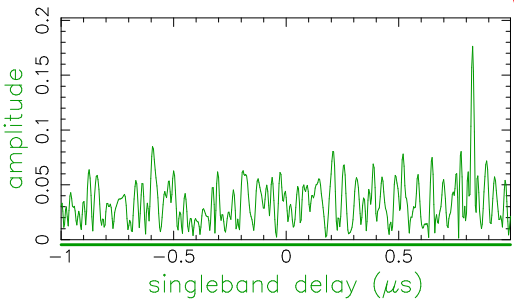
NOEMA - VLBA\_PT, fgroup W, pol LR

multiband delay ( $\mu$ s)

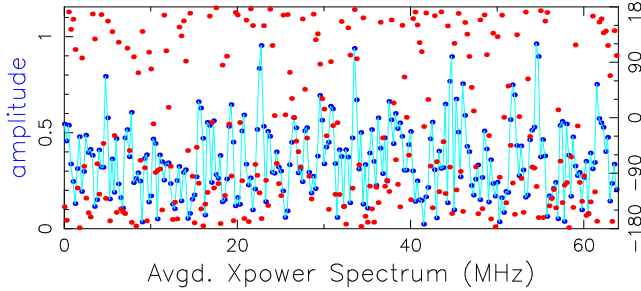


Fringe quality 0

SNR 6.5  
 Int time 179.981  
 Amp 0.202  
 Phase 44.1  
 PFD 1.3e-02  
 Delays (us)  
 SBD 0.827957  
 MBD -0.001543  
 Fringe rate (Hz)  
 0.556072  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

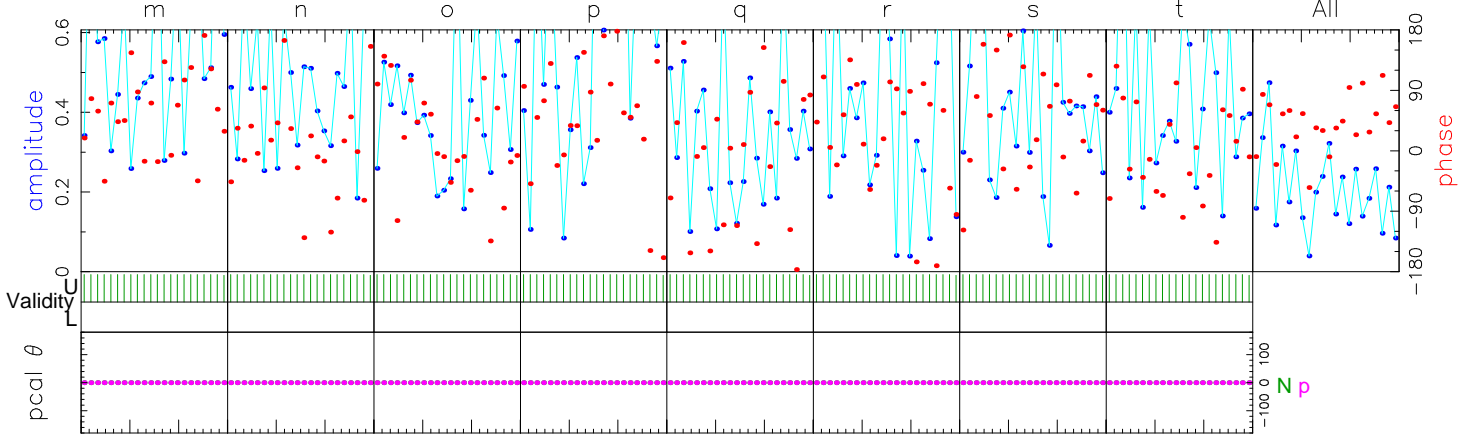


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105103  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
N	0	0	0	0	0	0	0	0	APs used	
p	0	0	0	0	0	0	0	0	PC freqs	
N:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
N:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	1.00391283699E+04	Apriori delay (usec)	1.00383017880E+04	Resid mbdelay (usec)	-1.54316E-03	+/-	1.7E-04
Sband delay (usec)	1.00391297450E+04	Apriori clock (usec)	-1.9064697E+01	Resid sbdelay (usec)	8.27957E-01	+/-	1.3E-03
Phase delay (usec)	1.00383017894E+04	Apriori clockrate (us/s)	-3.6439796E-07	Resid phdelay (usec)	1.42291E-06	+/-	5.7E-07
Delay rate (us/s)	-1.47914556225E+00	Apriori rate (us/s)	-1.47915201770E+00	Resid rate (us/s)	6.45545E-06	+/-	5.5E-09
Total phase (deg)		Apriori accel (us/s/s)	-4.39782798720E-05	Resid phase (deg)	44.1	+/-	17.7

ph/seg (deg)	RMS 39.8	Theor. 41.5	Amplitude Search (1024X32)	0.165	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	59.0	72.5	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)	30.4	25.0	Inc. seg. avg.	0.188	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	50.9	43.7	Inc. frq. avg.	0.207	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00

N: az 263.8 el 65.1 pa 62.6      p: az 60.8 el 25.4 pa -65.1      u,v (fr/asec) 10609.042 -1713.982      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c241c/v2/3mm/1234/No0280/Np..3MP1N1      Output file: /Exps/c241c/v2/3mm/1234/No0280/Np.W.316.3MP1N1

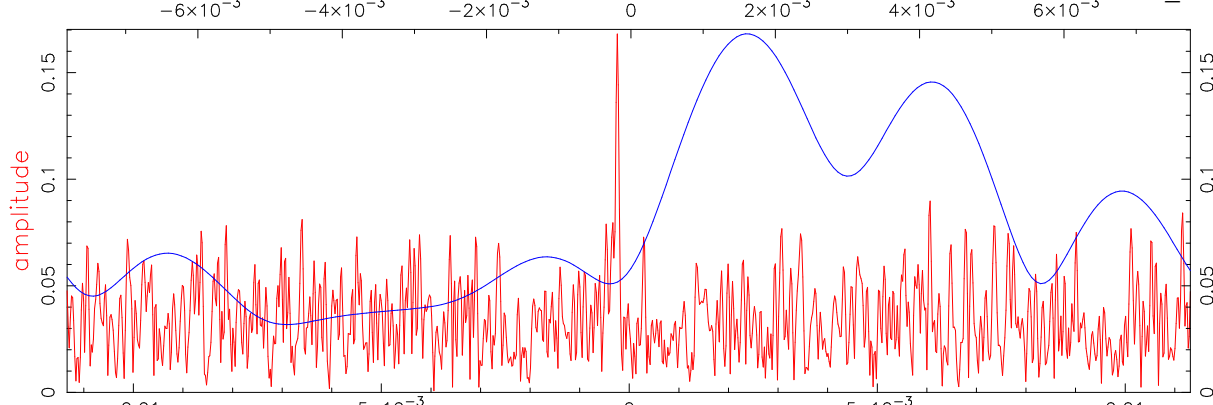
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, Np

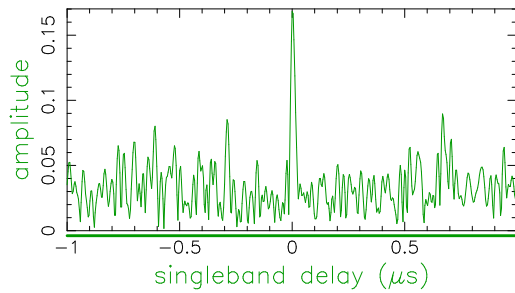
NOEMA - VLBA\_PT, fgroup W, pol RL

multiband delay ( $\mu$ s)

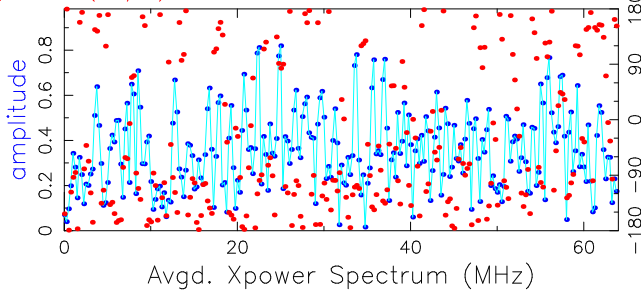


Fringe quality 0

SNR 6.2  
 Int time 179.981  
 Amp 0.170  
 Phase -147.0  
 PFD 5.6e-02  
 Delays (us)  
 SBD 0.001625  
 MBD 0.001632  
 Fringe rate (Hz) -0.020761  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

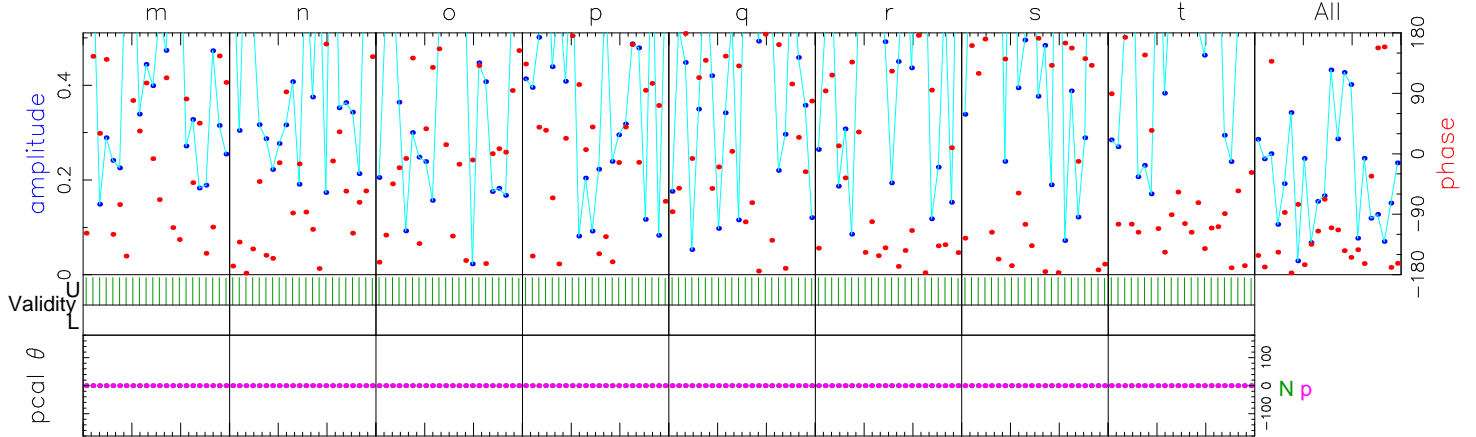


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build 2024:352:054246  
 2025:041:105107  
 2024:113:095956  
 RA & Dec (J2000) 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-153.5	-111.7	-153.5	111.2	-147.5	-157.8	-175.9	-109.2	Phase	-147.0
	0.1	0.2	0.0	0.0	0.1	0.3	0.5	0.4	Ampl.	0.2
	78.4	175.0	205.3	373.1	14.8	257.7	257.2	259.1	Sbd box	257.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
N	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
N:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
N:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	1.00383034199E+04	Apriori delay (usec)	1.00383017880E+04	Resid mbdelay (usec)	1.63183E-03	+/-	1.7E-04
Sband delay (usec)	1.00383034128E+04	Apriori clock (usec)	-1.9064697E+01	Resid sbdelay (usec)	1.62475E-03	+/-	1.4E-03
Phase delay (usec)	1.00383017833E+04	Apriori clockrate (us/s)	-3.6439796E-07	Resid phdelay (usec)	-4.73939E-06	+/-	5.9E-07
Delay rate (us/s)	-1.47915225872E+00	Apriori rate (us/s)	-1.47915201770E+00	Resid rate (us/s)	-2.41017E-07	+/-	5.7E-09
Total phase (deg)	-139.6	Apriori accel (us/s/s)	-4.39782798720E-05	Resid phase (deg)	-147.0	+/-	18.4

ph/seg (deg)	45.8	Theor.	43.0	Amplitude	0.170 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	72.2	Search (1024X32)	0.164	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	48.4	Inc. seg. avg.	0.165	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	92.6	Inc. frq. avg.	0.176	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 263.8 el 65.1 pa 62.6      p: az 60.8 el 25.4 pa -65.1      u,v (fr/asec) 10609.042 -1713.982      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c241c/v2/3mm/1234/No0280/Np..3MP1N1      Output file: /Exps/c241c/v2/3mm/1234/No0280/Np.W.322.3MP1N1

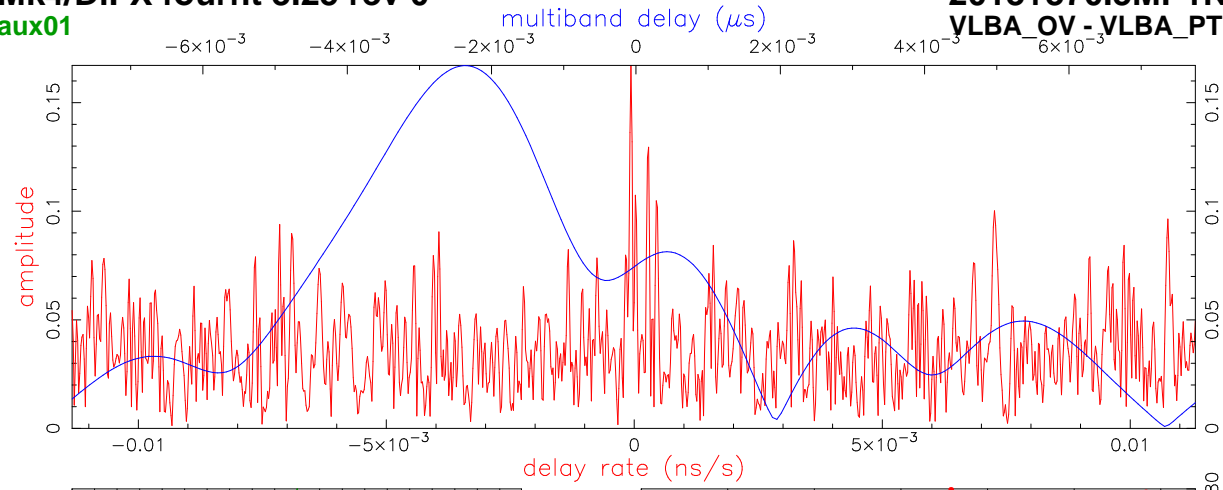


Mk4/DiFX fourfit 3.25 rev 0

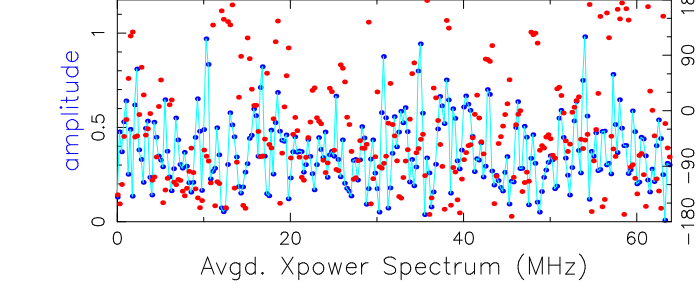
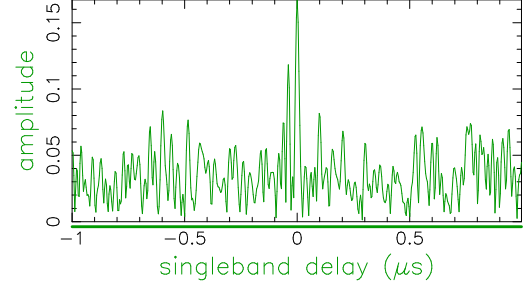
aux01

2013+370.3MP1N1, No0280, op

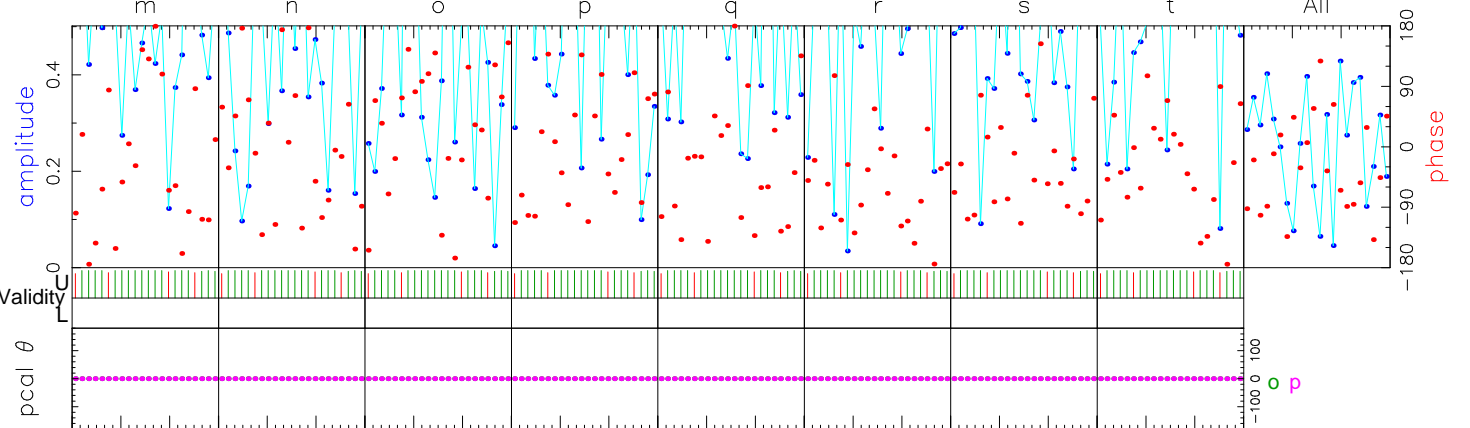
VLBA\_OV - VLBA\_PT, fgroup W, pol LL



Fringe quality 0  
 SNR 6.1  
 Int time 177.092  
 Amp 0.167  
 Phase -47.4  
 PFD 1.4e-01  
 Delays (us)  
 SBD -0.000299  
 MBD -0.002386  
 Fringe rate (Hz)  
 -0.005013  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105108  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-113.1	-35.5	66.0	-34.6	-55.8	-64.0	-53.3	-30.9	Phase	-47.4
	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	Ampl.	0.2
	17.3	242.0	492.2	88.1	258.3	256.3	496.1	468.7	Sbd box	256.9
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
o	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) -1.90771393736E+03 Apriori delay (usec) -1.90771155183E+03 Resid mbdelay (usec) -2.38552E-03 +/- 1.8E-04  
 Sband delay (usec) -1.90771185083E+03 Apriori clock (usec) 1.9355186E+01 Resid sbdelay (usec) -2.99000E-04 +/- 1.4E-03  
 Phase delay (usec) -1.90771155336E+03 Apriori clockrate (us/s) 1.0257507E-07 Resid phdelay (usec) -1.52695E-06 +/- 6.1E-07  
 Delay rate (us/s) -2.75864809208E-02 Apriori rate (us/s) -2.75864227269E-02 Resid rate (us/s) -5.81938E-08 +/- 5.9E-09  
 Total phase (deg) -74.3 Apriori accel (us/s/s) 1.30726714014E-05 Resid phase (deg) -47.4 +/- 18.8

ph/seg (deg) RMS Theor. Amplitude 0.167 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 71.4 44.0 Search (1024X32) 0.162 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 87.7 76.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 55.0 26.6 Inc. seg. avg. 0.199 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

o: az 57.7 el 19.8 pa -57.9 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) 209.516 1071.287 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/op..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/op.W.329.3MP1N1

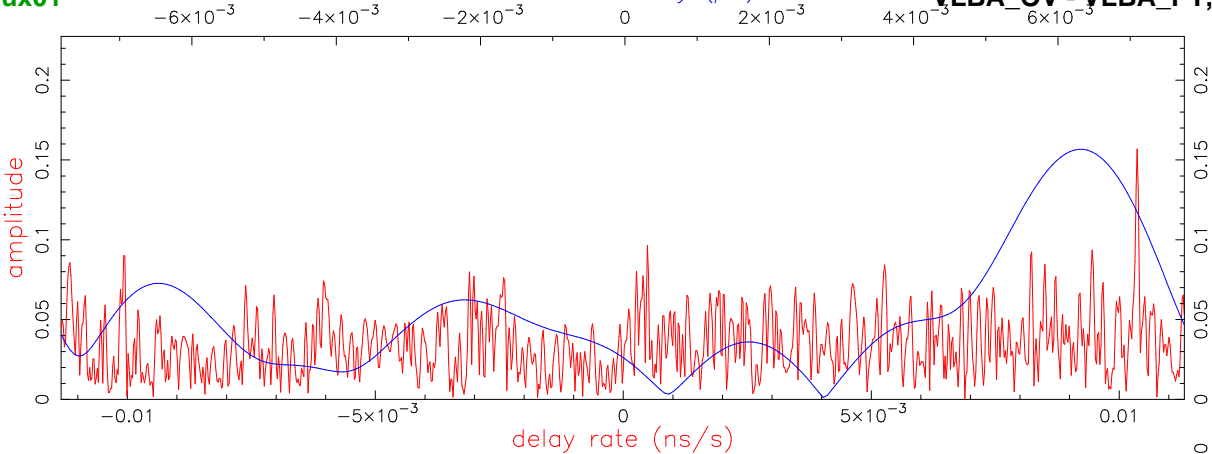
Mk4/DiFX fourfit 3.25 rev 0

aux01

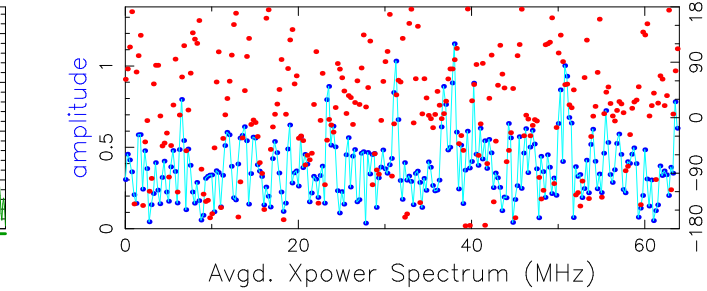
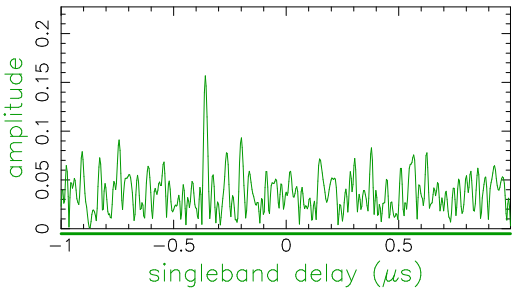
2013+370.3MP1N1, No0280, op VLBA\_OV - VLBA\_PT, fgroup W, pol RR

multiband delay ( $\mu$ s)

Fringe quality 0

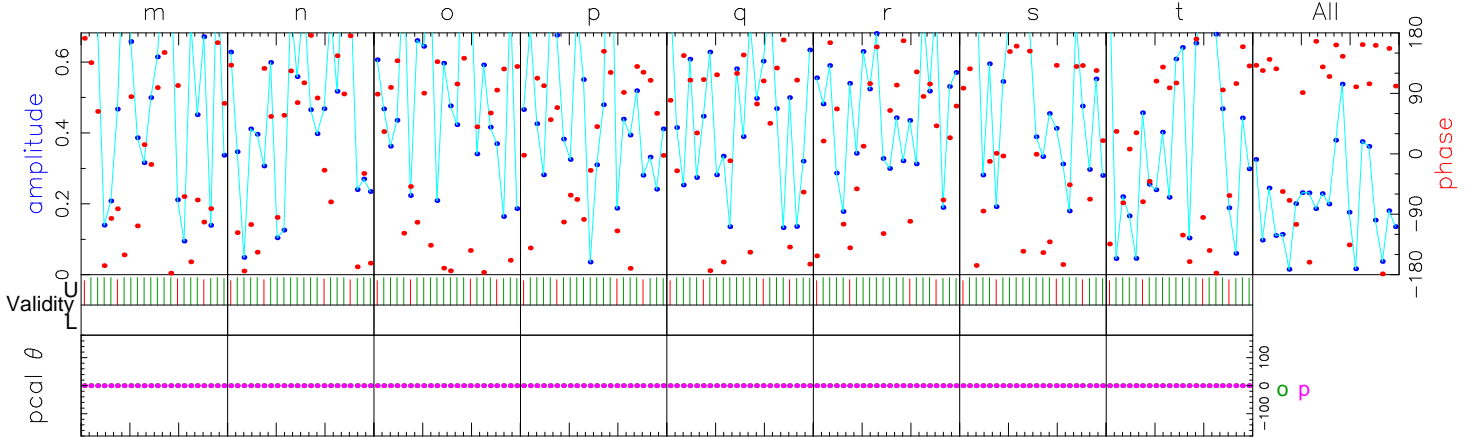


SNR 5.7  
Int time 177.092  
Amp 0.227  
Phase 147.2  
PFD 7.5e-01  
Delays (us)  
SBD -0.358937  
MBD 0.006311  
Fringe rate (Hz) 0.893028  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512



Exp. c241c  
Exper # 1234  
Yr:day 2024:112  
Start 080000.00  
Stop 080300.22  
FRT 080130.00  
Corr/FF/build 2024:352:054246  
2025:041:105111  
2024:113:095956  
RA & Dec (J2000) 20h15m28.729786s +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	171.7	132.3	164.5	107.1	127.6	95.0	153.5	-166.1	Phase	147.2
	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.2	Ampl.	0.2
	44.3	80.1	165.8	111.7	260.2	294.2	46.8	103.1	Sbd box	165.1
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
o	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	-1.90806461606E+03		Apriori delay (usec)		-1.90771155183E+03		Resid mbdelay (usec)		6.31077E-03	+/- 1.9E-04
Sband delay (usec)	-1.90807048908E+03		Apriori clock (usec)		1.9355186E+01		Resid sbdelay (usec)		-3.58937E-01	+/- 1.5E-03
Phase delay (usec)	-1.90771154709E+03		Apriori clockrate (us/s)		1.0257507E-07		Resid phdelay (usec)		4.74687E-06	+/- 6.5E-07
Delay rate (us/s)	-2.7576055526E-02		Apriori rate (us/s)		-2.75864227269E-02		Resid rate (us/s)		1.03672E-05	+/- 6.3E-09
Total phase (deg)	120.3		Apriori accel (us/s/s)		1.30726714014E-05		Resid phase (deg)		147.2	+/- 20.1

ph/seg (deg) RMS Theor. Amplitude 0.227 +/- 0.040 Pcdl mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 59.9 46.9 Search (1024X32) 0.154 Pcdl rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 86.5 81.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 36.6 28.4 Inc. seg. avg. 0.224 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
amp/frq (%) 28.1 49.5 Inc. frq. avg. 0.232 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
o: az 57.7 el 19.8 pa -57.9 p: az 60.8 el 25.4 pa -65.1 u, v (fr/asec) 209.516 1071.287 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/op..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/op.W.339.3MP1N1

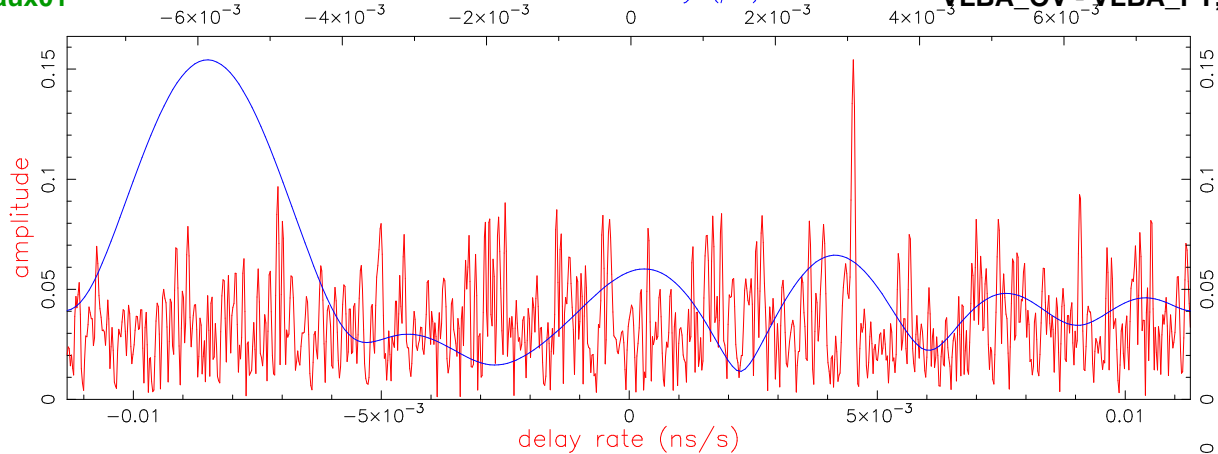
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, op

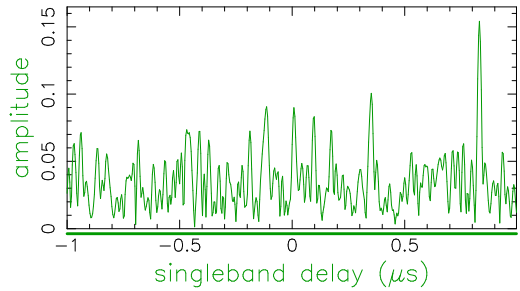
VLBA\_OV - VLBA\_PT, fgroup W, pol LR

multiband delay ( $\mu$ s)

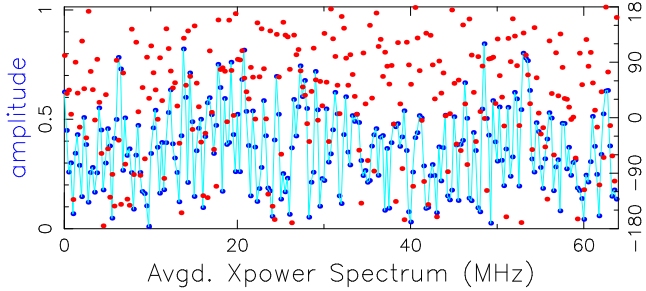


Fringe quality 0

SNR 5.6  
 Int time 177.092  
 Amp 0.165  
 Phase -2.9  
 PFD 9.1e-01  
 Delays (us)  
 SBD 0.831655  
 MBD -0.005884  
 Fringe rate (Hz)  
 0.389355  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

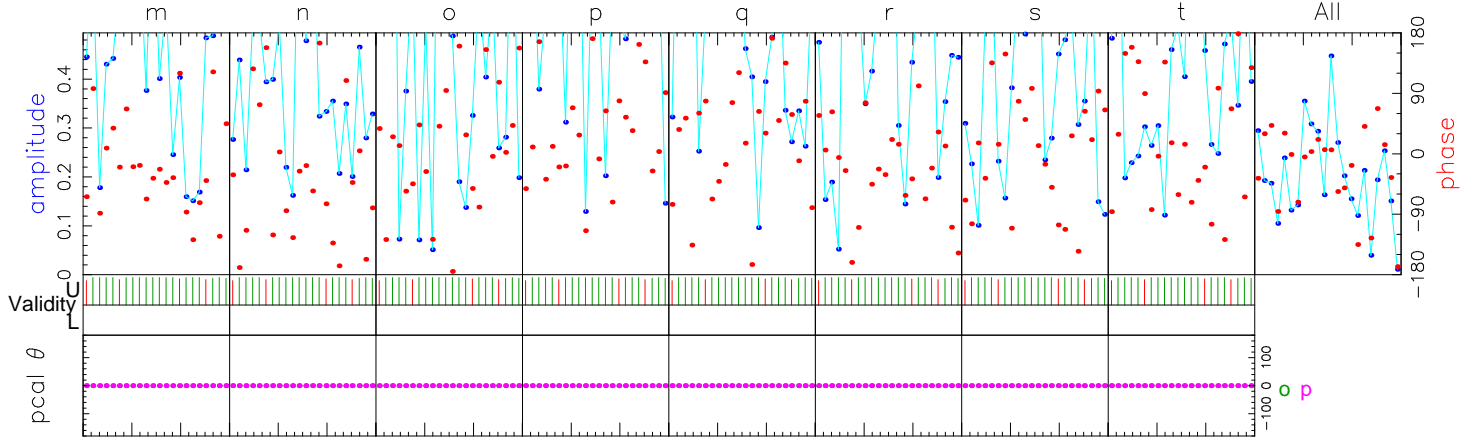


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105113  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-12.3	-69.6	12.0	20.8	26.5	-21.1	24.5	-33.3	Phase	-2.9
	0.2	0.1	0.2	0.3	0.2	0.3	0.1	0.1	Ampl.	0.2
	36.1	509.3	228.2	258.3	82.1	254.3	9.2	133.7	Sbd box	469.9
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
o	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-1.90687368617E+03	Apriori delay (usec)	-1.90771155183E+03	Resid mbdelay (usec)	-5.88434E-03	+/-	1.9E-04
Sband delay (usec)	-1.90687989708E+03	Apriori clock (usec)	1.9355186E+01	Resid sbdelay (usec)	8.31655E-01	+/-	1.5E-03
Phase delay (usec)	-1.90771155192E+03	Apriori clockrate (us/s)	1.0257507E-07	Resid phdelay (usec)	-9.25573E-08	+/-	6.6E-07
Delay rate (us/s)	-2.75819027018E-02	Apriori rate (us/s)	-2.75864227269E-02	Resid rate (us/s)	4.52002E-06	+/-	6.4E-09
Total phase (deg)	-29.8	Apriori accel (us/s/s)	1.30726714014E-05	Resid phase (deg)	-2.9	+/-	20.4

ph/seg (deg)	64.4	Theor.	47.7	Amplitude	0.165 +/- 0.029	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	71.6	Search (1024X32)	0.153	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	36.9	Inc. seg. avg.	0.161	Inc. frq. avg.	0.164	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	39.3	Inc. frq. avg.	0.164			Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

o: az 57.7 el 19.8 pa -57.9 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) 209.516 1071.287 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/op..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/op.W.351.3MP1N1

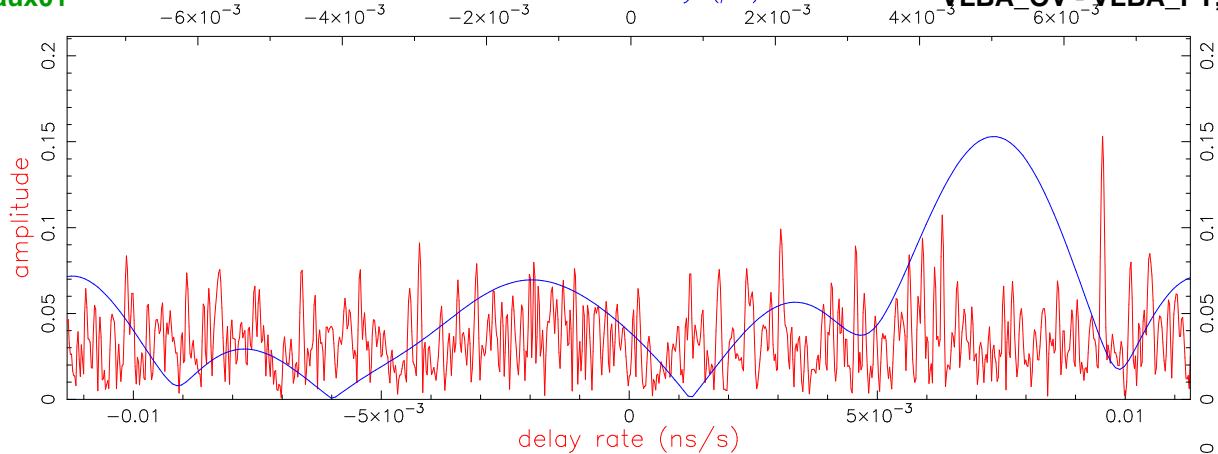
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, op

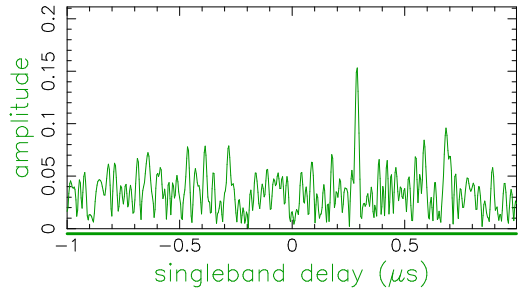
VLBA\_OV - VLBA\_PT, fgroup W, pol RL

multiband delay ( $\mu$ s)

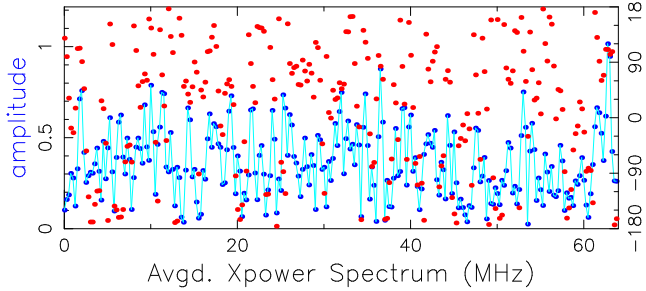


Fringe quality 0

SNR 5.6  
 Int time 177.092  
 Amp 0.211  
 Phase 104.7  
 PFD 8.9e-01  
 Delays (us)  
 SBD 0.287692  
 MBD 0.005025  
 Fringe rate (Hz)  
 0.823540  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

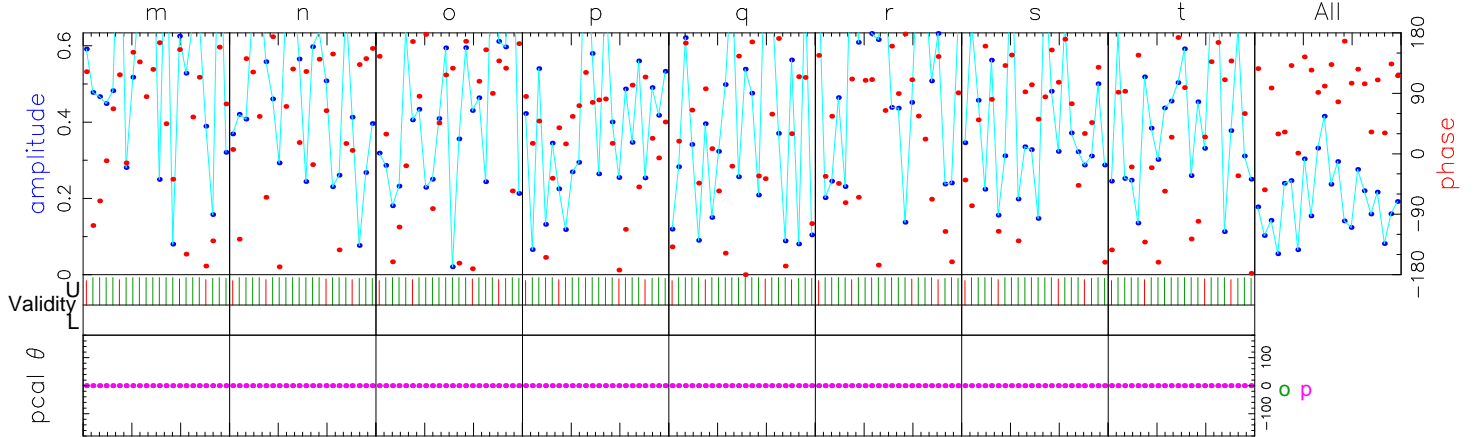


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105116  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	119.3	93.0	132.4	59.6	86.6	101.0	112.9	141.7	Phase	104.7
	0.4	0.2	0.2	0.3	0.1	0.3	0.2	0.1	Ampl.	0.2
	324.9	158.9	46.1	50.3	157.6	135.8	350.1	307.6	Sbd box	330.6
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
o	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.90742527660E+03	Apriori delay (usec)	-1.90771155183E+03	Resid mbdelay (usec)	5.02523E-03	+/-	1.9E-04
Sband delay (usec)	-1.90742385958E+03	Apriori clock (usec)	1.9355186E+01	Resid sbdelay (usec)	2.87692E-01	+/-	1.5E-03
Phase delay (usec)	-1.90771154845E+03	Apriori clockrate (us/s)	1.0257507E-07	Resid phdelay (usec)	3.37770E-06	+/-	6.6E-07
Delay rate (us/s)	-2.75768622468E-02	Apriori rate (us/s)	-2.75864227269E-02	Resid rate (us/s)	9.56048E-06	+/-	6.4E-09
Total phase (deg)	77.8	Apriori accel (us/s/s)	1.30726714014E-05	Resid phase (deg)	104.7	+/-	20.4

ph/seg (deg)	55.8	Theor.	47.5	Amplitude	0.211 +/- 0.038	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	64.4	Search (1024X32)	0.148	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
ph/frq (deg)	28.7	Interp.	0.000	Bits/sample: 2x2		mb window (us)	-0.008 0.008
amp/frq (%)	45.1	Inc. seg. avg.	0.200	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
		Inc. frq. avg.	0.203	Data rate(Mb/s): 2048		ion window (TEC)	0.00 0.00

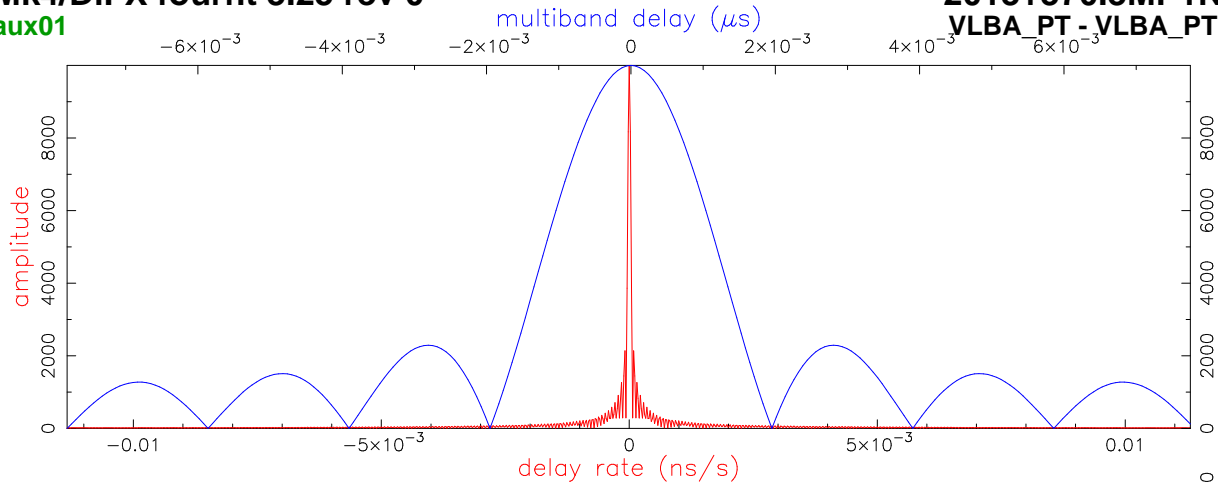
o: az 57.7 el 19.8 pa -57.9      p: az 60.8 el 25.4 pa -65.1      u,v (fr/asec) 209.516 1071.287      simultaneous interpolator  
 Control file: cf\_1234\_gmva      Input file: /Exps/c241c/v2/3mm/1234/No0280/op..3MP1N1      Output file: /Exps/c241c/v2/3mm/1234/No0280/op.W.362.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

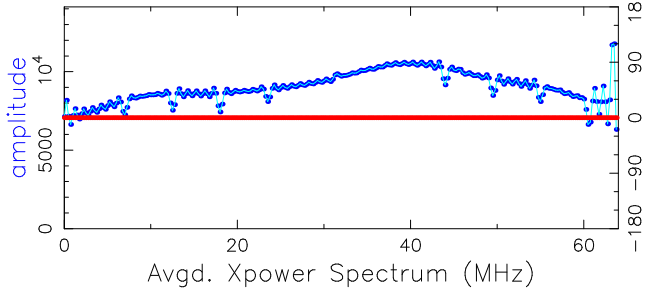
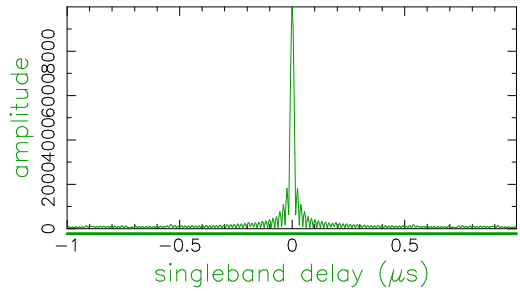
2013+370.3MP1N1, No0280, pp

VLBA\_PT - VLBA\_PT, fgroup W, pol LL



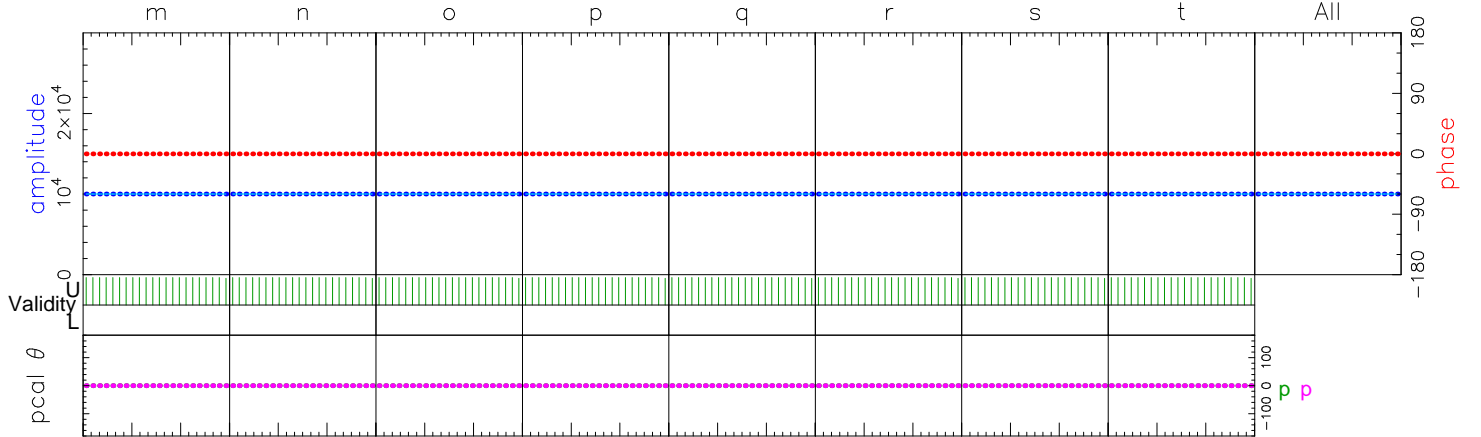
Fringe quality 9

SNR 366879.0  
 Int time 179.991  
 Amp 9999.999  
 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. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105108  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	10000.0	10000.0
p	0	0	0	0	0	0	0	0	Ampl.	257.0
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.0
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC phase	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Mani PC	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC amp	
									Chan ids	
									Tracks	
									Chan ids	
									Tracks	

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

RMS Theor. Amplitude 9999.999 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 0.0 0.0 Search (1024X32) 9999.999 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 9999.999 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 p: az 60.8 el 25.4 pa -65.1 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/pp..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/pp.W.326.3MP1N1

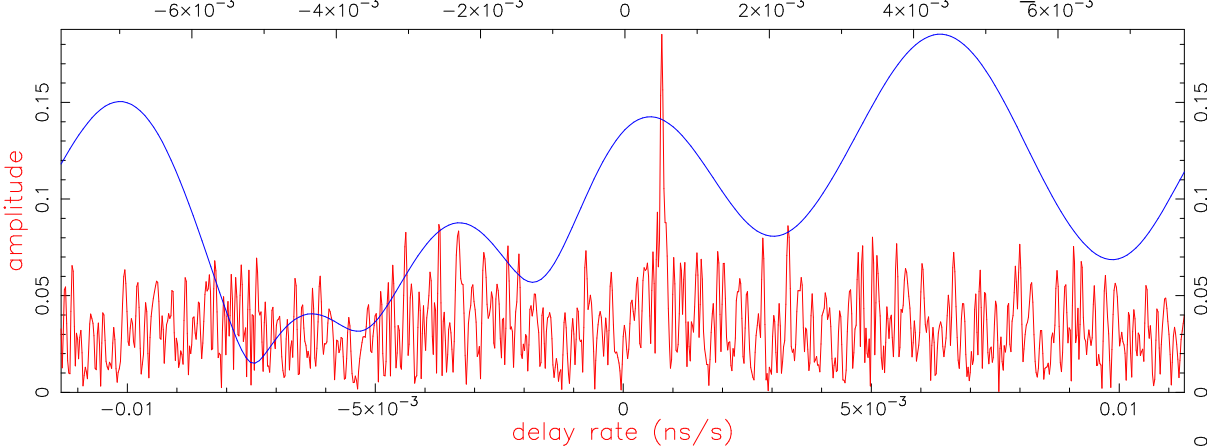
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, pP

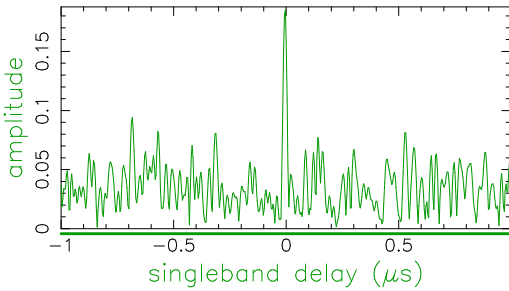
VLBA\_PT - PICOVEL, fgroup W, pol LL

multiband delay ( $\mu$ s)

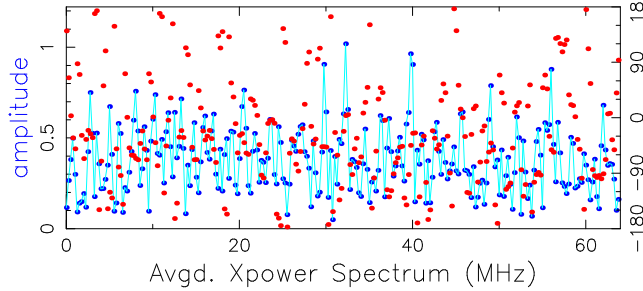


Fringe quality 0

SNR 6.9  
Int time 179.980  
Amp 0.188  
Phase -153.9  
PFD 9.1e-04  
Delays (us)  
SBD -0.005354  
MBD 0.004327  
Fringe rate (Hz) 0.066070  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512

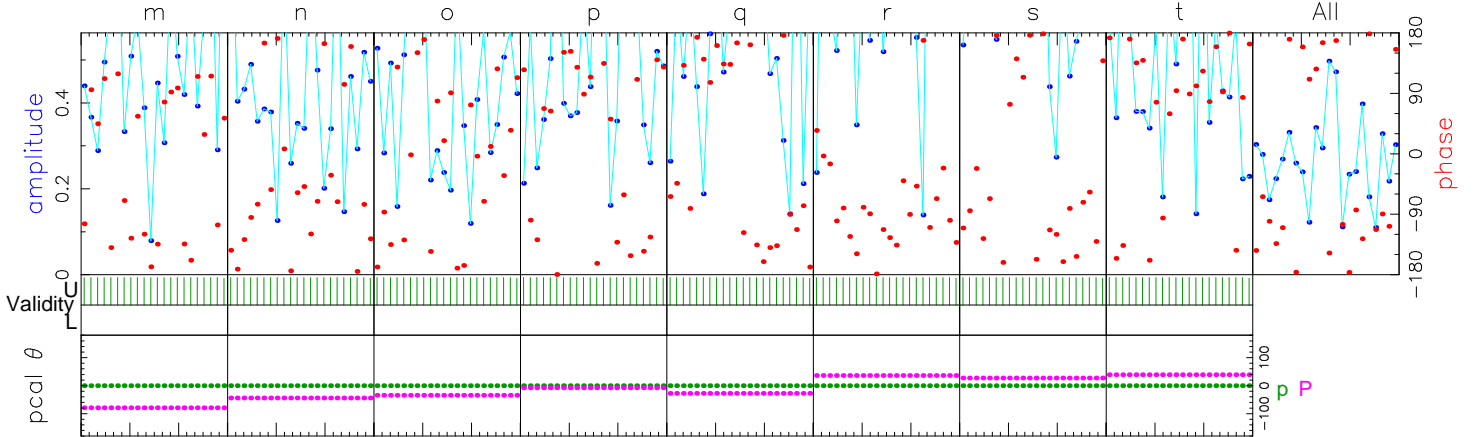


delay rate (ns/s)



Exp. c241c  
Exper # 1234  
Yr:day 2024:112  
Start 080000.00  
Stop 080300.22  
FRT 080130.00  
Corr/FF/build 2024:352:054246  
2025:041:105110  
2024:113:095956  
RA & Dec (J2000) 20h15m28.729786s  
+37°10'59.514736"

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



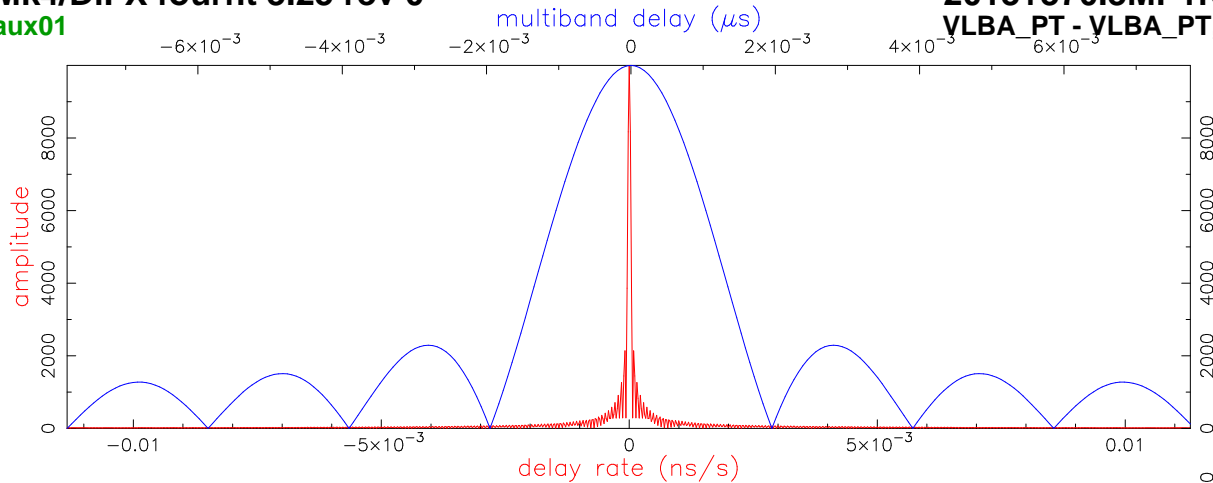
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	122.8	-106.1	-177.5	162.1	-162.7	-91.3	-138.0	141.8	Phase	-153.9
p	0.2	0.2	0.1	0.3	0.4	0.5	0.4	0.3	Ampl.	0.3
p:P	90.2	427.4	360.6	485.4	254.9	255.2	254.7	253.3	Sbd box	255.6
p:P	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
p:P	0	0	0	0	0	0	0	0	PC freqs	
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Mani PC	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.10156485836E+04	Apriori delay (usec)	-1.10156372853E+04	Resid mbdelay (usec)	4.32664E-03	+/-	1.6E-04
Sband delay (usec)	-1.10156426390E+04	Apriori clock (usec)	6.6088619E+00	Resid sbdelay (usec)	-5.35375E-03	+/-	1.3E-03
Phase delay (usec)	-1.10156372902E+04	Apriori clockrate (us/s)	-2.1954010E-07	Resid phdelay (usec)	-4.96148E-06	+/-	5.4E-07
Delay rate (us/s)	1.39364611292E+00	Apriori rate (us/s)	1.39364534591E+00	Resid rate (us/s)	7.67005E-07	+/-	5.2E-09
Total phase (deg)	-64.8	Apriori accel (us/s/s)	5.59306748407E-05	Resid phase (deg)	-153.9	+/-	16.7

ph/seg (deg)	50.3	Theor.	39.1	Amplitude	0.188 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000		
amp/seg (%)	69.4		68.2	Search (1024X32)	0.177	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	SampCntNorm:	enabled	mb window (us)	-0.008	0.008		
ph/frq (deg)	57.9		23.6	Inc. seg. avg.	0.219	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011	0.00	0.00		
amp/frq (%)	83.5		41.1	Inc. frq. avg.	0.260	Data rate (Mb/s):	2048	nlags:	256	t_cohere	infinite	ion window (TEC)	0.00	0.00

p: az 60.8 el 25.4 pa -65.1 P: az 277.4 el 72.2 pa 83.5 u,v (fr/asec) -9982.709 3128.273 simultaneous interpolator

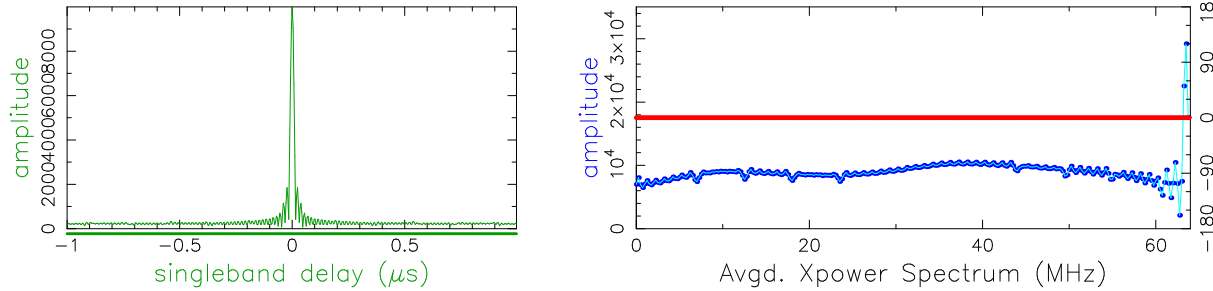
Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/pP..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/pP.W.330.3MP1N1



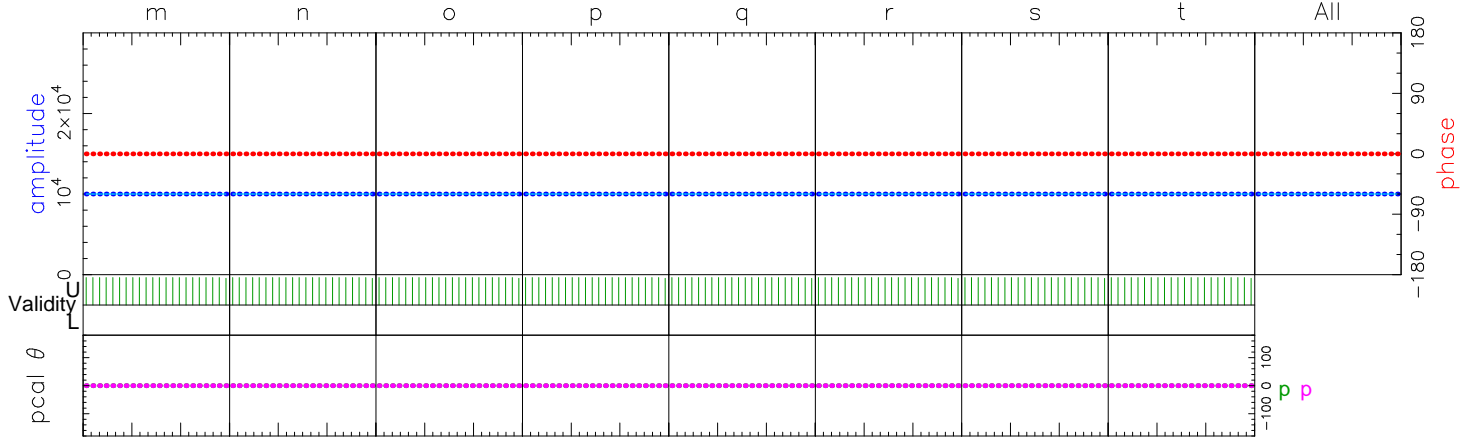
Fringe quality 9

SNR 366879.0  
Int time 179.991  
Amp 9999.999  
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. c241c  
Exper # 1234  
Yr:day 2024:112  
Start 080000.00  
Stop 080300.22  
FRT 080130.00  
Corr/FF/build  
2024:352:054246  
2025:041:105111  
2024:113:095956  
RA & Dec (J2000)  
20h15m28.729786s  
+37°10'59.514736"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	10000.0	10000.0
p	0	0	0	0	0	0	0	0	Ampl.	257.0
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.0
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC phase	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Mani PC	
									PC amp	
									Chan ids	
									Tracks	
									Tracks	
Group delay (usec) (SBD)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00 +/- 3.0E-09
Sband delay (usec)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	Resid sbdelay (usec)	0.00000E+00 +/- 2.3E-08
Phase delay (usec)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	Resid phdelay (usec)	0.00000E+00 +/- 1.0E-11
Delay rate (us/s)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	Resid rate (us/s)	0.00000E+00 +/- 9.7E-14
Total phase (deg)			0.0						Resid phase (deg)	0.0 +/- 0.0
	RMS	Theor.	Amplitude	9999.999 +/- 0.027	9999.999	9999.999	9999.999	9999.999	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	0.0	0.0	Search (1024X32)	9999.999	9999.999	9999.999	9999.999	9999.999	PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	0.0	0.0	Interp.	0.000	0.000	0.000	0.000	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	0.0	0.0	Inc. seg. avg.	10000.000	10000.000	10000.000	10000.000	10000.000	SampCntNorm: enabled	dr window (ns/s) -0.011 0.011
amp/frq (%)	0.0	0.0	Inc. frq. avg.	9999.999	9999.999	9999.999	9999.999	9999.999	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	ion window (TEC) 0.00 0.00
									Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
p: az 60.8 el 25.4 pa -65.1			p: az 60.8 el 25.4 pa -65.1							simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c241c/v2/3mm/1234/No0280/pp..3MP1N1							Output file: /Exps/c241c/v2/3mm/1234/No0280/pp.W.338.3MP1N1

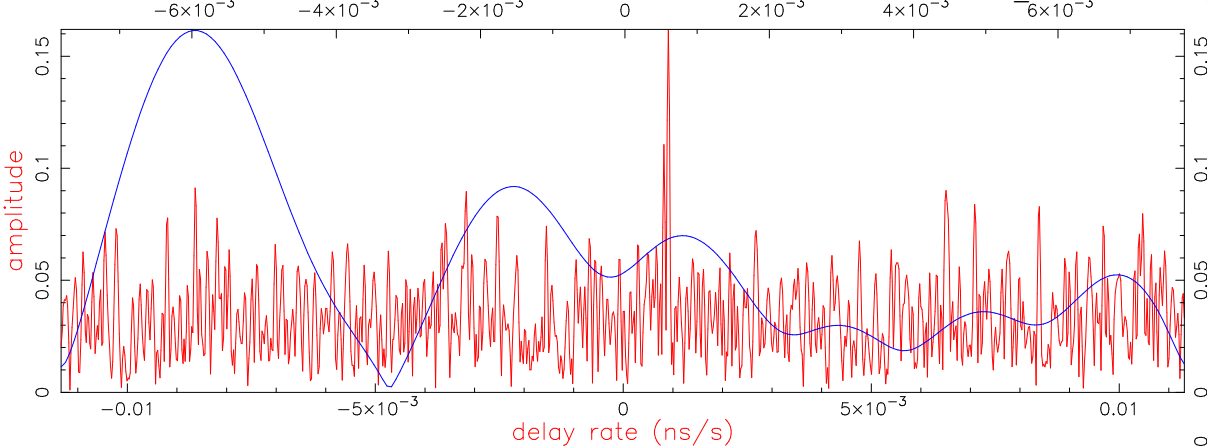
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, pP

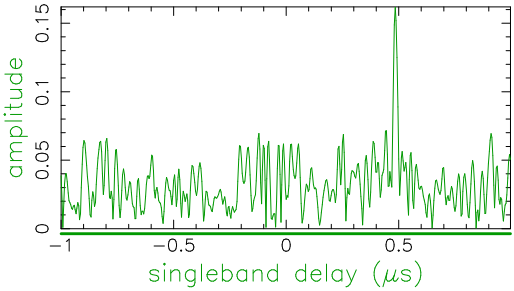
VLBA\_PT - PICOVEL, fgroup W, pol RR

multiband delay ( $\mu$ s)

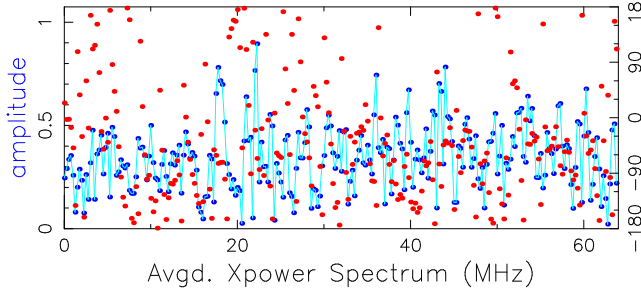


Fringe quality 0

SNR 5.9  
 Int time 179.980  
 Amp 0.162  
 Phase 175.2  
 PFD 3.3e-01  
 Delays (us)  
 SBD 0.484579  
 MBD -0.005955  
 Fringe rate (Hz)  
 0.077938  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

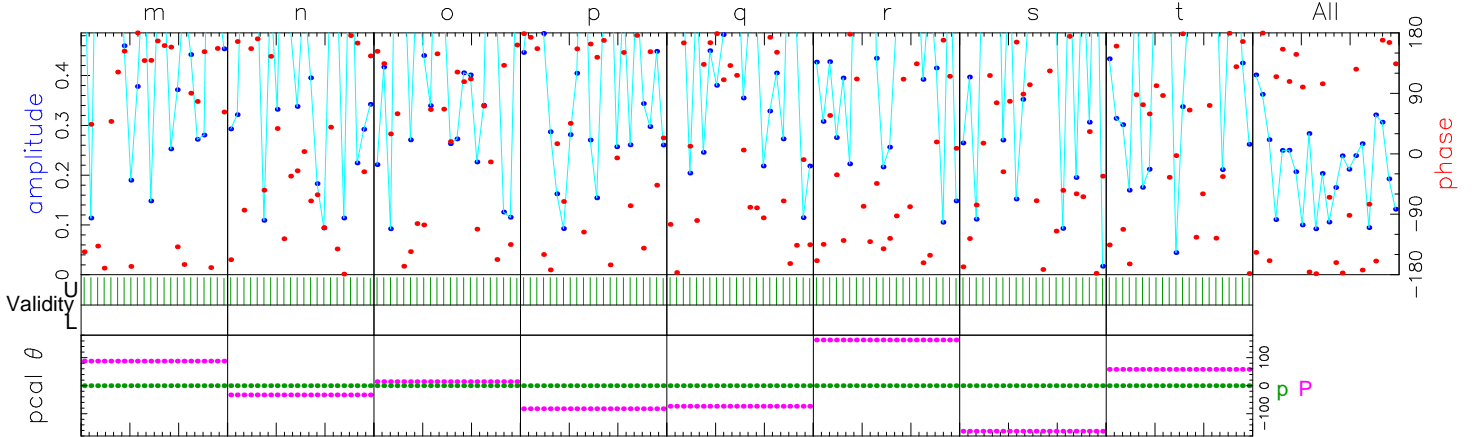


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105112  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
p:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58		
p	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	-1.10151588653E+04	Apriori delay (usec)	-1.10156372853E+04	Resid mbdelay (usec)	-5.95506E-03	+/-	1.8E-04
Sband delay (usec)	-1.10151527063E+04	Apriori clock (usec)	6.6088619E+00	Resid sbdelay (usec)	4.84579E-01	+/-	1.5E-03
Phase delay (usec)	-1.10156372796E+04	Apriori clockrate (us/s)	-2.1954010E-07	Resid phdelay (usec)	5.65127E-06	+/-	6.2E-07
Delay rate (us/s)	1.39364625069E+00	Apriori rate (us/s)	1.39364534591E+00	Resid rate (us/s)	9.04780E-07	+/-	6.0E-09
Total phase (deg)	-95.7	Apriori accel (us/s/s)	5.59306748407E-05	Resid phase (deg)	175.2	+/-	19.3

ph/seg (deg)	53.6	Theor.	45.3	Amplitude	0.162 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	64.2	Search (1024X32)	0.157	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	35.0	Inc. seg. avg.	0.167	Inc. frq. avg.	0.161	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	54.2	Inc. frq. avg.	0.161			Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

p: az 60.8 el 25.4 pa -65.1 P: az 277.4 el 72.2 pa 83.5 u,v (fr/asec) -9982.709 3128.273 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/pp..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/pp.W.341.3MP1N1

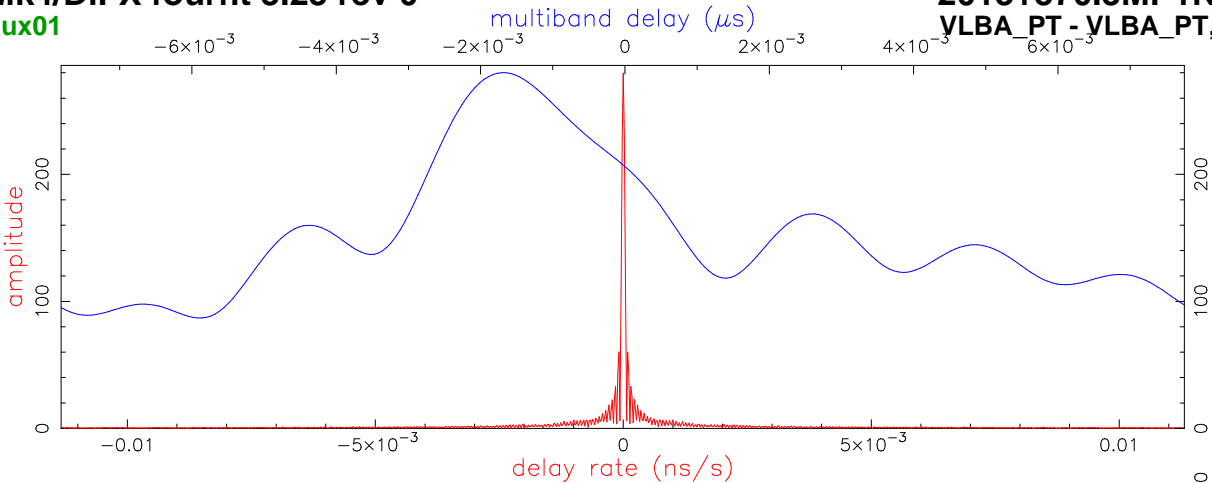


Mk4/DiFX fourfit 3.25 rev 0

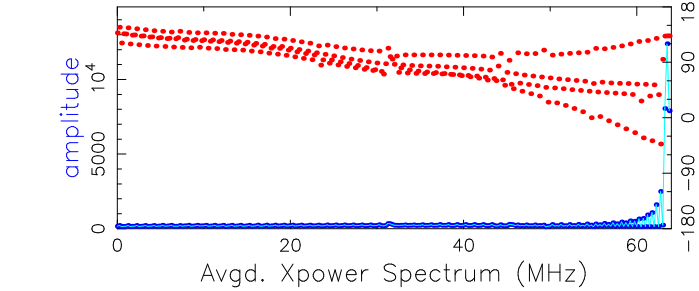
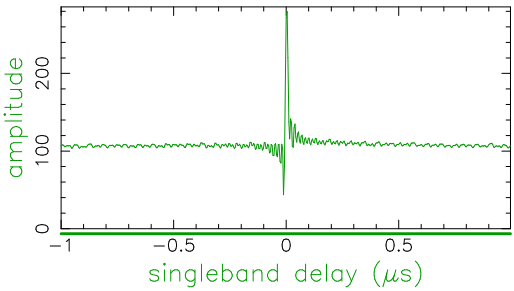
aux01

2013+370.3MP1N1, No0280, pp

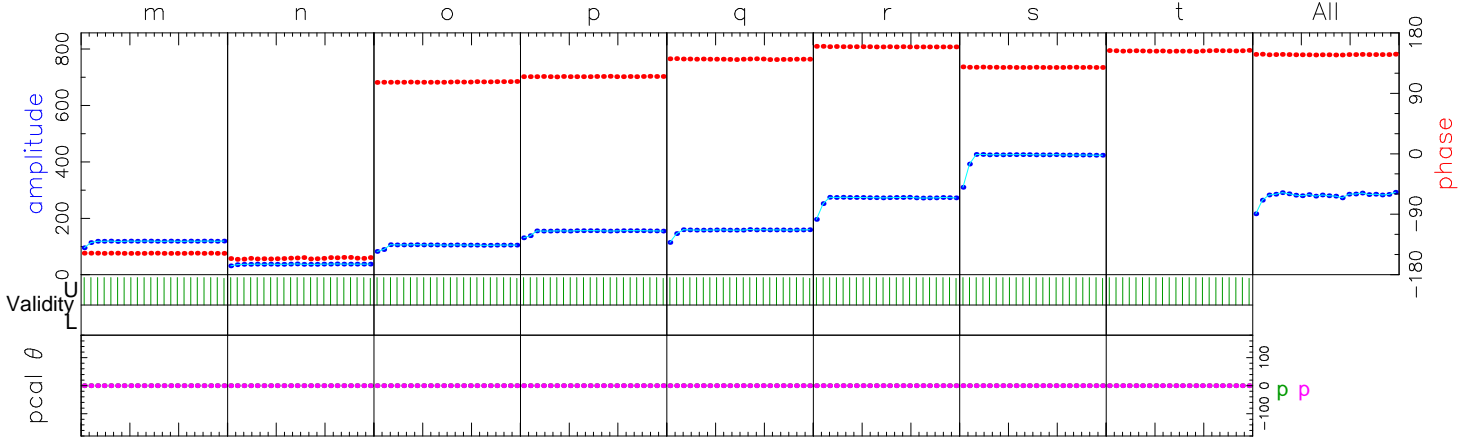
VLBA\_PT - VLBA\_PT, fgroup W, pol LR



Fringe quality 5  
 Error code G  
 SNR 10485.8  
 Int time 179.991  
 Amp 285.812  
 Phase 147.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.002342  
 MBD -0.001621  
 Fringe rate (Hz)  
 -0.000006  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105113  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-148.1	-155.5	106.8	114.8	140.7	159.2	128.7	153.0	Phase	147.5	
	117.7	37.1	103.6	153.7	156.1	269.0	418.3	1150.4	Ampl.	300.7	
	256.4	256.1	256.4	256.4	257.3	256.3	256.4	258.2	Sbd box	257.6	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used		
p	0	0	0	0	0	0	0	0	PC freqs		
p	0	0	0	0	0	0	0	0	PC freqs		
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC		
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
p	1000	1000	1000	1000	1000	1000	1000	1000			
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	-1.62146875000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		-1.62147E-03	+/- 1.0E-07	
Sband delay (usec)	2.34225000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		2.34225E-03	+/- 8.2E-07	
Phase delay (usec)	4.75522041666E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		4.75522E-06	+/- 3.5E-10	
Delay rate (us/s)	-7.51071076759E-11		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-7.51071E-11	+/- 3.4E-12	
Total phase (deg)	147.5		Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		147.5	+/- 0.0	
	RMS	Theor.	Amplitude	285.812 +/- 0.027	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	0.3	0.0	Search (1024X32)	276.819	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000	1.000	
amp/seg (%)	5.7	0.0	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008	0.008
ph/frq (deg)	42.2	0.0	Inc. seg. avg.	279.796	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011	0.011	
amp/frq (%)	118.8	0.0	Inc. frq. avg.	300.735	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00	0.00
p: az 60.8 el 25.4 pa -65.1		p: az 60.8 el 25.4 pa -65.1		u,v (fr/asec) 0.000 0.000				simultaneous interpolator			
Control file: cf_1234_gmva		Input file: /Exps/c241c/v2/3mm/1234/No0280/pp..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/pp.W.350.3MP1N1							

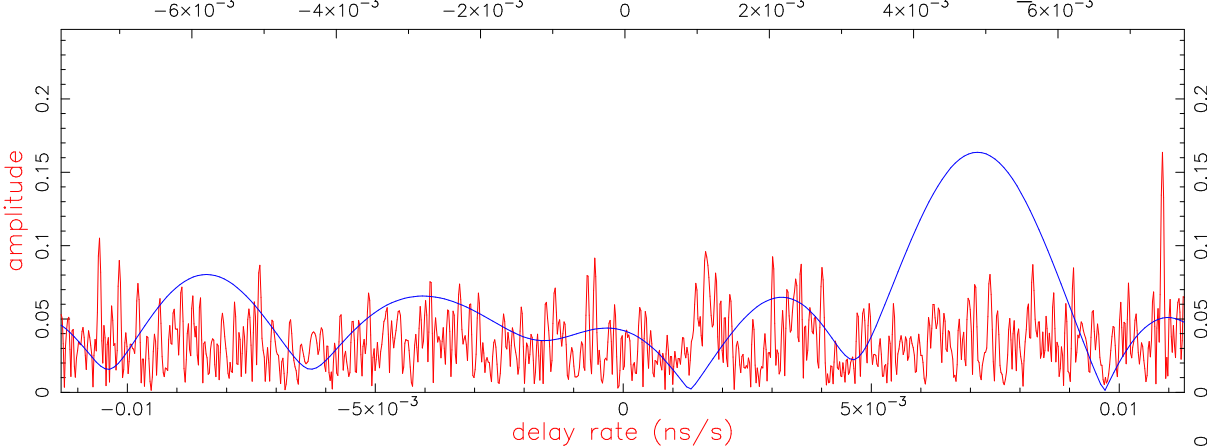
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, pP

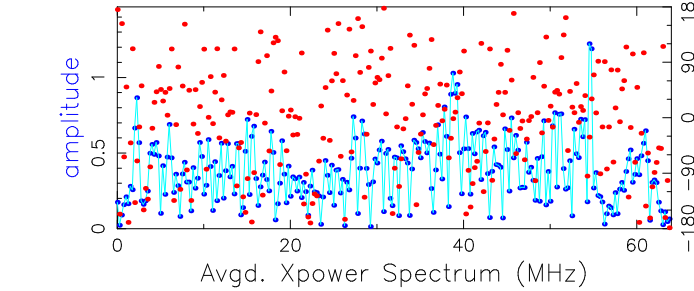
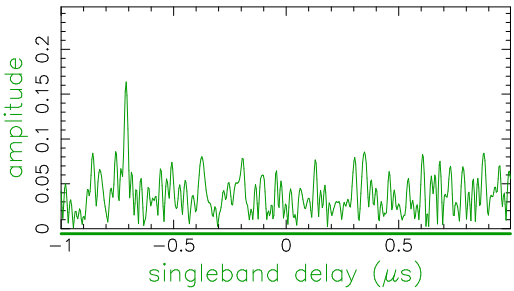
VLBA\_PT - PICOVEL, fgroup W, pol LR

multiband delay ( $\mu$ s)



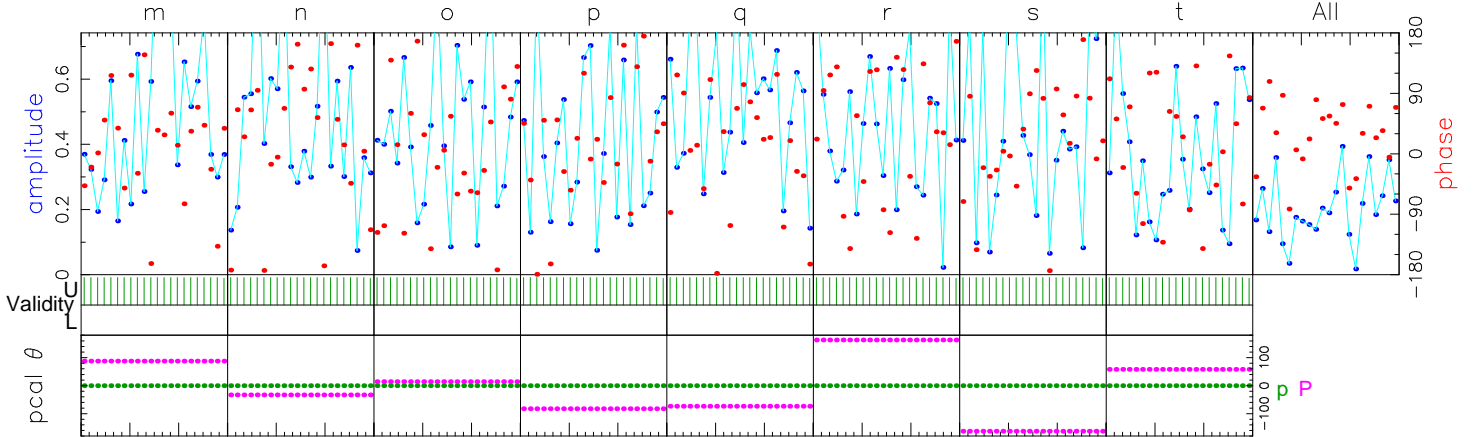
Fringe quality 0

SNR 6.0  
 Int time 179.980  
 Amp 0.247  
 Phase 40.3  
 PFD 2.1e-01  
 Delays (us)  
 SBD -0.711345  
 MBD 0.004885  
 Fringe rate (Hz) 0.937112  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build 2024:352:054246  
 2025:041:105113  
 2024:113:095956  
 RA & Dec (J2000) 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
p:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58		
p	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	-1.10163511505E+04	Apriori delay (usec)	-1.10156372853E+04	Resid mbdelay (usec)	4.88475E-03	+/-	1.8E-04
Sband delay (usec)	-1.10163486305E+04	Apriori clock (usec)	6.6088619E+00	Resid sbdelay (usec)	-7.11345E-01	+/-	1.4E-03
Phase delay (usec)	-1.10156372840E+04	Apriori clockrate (us/s)	-2.1954010E-07	Resid phdelay (usec)	1.29935E-06	+/-	6.1E-07
Delay rate (us/s)	1.39365622485E+00	Apriori rate (us/s)	1.39364534591E+00	Resid rate (us/s)	1.08789E-05	+/-	5.9E-09
Total phase (deg)	-230.6	Apriori accel (us/s/s)	5.59306748407E-05	Resid phase (deg)	40.3	+/-	19.1

ph/seg (deg)	49.4	Theor.	44.7	Amplitude	0.247 +/- 0.041	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	64.6	Search (1024X32)	0.160	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	33.1	Inc. seg. avg.	0.235	Inc. frq. avg.	0.243	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	43.2	Inc. frq. avg.	0.243	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011 0.011

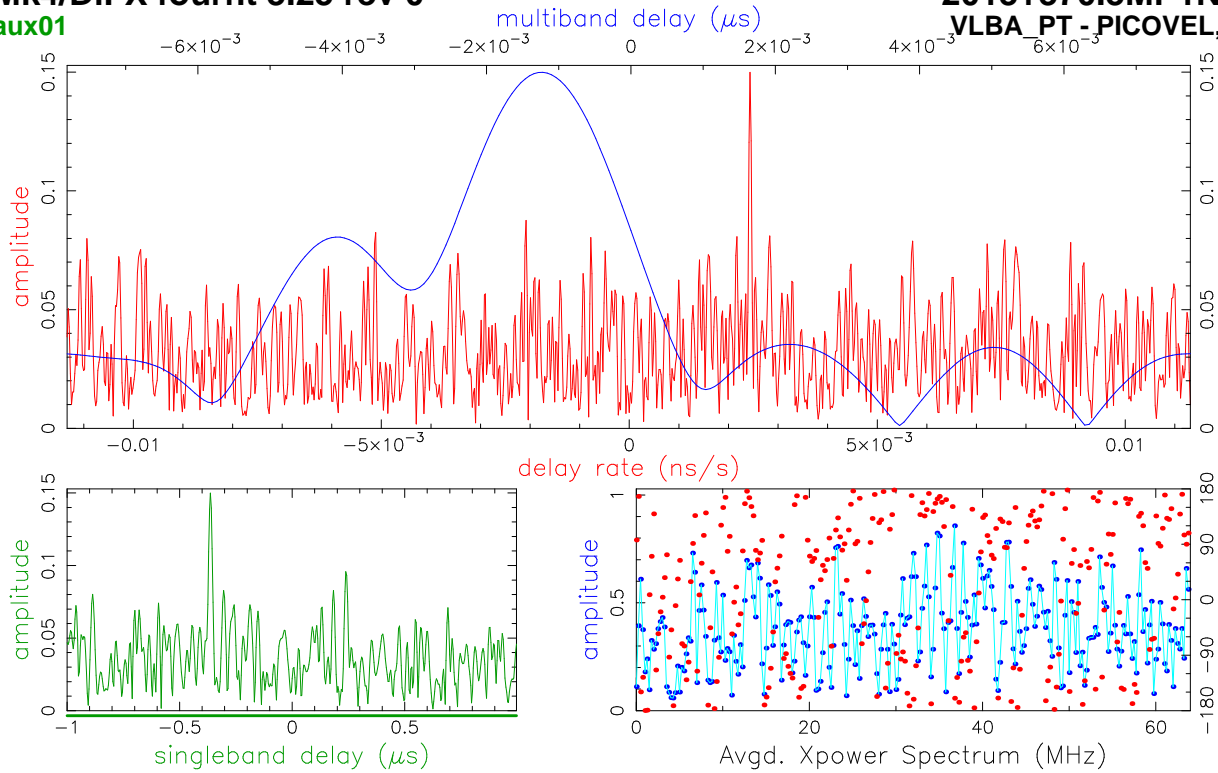
p: az 60.8 el 25.4 pa -65.1 P: az 277.4 el 72.2 pa 83.5 u,v (fr/asec) -9982.709 3128.273 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/pP..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/pP.W.353.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, pP

VLBA\_PT - PICOVEL, fgroup W, pol RL

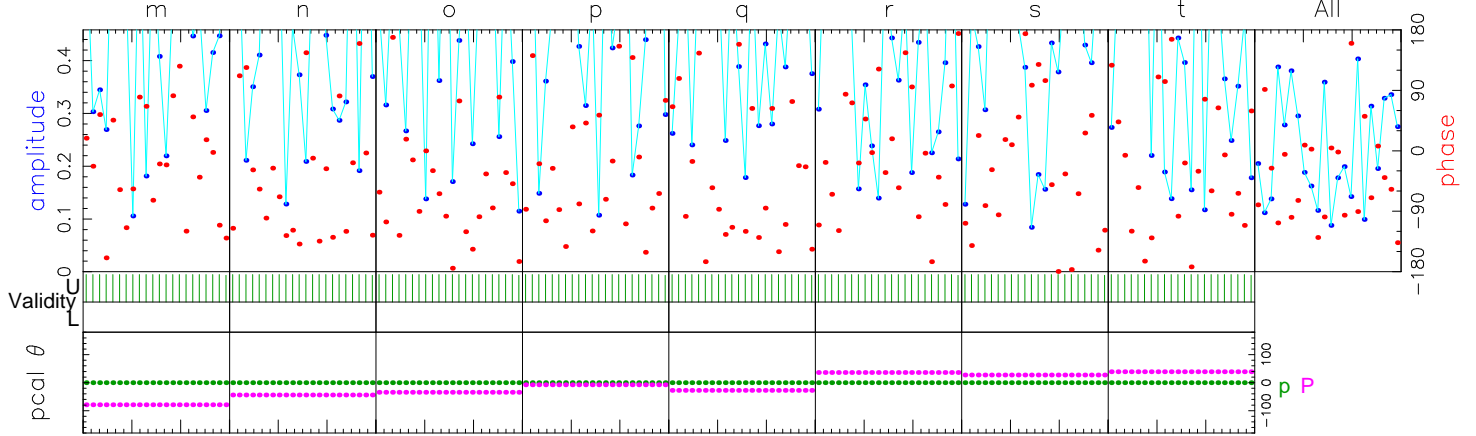


Fringe quality 0

SNR 5.5  
 Int time 179.980  
 Amp 0.153  
 Phase -67.2  
 PFD 9.9e-01  
 Delays (us)  
 SBD -0.363228  
 MBD -0.001241  
 Fringe rate (Hz) 0.210107  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build 2024:352:054246  
 2025:041:105117  
 2024:113:095956  
 RA & Dec (J2000) 20h15m28.729786s  
 +37°10'59.514736"

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



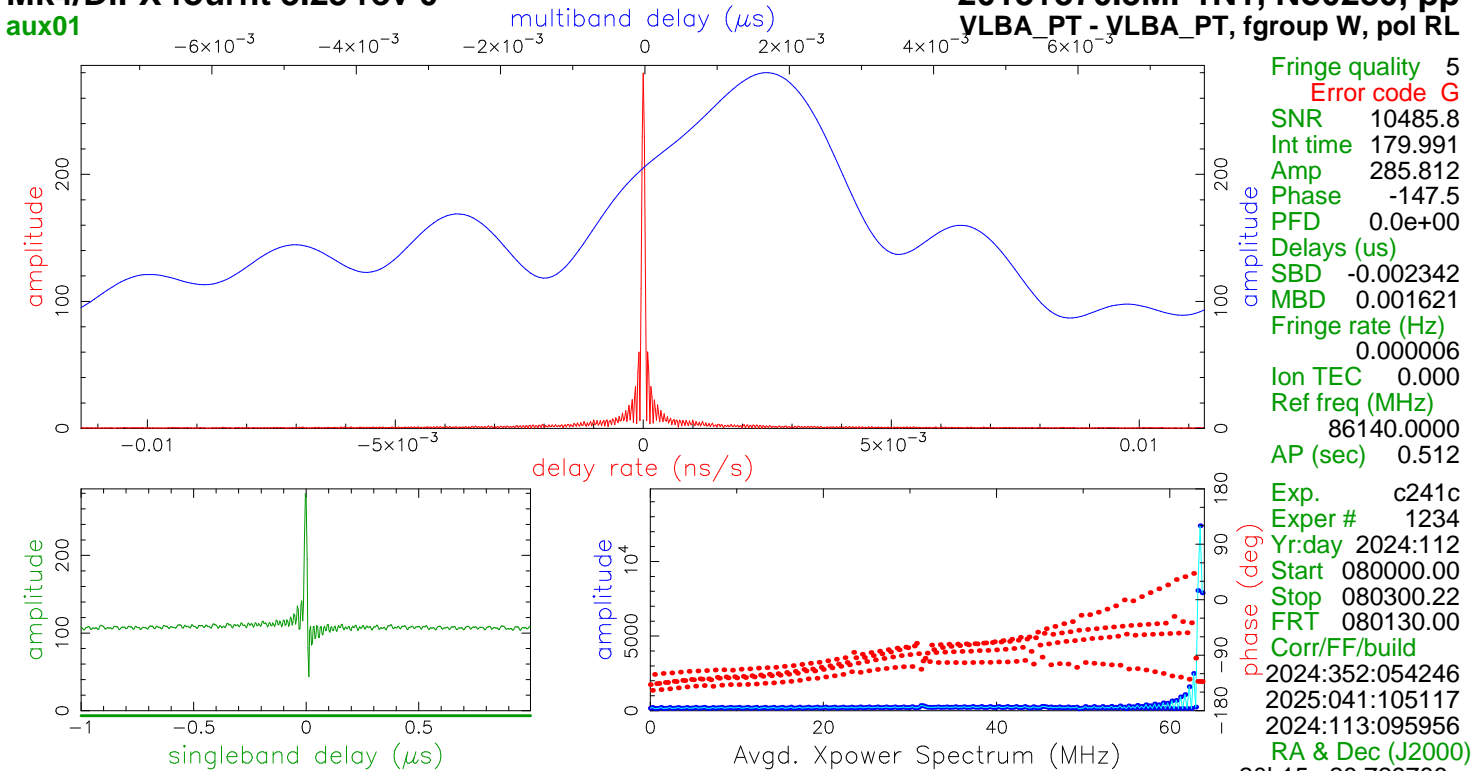
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-8.3	-79.6	-72.0	-83.2	-102.0	-21.6	-70.1	-53.4	Phase	-67.2		
	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.1	Ampl.	0.1		
	296.5	178.7	164.6	476.5	468.1	103.9	404.3	243.4	Sbd box	164.0		
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used			
p:p	0	0	0	0	0	0	0	0	PC freqs			
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
p	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC			
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids			
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
Group delay (usec) (SBD)	-1.10159979017E+04		Apriori delay (usec)		-1.10156372853E+04		Resid mbdelay (usec)		-1.24141E-03	+/- 2.0E-04		
Sband delay (usec)	-1.10160005130E+04		Apriori clock (usec)		6.6088619E+00		Resid sbdelay (usec)		-3.63228E-01	+/- 1.6E-03		
Phase delay (usec)	-1.10156372874E+04		Apriori clockrate (us/s)		-2.1954010E-07		Resid phdelay (usec)		-2.16841E-06	+/- 6.7E-07		
Delay rate (us/s)	1.39364778505E+00		Apriori rate (us/s)		1.39364534591E+00		Resid rate (us/s)		2.43914E-06	+/- 6.5E-09		
Total phase (deg)			Apriori accel (us/s/s)		5.59306748407E-05		Resid phase (deg)		-67.2	+/- 20.8		
ph/seg (deg)	RMS 68.3	Theor. 48.9	Amplitude Search (1024X32)		0.153 +/- 0.028		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
amp/seg (%)	88.1	85.3	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	29.5	Inc. seg. avg.		0.176		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	43.0	51.4	Inc. frq. avg.		0.149		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011		
p: az 60.8 el 25.4 pa -65.1	P: az 277.4 el 72.2 pa 83.5		u,v (fr/asec)		-9982.709 3128.273		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/c241c/v2/3mm/1234/No0280/pP..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/pP.W.365.3MP1N1						simultaneous interpolator			

Mk4/DiFX fourfit 3.25 rev 0

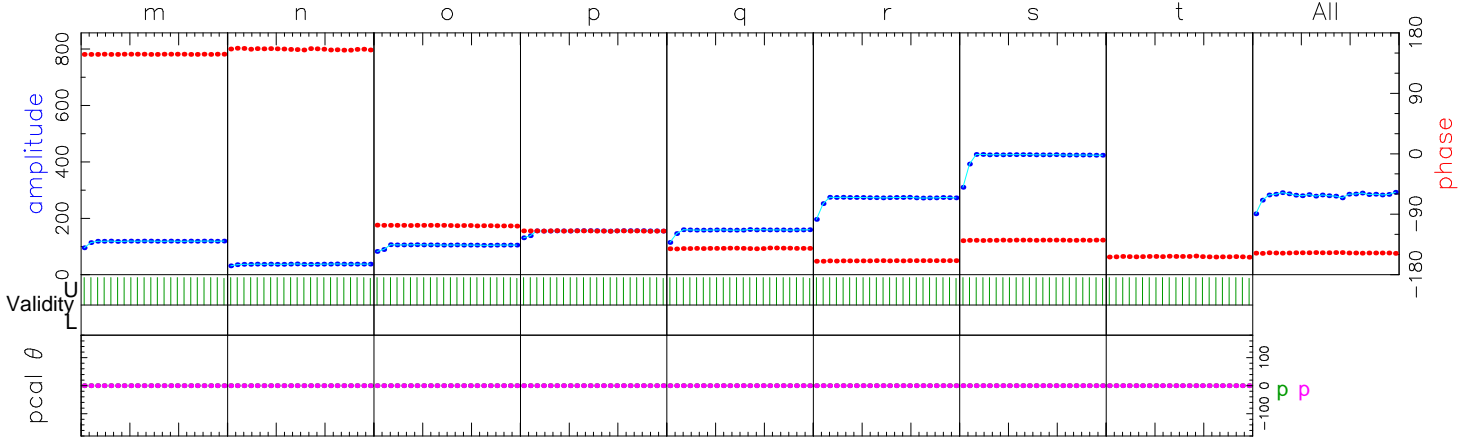
aux01

2013+370.3MP1N1, No0280, pp

VLBA\_PT - VLBA\_PT, fgroup W, pol RL



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



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

Group delay (usec) (SBD)	1.62146875000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	1.62147E-03	+/-	1.0E-07
Sband delay (usec)	-2.34225000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-2.34225E-03	+/-	8.2E-07
Phase delay (usec)	-4.75522041656E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-4.75522E-06	+/-	3.5E-10
Delay rate (us/s)	7.51071076759E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	7.51071E-11	+/-	3.4E-12
Total phase (deg)	-147.5	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-147.5	+/-	0.0

ph/seg (deg)	0.3	0.0	Search (1024X32)	276.819	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	5.7	0.0	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	42.2	0.0	Inc. seg. avg.	279.796	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	118.8	0.0	Inc. frq. avg.	300.735	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

p: az 60.8 el 25.4 pa -65.1 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/pp..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/pp.W.367.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

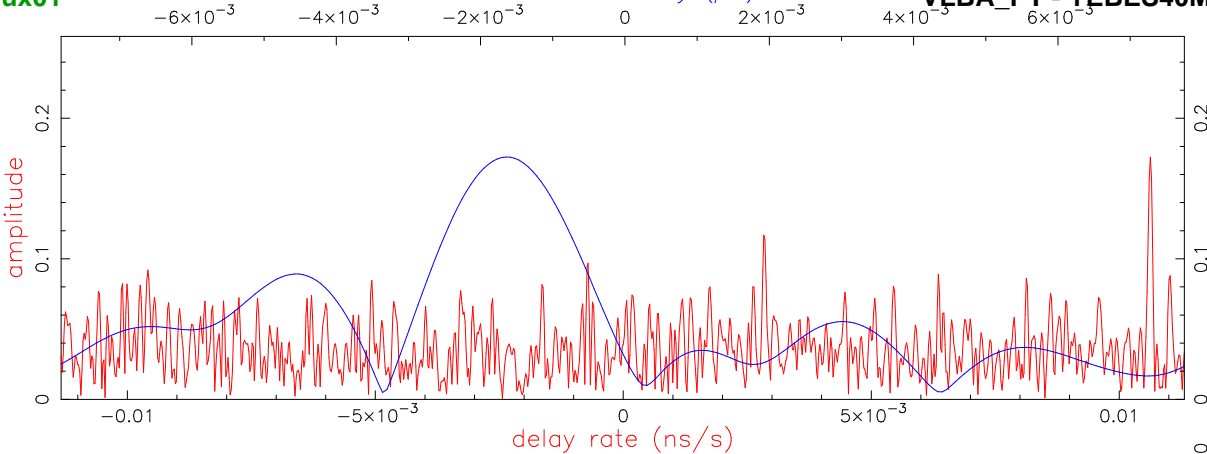
aux01

2013+370.3MP1N1, No0280, pY

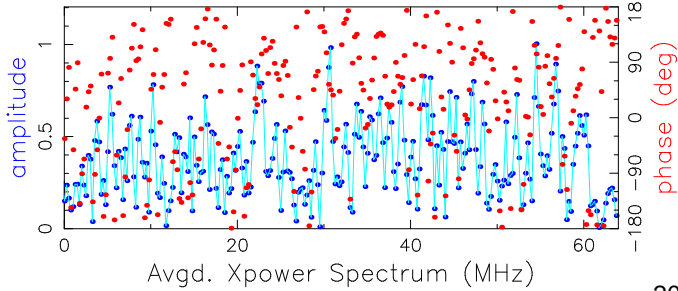
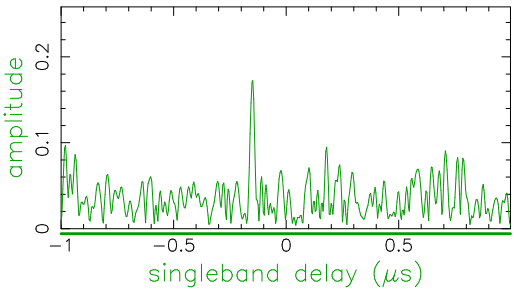
VLBA\_PT - YEBES40M, fgroup W, pol LL

multiband delay ( $\mu$ s)

Fringe quality 0

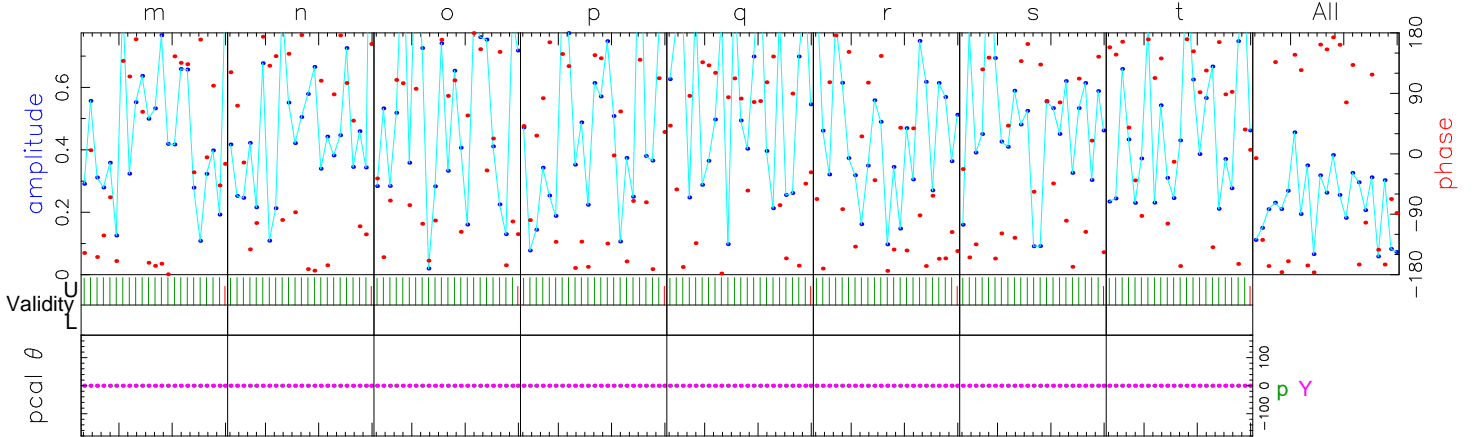


SNR 6.1  
 Int time 162.316  
 Amp 0.258  
 Phase 169.7  
 PFD 1.5e-01  
 Delays (us)  
 SBD -0.149993  
 MBD -0.001682  
 Fringe rate (Hz)  
 0.917186  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080017.41  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105128  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0		
p	0	0	0	0	0	0	0	0		
Y	0	0	0	0	0	0	0	0		
p:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
p:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
p	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-1.08884059382E+04	Apriori delay (usec)	-1.08882636310E+04	Resid mbdelay (usec)	-1.68221E-03	+/-	1.8E-04
Sband delay (usec)	-1.08884136245E+04	Apriori clock (usec)	1.1635540E+02	Resid sbdelay (usec)	-1.49993E-01	+/-	1.4E-03
Phase delay (usec)	-1.08882636255E+04	Apriori clockrate (us/s)	1.8344660E-02	Resid phdelay (usec)	5.47331E-06	+/-	6.1E-07
Delay rate (us/s)	1.38013222166E+00	Apriori rate (us/s)	1.38012157403E+00	Resid rate (us/s)	1.06476E-05	+/-	6.5E-09
Total phase (deg)	106.4	Apriori accel (us/s/s)	5.26366424084E-05	Resid phase (deg)	169.7	+/-	18.9

ph/seg (deg)	62.0	Theor.	45.3	Amplitude	0.258 +/- 0.043	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	68.6		79.0	Search (1024X32)	0.171	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	28.5		26.7	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	27.5		46.6	Inc. seg. avg.	0.263	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.253	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

p: az 60.8 el 25.4 pa -65.1 Y: az 266.8 el 72.1 pa 72.3 u,v (fr/asec) -9888.822 2600.440 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/pY..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/pY.W.398.3MP1N1

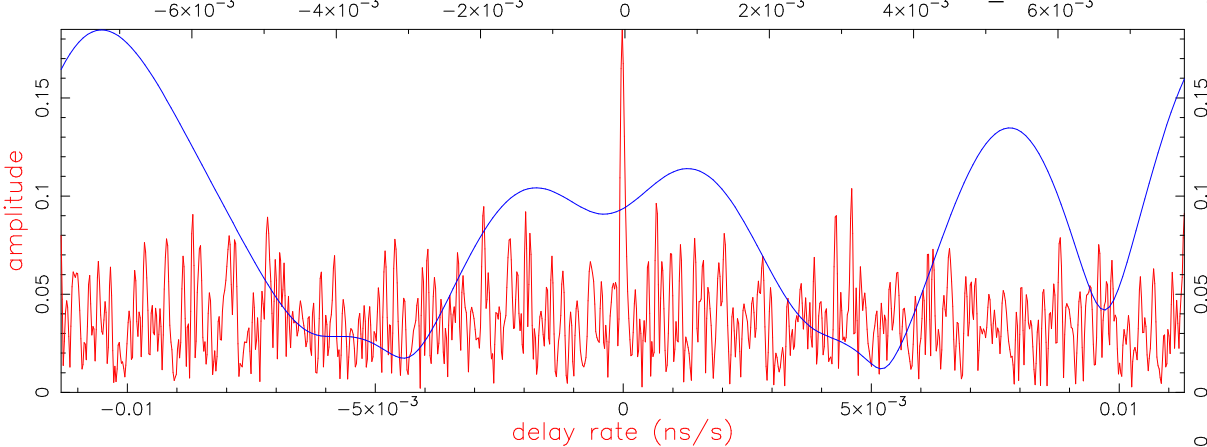
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, pY

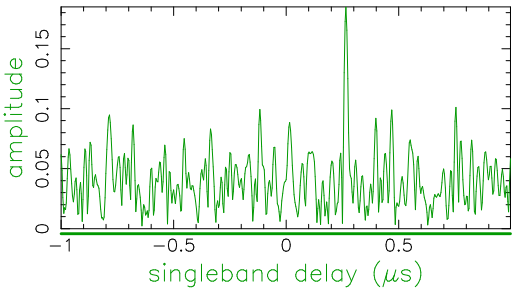
VLBA\_PT - YEBES40M, fgroup W, pol RR

multiband delay ( $\mu$ s)

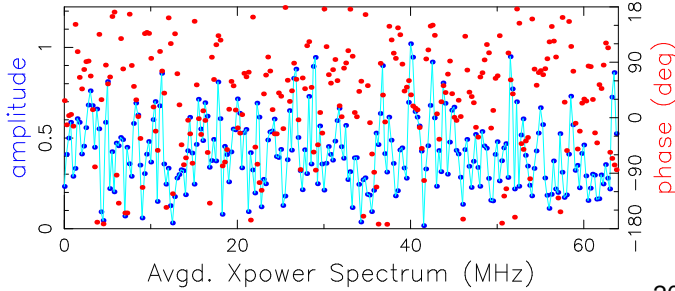


Fringe quality 0

SNR 6.4  
Int time 162.316  
Amp 0.185  
Phase -51.2  
PFD 1.6e-02  
Delays (us)  
SBD 0.265098  
MBD -0.007276  
Fringe rate (Hz)  
-0.002116  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

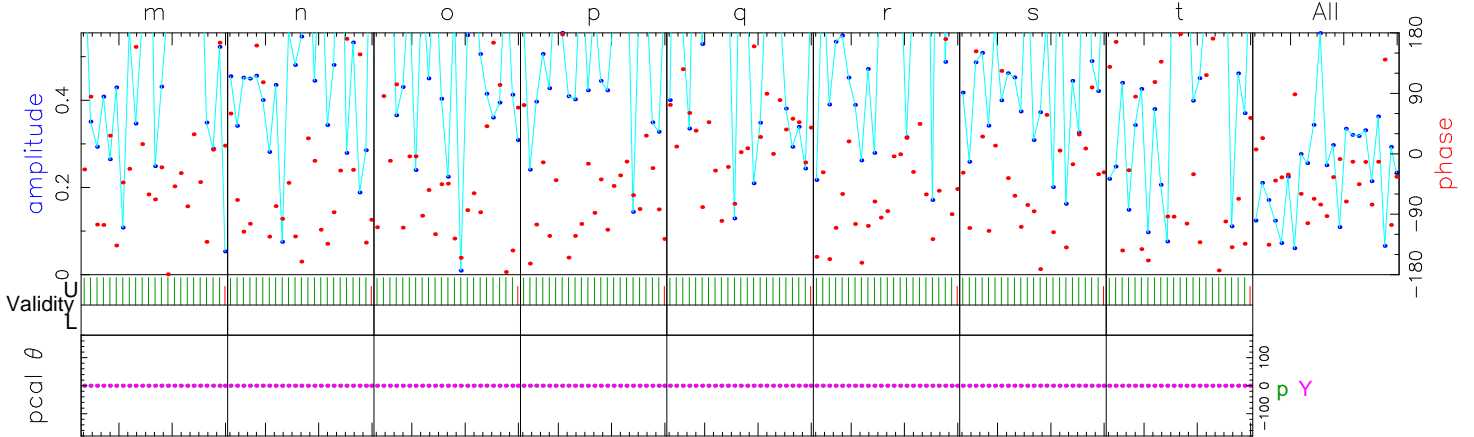


delay rate (ns/s)



Exp. c241c  
Exper # 1234  
Yr:day 2024:112  
Start 080017.41  
Stop 080300.22  
FRT 080130.00  
Corr/FF/build  
2024:352:054246  
2025:041:105130  
2024:113:095956  
RA & Dec (J2000)  
20h15m28.729786s  
+37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-47.7	-84.1	-80.0	-65.3	22.3	-60.7	-18.0	-148.7		Phase	
	0.3	0.2	0.2	0.3	0.4	0.4	0.2	0.2		Ampl.	
	457.2	38.8	1.5	324.8	324.9	323.9	89.6	206.1		Sbd box	
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0		324.9	
p	0	0	0	0	0	0	0	0		APs used	
Y	0	0	0	0	0	0	0	0		PC freqs	
p:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase	
p:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC	
p	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000			
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks	
										Tracks	
Group delay (usec) (SBD)	-1.08880052821E+04										
Sband delay (usec)	-1.08879985328E+04										
Phase delay (usec)	-1.08882636327E+04										
Delay rate (us/s)	1.38012154947E+00										
Total phase (deg)			-114.5								
				Apriori delay (usec)	-1.08882636310E+04				Resid mbdelay (usec)	-7.27607E-03	+/- 1.7E-04
				Apriori clock (usec)	1.1635540E+02				Resid sbdelay (usec)	2.65098E-01	+/- 1.3E-03
				Apriori clockrate (us/s)	1.8344660E-02				Resid phdelay (usec)	-1.65221E-06	+/- 5.7E-07
				Apriori rate (us/s)	1.38012157403E+00				Resid rate (us/s)	-2.45629E-08	+/- 6.1E-09
				Apriori accel (us/s/s)	5.26366424084E-05				Resid phase (deg)	-51.2	+/- 17.8
ph/seg (deg)	RMS 59.7	Theor. 42.7	Amplitude 59.7	0.185 +/- 0.029							
amp/seg (%)	69.6	74.4	Search (1024X32)	0.184							
ph/frq (deg)	55.1	25.2	Inc. seg. avg.	0.189							
amp/frq (%)	60.1	43.9	Inc. frq. avg.	0.239							
p: az 60.8 el 25.4 pa -65.1			Y: az 266.8 el 72.1 pa 72.3								
Control file: cf_1234_gmva			Input file: /Exps/c241c/v2/3mm/1234/No0280/pY..3MP1N1								
			Output file: /Exps/c241c/v2/3mm/1234/No0280/pY.W.405.3MP1N1								

pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
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  
simultaneous interpolator

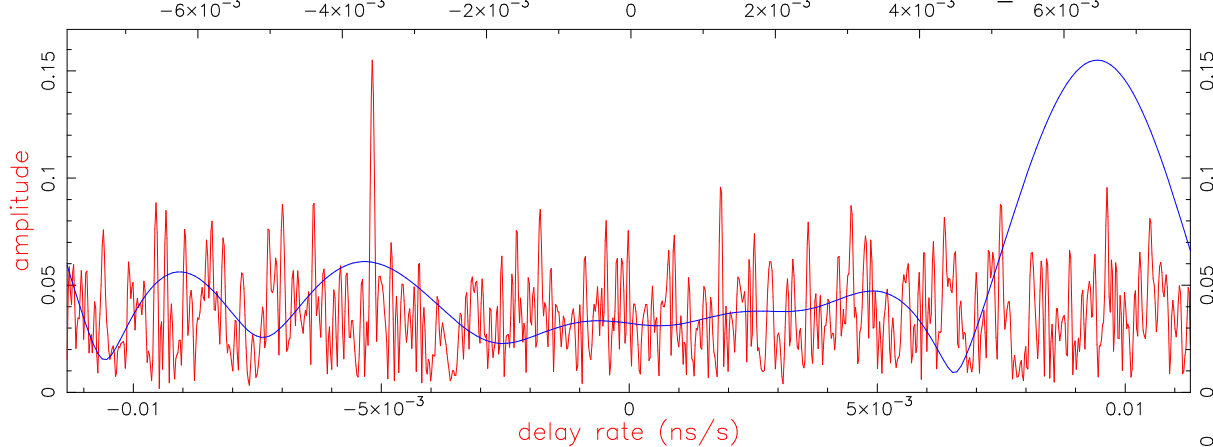
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, pY

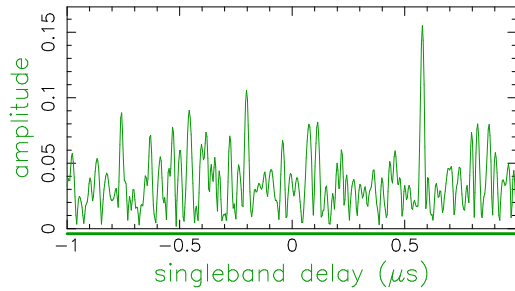
VLBA\_PT - YEBES40M, fgroup W, pol LR

multiband delay ( $\mu$ s)

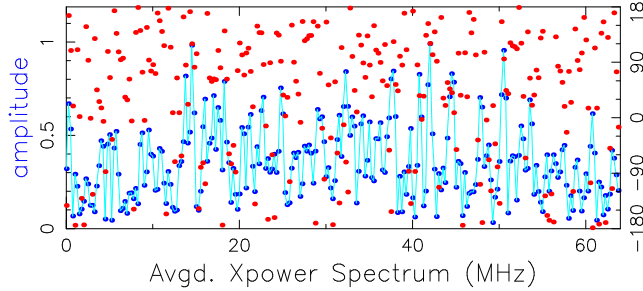


Fringe quality 0

SNR 5.4  
 Int time 162.316  
 Amp 0.169  
 Phase -148.3  
 PFD 1.0e+00  
 Delays (us)  
 SBD 0.578401  
 MBD 0.006458  
 Fringe rate (Hz)  
 -0.447840  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

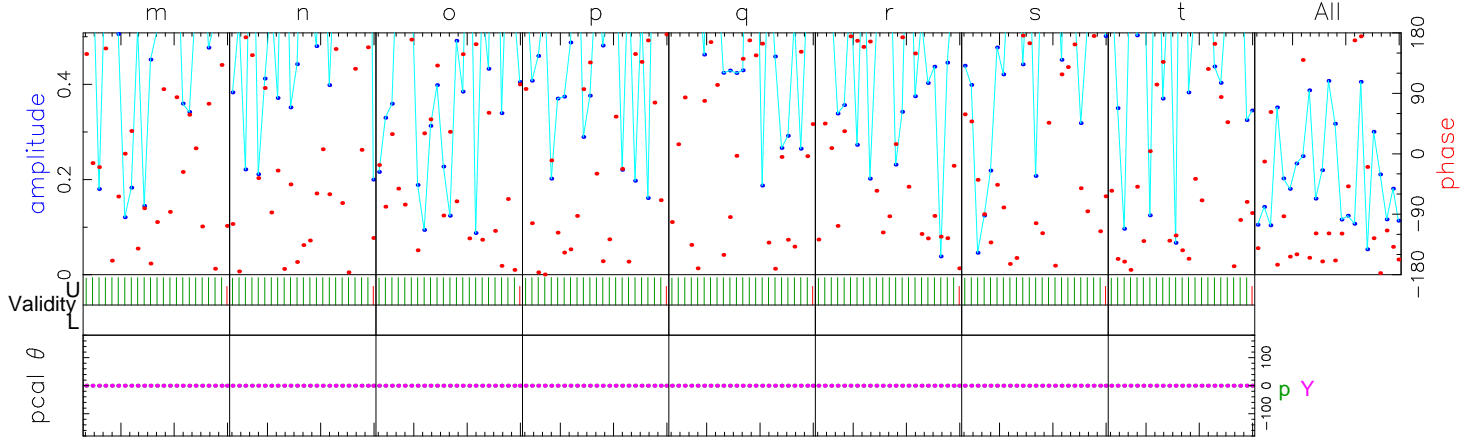


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080017.41  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105132  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-154.8	-151.9	-111.6	-165.2	167.3	-111.9	-161.0	-139.1	Phase	-148.3
	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Ampl.	0.2
	229.8	373.3	22.0	478.4	138.9	334.6	436.1	95.3	Sbd box	405.1
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
p	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
p:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	-1.08876790476E+04		Apriori delay (usec)		-1.08882636310E+04		Resid mbdelay (usec)		6.45841E-03	+/- 2.0E-04
Sband delay (usec)	-1.08876852303E+04		Apriori clock (usec)		1.1635540E+02		Resid sbdelay (usec)		5.78401E-01	+/- 1.6E-03
Phase delay (usec)	-1.08882636358E+04		Apriori clockrate (us/s)		1.8344660E-02		Resid phdelay (usec)		-4.78113E-06	+/- 6.8E-07
Delay rate (us/s)	1.38011637505E+00		Apriori rate (us/s)		1.38012157403E+00		Resid rate (us/s)		-5.19898E-06	+/- 7.3E-09
Total phase (deg)			Apriori accel (us/s/s)		5.26366424084E-05		Resid phase (deg)		-148.3	+/- 21.2

ph/seg (deg) 61.3 50.8 Search (1024X32) 0.153 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 76.0 88.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 29.5 30.0 Inc. seg. avg. 0.164 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 29.6 52.3 Inc. frq. avg. 0.166 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 p: az 60.8 el 25.4 pa -65.1 Y: az 266.8 el 72.1 pa 72.3 u, v (fr/asec) -9888.822 2600.440 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/c241c/v2/3mm/1234/No0280/pY...3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/pY.W.410.3MP1N1 simultaneous interpolator





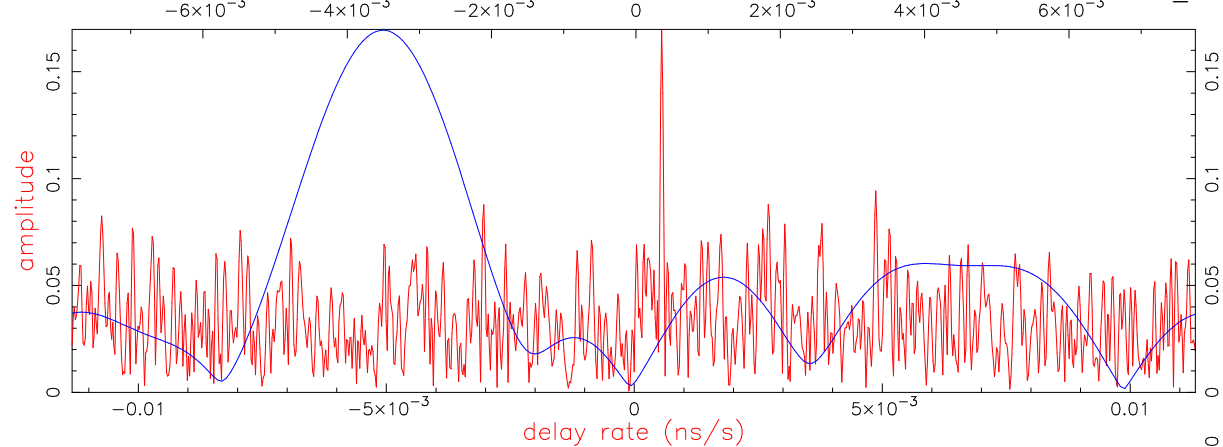
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, Xp

ONSALA60 - VLBA\_PT, fgroup W, pol LL

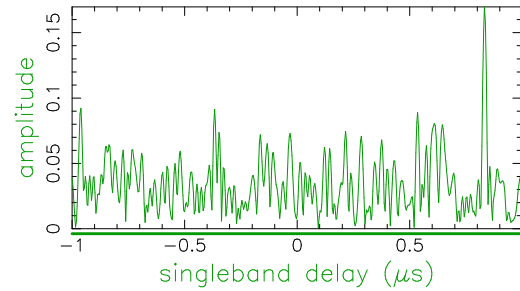
multiband delay ( $\mu$ s)



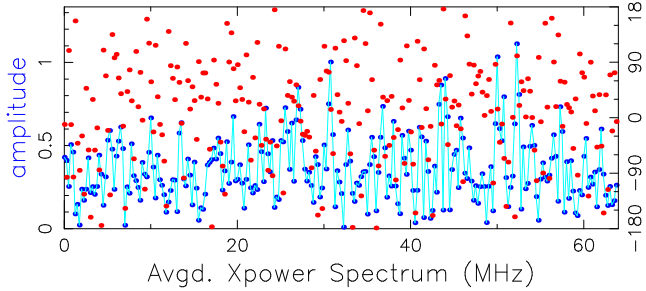
Fringe quality 0

SNR 6.2  
 Int time 179.812  
 Amp 0.170  
 Phase -68.5  
 PFD 6.4e-02  
 Delays (us)  
 SBD 0.832496  
 MBD -0.003481  
 Fringe rate (Hz)  
 0.048370  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

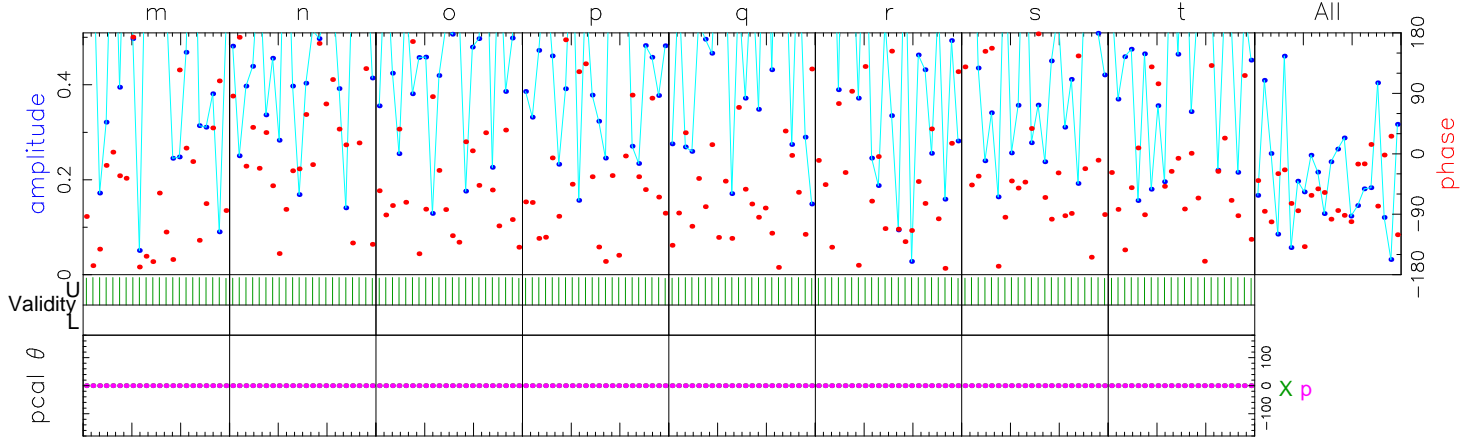
Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105108  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"



delay rate (ns/s)



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-78.7	16.0	-78.0	-70.3	-74.4	-74.3	-68.2	-64.5	Phase	-68.5
	0.2	0.1	0.2	0.2	0.3	0.1	0.2	0.2	Ampl.	0.2
	150.4	65.8	492.4	70.2	295.0	411.1	484.6	414.8	Sbd box	470.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
X	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
X:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	8.92737159659E+03	Apriori delay (usec)	8.92653132769E+03	Resid mbdelay (usec)	-3.48110E-03	+/-	1.7E-04
Sband delay (usec)	8.92736382319E+03	Apriori clock (usec)	1.0718401E+02	Resid sbdelay (usec)	8.32496E-01	+/-	1.4E-03
Phase delay (usec)	8.92653132548E+03	Apriori clockrate (us/s)	8.3792608E-07	Resid phdelay (usec)	-2.20875E-06	+/-	5.9E-07
Delay rate (us/s)	-1.42305001842E+00	Apriori rate (us/s)	-1.42305057995E+00	Resid rate (us/s)	5.61525E-07	+/-	5.7E-09
Total phase (deg)	135.6	Apriori accel (us/s/s)	-2.78453626265E-05	Resid phase (deg)	-68.5	+/-	18.4

ph/seg (deg)	44.0	Theor.	43.2	Search (1024X32)	0.164	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	69.9		75.4	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	35.2		26.1	Inc. seg. avg.	0.166	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	33.0		45.5	Inc. frq. avg.	0.165	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

X: az 247.2 el 58.1 pa 38.6 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) 10220.627 238.268 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280//Xp..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280//Xp.W.328.3MP1N1

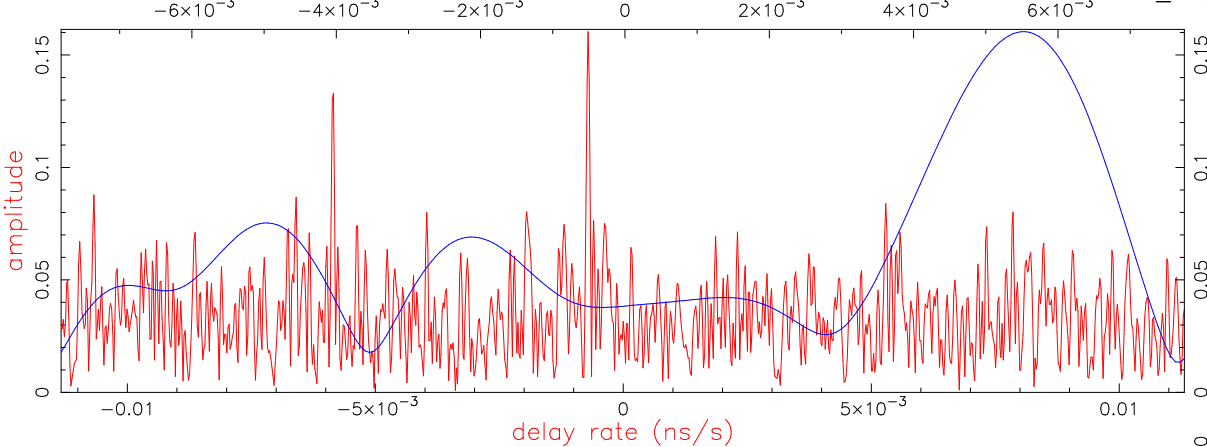
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, Xp

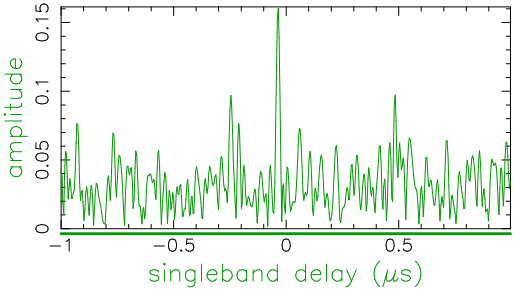
ONSALA60 - VLBA\_PT, fgroup W, pol RR

multiband delay ( $\mu$ s)

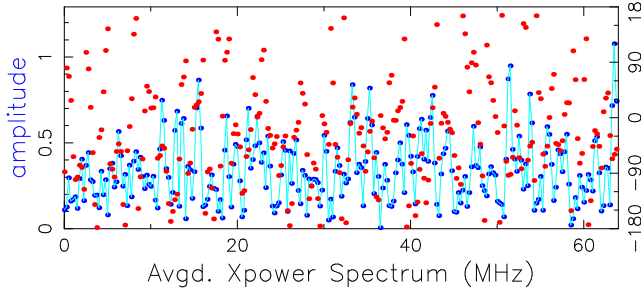


Fringe quality 0

SNR 5.9  
 Int time 179.812  
 Amp 0.161  
 Phase -152.7  
 PFD 3.6e-01  
 Delays (us)  
 SBD -0.036047  
 MBD 0.005486  
 Fringe rate (Hz)  
 -0.061361  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

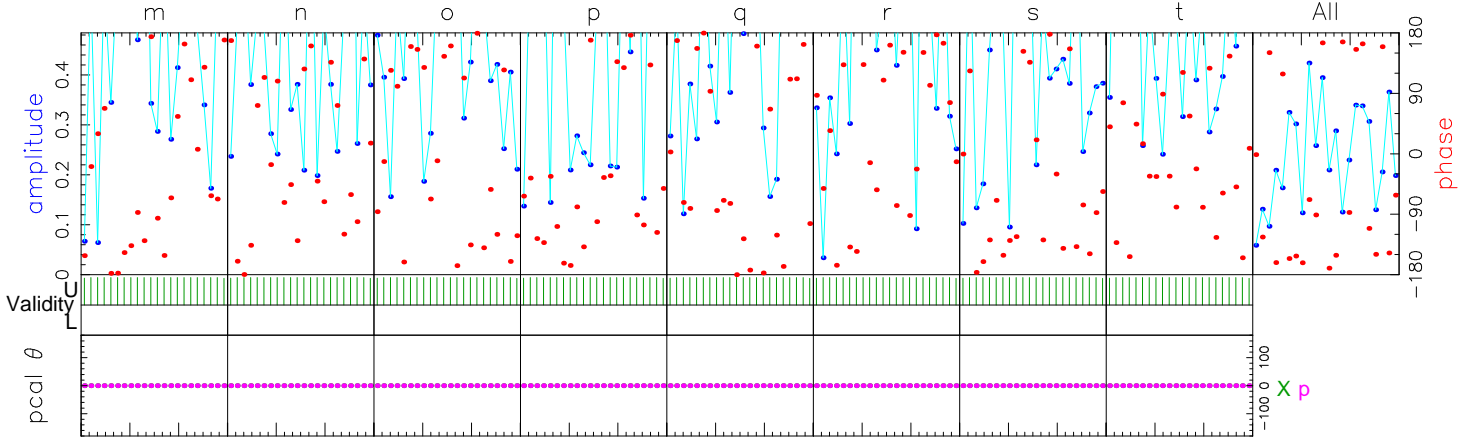


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105110  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-152.8	-136.5	-176.0	-114.8	-171.6	160.2	-145.9	-36.6	Phase	-152.7
	0.2	0.1	0.2	0.3	0.3	0.2	0.2	0.1	Ampl.	0.2
	214.3	140.9	248.1	249.0	70.8	7.5	248.7	251.2	Sbd box	247.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
X	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
X:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	8.92648993888E+03	Apriori delay (usec)	8.92653132769E+03	Resid mbdelay (usec)	5.48619E-03	+/-	1.8E-04
Sband delay (usec)	8.92649528044E+03	Apriori clock (usec)	1.0718401E+02	Resid sbdelay (usec)	-3.60473E-02	+/-	1.5E-03
Phase delay (usec)	8.92653132277E+03	Apriori clockrate (us/s)	8.3792608E-07	Resid phdelay (usec)	-4.92258E-06	+/-	6.3E-07
Delay rate (us/s)	-1.42305129229E+00	Apriori rate (us/s)	-1.42305057995E+00	Resid rate (us/s)	-7.12343E-07	+/-	6.0E-09
Total phase (deg)		Apriori accel (us/s/s)	-2.78453626265E-05	Resid phase (deg)	-152.7	+/-	19.4

ph/seg (deg)	RMS 56.6	Theor. 45.5	Amplitude Search (1024X32)	0.161 +/- 0.027	0.157	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	78.7	79.4	Interp.	0.000	0.157	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	55.3	27.4	Inc. seg. avg.	0.181	0.175	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	46.1	47.9	Inc. frq. avg.	0.175	0.175	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00

X: az 247.2 el 58.1 pa 38.6 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) 10220.627 238.268 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280//Xp..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280//Xp.W.335.3MP1N1

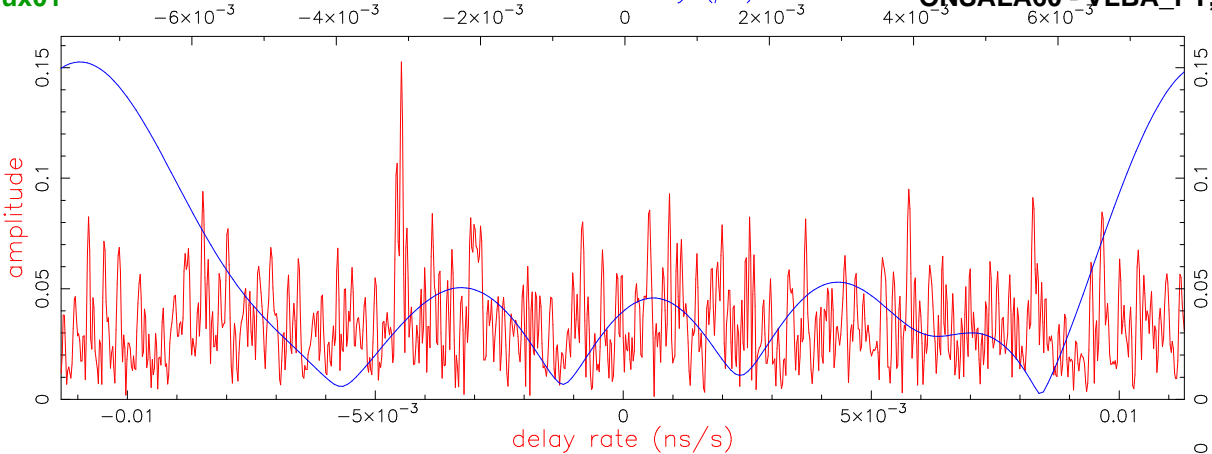
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, Xp

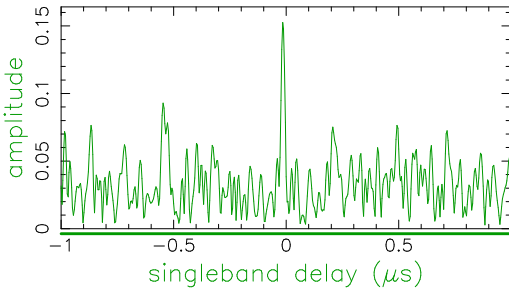
ONSALA60 - VLBA\_PT, fgroup W, pol LR

multiband delay ( $\mu$ s)

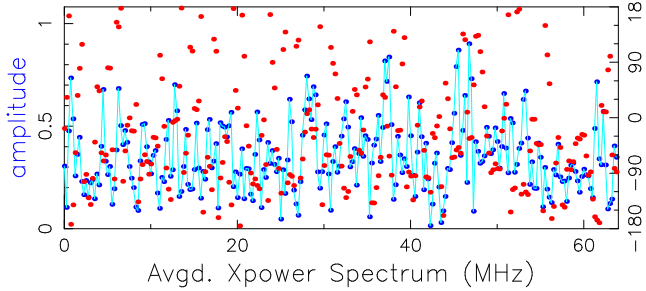


Fringe quality 0

SNR 5.6  
Int time 179.812  
Amp 0.164  
Phase -138.4  
PFD 8.7e-01  
Delays (us)  
SBD -0.014391  
MBD -0.007528  
Fringe rate (Hz)  
-0.385036  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

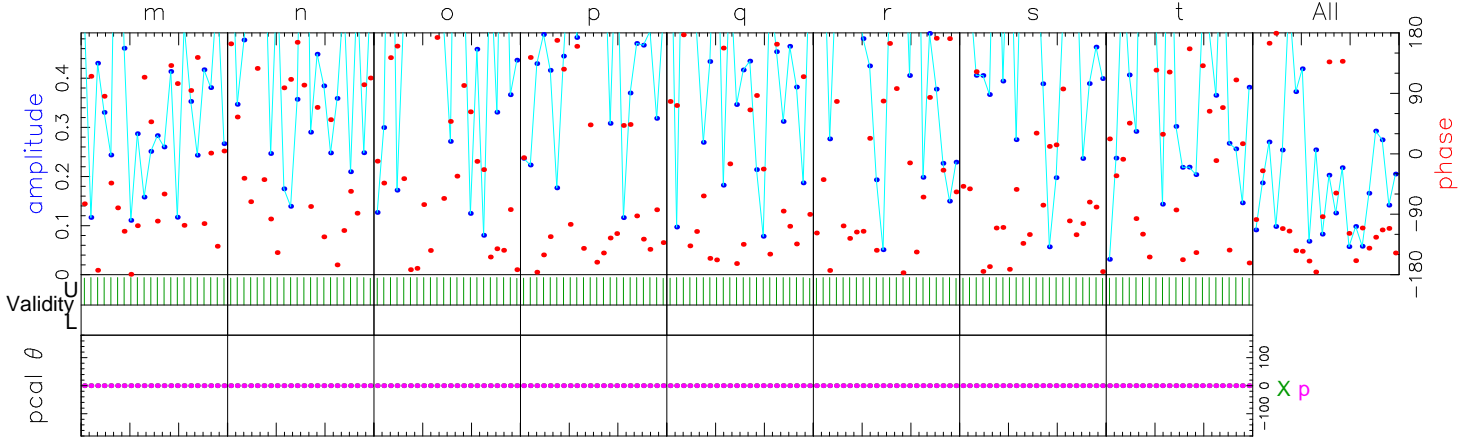


delay rate (ns/s)



Exp. c241c  
Exper # 1234  
Yr:day 2024:112  
Start 080000.00  
Stop 080300.22  
FRT 080130.00  
Corr/FF/build  
2024:352:054246  
2025:041:105112  
2024:113:095956  
RA & Dec (J2000)  
20h15m28.729786s  
+37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-106.0	-179.8	-144.1	-142.0	-149.1	-137.3	-111.6	136.2	Phase	-138.4
	0.1	0.1	0.2	0.3	0.2	0.2	0.3	0.1	Ampl.	0.2
	456.7	307.7	43.1	253.0	67.4	322.5	252.2	495.6	Sbd box	253.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
X	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
X:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	8.92652379982E+03					8.92653132769E+03			Resid mbdelay (usec)	-7.52787E-03 +/- 1.9E-04
Sband delay (usec)	8.92651693669E+03					1.0718401E+02			Resid sbdelay (usec)	-1.43910E-02 +/- 1.5E-03
Phase delay (usec)	8.92653132323E+03					8.3792608E-07			Resid phdelay (usec)	-4.46154E-06 +/- 6.6E-07
Delay rate (us/s)	-1.42305504983E+00					-1.42305057995E+00			Resid rate (us/s)	-4.46988E-06 +/- 6.3E-09
Total phase (deg)			65.8			-2.78453626265E-05			Resid phase (deg)	-138.4 +/- 20.3
	RMS	Theor.	Amplitude	0.164 +/- 0.029					Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	47.0	47.6	Search (1024X32)	0.150					Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	88.3	83.1	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	42.7	28.7	Inc. seg. avg.	0.162					Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
amp/frq (%)	48.5	50.1	Inc. frq. avg.	0.160					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
X: az 247.2 el 58.1 pa 38.6			p: az 60.8 el 25.4 pa -65.1			u, v (fr/asec) 10220.627 238.268				simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c241c/v2/3mm/1234/No0280//Xp..3MP1N1			Output file: /Exps/c241c/v2/3mm/1234/No0280//Xp.W.347.3MP1N1				

Mk4/DiFX fourfit 3.25 rev 0

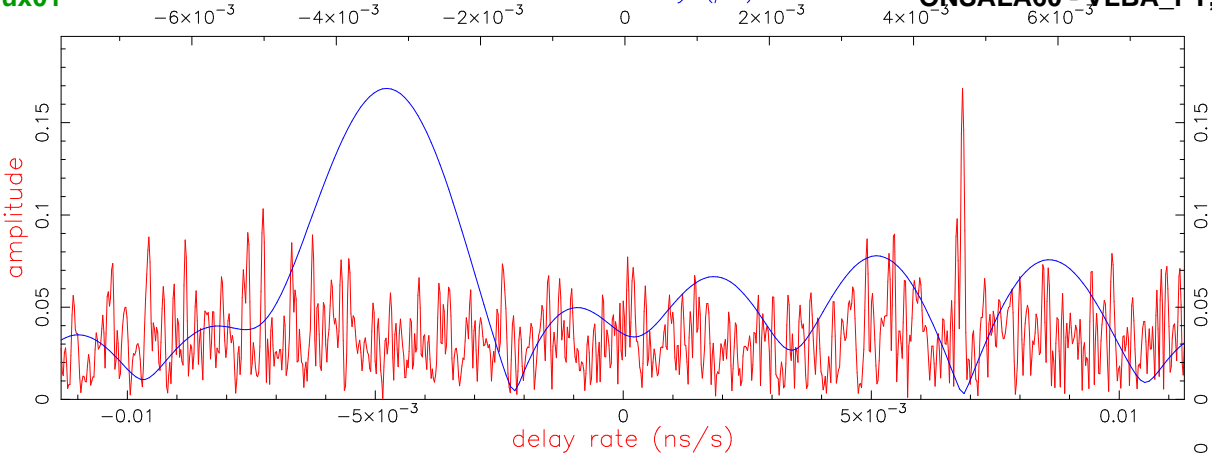
aux01

2013+370.3MP1N1, No0280, Xp

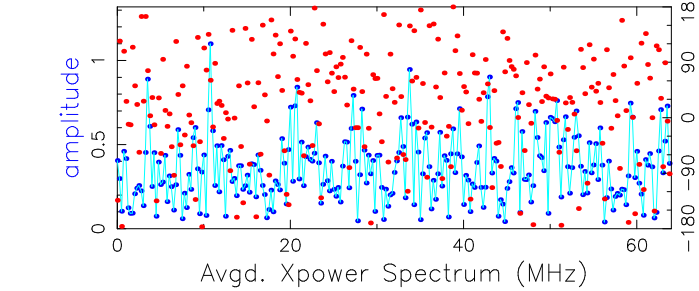
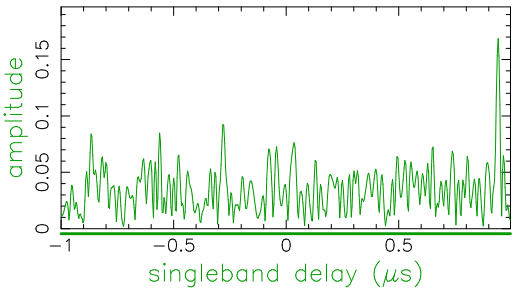
ONSALA60 - VLBA\_PT, fgroup W, pol RL

multiband delay ( $\mu$ s)

Fringe quality 0

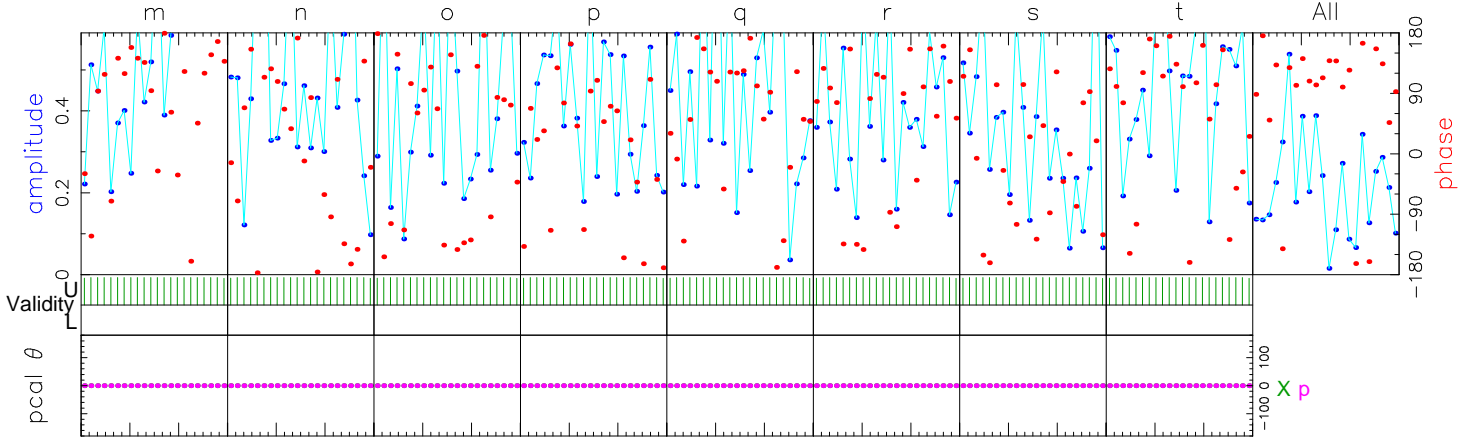


SNR 6.2  
 Int time 179.812  
 Amp 0.197  
 Phase 129.2  
 PFD 8.0e-02  
 Delays (us)  
 SBD 0.941428  
 MBD -0.003298  
 Fringe rate (Hz)  
 0.589433  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105114  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



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

Group delay (usec) (SBD)	8.92746552937E+03	Apriori delay (usec)	8.92653132769E+03	Resid mbdelay (usec)	-3.29831E-03	+/-	1.8E-04
Sband delay (usec)	8.92747275619E+03	Apriori clock (usec)	1.0718401E+02	Resid sbdelay (usec)	9.41428E-01	+/-	1.4E-03
Phase delay (usec)	8.92653133186E+03	Apriori clockrate (us/s)	8.3792608E-07	Resid phdelay (usec)	4.16772E-06	+/-	6.0E-07
Delay rate (us/s)	-1.42304373721E+00	Apriori rate (us/s)	-1.42305057995E+00	Resid rate (us/s)	6.84273E-06	+/-	5.7E-09
Total phase (deg)	333.4	Apriori accel (us/s/s)	-2.78453626265E-05	Resid phase (deg)	129.2	+/-	18.5

ph/seg (deg)	43.2	Theor.	43.5	Amplitude	0.197 +/- 0.032	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	78.4	Search (1024X32)	0.168	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
ph/frq (deg)	43.7	Inc. seg. avg.	0.197	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	44.1	Inc. frq. avg.	0.191	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

X: az 247.2 el 58.1 pa 38.6 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) 10220.627 238.268 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280//Xp..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280//Xp.W.358.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

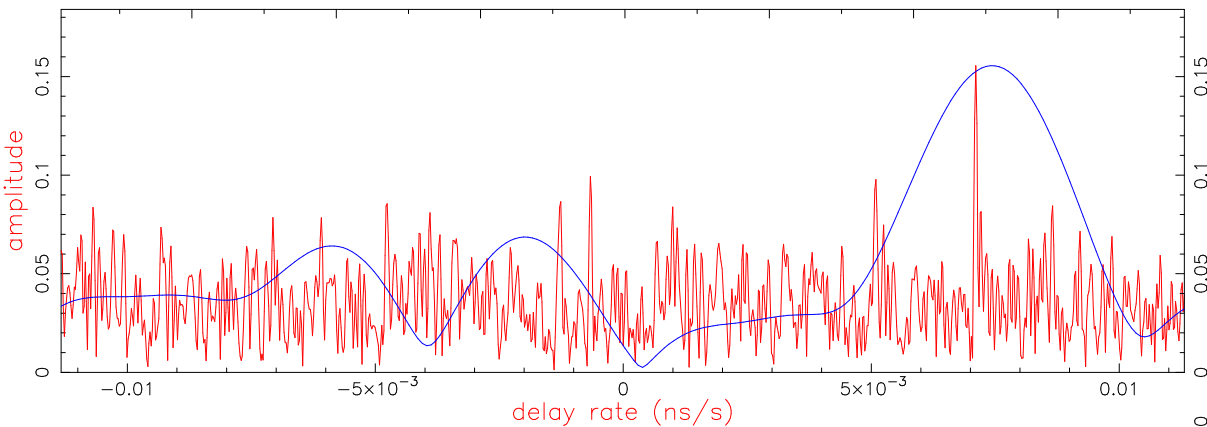
aux01

2013+370.3MP1N1, No0280, Zp

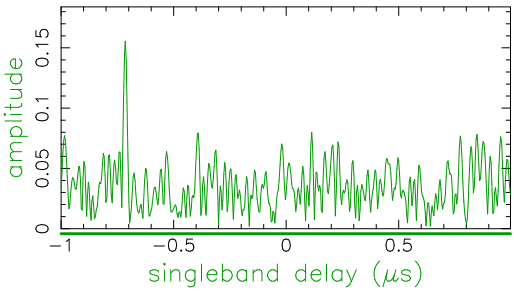
METSAHOV - VLBA\_PT, fgroup W, pol LL

multiband delay ( $\mu$ s)

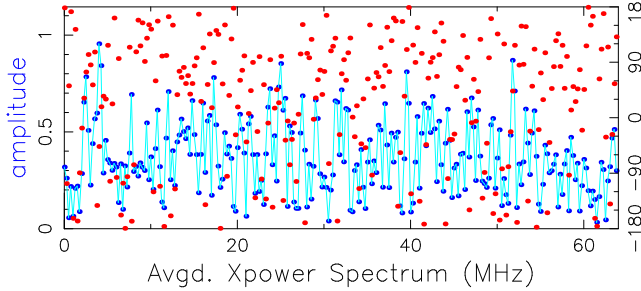
Fringe quality 0



SNR 5.7  
 Int time 179.774  
 Amp 0.184  
 Phase 78.4  
 PFD 7.6e-01  
 Delays (us)  
 SBD -0.715098  
 MBD 0.005081  
 Fringe rate (Hz)  
 0.613764  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

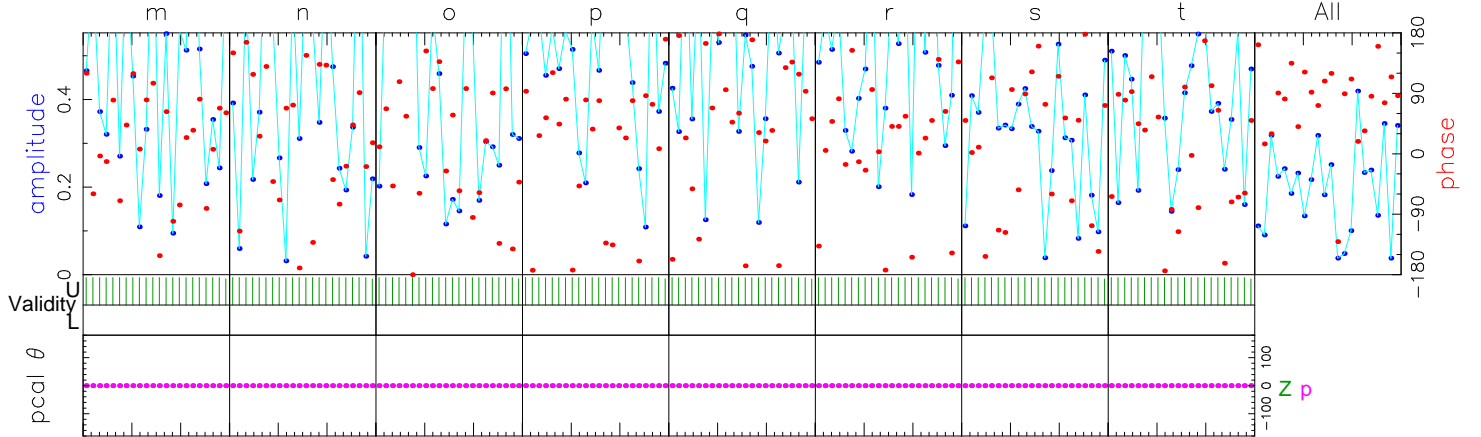


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105053  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	47.4	119.7	95.6	77.2	103.3	57.0	117.4	58.1	Phase	78.4
	0.3	0.2	0.2	0.2	0.2	0.3	0.1	0.1	Ampl.	0.2
	72.6	357.8	282.8	249.7	374.6	72.9	438.9	482.4	Sbd box	73.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	7.30043012889E+03	Apriori delay (usec)	7.30114379778E+03	Resid mbdelay (usec)	5.08111E-03	+/-	1.9E-04
Sband delay (usec)	7.30042869953E+03	Apriori clock (usec)	-5.4858627E+00	Resid sbdelay (usec)	-7.15098E-01	+/-	1.5E-03
Phase delay (usec)	7.30114380031E+03	Apriori clockrate (us/s)	2.3116296E-07	Resid phdelay (usec)	2.52659E-06	+/-	6.5E-07
Delay rate (us/s)	-1.48645331012E+00	Apriori rate (us/s)	-1.48646043531E+00	Resid rate (us/s)	7.12519E-06	+/-	6.2E-09
Total phase (deg)	345.0	Apriori accel (us/s/s)	-1.80534914172E-05	Resid phase (deg)	78.4	+/-	20.1

ph/seg (deg)	RMS 52.5	Theor. 47.1	Amplitude Search (1024X32)	0.153	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	73.3	82.2	Interp.	0.000	PCal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	31.6	28.4	Inc. seg. avg.	0.178	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011	0.011
amp/frq (%)	43.1	49.6	Inc. frq. avg.	0.182	Data rate(Mb/s): 2048		ion window (TEC)	0.00	0.00

Z: az 257.0 el 51.1 pa 37.4      p: az 60.8 el 25.4 pa -65.1      u,v (fr/asec) 10684.984 1000.622      simultaneous interpolator

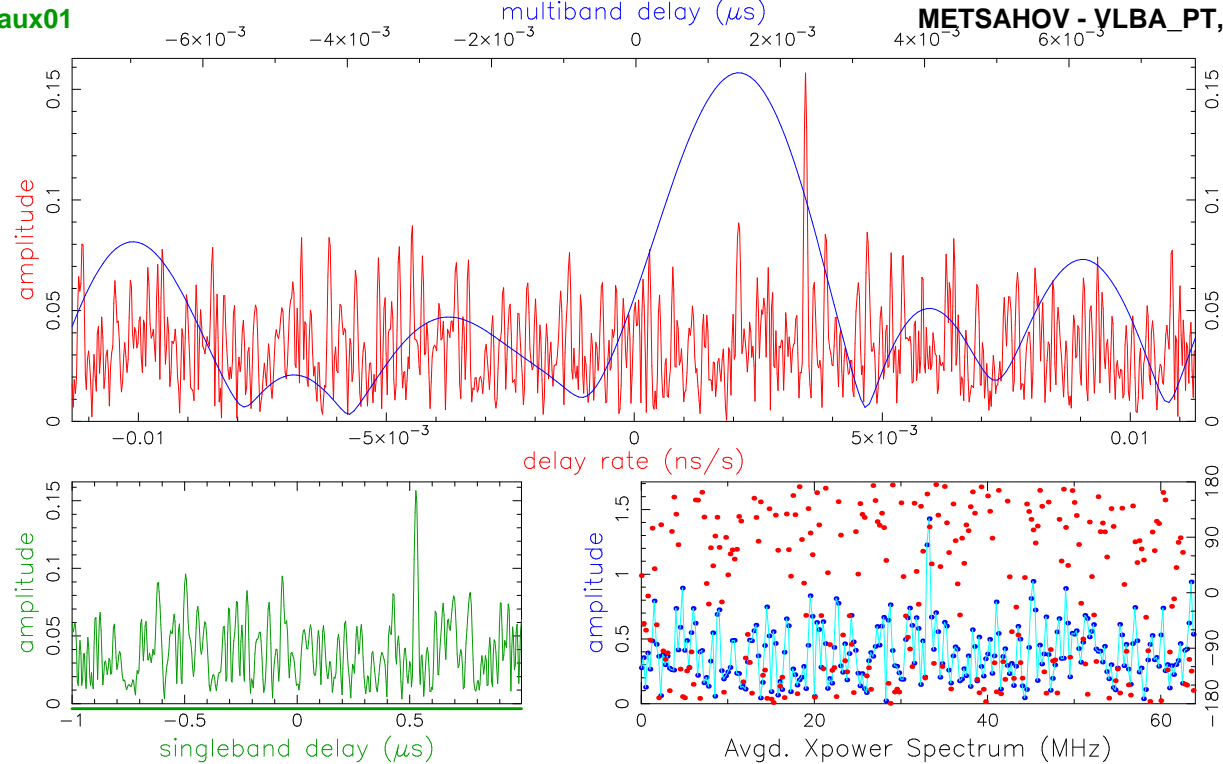
Control file: cf\_1234\_gmva      Input file: /Exps/c241c/v2/3mm/1234/No0280/Zp..3MP1N1      Output file: /Exps/c241c/v2/3mm/1234/No0280/Zp.W.269.3MP1N1

# Mk4/DiFX fourfit 3.25 rev 0

aux01

# 2013+370.3MP1N1, No0280, Zp

ME TSAHOV - VLBA\_PT, fgroup W, pol RR

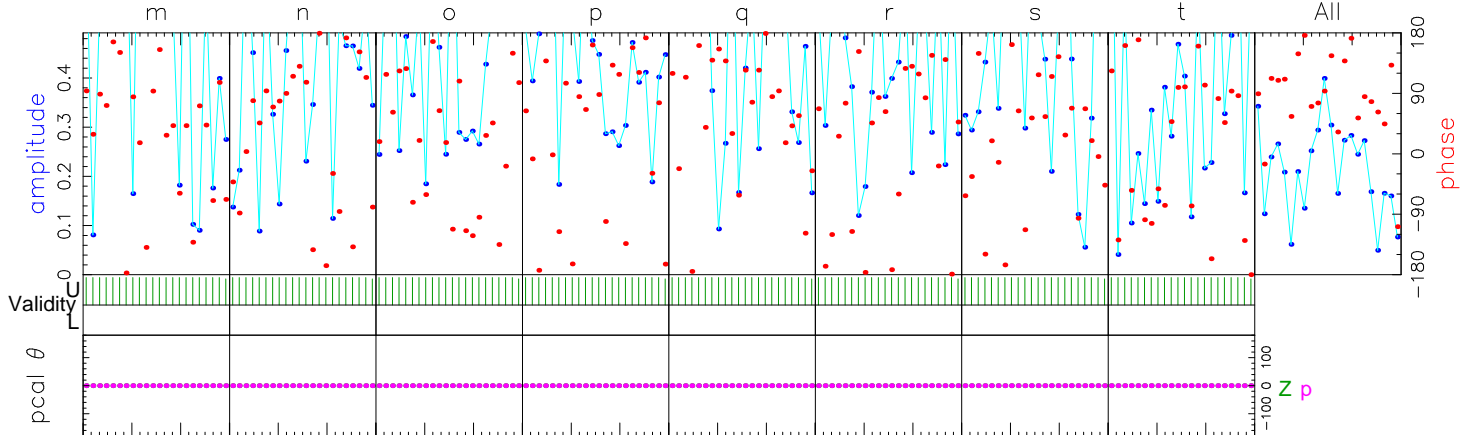


Fringe quality 0

SNR 5.8  
 Int time 179.774  
 Amp 0.164  
 Phase 100.9  
 PFD 6.0e-01  
 Delays (us)  
 SBD 0.527981  
 MBD 0.001452  
 Fringe rate (Hz) 0.298801  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build 2024:352:054246  
 2025:041:105055  
 2024:113:095956  
 RA & Dec (J2000) 20h15m28.729786s  
 +37°10'59.514736"

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



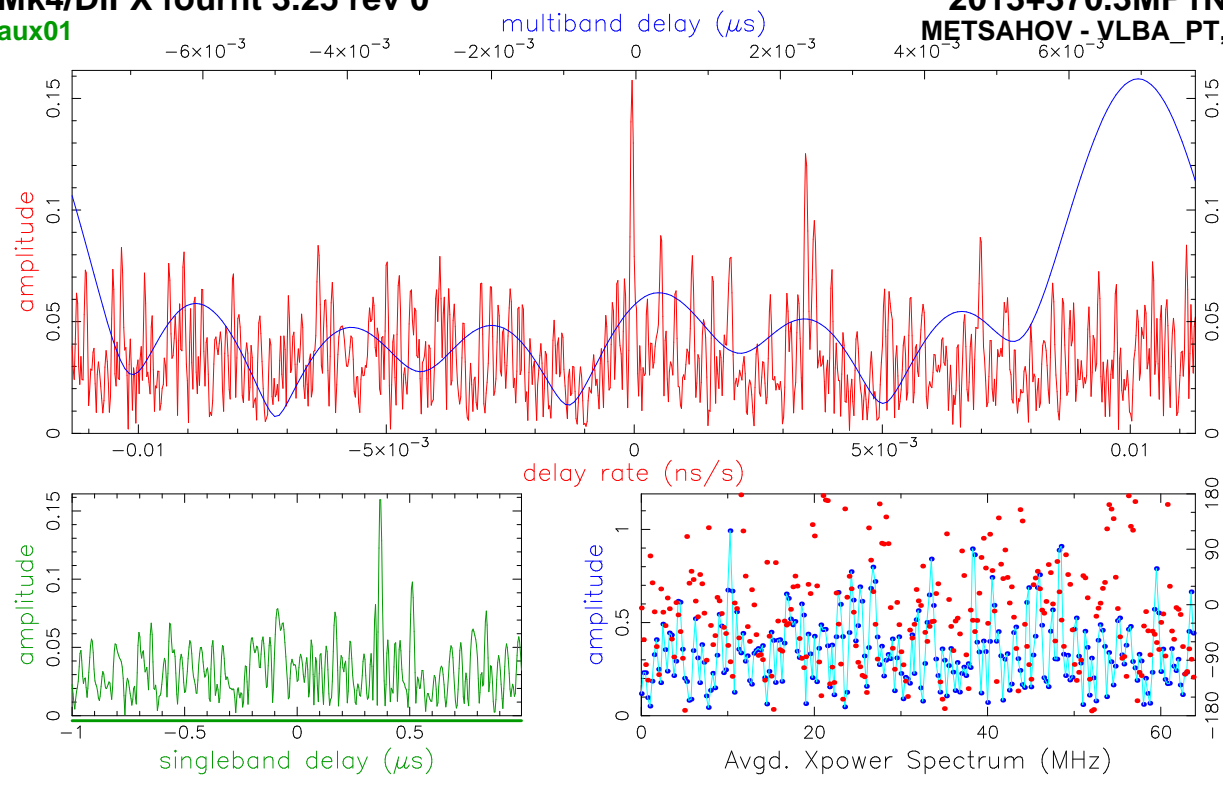
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	88.3	137.1	82.8	123.5	88.9	103.9	43.9	124.9	Phase	100.9		
	0.3	0.2	0.1	0.2	0.2	0.2	0.1	0.2	Ampl.	0.2		
	185.1	148.8	172.6	121.9	78.9	208.2	48.7	89.8	Sbd box	392.2		
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used			
Z	0	0	0	0	0	0	0	0	PC freqs			
p	0	0	0	0	0	0	0	0	PC freqs			
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC			
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
p	1000	1000	1000	1000	1000	1000	1000	1000				
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids			
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks			
									Tracks			
Group delay (usec) (SBD)	7.30167650026E+03		Apriori delay (usec)		7.30114379778E+03		Resid mbdelay (usec)		1.45248E-03	+/- 1.9E-04		
Sband delay (usec)	7.30167177828E+03		Apriori clock (usec)		-5.4858627E+00		Resid sbdelay (usec)		5.27981E-01	+/- 1.5E-03		
Phase delay (usec)	7.30114380103E+03		Apriori clockrate (us/s)		2.3116296E-07		Resid phdelay (usec)		3.25352E-06	+/- 6.4E-07		
Delay rate (us/s)	-1.48645696653E+00		Apriori rate (us/s)		-1.48646043531E+00		Resid rate (us/s)		3.46879E-06	+/- 6.1E-09		
Total phase (deg)			Apriori accel (us/s/s)		-1.80534914172E-05		Resid phase (deg)		100.9	+/- 19.8		
	RMS	Theor.	Amplitude	0.164 +/- 0.028		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	56.0	46.5	Search (1024X32)	0.153		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	66.9	81.1	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	32.4	28.0	Inc. seg. avg.	0.167		Data rate(Mb/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	35.1	48.9	Inc. frq. avg.	0.163		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
Z: az 257.0 el 51.1 pa 37.4	p: az 60.8 el 25.4 pa -65.1		u,v (fr/asec) 10684.984 1000.622						simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0280/Zp..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/Zp.W.278.3MP1N1									

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, Zp

METSAHOV - VLBA\_PT, fgroup W, pol LR

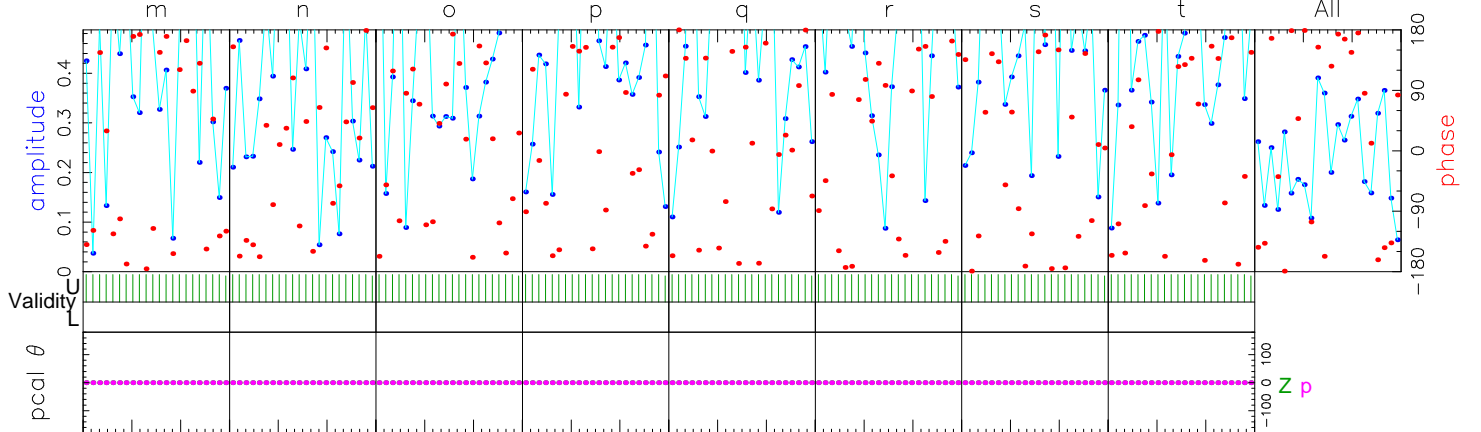


Fringe quality 0

SNR 6.0  
 Int time 179.774  
 Amp 0.163  
 Phase 178.0  
 PFD 2.8e-01  
 Delays (us)  
 SBD 0.369128  
 MBD 0.007050  
 Fringe rate (Hz)  
 -0.003132  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105059  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-177.3	78.2	-156.1	-173.2	-171.7	168.7	169.0	173.1	Phase	178.0	
	0.3	0.0	0.1	0.2	0.1	0.2	0.2	0.2	Ampl.	0.1	
	305.5	371.6	301.0	89.1	472.7	352.1	234.0	479.6	Sbd box	351.5	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used		
Z	0	0	0	0	0	0	0	0	PC freqs		
p	0	0	0	0	0	0	0	0	PC freqs		
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
p	1000	1000	1000	1000	1000	1000	1000	1000			
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	7.30151022293E+03		Apriori delay (usec)		7.30114379778E+03		Resid mbdelay (usec)		7.05015E-03	+/- 1.8E-04	
Sband delay (usec)	7.30151292528E+03		Apriori clock (usec)		-5.4858627E+00		Resid sbdelay (usec)		3.69128E-01	+/- 1.4E-03	
Phase delay (usec)	7.30114380352E+03		Apriori clockrate (us/s)		2.3116296E-07		Resid phdelay (usec)		5.74076E-06	+/- 6.2E-07	
Delay rate (us/s)	-1.48646047167E+00		Apriori rate (us/s)		-1.48646043531E+00		Resid rate (us/s)		-3.63603E-08	+/- 6.0E-09	
Total phase (deg)			84.7		Apriori accel (us/s/s)		-1.80534914172E-05		178.0	+/- 19.2	
	RMS	Theor.	Amplitude	0.163 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	67.8	45.1	Search (1024X32)	0.154		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	70.9	78.7	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	42.9	27.2	Inc. seg. avg.	0.177		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	46.0	47.5	Inc. frq. avg.	0.148		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
Z: az 257.0 el 51.1 pa 37.4	p: az 60.8 el 25.4 pa -65.1		u,v (fr/asec) 10684.984 1000.622						simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0280/Zp..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/Zp.W.289.3MP1N1								

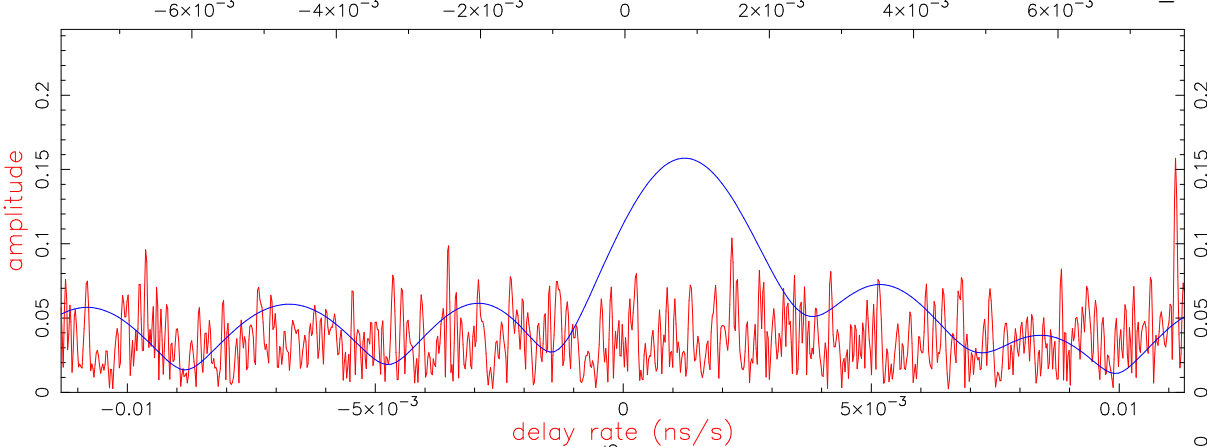
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, Zp

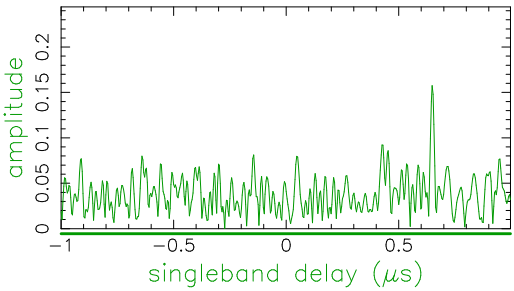
MEṬSAHOV - VLBA\_PT, fgroup W, pol RL

multiband delay ( $\mu$ s)

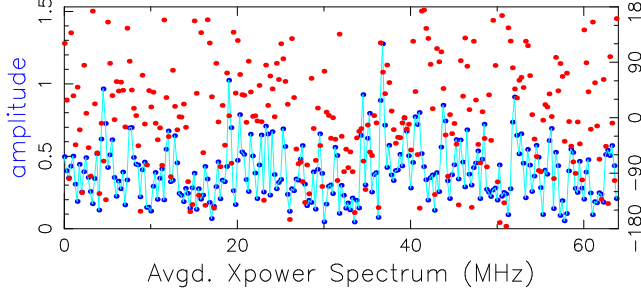


Fringe quality 0

SNR 5.8  
 Int time 179.774  
 Amp 0.244  
 Phase -82.4  
 PFD 5.9e-01  
 Delays (us)  
 SBD 0.649028  
 MBD 0.000852  
 Fringe rate (Hz) 0.961554  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

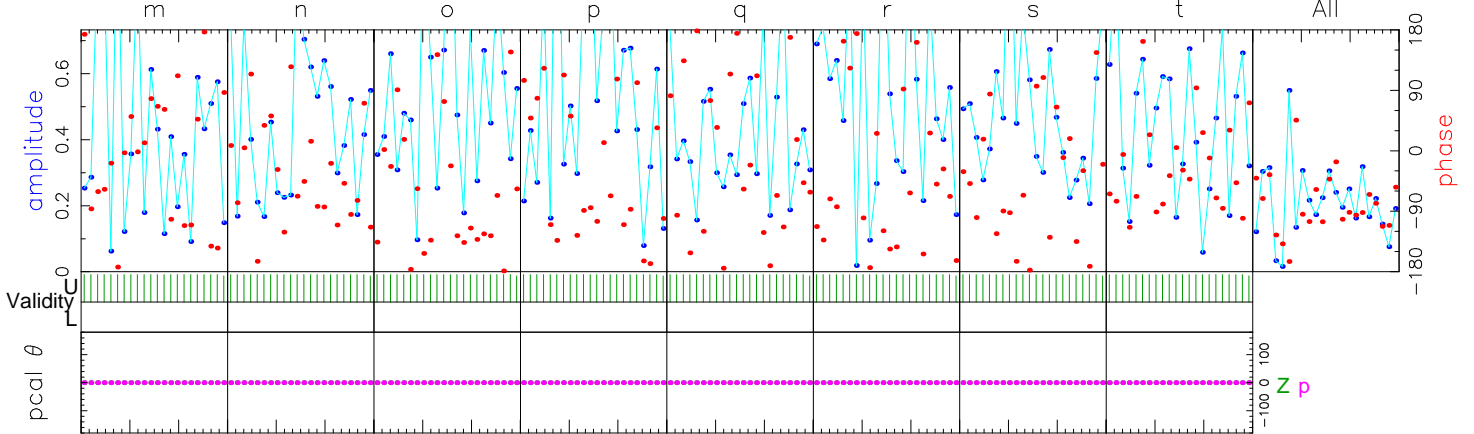


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 080000.00  
 Stop 080300.22  
 FRT 080130.00  
 Corr/FF/build  
 2024:352:054246  
 2025:041:105101  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-77.6	-40.9	-106.0	-98.5	-111.4	-106.4	-85.7	-59.5	Phase	-82.4
	0.1	0.4	0.3	0.2	0.1	0.4	0.2	0.4	Ampl.	0.2
	97.8	484.6	424.5	5.6	63.4	174.5	227.9	423.1	Sbd box	423.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	7.30178527471E+03	Apriori delay (usec)	7.30114379778E+03	Resid mbdelay (usec)	8.51930E-04	+/-	1.9E-04
Sband delay (usec)	7.30179282578E+03	Apriori clock (usec)	-5.4858627E+00	Resid sbdelay (usec)	6.49028E-01	+/-	1.5E-03
Phase delay (usec)	7.30114379512E+03	Apriori clockrate (us/s)	2.3116296E-07	Resid phdelay (usec)	-2.65818E-06	+/-	6.4E-07
Delay rate (us/s)	-1.48644927263E+00	Apriori rate (us/s)	-1.48646043531E+00	Resid rate (us/s)	1.11627E-05	+/-	6.1E-09
Total phase (deg)	184.3	Apriori accel (us/s/s)	-1.80534914172E-05	Resid phase (deg)	-82.4	+/-	19.8

ph/seg (deg)	RMS 44.5	Theor. 46.4	Amplitude Search (1024X32)	0.244 +/- 0.042	0.154	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	79.3	81.0	Interp.	0.000	0.247	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	27.4	28.0	Inc. seg. avg.	0.247	0.241	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	47.1	48.9	Inc. frq. avg.	0.241		Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 257.0 el 51.1 pa 37.4 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) 10684.984 1000.622 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/Zp..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/Zp.W.302.3MP1N1